Cobourg
"Ontario's Feel Good Town"

the TANNERY DISTRICT

SUSTAINABLE NEIGHBOURHOOD MASTER PLAN

BACKGROUND REPORT

MARCH 19, 2018

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FCM

COBOURG TANNERY DISTRICT SUSTAINABLE MASTER PLAN: BACKGROUND REPORT

Prepared for the Town of Cobourg

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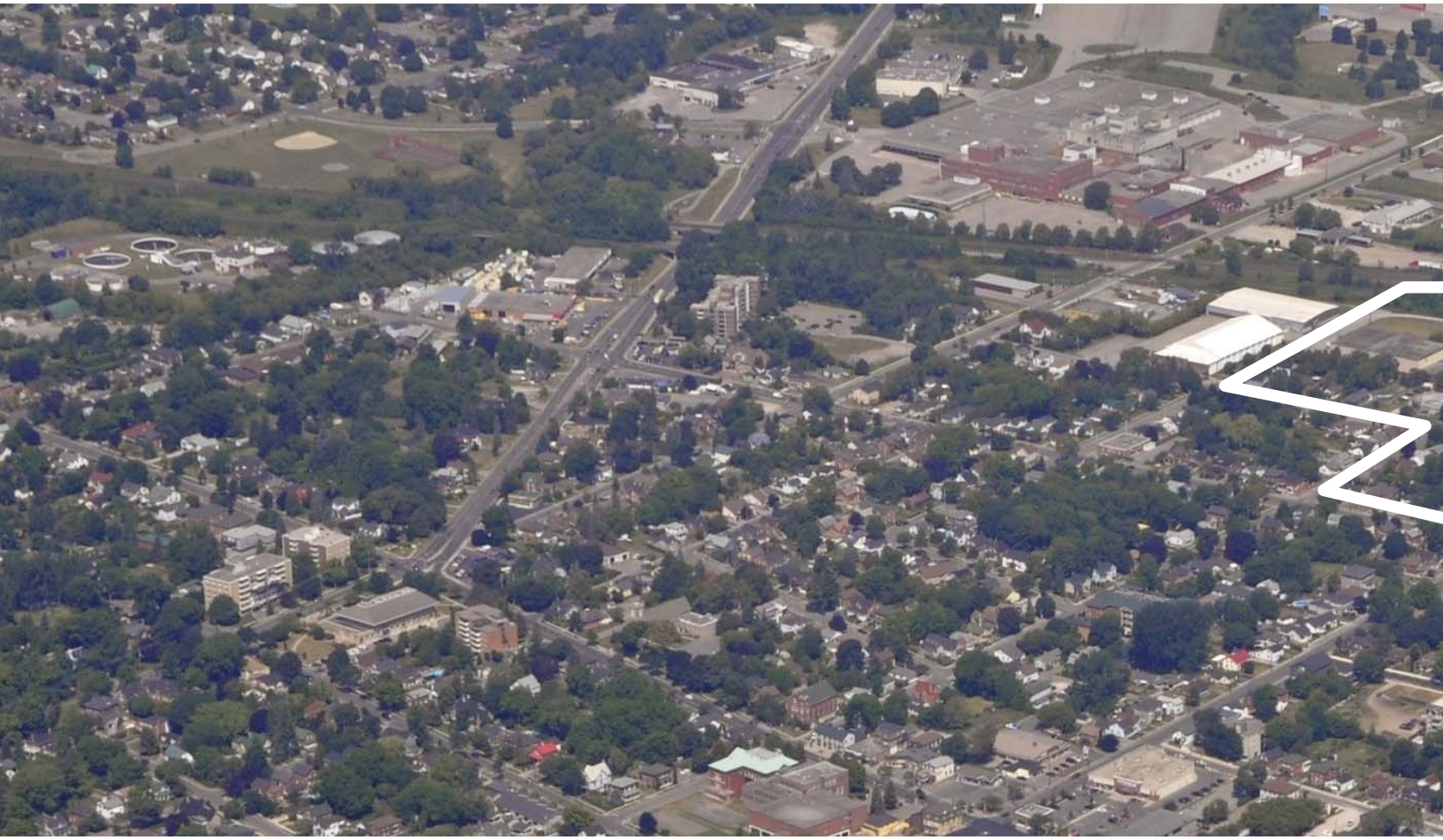
1.0 INTRODUCTION



1.1 PROJECT OVERVIEW

The Sustainable Neighbourhood Master Plan will establish a comprehensive vision for the evolution of the Tannery District into a healthy, vibrant and sustainable neighbourhood. The Plan, to be developed as a collaborative effort between the Consultant Team, the Town of Cobourg, and the local community, builds on the ongoing investment in the Tannery District, including a public design charrette (2009) and the resulting Community Improvement Plan. For the Town of Cobourg, the Sustainable Neighbourhood Master Plan represents an integral step in the revitalization of its downtown, and the development and promotion of new and diverse economic development opportunities.

The Sustainable Neighbourhood Master Plan commenced in April, 2017, and is anticipated for completion in March, 2018. The study consists of three phases, including:

- Phase 1 - Data Collection and Background Review (March to June 2017)
- Phase 2 - Policy Formulation (June to September 2017)
- Phase 3 - The Sustainable Neighbourhood Master Plan (September to March 2018)

The Plan, and supporting implementation framework, will reinforce the Strategic Plans vision for Cobourg as a "progressive, vibrant lakeside community, honouring [its] past and embracing [its] future.' The policies and directions of the plan will implement the Sustainability Strategy of the Official Plan, promoting innovative and high-quality development that:

- Reduces the consumption of energy, land and other non-renewable resources;
- Minimizes the waste of materials, water and other limited resources;
- Creates livable, healthy and productive environments; and,
- Reduces greenhouse gas emissions.

The redevelopment of this former brown-field site into a model sustainable neighbourhood demonstrates the Town of Cobourg's commitment to sustainable growth, and establishes a strong precedent for future redevelopment efforts throughout the town.

PURPOSE OF THE STUDY

The Sustainable Neighbourhood Master Plan will provide the Town of Cobourg with an innovative and implementable long-range vision for the Tannery District recognizes

the 10 One Planet Living principles to achieve the four fundamental pillars of sustainability - society, environment, economy and culture.

Key objectives of the study include:

- Utilize an innovative and integrated systems approach, including extensive public consultation and education;
- Balance technical requirements, including waste, water, energy, and transportation, with key planning and design considerations, including land use, density, compatibility, built form, affordable housing, and heritage conservation;
- Establish measurable goals and targets within the context, capability and resources of the Town;
- Respond to urgent environmental and resiliency issues through a realistic lens that captures local economic and market conditions;
- Complement other local initiatives, plans, programs, policies and decision-making frameworks; and
- Augment the Town's implementation "toolbox" for use by the private and public sectors moving forward towards a high quality sustainable neighbourhood.

PURPOSE OF THE BACKGROUND REPORT

The purpose of this report is to provide an overview of the Tannery District, including the existing policy framework, relevant studies completed to-date, and the existing conditions as it relates to built form, land uses, open space and pedestrian and vehicle circulation. The document also provides an evaluation of the opportunities and constraints related to transportation and infrastructure, and the local development market.

The report will be used as appropriate to inform the development of the Sustainable Neighbourhood Master Plan and supporting Secondary Plan. Where the final study recommendations deviate from the information provided within, the report will be used as a basis to identify required updates and amendments to Town policies and processes.

1.2 THE STUDY AREA

The Tannery District is located just north of downtown Cobourg, and is bounded by University Avenue to the south, George Street to the east, Ball and Victoria Streets to the west, and the rail corridor to the north. The site is rich in history, originally housing one of the Town's oldest industrial uses (the Tannery), while also partially including the George Street Heritage Conservation District - a strong example of incremental residential development, particularly as it relates to the impacts of the rail corridor.

As the Town of Cobourg commits to sustainable growth, the Tannery District represents an incredible opportunity to build on it's strong historic roots to create a vibrant, innovative, and highly desirable transit-supportive neighbourhood.

The site is within walking distance of the downtown, and historic King Street, including a bustling mix of cafes, restaurants, shops, and galleries. Throughout the downtown, a variety of public and civic spaces offer year-round activities and entertainment for people of all ages and abilities, including a weekly farmer's market (including a winter market), and a range of festivals and events (i.e. buskers, art, music).

The Town's lively waterfront and marina, including Cobourg Beach, distinguish Cobourg from other Ontario communities, drawing residents and visitors from Northumberland County and beyond. These areas, including the nearby Victoria Park, encourage relaxation and casual play (i.e. playgrounds, swimming, boat rentals, etc.) while also hosting many of the Town's annual festivals and events (i.e. Waterfront Festival, Movies on the Beach). To the north, the bustling downtown is balanced by the Cobourg Conservation Area, which provides 12.7Ha of natural area for hiking, cycling, fishing and other outdoor activities.

In addition to the above destinations, the Tannery District is in close proximity to a range of day-to-day cultural and institutional uses, including the Cobourg Public Library, Victoria Hall (Town Hall), the Cobourg Memorial Rink and Recreation Centre, St. Michael's Elementary School, Columbus Community Centre, and the William Academy - Cobourg West.

The Tannery District is well-located to promote a healthy, transit-supportive neighbourhood. The ViaRail Station, located immediately northeast of the Tannery District, provides quick and convenient access to Toronto, Kingston and Ottawa. Bus routes on University Avenue West provide connections throughout the Town, while cycling is facilitated on George Street with direct cycling connections to sharrows and bike lanes on King Street, and the Great Lakes Waterfront Trail.

LEGEND

- **The Tannery District**
- **'Former Tannery Lands'**
- **Downtown Cobourg**
- **Great Lakes Waterfront Trail**

2.0 SUSTAINABILITY

THE 10 ONE PLANET LIVING PRINCIPLES

2.1 DEFINING SUSTAINABILITY

As a society, we are facing increasing environmental and social challenges. Our activities are creating greenhouse gas emissions that are accelerating climate change, evidenced by extreme weather events such as increasing droughts and heat waves, rising sea levels, and air, water, and soil pollution. All these effects pose serious risks to human health. At a global level, treaties and agreements are being advanced to mitigate climate change, while Nationally and Provincially governments have set clear ambitious targets to lower emissions.

WHAT IS A SUSTAINABLE COMMUNITY?

A sustainable community is a place that meets our needs today without compromising the ability of future generations to meet their needs; a place that maintains or increases wellbeing between generations; and a place where people want to live, work, play and learn, now and in the future. Sustainability needs to address environmental, social, cultural and economic considerations.

Research has shown that North Americans are living, building and consuming as if we have 5 planets worth of resources. We only have 1 planet and we need to act accordingly.

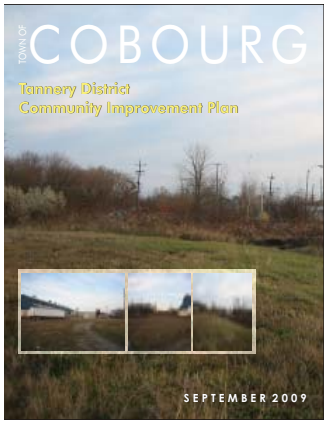
One Planet Living™ (OPL) is a joint initiative of BioRegional and the World Wildlife Foundation (WWF) to address the challenges of global population increase and the depletion of the Earth's resources.

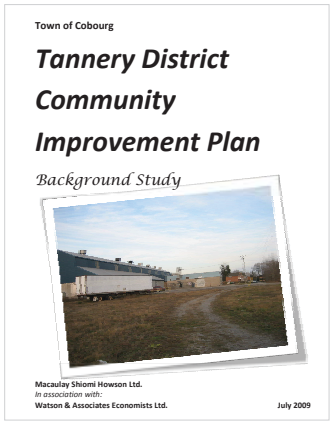
One Planet Living aims to create a future where it is easy, attractive, and affordable for people to lead happy and healthy lives using a fair share of the earth's resources. Striving towards a One Planet lifestyle requires not only a focus on the design and construction stages of a project, but also on the lifestyles and behaviours of those living, working and visiting the community.

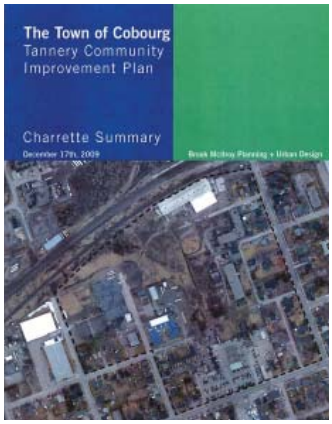
OPL is a sustainability framework with key performance indicators and targets that provide a roadmap to pursue endorsement as a One Planet Community.

One Planet Living describes sustainability as "a vision of a world in which people enjoy happy, healthy lives within their fair share of the earth's resources, leaving space for wildlife and wilderness".

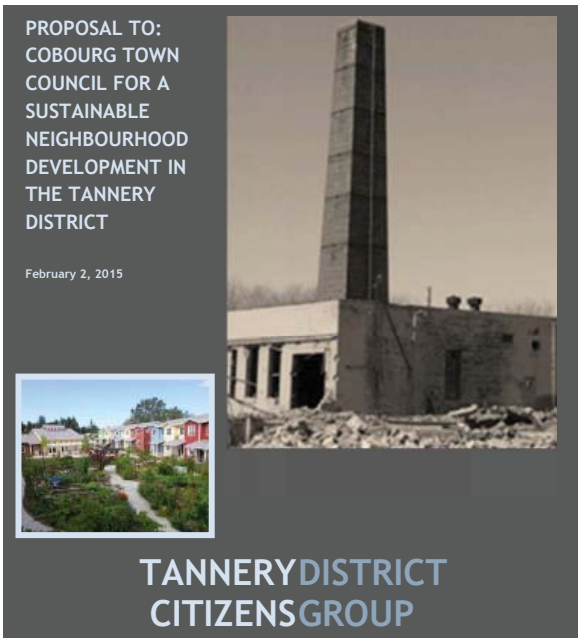
What form a sustainable community takes depends on the local characteristics of the place and the needs of the people. In order to achieve the vision for the Tannery District in Cobourg, sustainability cannot stand alone in a silo, it needs to be interwoven into all elements of design as a guiding principle.







SUSTAINABLE COBOURG



CHANGING TRENDS ACROSS BUILDING INDUSTRY

On the voluntary side, uptake of green certification through programs such as LEED is growing in Canada. New, more stringent standards are also being developed such as the CaGBC Zero Carbon Framework. On the regulatory side, building codes are increasing energy efficiency requirements and governments are requiring disclosure of building energy and water data and completion of energy audits. Municipalities like Vancouver and Toronto are setting high performance standards for new buildings.

Carbon pricing in Ontario is also helping push more investment in renewable energy, and the market costs of wind and solar power are dropping.

Both building owners and tenants are seeing the benefits to the environment, community, health and wellness, all which impact the economic bottom line.

TOWARD A SUSTAINABLE COBOURG

The town of Cobourg is already moving towards a greener future by promoting and encouraging development standards predicated on the principles of sustainability. The notion of sustainability is enshrined in Cobourg's Official Plan (OP), primarily in chapters 2 and 4.

Chapter 2, Community Vision, Principles, and Objectives, provides high level principles designed to fulfil the vision for Cobourg as a strong, liveable, and healthy community. As it relates to sustainability, Chapter 2 identifies the importance of design in reaching a green future, whereby it is stated in section 2.7 (iv) that the Town encourages development that reduces the consumption of energy, land, and other non-renewable resources; minimizes the waste of materials, water, and other limited resources; creates a liveable, healthy, and productive environment; and reduces greenhouse gas emissions.

These principles are codified through the policies of Chapter 4, Greenland System and Sustainability Strategy. By way of section 4.8, the Sustainability Strategy, the OP advances a continued commitment to developing a culture of conservation, where the needs of the present are met without compromising the ability of future generations to do the same.

Elements of sustainability are also found in supporting documents including the Parks Master Plan, 2013; Parks & Recreation Strategy and Implementation Plan, 2016; and the Transportation Master Plan, 2011.

In order to ensure that Cobourg's continued development upholds the notions of sustainability

FARMER›S MARKET FOR LOCALLY

advanced in the OP (and supporting documents), the Town created a Planning and Sustainability Advisory Committee (PSAC). This Committee is primarily responsible for providing advice to Municipal Council on land use planning and sustainable development matters in the community. In addition to this Committee, the Town has also developed a Strategic Plan for the years 2015-2018. While promoting awareness and understanding of sustainable development and practices, the Strategic Plan also includes actions for updating the Town's existing climate change master plan and creating a sustainable master plan for the Tannery District.

Sustainability in the town of Cobourg has also fallen under the purview of community action groups, including Sustainable Cobourg (SC). SC was established in 2008 to "support and engage in activities that maintain and enhance the environmental, physical, economic, and social health of Cobourg residents by promoting sustainability within the town of Cobourg and its immediate environs." Comprised of four committees, SC offers feedback on matters concerning urban planning, energy conservation, renewable energy, water quality and protection, waste reduction, climate change, farmland protection, transportation, personal health, local economy, and quality of life.

On the ground, these policies are resulting in the integration of low-impact development (LID and other sustainable technologies) into new development projects, where feasible, as well as the implementation of several community gardens (e.g. Pebble Beach area, Ecology Garden; and Monroe Street).

LOW IMPACT DEVELOPMENT.

SUSTAINABILITY AT THE TANNERY DISTRICT

As it specifically relates to the Tannery District, the Town's previous efforts include the Tannery District Community Improvement Plan (CIP) and Background Report (2009) and the Tannery District Design Charette Summary (2009), both of which started to outline elements of sustainability for the community.

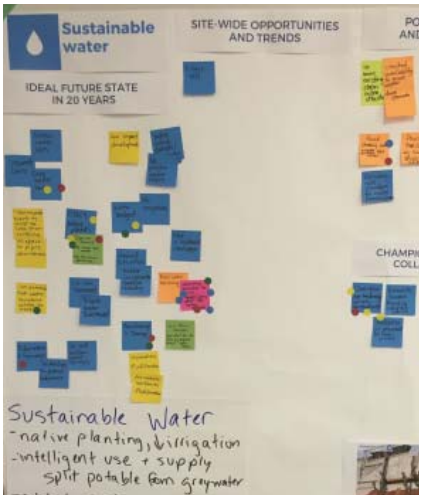
The Cobourg community also has strong advocates such as Sustainable Cobourg and the Tannery District Citizens Group. The Tannery District Citizens Group put forward a Proposal for a Sustainable Neighbourhood in the Tannery District as a citizen submission to the Town of Cobourg, which encouraged the Town to move forward with a sustainable neighbourhood master plan.

As one of the largest redevelopment sites in the Town, the Sustainable Neighbourhood Master Plan for the Tannery District represents the next step in the Town's commitment to sustainability.

2.2 SUSTAINABILITY WORKSHOP SUMMARY

At the Sustainability Workshop and Public Open House held on June 22, 2017 the following key ideas and themes for sustainably focused development within the Tannery District emerged. A full summary of the event is presented in Appendix A. These themes will be used to inform the vision for the site, set the development principles and guide the overall site wide sustainability objectives.

Health and happiness	Encouraging active, social, meaningful lives to promote good health and wellbeing
Equity and local economy	Creating safe, equitable places to live and work which support local prosperity and international fair trade
Culture and community	Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living
Land and nature	Protecting and restoring land for the benefit of people and wildlife
Sustainable water	Using water efficiently, protecting local water resources and reducing flooding and drought
Local and sustainable food	Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein
Travel and transport	Reducing the need to travel, encouraging walking, cycling and low carbon transport
Materials and products	Using materials from sustainable sources and promoting products which help people reduce consumption.
Zero waste	Reducing consumption, re-using and recycling to achieve zero waste and zero pollution
Zero carbon energy	Making buildings and manufacturing energy efficient and supplying all energy with renewables



MIXED-USE DEVELOPMENT

- A range of building types (employment, residential, commercial/retail) to attract a diverse range of occupants in age, background and abilities
- Affordable options for a range of incomes and local work opportunities and training
- Fine-grained streets and local services to allow for a walkable community

LOW CARBON LIVING

- High performance buildings with passive solar design and durable healthy materials that consider embodied carbon and life cycle assessment
- Focus on waste as a resource and minimize waste to landfill through infrastructure and onsite waste management solutions

OPEN AND GREEN PUBLIC SPACE

- Places that are accessible to all, with space for active recreation, fun and imagination
- Green spaces that promote social, physical and mental health
- Community spaces to support sharing economy opportunities (shared gardens, seasonal and year-round farmer's markets)

COMMUNITY ENERGY SYSTEMS

- Onsite renewable generation (geosource, solar, wind, biomass, waste heat recovery, trigen, etc), energy storage, district energy, micro-grids
- Consider ownership by community cooperative/ collective

GREEN INFRASTRUCTURE

- Green and blue ways that provide beauty, water management and safe active transportation via walking and cycling
- LID systems that clean and manage stormwater, sufficient to support green features
- Visible interactive infrastructure that connects the community with water systems
- Planting to attract pollinators, native species, support and restore ecology
- Opportunities for local gardens and urban agriculture

SHIFT MODAL SPLIT THROUGH ON-SITE CYCLING FACILITIES.

2.3 IMPLEMENTATION OPTIONS

In order to bring One Planet Living's definition of sustainability into fruition, a range of implementation strategies are considered under each of the ten OPL principles, generally tailored to the project. Importantly, these strategies can vary in levels of complexity and costs, requiring careful examination and decision-making prior to commitment.

At the Sustainability Workshop and Public Open House held on June 22, 2017 a number of key ideas and themes for sustainably focused development within the Tannery District emerged (a full summary of the event is presented in Appendix A). The nascent thinking around sustainability will be used to inform the development of implementation strategies. While the precise details of the implementation strategies, including their specific requirements, will be further refined and prioritized through additional public consultation, this section provides examples of goal statements and the related potential strategies and levels of complexity and cost; importantly, each goal statement has been informed by the Community Improvement Plan, the associated Design Charrette, and the first Sustainability Workshop.

HEALTH AND HAPPINESS

Goal: Prioritize healthy, active living in all aspects of community design, including housing, transportation, recreation, employment, and culture.

Example Strategies

- **$$$** Incorporate cycling infrastructure throughout the site, including cycling lanes, bike share, bike parking, repair stations, and changing facilities.
- **$$** Conform to LEED ND requirements related to active living.
- **$** Conform to planning policy minimums.

COMMUNITY GARDENS.

EQUITY AND ECONOMY

Goal: Provide a variety of amenities to allow residents to fulfill their daily needs within walking distance.

Example Strategies

- **$$$** Pursue opportunities for co-location of vital amenities, including daycares, convenience stores, drycleaners, etc. within mixed-use buildings.
- **$$** Conform to LEED ND requirements related to the proximity and type of amenities.
- **$** Provide retail space at grade level in mixed-use buildings.

CULTURE AND COMMUNITY

Goal: Reveal and celebrate sustainable technologies in buildings and landscapes through educational signage, interactive elements, etc.

Example Strategies

- **$$$** Use cutting edge stormwater management infrastructure and incorporate it into the landscape in a meaningful and interactive way to provide educational opportunities for residents, workers, and visitors.
- **$$** Introduce wildlife habitat into the site, including plantings that support pollinators and native bird species, and highlight their importance through signage and wayfinding.
- **$** Install heritage plaques throughout the site to highlight sustainable and cultural heritage features.

LAND AND NATURE

Goal: Provide extensive trees and landscaping, within both the public and private realm, to create a robust and continuous urban tree canopy.

Example Strategies

- **$$$** Install green roofs on all mid-rise and high-rise buildings, including space for community gardens.
- **$$** Conform to LEED requirements for green roofs.
- **$** Conform to code requirements.

UPTON SUDS, UK

SUSTAINABLE WATER

Goal: Reduce impervious surfaces through the use of LIDs, green roofs, permeable paving, etc.

Example Strategies

- **$$$** Plan, design, and incorporate LID treatments, including but not limited to, pavers, green roofs, bioswales, rain gardens, rain barrels, and vegetated filter strips throughout the site to ensure removal of at least 80% of total suspended solids.
- **$$** Use LID treatments to remove between 20% and 80% of total suspended solids.
- **$** Conform to code requirements.

LOCAL AND SUSTAINABLE FOOD

Goal: Support community gardens and similar initiatives.

Example Strategies

- **$$$** Incorporate community gardens on rooftops of all mid-rise and high-rise residential and mixed-use buildings, and support their function with educational programming, signage, and public art.
- **$$** Explore opportunities to incorporate community gardens into landscaped areas.
- **$** Ensure new development is within walking distance to grocery stores.

TRAVEL AND TRANSPORT

Goal: Shift the modal split away from the private automobile.

Example Strategies

- **$$$** Introduce shuttles that operate throughout the day, to and from the site and major transit stops, and consider unbundled parking.
- **$$** Incorporate car-sharing infrastructure within underground parking lots.
- **$** Explore ride-sharing programs originating within buildings.

MATERIALS AND PRODUCTS

Goal: Maximize the use of local building materials in the construction of buildings and public spaces.

Example Strategies

- **$$$** Develop a red list.
- **$$** Pursue LEED Materials and Resources credits.
- **$** Meet code requirements.

ZERO WASTE

Goal: Explore opportunities for on-site waste management and re-use solutions that prioritize waste as a resource and minimize landfill.

Example Strategies

- **$$$** Install tri-sorting infrastructure in all mid-rise and high-rise buildings, and achieve 75% construction waste diversion.
- **$$** Install tri-sorting infrastructure in all buildings.
- **$** Design residential units with separated cabinet space for recyclables, organics, and waste.

ZERO CARBON ENERGY

Goal: Promote high-performance buildings that are designed and oriented to maximize solar exposure and minimize carbon impacts throughout their lifecycle.

Example Strategies

- **$$$** Achieve a net-zero carbon community through design and technology, including but not limited to photovoltaics, Passive House design, and district energy (geothermal).
- **$$** Achieve the minimum LEED Energy and Atmosphere energy performance credits.
- **$** Achieve code requirements for building energy.


SOUTH EAST FALSE CREEK, BC


PERTHWORKS, ON


DOCKSIDE GREEN, VICTORIA


ZIBI, OTTAWA


WESTBROOK VILLAGE, BC

2.4 PRECEDENT REVIEW SUMMARY

Sustainable community precedents will be used to inspire, guide and inform the next phases of this project. The history, planning and implementation strategies behind these projects will be used to help define how similarly ambitious goals can be realized in the Town of Cobourg. The lessons learned from these projects will inform the Tannery District plan and guide continuous improvements for sustainable communities.

The following precedents were analysed and compared against the ten principles from the One Planet Living framework (see Appendix A for the full summary).

CANADIAN/US PRECEDENTS

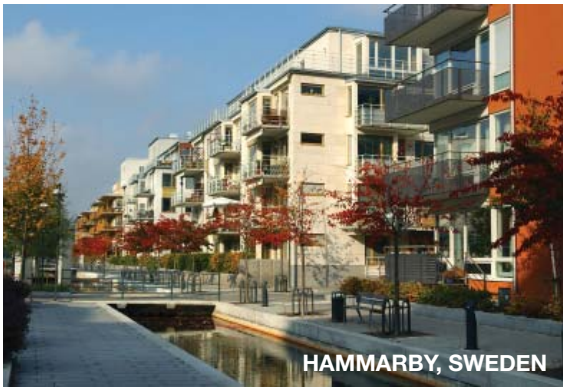
- South East False Creek, Vancouver, BC
- Dockside Green, Victoria, BC
- Zibi, Ottawa, ON
- Wesbrook Village, Vancouver, BC
- Perthworks, Perth, ON
- Mariposa District, Denver, Colorado
- Greensburg, Kansas

INTERNATIONAL PRECEDENTS

- BedZED, Hackbridge/ Beddington, UK
- Greenwich Millennium Village, London, UK
- Vauban, Frieburg, Germany
- Bo01, Malmö, Sweden
- Hammarby, Stockholm, Sweden
- One Brighton, Sussex, UK

While most of these communities implemented features in all One Planet Living categories, only exemplary features have been highlighted, along with implementation strategies. Across these precedents, a number of key directions begin to emerge which will be influential in the planning and design of the Sustainable Neighbourhood Master Plan. Key directions include:

- A truly sustainable community must consider all elements of the built environment and their systems, including buildings, streets, open spaces, natural areas, and transportation, and the ways in which these elements can be leveraged to reduce their carbon footprint.
- Measurable performance targets are essential to monitor success, and make the adjustments necessary to maximize sustainability.
- A diverse mix of uses, and a well-connected network of


HAMMARBY, SWEDEN


BEDZED, UK


VAUBAN, FRIEBURG, GERMANY


BO01, MALMO, SWEDEN


GREENWICH MILLENIUM VILLAGE, UK

streets and trails, is instrumental in supporting a shift in modal split toward sustainable transportation modes, as well as promoting healthy, active lifestyles.

- Active transportation is best promoted by providing a variety of opportunities, including transit, bike-share, free shuttle (to specific locations), etc.
- Exposing elements of sustainability in unique and engaging ways (i.e. through architecture, public art components, visible tracking, etc.) is a valuable way to educate residents and visitors about sustainability. Similarly, integrating elements of sustainability that will appeal to children creates buy-in early in life.
- Elements that enhance sustainability (i.e. community gardens, greenhouses, etc.) provide a great opportunity for collaboration and community-building, while also providing opportunities for education and connections to surrounding communities (i.e. through farmer's markets).
- Initial investment in the public realm (i.e. a key open space) at earlier phases can be a strong mechanism for attracting both residents and employment opportunities.
- Physical connections to nature are important, and can be achieved in a variety of ways, including parks and open spaces, green roofs and walls, access to water, urban beekeeping, etc.
- Offering a range of financial incentives, including both development incentives as well as residential/employment incentives post-construction (including affordable housing), is a strong strategy to encourage investment in the community.
- Meaningful consultation is essential to the success of the community as it helps to ensure buy-in from both the development community, and the public.
- Employing local contractors, and other specialists, and sourcing local materials, provides a boost to the local economy while creating strong ties to the existing community.

HOME BATTERY ENERGY STORAGE


WARSAW UNIVERSITY GREEN ROOF, POLAND


CORNERSTONE PASSIVE HOUSE, VANCOUVER

2.5 SUSTAINABILITY DRIVING DESIGN

The goal of the Tannery District Master Plan is that it becomes an example of exemplar placemaking, sustainability, master planning and architecture. Based on the key findings of the Precedent Study, and directions from the Sustainability Workshop, there are several ways in which the concept of sustainability can be integrated into the design development process of the Tannery District. Such approaches include:

MASTER PLANNING

- Master plan approach looks at planning the whole settlement rather than individual buildings. The key issues of layout, density and scale will be designed to reflect passive design approaches (in terms of orientation, aspect, and thermal mass) and issues of connectivity and community inclusion.
- The site's physical features and resources will play a key role in design development and consider wind direction and solar orientation when designing streets and buildings in order to minimise energy demand and maximize generation opportunities. Building depth and massing will be considered at the outset as they are crucial to allow for adaptation and the future use of natural ventilation.
- Master plan will be designed to allow for change throughout its proposed phasing and implementation. For example, the community energy strategy can be designed to allow for phased build-out and future upgrades without complex retrofits to individual buildings.
- Graded density will be considered in relation to the station node, based on a guide range of 50 to 100 du/ha.
- Community facilities will be designed to include a mix of uses so that they can be conveniently accessed by all members of the community without the need for a car journey.
- Designed to include active street frontages wherever possible and promote walking and cycling for functional as well as recreational journeys.
- Master plan will put in place a clear long-term programme and strategy for delivery and implementation.

ENERGY AND RESOURCES

- Designed to address the resource issue by examining what is available on-site and locally and deciding how that can be utilised to achieve the sustainability objectives. Waste, sewage, wind and sun can all be considered as sources of energy.
- Calculate the total energy generation potential for the site and set this as a cap for energy demand. Design buildings and infrastructure using renewable technologies and sustainable strategies to work within this limit at a community scale.
- Designed to ensure the community energy strategy correlates to the layout and density of development.

LANDSCAPE

- Landscape will be designed to promote biodiversity, manage water efficiently, encourage local food production, and create green corridors and useful green infrastructure.
- Design open spaces to create a network of safe and attractive places, capable of supporting a variety of activities, enabling all residents to be physically active as a routine part of their daily life.

- Design streets as places and not just traffic routes. The needs of people should be prioritised over the requirements of motorised transport. This has the additional benefit of quiet, pollution-free streets, which will allow for opening windows so buildings can be naturally ventilated.
- Design streets and plazas to create local distinctiveness and identity and be safe to use by a wide range of people.
- Create high-quality play spaces to encourage young and old people to enjoy the outdoors.

SUSTAINABLE TECHNOLOGIES

Suggested sustainable technologies for consideration in the Tannery District:

HIGH PERFORMANCE BUILDINGS
High Performance Buildings, with high efficiency envelopes and mechanical systems

GROUND SOURCE HEAT EXCHANGE
GeoExchange systems use a renewable and free energy source, the warmth that is stored in the earth, to provide efficient heating, cooling & domestic hot water.

COMMUNITY ENERGY STORAGE (CES) CES systems use medium sized community and home-battery systems to store and redistribute energy generated from renewables (wind, solar, and grid power).

PHOTOVOLTAIC (PV) SYSTEMS
Systems that transform natural daylight into electrical energy. These are normally supplied in the form of photovoltaic roofing panels, bolt-on tiles or integrated into windows and walls.

Determining the amount of space necessary to meaningfully implement solar energy production is part of a larger exercise to determine the effectiveness of various building-level/load demand strategies, including:

- High-performance building envelopes / HVAC technologies
- Passive design strategies – passive solar, orientation, shading, etc.
- Distributed generation / energy storage
- Building/roof integrated PV
- Emergency-generator-integrated CHP

RAINWATER HARVESTING
The capture of rainwater for non-potable uses, reducing demand for potable water. Methods of capture range from rainwater barrels for garden use, to dedicated harvesting systems integrated into a building's water system.

SUSTAINABLE DRAINAGE SYSTEMS (SUDS)
Measures to replicate natural drainage patterns on a site, delaying water drainage and so reducing flood risk. SUDS can also be used for landscaping, by providing watercourses, lakes and ponds (and adding to biodiversity)

LOW IMPACT DEVELOPMENT (LIDS)
Like SUDS, Low Impact Development (LIDs) techniques are used to manage stormwater runoff as part of green infrastructure. LID emphasizes conservation and use of on-site natural features to protect water quality.

GREEN ROOFS
Vegetated roof structures that contribute to rainwater attenuation in a development and help mitigate biodiversity loss. There are four basic categories:

1. Intensive: designed for recreational use (roof gardens) including lawns, flower beds, shrubs and trees.
2. Simple intensive: designed to be viewed rather than accessed (usually lower maintenance).
3. Extensive: light weight and self sufficient, only accessible for maintenance.
4. Brown roofs: designed to replace natural habitats, replicating the original ecological environment of the site.

COMMUNITY ENERGY STRATEGY

Based on the recommended technologies above, a comprehensive Community Energy Strategy is recommended to enable a broader, and more strategic approach to considering community-scale technologies that would potentially reduce the carbon footprint of the community.

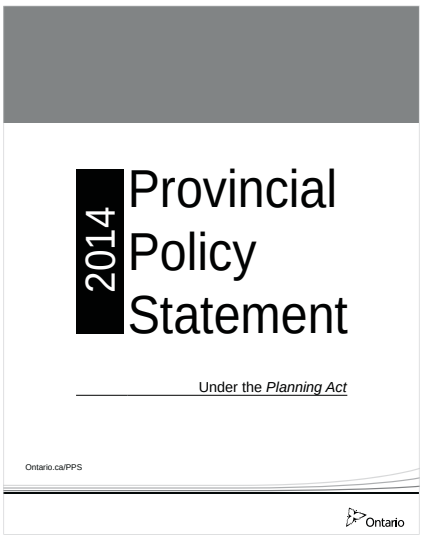
After the completion of a Community Energy Strategy, the Town of Cobourg would be positioned to consider an appropriate strategy to move the Tannery District towards carbon neutrality.

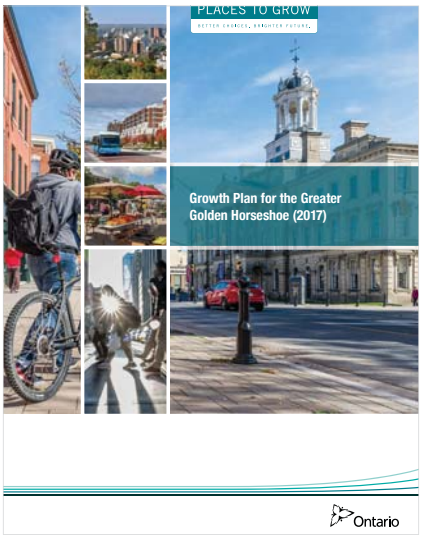
DERBYSHIRE STREET SUDS, UK

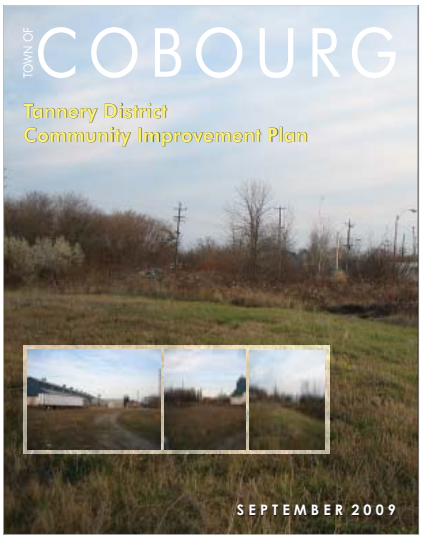
3.0 STUDY AREA ANALYSIS


UNIVERSITY AVE
BALL ST
SPRING S
KING ST
DOWNTOWN COBOURG


THE TANNERY DISTRICT
GEORGE ST
DIVISION ST







3.1 POLICY REVIEW

PROVINCIAL POLICY STATEMENT (2014)

The Provincial Policy Statement (PPS) provides policy direction on matters of provincial interest related to land use planning and development. Municipalities are required to be "consistent with" the PPS with respect to any planning decisions.

Section 1.1, Managing Land Use, prioritizes efficient development and land use patterns that minimize negative impacts to air quality and climate change, promote energy efficiency and support active transportation and transit (1.1.3.2) as well as the intensification and redevelopment of existing settlement areas including brownfield sites (1.1.3.3).

Section 1.7 of the PPS further directs that the redevelopment of brownfield sites be promoted.

Section 1.8 of the PPS supports sustainable development through energy conservation and efficiency, improved air quality, reduced greenhouse gas emissions, and climate change adaptation through land use and development patterns.

Section 2.6 of the PPS provides direction on the conservation of significant built heritage resources and states that development or site alteration on lands adjacent to protected heritage properties must demonstrate that the heritage attributes of the affected property will be conserved.

GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE (2017)

The Growth Plan for the Greater Golden Horseshoe ("the Growth Plan") is the Province's framework for managing growth. Municipalities are required to conform to the Growth Plan in any decisions and, except in certain circumstances, the Growth Plan takes precedence over the PPS.

Per Section 2.2.2 of the PPS, municipalities with delineated built-up areas are required to develop intensification strategies and to accommodate a significant portion of residential development within the boundaries of their built-up area. Cobourg is identified as a built-up area in Schedule 4 of the Growth Plan, but not as an Urban Growth Centre, which would entail more stringent density targets.

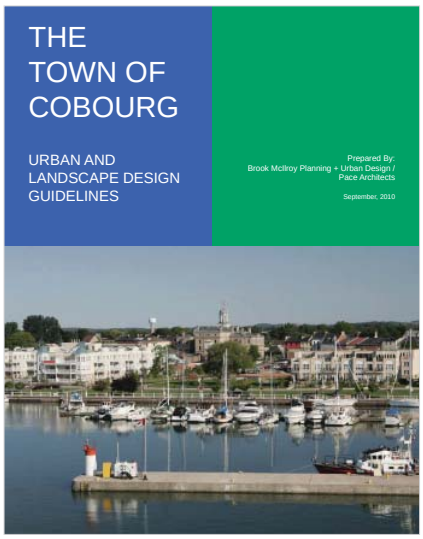
Like the PPS, the Growth Plan encourages intensification, with growth directed to settlement areas and focused in delineated built-up areas, strategic growth areas, locations with existing or planned transit, and areas with existing or planned public service facilities.

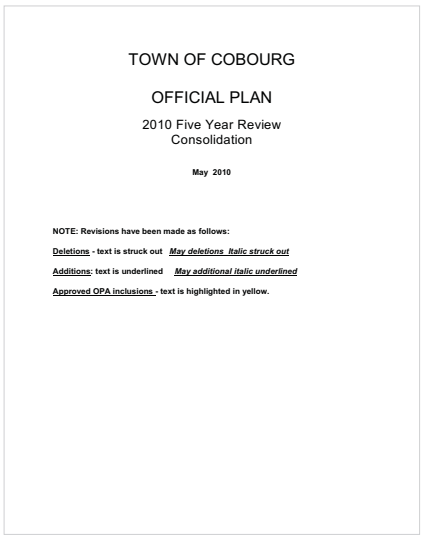
TANNERY DISTRICT CIP

The Cobourg Tannery District Community Improvement Plan (CIP) aims to maintain, rehabilitate and redevelop the Tannery District, with the objective of "cleaning up" environmentally contaminated sites and promoting private investment in the general upgrading of existing buildings and property. A number of financial incentive programs are being introduced by the Town of Cobourg to implement the goal and objectives.

A charrette was held in November 2009 to identify key directions for the Tannery District, including compact and connected streets, energy efficient sites and buildings, a mix of land uses, context-sensitive design, open space and landscaping, and a buffer from railway uses.

The directions emerging from this charrette provided the foundation for the Priority Directions in Section 4.1 of this report.




TOWN OF COBOURG

OFFICIAL PLAN

2010 Five Year Review
Consolidation

May 2010

NOTE: Revisions have been made as follows:

Deletions - text is struck out *May deletions Italic struck out*

Additions: text is underlined *May additional italic underlined*

Approved OPA inclusions - text is highlighted in yellow.

URBAN AND LANDSCAPE DESIGN GUIDELINES

The Town of Cobourg has a comprehensive suite of urban and landscape design guidelines ("the Guidelines"). These Guidelines address sustainability, green space, stormwater management, streetscape design, parking, and detailed private realm design across the Town, including the lands in the Tannery District.

Sustainability has a prominent place in public realm design (Section 3.1 – including but not limited to reduction of impervious hard surfaces, recycled or durable materials, alternate energy sources on public lands) and private realm design (Section 4.1 – including but not limited to, adaptable building design, green performance standards, green roofs, onsite stormwater management, adaptive reuse of existing buildings.)

The Guidelines support universal design in all private realm developments.

HERITAGE

The residential area adjacent to George Street forms part of the George Street Heritage Conservation District (HCD) which has been designated under Part V of the Heritage Act. The designation is intended to protect the 19th century residential character of the district. The George Street HCD is dicussed in further detail on the following page.

OFFICIAL PLAN (2010, APPROVED 2017)

The Town's Official Plan was approved in May 2017. It asserts Cobourg as a regional centre for Northumberland County (Section 2.2) and outlines a five-point vision for reinforcing Cobourg's strength as a community, summarized below:

i. enhancement and preservation of Cobourg's historical, natural and rural heritage;

ii. an emphasis on sustainable, transit-supportive, mixed-use development;

iii. new residential development through a mix of compatible intensification and greenfield development with a variety of housing types and densities.

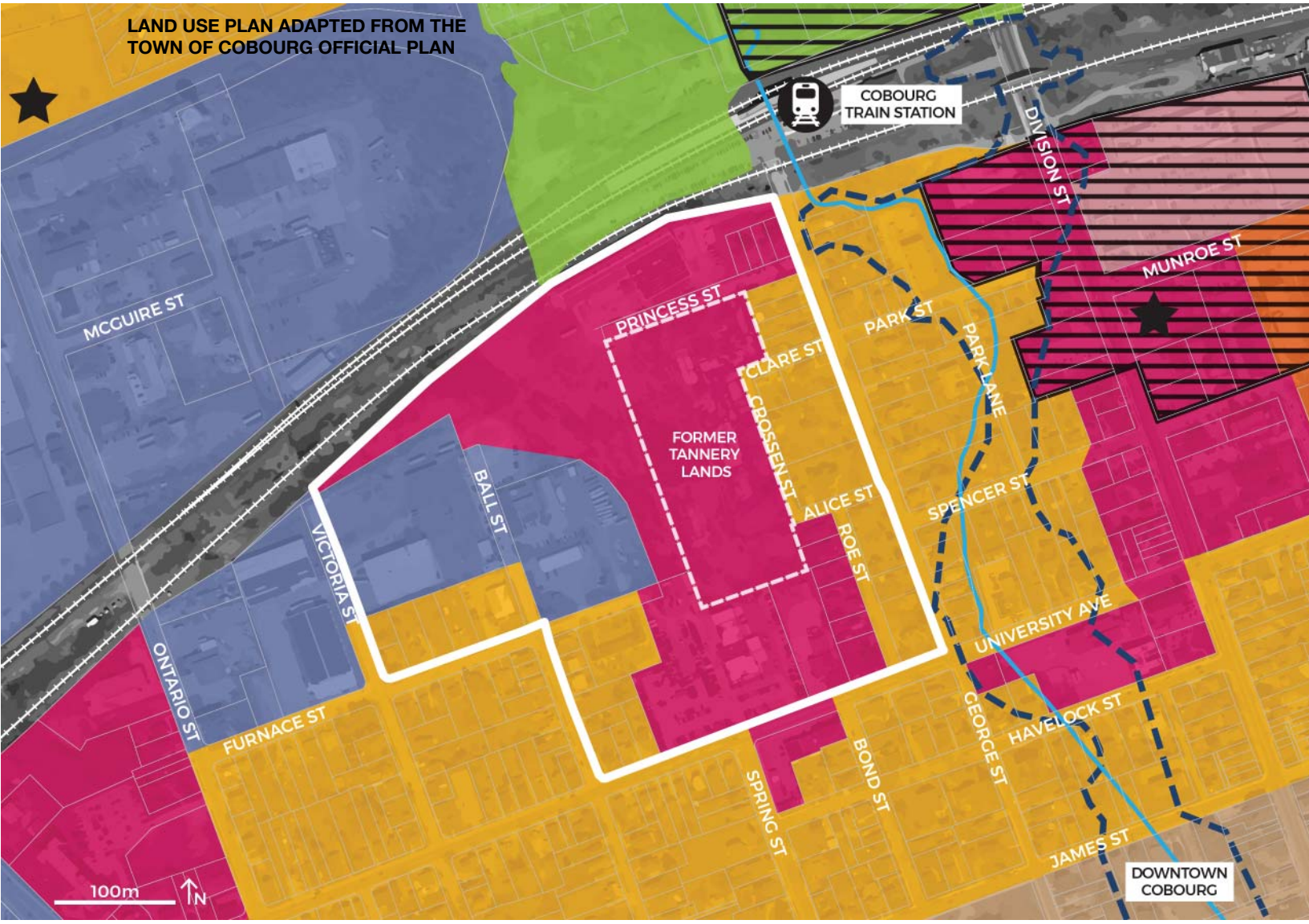
iv. a mix of employment uses; and,

v. a multi-modal transportation system which will support multiple modes of travel including transit, cycling and pedestrian movement, as well as goods movement.

In Section 2.7, the Official Plan identifies sustainable development as a design principle, whereby the Town is to actively encourage development designed to reduce the consumption of energy, land, and other non-renewable resources; to minimize waste; to create a liveable and healthy environment; and to reduce greenhouse gas emissions.

The majority of the lands in the Study Area have been designated Mixed Use Corridor Area in the OP Land Use Plan. These lands extend from the rail corridor to University Avenue W, inclusive of the Tannery District and the car dealership.

Section 3.9 of the Cobourg OP sets out policies for Mixed Use Areas: this designation recognizes existing commercial areas which are oriented to the service of vehicular traffic and require direct access from arterial roads and the exposure afforded by such a location. The designation is designed to recognize existing uses while providing for the transition of these areas to a mixed use development form by encouraging the introduction of a range of additional compatible non-commercial uses to intensify and enhance the use of these areas which are generally located at major entrances to the community.



The Mixed Use Area permits commercial uses (with exceptions – see 3.9.4.3 below), institutional uses, light industrial in enclosed buildings, office uses, and residential uses (subject to conditions noted in 3.9.3 below or as secondary uses in a commercial building.)

Section 3.9.3 prohibits department stores, supermarket or bulk food retail, and retail commercial except for one retail commercial use on a site, subject to a rezoning, and provided that the use is no more than 465m2, does not constitute more than 10% of the total GFA of the development on the site, and cannot easily be located in the downtown (the "Main Central Area" designation).

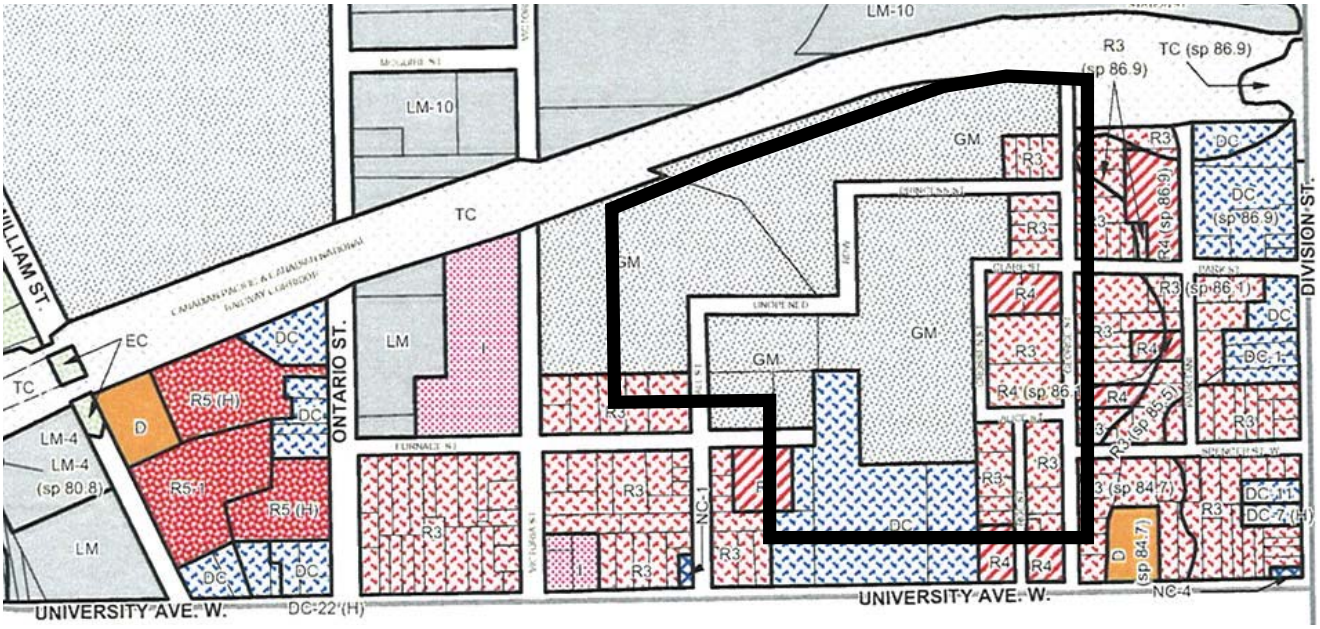
Section 3.9.4.3 states that medium and high density residential uses are permitted as part of mixed-use development or in accordance with the Official Plan's High Density Residential Area policies, subject to a zoning by-law amendment.

The industrial area west of the tannery lands are designated Employment Area. Section 3.10 sets out the policies of the Employment Area. A full range of employment and related uses are permitted.

Employment Areas are to be designed to accommodate a range of site sizes, appropriate infrastructure, and adequate buffering; to mitigate traffic impacts on residential areas; to provide buffering from industrial uses and abutting non-industrial

LEGEND

- Residential Area
- High Density Residential
- Mixed Use Corridor Area
- Employment Area
- Environmental Constraint
- Shopping Node
- Main Central Area
- Major Transit Station Area
- Special Policy Area
- Watercourse
- Cobourg Train Station
- Special Provision



EXTRACTED FROM THE TOWN OF COBOURG COMPREHENSIVE ZONING BY-LAW 85-2003

uses; and to develop in a way that does not preclude future infill development (3.10.5.2). A comprehensive review is required to convert Employment Area lands to non-employment uses (3.10.5.4).

Lands along George Street (at the eastern boundary of the Study Area) and Furnace and Ball Streets (at the west end of the Study Area) are designated Residential Area.

Section 3.4 sets out policies for Residential Area: this designation recognizes established residential areas and ensures that new uses are generally compatible with existing character and density. Low- and medium- density (up to townhouses, low-rise apartments and stacked townhouses) is permitted. The maximum height for residential development in existing residential areas is three storeys (3.4.3.4)

In areas of historical architectural interest (e.g. George Street) regard shall be had to the General Design Policies in Section 5 of the Official Plan, especially 5.2.3 and 5.5 dealing with heritage.

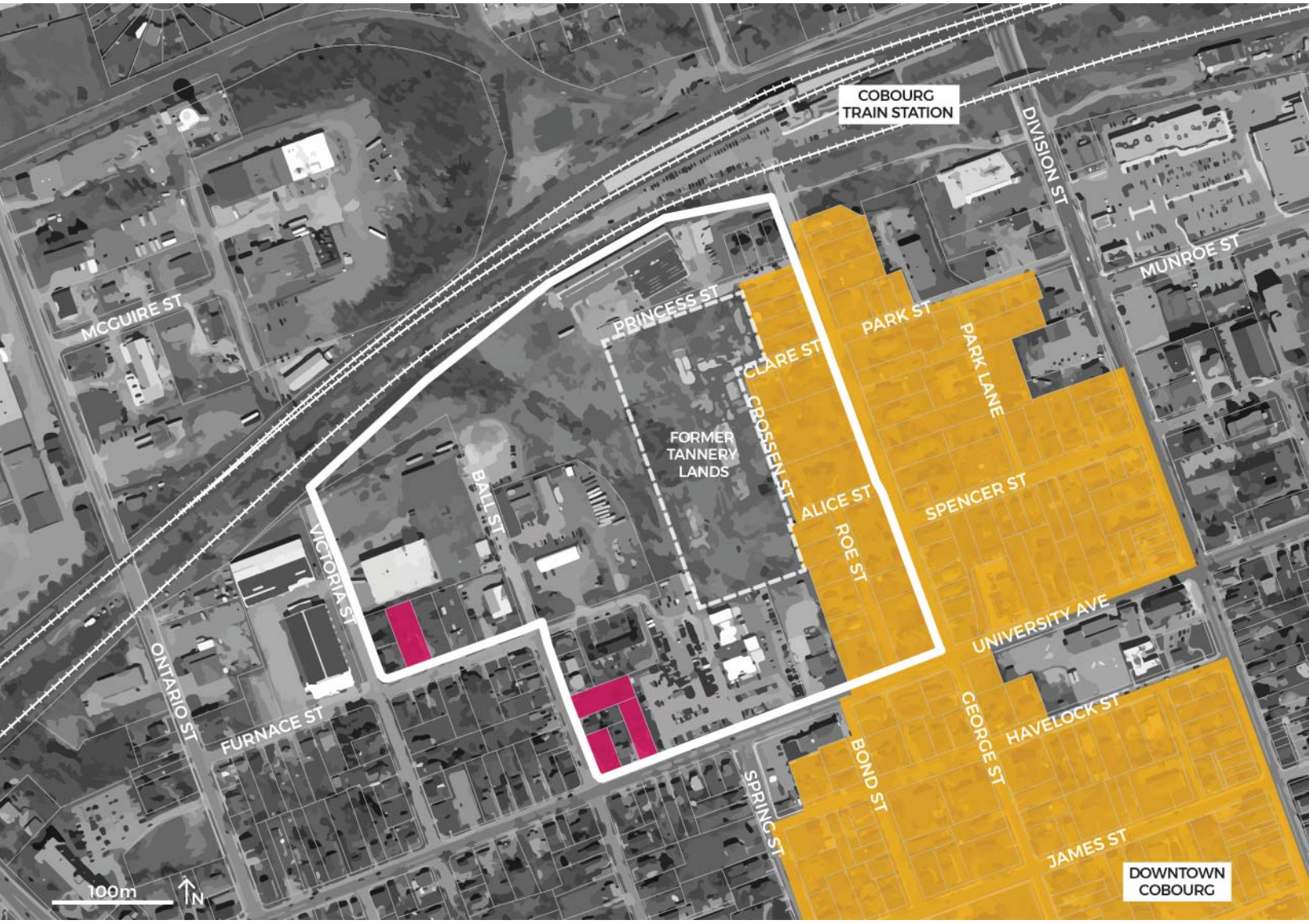
ZONING BY-LAW

The Tannery District and most lands west of Crossen Street and north of Furnace Street, extending north to the rail corridor, are zoned General Industrial (GM) – Section 17 of the Zoning By-law. The GM Zone regulations (s.17) permit general and light industrial uses, as well as a range of employment uses such as a call centre, service and repair use and an office, display, storage and yard facility for a utility, contractor or specialty trade.

The GM Zone also includes in Section 17.1.17 regulations for property abutting a railway mainline which provides requirements for setbacks, fencing and berms for a range of new uses including residential development. Section 17.1.18 establishes regulations which require a setback of a minimum of 300 metres from railway yards for new residential dwelling units and other new sensitive uses. A noise study is required for any new development/redevelopment within 500 metres of a mainline or rail yard. A vibration study is required within 75 metres of a mainline and 500 metres of a rail yard.

Two sites on fronting on University Ave W. are zoned District Commercial (DC) and described in Section 14 of the Zoning By-law. The DC Zone regulations (s.14) permit a wide range of commercial uses (e.g. convenience commercial, eating establishment, vehicle sales establishment) as well as office, light industrial and institutional uses. Similar regulations to those in the GM Zone are found with respect to setbacks from the rail mainline and rail yards.

The remaining lands in the Study Area are zoned Residential 3 (R3) and Multiple Residential 4 (R4) as described in Sections 9 and 10 of the Zoning By-law. The R3 Zone (s.9) permits single, semidetached and duplex dwellings. The R4 Zone (s.10) permits a range of multiple residential uses in addition to single detached and semi-detached dwellings. Similar regulations to those in the GM Zone are found with respect to setbacks from the rail mainline and rail yards.



3.2 HERITAGE

The Town of Cobourg recently completed a Heritage Master Plan (May 2016), to provide a management framework for built heritage resources, cultural heritage landscapes, archaeological sites, and development within heritage conservation districts throughout the Town. A portion of the Tannery District is located within the George Street Heritage Conservation District (George Street HCD).

The George Street HCD is a residential neighbourhood north of the downtown commercial core, and contains a range of mid-to-late 19th century and early 20th century residential dwellings. Infill development has occurred in the George Street HCD over time, but much of the infill is complementary to the form and materials of historic properties and the heritage character of the District.

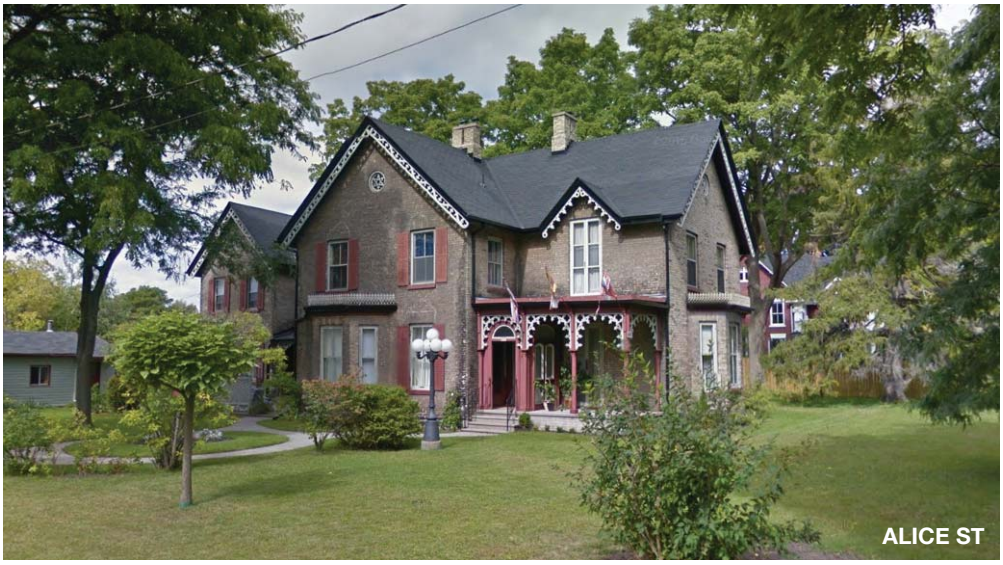
There may also be opportunity for infill development over time, on lands not adjacent to Heritage properties, due to demolition of existing buildings or other circumstances. New infill will be required to follow applicable Town of Cobourg policies and guidelines regarding site design and urban design and conform to the policies in the George Street HCD.

Outside of the George Street HCD, several properties within the Tannery District have been identified as having cultural interest. Redevelopment of these properties will necessitate the investigation of the cultural heritage value of these properties and development should respect their value.

The property at 443 Victoria Street is a designated heritage property and as a result, development on the adjacent lands within the Tannery District should demonstrated that the heritage attributes of the protected heritage property will be conserved.

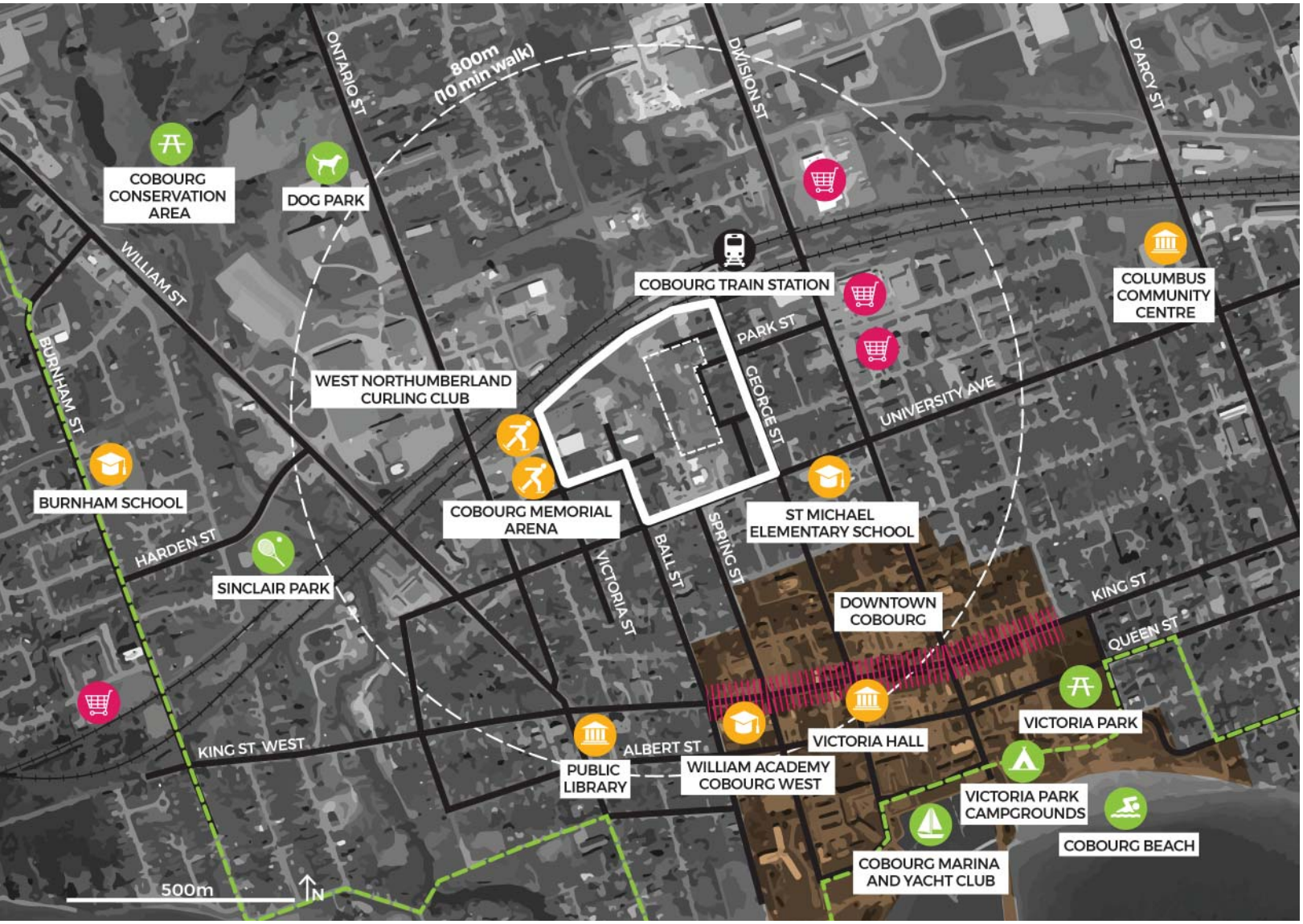
LEGEND

- **George Street Heritage Conservation District**
- **Properties with cultural value or interest (non-designated)**



Heritage attributes associated with the George Street HCD:

- Residential character of the neighbourhood consisting of one to two and one half storey residential buildings
- Variety of historic architectural styles and influences, including: Neo Classical, Regency, Classical Revival, Gothic Revival, Italianate, Queen Anne, Arts and Crafts, Edwardian Classicism, as well as 20th century revival styles (Georgian Colonial Revival, Tudor Revival, Dutch Colonial Revival). The District also includes many vernacular structures, and some mid-to-late 20th century structures with influences of modernist style.
- Repetition of gable and hip roof types, typically low to moderately pitched
- Predominant use of red brick cladding on properties
- Predominantly rectangular window shapes, with some segmental, round or lancet arches
- Predominant entrance configuration of single door (sometimes accompanied by sidelights and/or transom)
- Typical patterns of two and three bay façades
- Orientation of houses and porches to the street to the street
- Varied setbacks of building from the street
- Width of Spring Street, indicative of former function as both road and rail line
- Views to the south along George Street terminating at Victoria Hall



3.3 NEIGHBOURHOOD CONTEXT

COMMUNITY FACILITIES

Due to the close proximity of the Tannery District to Downtown Cobourg, and the Train Station precinct, the site is relatively well serviced by both small and large scale retail, community services and public transport.

Downtown Cobourg contains a broad mix of uses, including retail, office, arts and culture, civic, recreation, and community and institutional uses. The edges of the Downtown are dominated by residential uses that knit together the historic core with the surrounding neighbourhoods, while the retail, institutional and commercial uses are clustered along King Street and Division Street.

A large retail cluster is also located 500m to the east of the Tannery District on Division Street, adjacent to the Train Station. Facilities consist of Cobourg Midtown Mall, Supermarket, Pharmacy, Gas Station, Beer/Wine Stores, Pet Supplies and several restaurants.

Directly adjacent to the east of the site is the Cobourg Memorial Arena which provides a public skating rink in the winter months and the West Northumberland Curling Club. At the south-eastern corner of the site is St Michael Catholic Elementary School.

OPEN SPACE

There is a distinct lack of usable Open Space in close proximity of the Tannery District. Sinclair Park, Cobourg Dog Park and the Cobourg Conservation Area are the closest parcels of green space at approximately 900m west/ north-west of the site. Located

LEGEND

- Downtown Cobourg
- King Street Corridor
- Former Tannery Lands
- Great Lakes Waterfront Trail
- Retail / Commercial
- Parks / Recreation
- Community Facilities

1km east/southeast of the site below the Downtown core are the Cobourg Marina, Victoria Park and Cobourg Beach.

Lands directly north of the site are designated as an Environmental Constraint Area on Schedule A of the Official Plan. These areas include lands which have inherent environmental hazards, are environmentally sensitive or which have a role in protecting the natural environment. Development is generally not permitted in these areas, outside of recreational uses which have a minimal impact on the natural environmental features and ecological functions of the area.

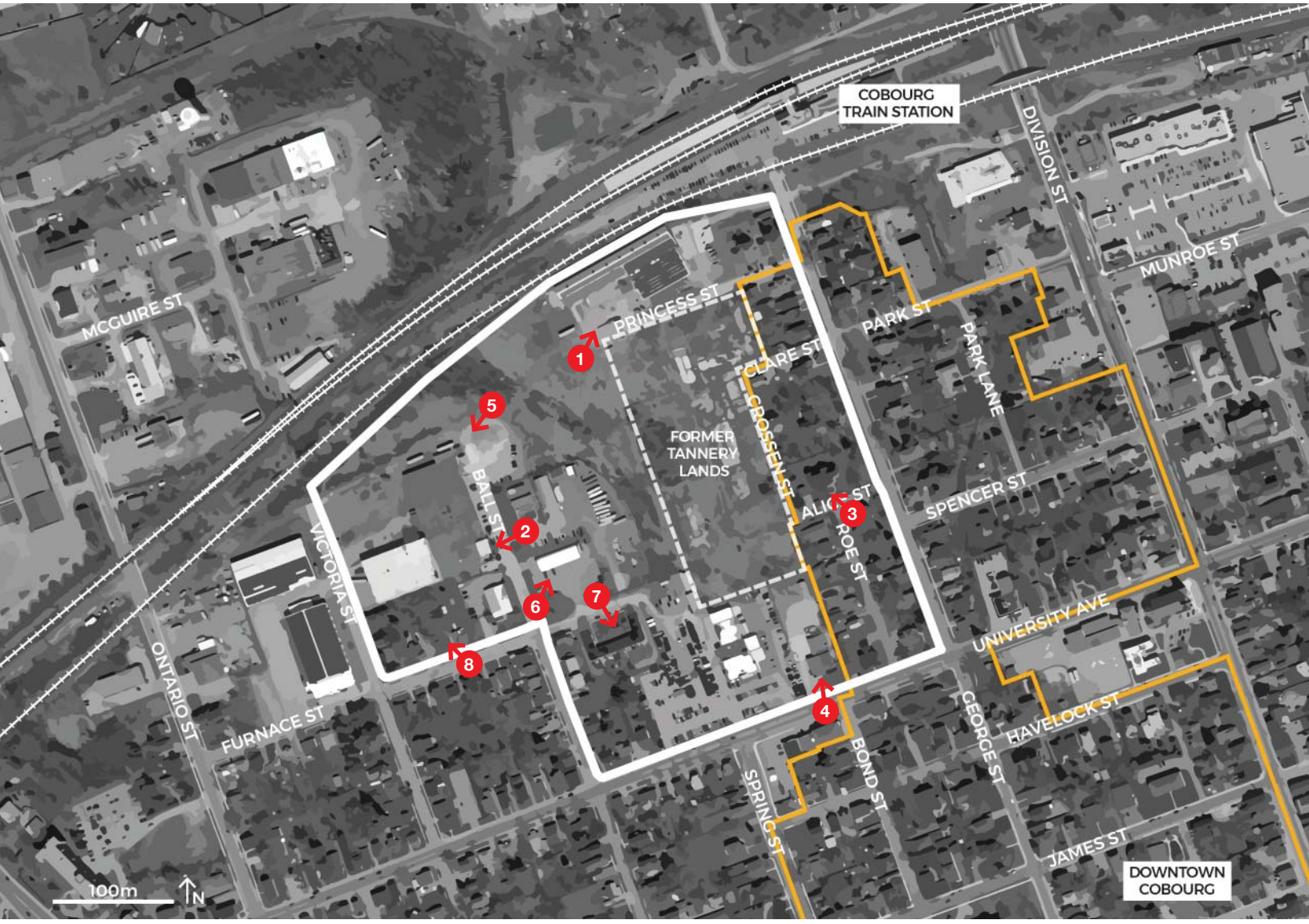
Midtown Creek runs generally north-south on the east side of George Street, just east of the Study Area. Adjacent to the Study Area, the creek is within an identified Special Policy Area overlay denoting an area that has historically existed within the floodplain and where site specific policies limit any modification or development within this area to mitigate impacts from potential flooding. No portion of the Special Policy Area is within the Study Area.

EXISTING LAND USE

The majority of the Study Area is comprised of existing industrial development, generally focused around Ball, Princess and Furnace Streets. The Tannery Lands itself is cleared of all structures. West of the Tannery Lands is a vacant parcel of land, which appears to have been used historically as a rail spur extending south to the waterfront from the main railway line. The lines have now been removed. The residential area along the eastern edge of the site includes a range of detached dwellings, with some medium density development including townhomes and small apartments.

LEGEND

- Environmental Constraint
- Special Policy Area
- Watercourse
- Industrial Use
- Residential Use
- Commercial Use



3.4 BUILT FORM CHARACTER-ISTICS

The Tannery District site currently comprises of a mix of uses including Industrial, Commercial and Low Density Residential. Low density detached residential along the eastern perimeter of the site is considered to be of heritage value and is included in the George Street Heritage Conservation District (HCD). The George Street HCD and built form characteristics of these heritage dwellings are discussed in greater detail in Section 3.2. of this document.

Residential lots that are within the Tannery boundary, but outside the George Street HCD are generally low scale, detached small lot housing along Furnace and Ball Streets. One medium-density, 2 storey apartment block is located at the eastern end of Furnace Street, backing onto the Auto Dealership fronting University Avenue.

The recently renovated Auto Dealership consists of a 2 storey, predominantly glass display room with associated vehicle parking. The building is set back approximately 35m from the University Avenue frontage. A single storey brick commercial property sits between the dealership and residential uses within the George Street HCD.

The remainder the of the site is predominantly Industrial, in a variety of forms, but low scale. The 'Former Tannery Lands' in the centre of the site has been cleared of structures with only broken concrete foundations remaining.

The Princess Street Industrial lot consists of a large 2 storey warehouse structure with adjoining office. Heavy vehicles load from this location.

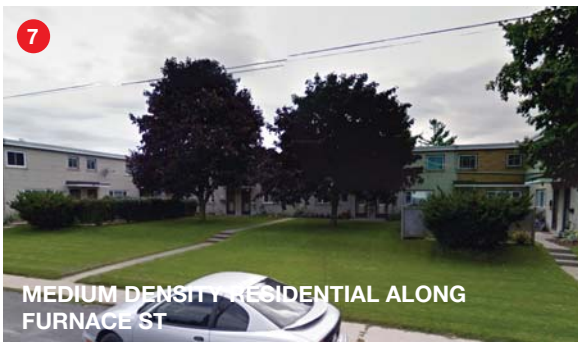
Industrial at the northern end of Ball Street is primarily used as a storage and transfer facility, with

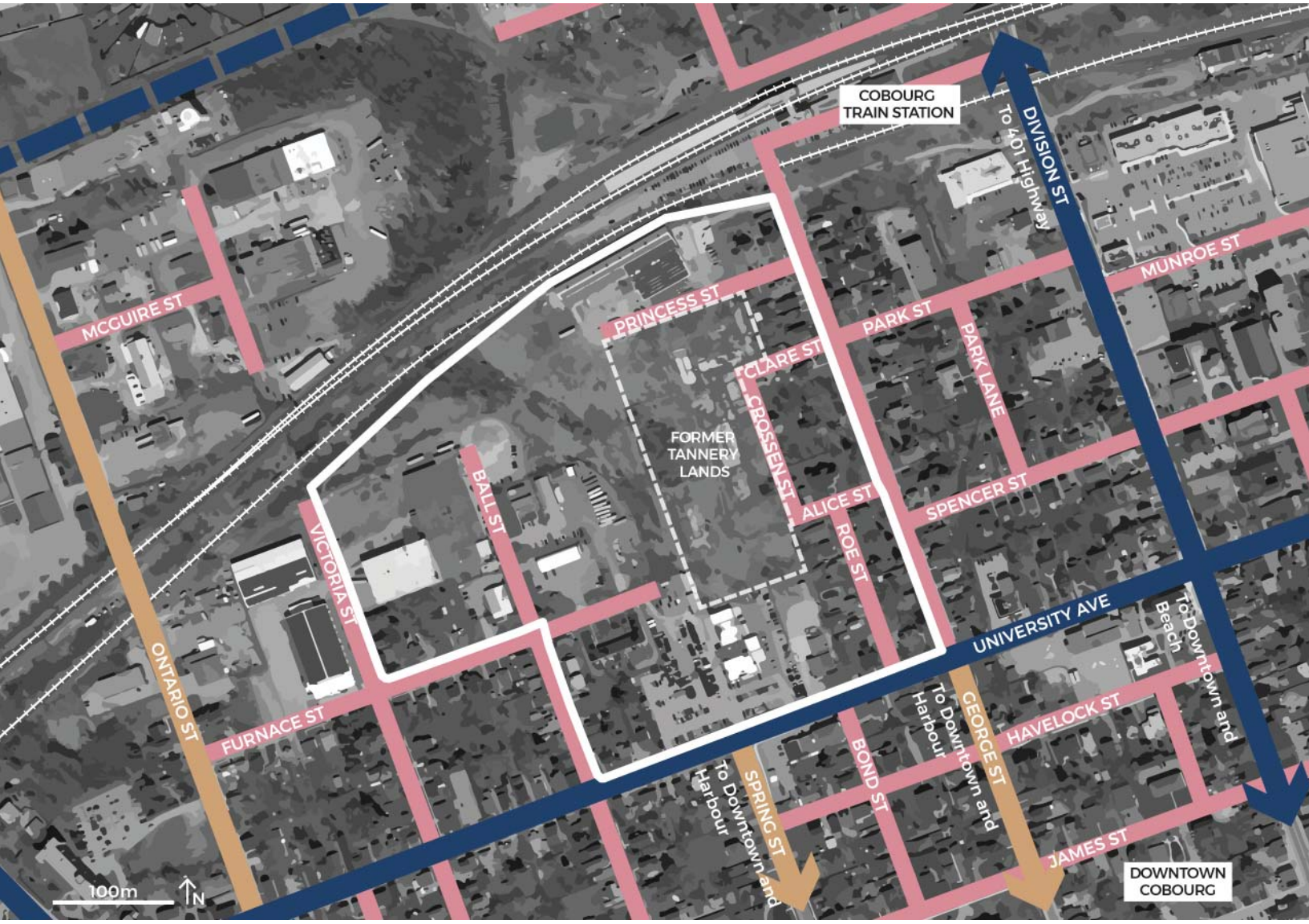
LEGEND

George Street Heritage Conservation District

several loading docks for heavy vehicles and parking for cars. A 2 storey brick commercial office is adjoining.

The remainder of Ball Street houses more 'temporary' structures for industrial uses and longer term heavy vehicle parking.





3.5 VEHICLE CIRCULATION AND PARKING

Vehicle access to, and through, the Tannery District is currently limited. A number of streets, including Princess Street, Clare Street, Alice Street, Roe Street, Spring Street and Ball Street provide direct access into the Tannery District site, however, these streets are discontinuous and generally used for access to private homes and/or businesses. Immediately surrounding the Tannery District, these streets form an integral part of the Town's street network, reinforcing a strong grid with nearby Arterial Roads, including University Avenue and Division Street. A rail corridor to the north of the site limits connectivity to the north, with only Ontario Street and Division Street providing continuous vehicle connections.

University Avenue is a two-lane Arterial Road. Within the Tannery District, University Avenue is characterized by a mix of single-family residential dwellings, offices, and commercial sites, including a large, auto-oriented use that is set back significantly from the street with extensive front yard parking. As the neighbourhood evolves, University Avenue will become a key frontage for the Tannery District, and the predominant east-west thoroughfare for future residents and visitors. Outside of the Tannery District (west of Ball Street and east of Division Street), University Avenue has sharrows and a bicycle lane on the southern side of the road, providing further connections to lanes on King Street and to the Waterfront Trail.

George Street, part of the George Street HCD, is a two-lane road with sidewalks on both sides. It is lined by single-family dwellings (with some multi-unit residential buildings) with a

LEGEND

- **Arterial Road ROW 26-36m**
- **Proposed Arterial Road**
- **Collector Road ROW 20-30m**
- **Local Road ROW 17-20m**

range of setbacks. The street is typically well landscaped with a mix of street trees and private landscaping. George Street continuous north-south through the entire Tannery District, providing direct access between the Train Station and King Street.

Furnace Street is a two-lane street containing medium and low density residential dwellings on the southern side. The northen side has a mix of light industrial uses and community facilities. There are sidewalks infront of all residential properties. The street is typically well landscaped through private landscaping, and large front-yard trees.

Ball Street, south of Furnace Street, is a two-lane residential street characterized by single-family residential dwellings. There are sidewalks on the west side of the street. North of Furnace Street, Ball Street has no sidewalks and is generally characterized by industrial/manufacturing uses with large, blank walls and limited connection to the street.

Victoria Street is a two-lane Local Road. There are currently no sidewalks, and the buildings on the street, including the Cobourg Memorial Rink and Recreation Centre and a large manufacturing building, include large, blank walls and outside storage uses.

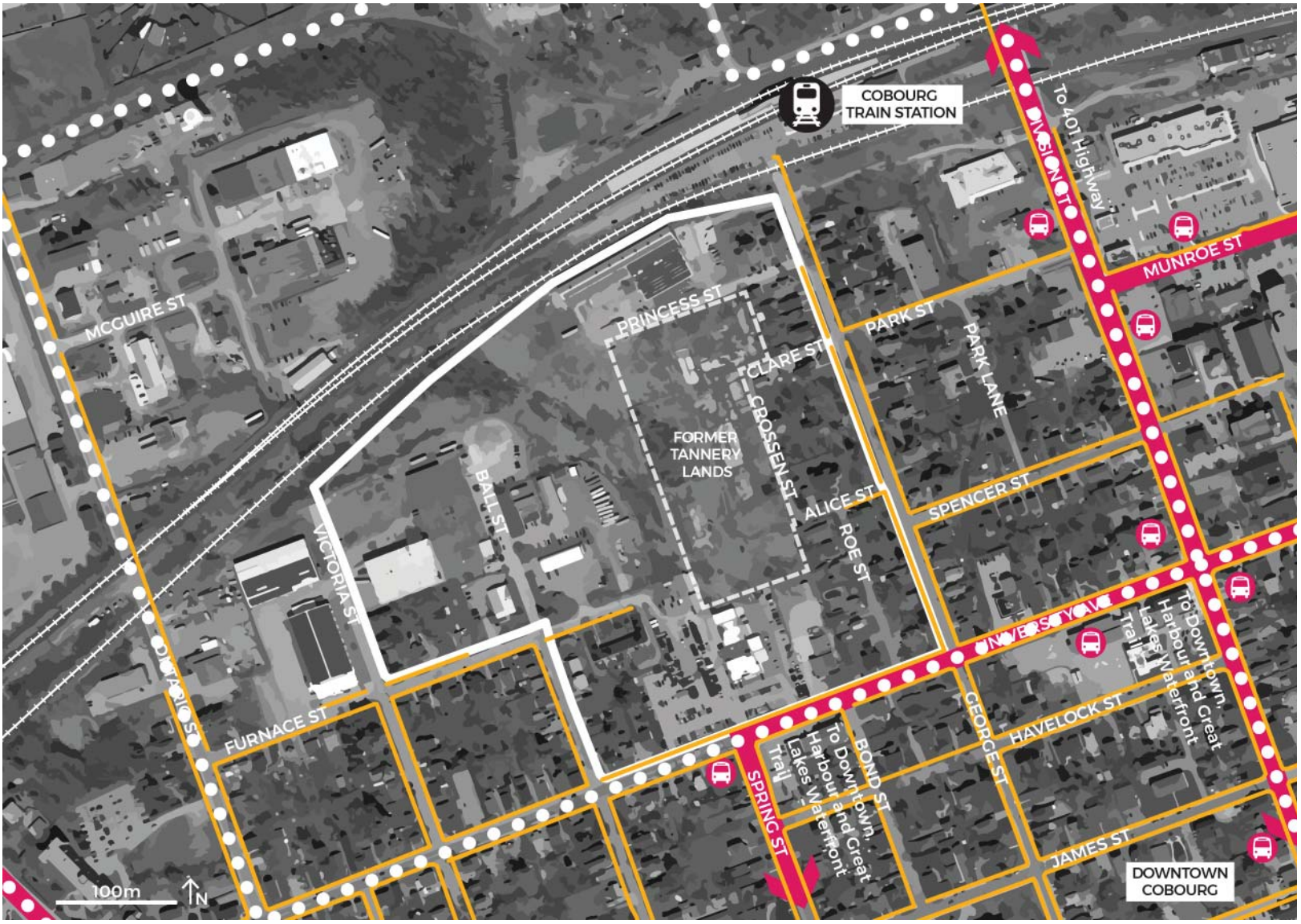
Princess Street, Roe/Crossen/ Alice Streets, and Roe Street are all narrow roads that provide access to residential uses. With the exception of a small section of Alice Street, there are no sidewalks on these streets. Though narrow, the streets are generally well-landscaped through generous private trees and landscaping.

PARKING

Parking within, and in close proximity to, the Tannery District is limited to private parking lots related to local commercial and industrial uses, as well as a large lot at the ViaRail Station dedicated to rail passengers. The majority of public parking in the Town is concentrated in the downtown within a 10-minute walk from the Tannery District.

The Cobourg Downtown Parking Study (2014) concluded that existing parking facilities were sufficient to accommodate peak parking demands in the downtown. When considering potential future intensification, it was determined that the Town should generally aim to maintain the existing equilibrium and ensure that any large loss of parking through redevelopment is replaced through expansion of existing facilities or the acquisition of new facilities.

As the Tannery District redevelops, an holistic approach to parking will be required that considers the Tannery District within the broader town, while balancing the sustainability objectives of the site.



3.6 PEDESTRIAN CIRCULATION

Pedestrian access to, and through, the Tannery District is currently limited. At the edges, along University Avenue, George Street and many of the internal streets, sidewalks provide safe pedestrian circulation. However, access into the former Tannery Lands, and much of the study area, is restricted through chain link fencing. Some informal pathways exist, but are not appropriate for safe pedestrian circulation.

Beyond the study area, University Avenue, Ball Street, Spring Street and George Street provide continuous sidewalks on both sides of the street and facilitate direct connections to the downtown and waterfront, as well as nearby amenities.

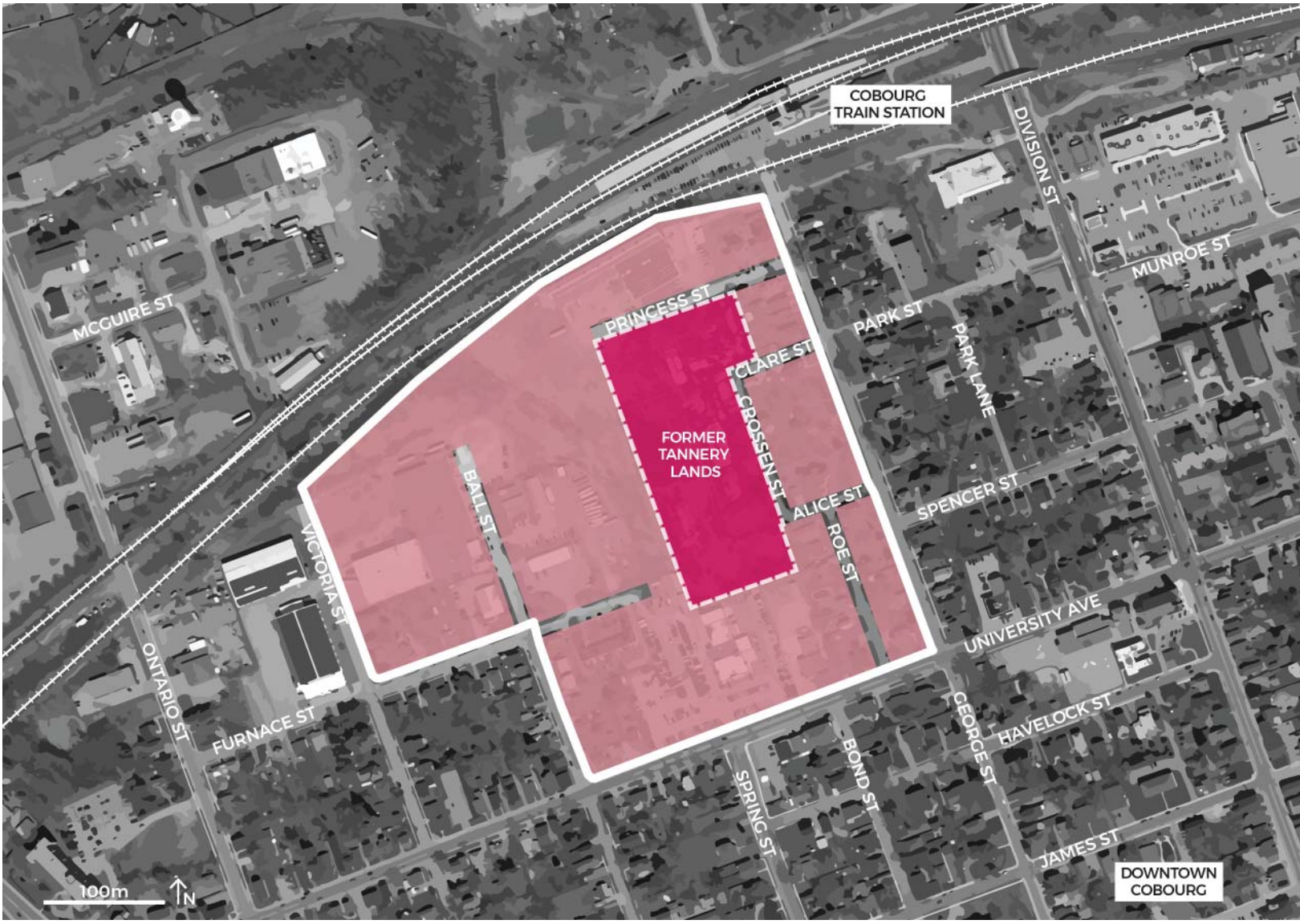
Due to the rail corridor, pedestrian connections to the north are limited to George Street and Ontario Street.

Cycle routes are designated along the major thoroughfares around the site; University Avenue, Division Street and Ontario Street. Division and Ontario Streets also provide a connection to the Great Lakes Waterfront Trail. The Great Lakes Waterfront Trail follows the shores of Lake Huron, Lake St. Clair and Lake Erie, Lake Ontario and the St. Lawrence River, connecting communities from Grand Bend to the Quebec border.

Cobourg Transit provides 2 bus routes that service the town. There is a bus stop located directly opposite the site at the corner of University Avenue and Spring Street which feeds into the Downtown core. Both routes operate along Division Street to connect passengers to and from the Train Station.

LEGEND

- **Bus Route**
- **Bus Stop**
- **Existing and Planned Bicycle/Pedestrian Path**
- **Paved Sidewalks**



3.7 PROPERTY OWNERSHIP

The majority of the parcels located within the Tannery District are privately owned.

The 'Former Tannery Lands' were acquired by the Town of Cobourg in 2010.

LEGEND

- **Town of Cobourg**
- **Private Ownership**

3.8 SERVICING AND INFRASTRUCTURE

C.F. Crozier & Associates have prepared a draft Functional Servicing and Transportation overview report as part of this Background Study. A full copy of this report can be found in Appendix C. Conclusions and recommendations from the report are as follows;

- Tannery Lands re-development population was estimated at 700 people and jobs, reflecting intensification initiatives.
- Municipal sanitary treatment system has a reserve capacity of 2,862m3/day (4,424 people) and can adequately service the future development of the Tannery district.
- Sanitary sewers internal to the Tannery Lands likely have sufficient capacity to convey future development demands. Further analysis will be needed to assess the quality of internal sewers and the up-stream flows contributing to trunk sewers.
- Municipal water distribution system is currently servicing the Town, and operating at 42-45% capacity, as advised by Lakefront Utilities Inc.
- Water services internal to the Tannery Lands are adequately sized to convey future water demands. Further analysis will be required to calculate individual fire flow rates.
- The Lands drain stormwater flows from north to south along larger storm sewers. Post-development flows will likely increase as a result of development. Lot level controls may be required to convey peak run-off from the site.
- Full SWM facilities will likely be required to meet quality, quantity and erosion control criteria to comply with GRCA guidelines. Such facilities as SWM ponds, oil-grit separators and hybrid/ vegetated filtration techniques will need to be correctly implemented to meet design criteria.
- Soil types within the Tannery district will suitably provide infiltration for the implementation of low impact development techniques. Such techniques will aid in promoting ‘sustainable development’ of the Tannery Lands.
- An active transport network surrounding the Tannery District lands provides adequate connectivity to downtown Cobourg. Future development on the subject lands should provide connectivity with the existing active transportation network; however, as some roadways do not provide pedestrian facilities, optimum routes should be further explored.
- The Town provides transit services along key arterials and collectors, providing connectivity to Downtown Cobourg. Opportunities for improvements in headway and service routes exist, but should be further explored in consideration of specific transit objectives. Future development should ensure adequate pedestrian connectivity to the existing VIA Rail station.
- In achieving a multi-modal transportation network, future Rights-of-way on the subject lands should accommodate transit vehicles, cyclists and pedestrians in a “complete streets approach”; with adequate transportation facilities to and from transit stops.
- The subject lands provide opportunities to achieve the Town’s sustainability objectives. Opportunities exist via Transportation Demand Management (TDM) strategies, parking strategies, site design and provision of electric vehicle charging stations, but should be further explored to identify constraints for implementation and integration with the existing road network.

3.9 MARKET OVERVIEW

As housing prices continue to rise across the GTHA, recent trends suggest that this is driving significant growth in nearby smaller communities, particularly those within commuting distance of the GTHA, and/or with unique qualities, such as waterfronts, heritage downtowns, etc. This includes first time homebuyers, but also those closer to retirement who are looking to take advantage of the strong market by selling their properties and relocating to communities such as Pickering, Ajax, Shelburne, Orangeville, King Township, Stouffville, and potentially, Cobourg. As this growth occurs, however, much of it is being accommodated outside the core of these communities, resulting in significant sprawl, auto-dependency, and an increased carbon footprint. With recent changes to the Growth Plan taking effect, sites like the Tannery District represent a significant opportunity to capitalize on the abovementioned trends, concentrating new growth in a sustainable manner that is within walking distance of the Downtown core and direct rail access to Toronto.

An analysis of the current and future market conditions and growth was undertaken by AltusGroup (August, 2017).

Key findings included:

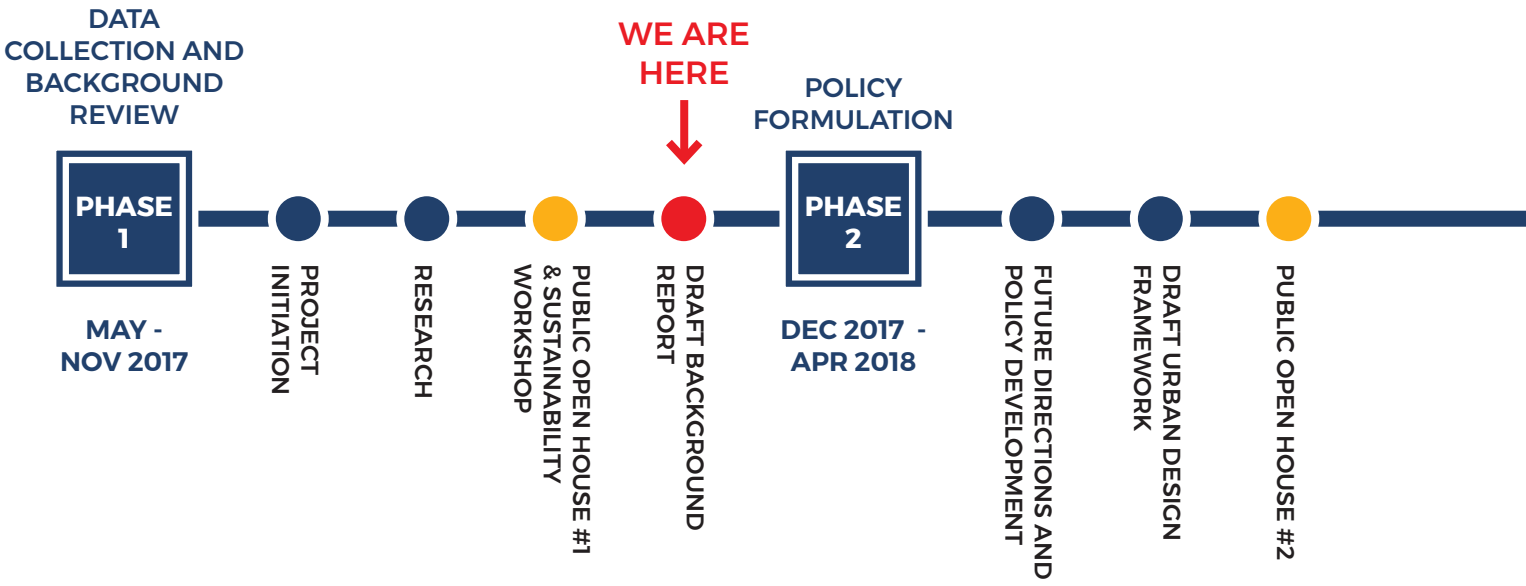
- Cobourg accounted for almost 23% of Northumberland County's population in 2016.
- Apartment and townhouses combined accounted for almost 40% of the household growth in Cobourg during 2011-2016, and forecasts suggests this trend will continue with a significant share within the Downtown.
- A significant driver of new residential growth in Cobourg is focused on seniors.
- There is sufficient developable land in Cobourg to accommodate the forecasted growth over the next twenty years.
- Cobourg has an active development community with several residential projects underway, and several others in various stages of application.
- The Tannery District site is an attractive location for new housing, but will face competition from other housing projects. Marketability of the site can be enhanced through affordable housing initiatives, innovative open spaces, retirement facilities, etc.
- Employment is growing in the Town of Cobourg, with manufacturing, trade, health care, accommodation, and food services comprising 60% of the jobs.
- Total employment is projected to increase by 3,100 by 2041.
- While manufacturing is dropping across Northumberland County, the impacts in Cobourg have been less due to the strength of the food manufacturing industry, and a renewed investment in manufacturing within the Town's economic development Strategy.
- Tourism has also been identified as a focus area for ongoing investment and economic development.
- The Town is actively working on the vitalization of the Downtown, increasing both the number of businesses, as well as the number of consumers, through the enhancement and redevelopment of existing sites into mixed-use developments. Any employment related uses in the Tannery District should look to complement, rather than compete with, these uses.
- The viability of minor service commercial uses is positive with the development of new residential uses.

In addition, AltusGroup considered the value of Employment Land Conversion at the site, and concluded that:

- The lands are not required for employment purposes.
- There is a need for conversion.
- The conversion will not affect the municipality's ability to meet its employment projections.

The above reflects some of the key market trends to date. As the study evolves, these findings will be revisited and evaluated against the emerging Sustainable Neighbourhood Master Plan concepts to inform the creation of innovative, but viable, plans. For the full market analysis, please refer to Appendix D.

4.0 NEXT STEPS



4.1 PRIORITY DIRECTIONS

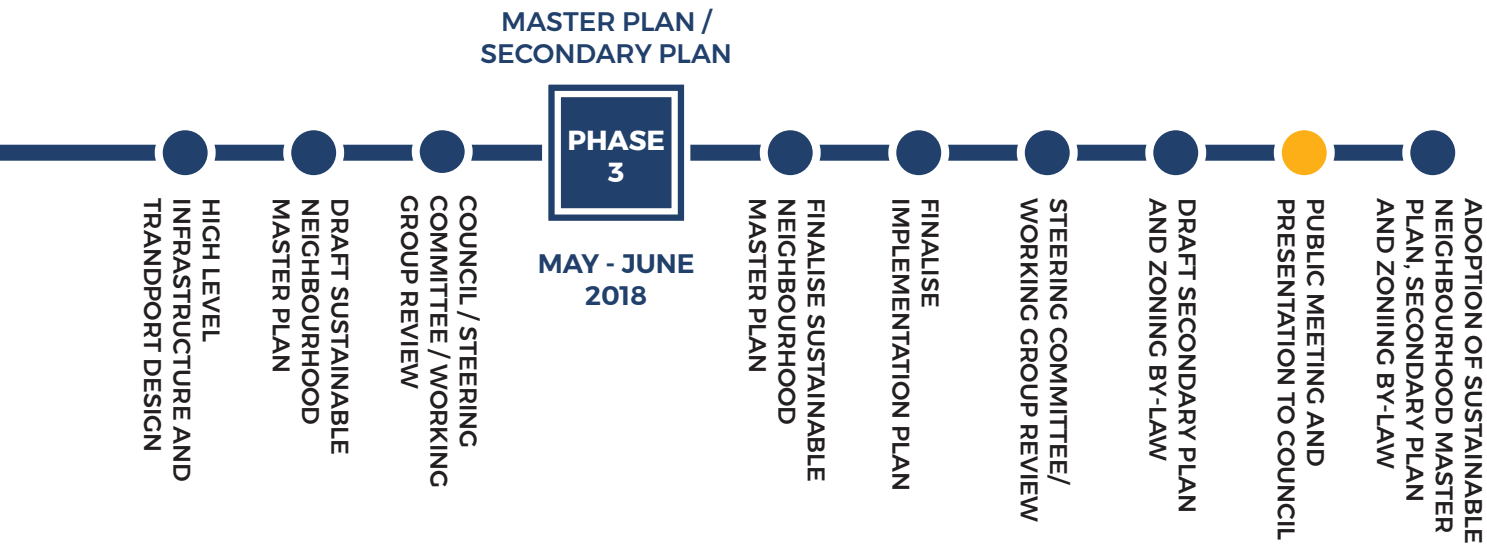
Building on the work completed to-date, including the Community Improvement Plan, the associated Design Charrette and the initial Sustainability Workshop, the following Priority Directions have been formulated. As the study progresses, the Priority Directions will be used to inform the development of the Sustainable Neighbourhood Master Plan and will form the basis of the next public workshop. Participants will be encouraged to evaluate the options and the 10 One Planet Living principles, to determine their preference. Feedback from the workshop will be used to refine a preferred Master Plan, and subsequent Secondary Plan.

HEALTH AND HAPPINESS

1. Prioritize healthy, active living in all aspects of community design, including housing, transportation, recreation, employment, and culture.
2. Provide significant open space to ensure opportunities for active and passive recreation, and places to gather and socialize for people of all ages and abilities.
3. Design and locate public open spaces to promote social, physical and mental health.
4. Locate new buildings to frame public spaces and to enhance comfort and safety throughout the day.
5. Integrate educational opportunities (i.e. signage, programming, etc.) throughout the Tannery District to identify, celebrate and enhance understanding of sustainable designs.

EQUITY AND LOCAL ECONOMY

1. Provide a variety of housing types to promote diversity and accommodate residents of all ages, incomes and abilities.
2. Explore innovative opportunities to provide affordable housing and opportunities to age in place (i.e. co-operative housing, co-living, etc.).Provide strategically-located mixed-use buildings that create a concentrated hub of activity, including convenience retail, community gathering spaces, etc.
3. Support unique and innovative employment opportunities (i.e. live/work, co-working space, artist studios, etc.) that will augment uses in the Downtown.
4. Provide a variety of amenities (i.e. daycares, convenience stores, drycleaners, etc.) to allow residents to fulfill their daily needs within walking distance.



CULTURE AND COMMUNITY

1. Ensure development in the Tannery District is compatible in scale, massing and character with the surrounding context (i.e. George Street HCD, Downtown).
2. Promote a balanced and feasible approach to height and density that supports transit, maximizes the efficient use of infrastructure, and responds to the local market context.
3. Reinforce a strong entryway (i.e. at Spring Street) that distinguishes the Tannery District as a unique destination with a distinct character and history.
4. Identify strategic locations for public art (i.e. open spaces, terminus streets, etc.) that celebrates the industrial history of the Tannery District.
5. Provide centrally-located facilities to support community events, and encourage a culture of collaboration and sharing.
6. Reveal and celebrate sustainable technologies in buildings and landscapes through educational signage, interactive elements, etc.

LAND AND NATURE

1. Provide a landscaped buffer along the rail corridor to mitigate noise while making functional use of the required rail setbacks for ecological continuity.
2. Provide extensive trees and landscaping, within both the public and private realm, to create a robust and continuous urban tree canopy.
3. Promote the use of soil-cell technology within the public realm to ensure trees reach their optimal size and stature.
4. Trees and landscaping should be native, drought-resistant species to reduce maintenance, invite small wildlife and pollinators (i.e. birds, bees, butterflies, etc.), and to restore local ecological systems.

SUSTAINABLE WATER

1. Respond to the natural and existing grades and overland flow patterns in the placement and design of new buildings and open spaces.
2. Reduce impervious surfaces through the use of LIDs, green roofs, permeable paving, etc.
3. Explore the use of water collection technologies (i.e. cisterns, LIDs, rain gardens, bioswales, etc.), for both public and private use, to minimize the requirements of potable water for irrigation.

LOCAL AND SUSTAINABLE FOOD

1. Accommodate community gardens to promote the use of local food, both on-site and within Downtown businesses, while exploring partnerships with the Cobourg Farmer's Market.
2. Explore opportunities to locate community gardens, green houses, etc. within the required rail corridor setback and elsewhere throughout the community.
3. Support community gardens, and similar initiatives, with educational programming, signage, public art, etc.

TRAVEL AND TRANSPORT

1. Provide a compact, well-connected street and pedestrian network through new streets and the logical extension of existing streets.
2. Design streets to reflect a clear hierarchy (i.e. local, collector, arterial) and to generally prioritize pedestrians and cyclists on internal streets.
3. Provide a pedestrian supportive-streetscape along University Avenue, including street trees, seating, signage, public art and continuous cycling facilities.
4. Promote and support vehicle and bike-share programs to minimize parking requirements and vehicle emissions.

MATERIALS AND PRODUCTS

1. Maximize the use of local building materials in the construction of buildings and public spaces.
2. Wherever possible, re-use existing materials on site (i.e. old foundations re-used within the road base).
3. Materials should be durable, and should reflect the local and historic context.

ZERO WASTE

1. Explore opportunities for on-site waste management and re-use solutions that prioritize waste as a resource and minimize landfill.
2. Large existing industrial sites should be redeveloped for higher density residential redevelopment (i.e. townhouses, apartment buildings, etc.).

ZERO CARBON ENERGY

1. Promote high-performance buildings that are designed and oriented to maximize solar exposure and minimize carbon impacts throughout their life-cycle.
2. Where possible, the neighbourhood or individual buildings should produce their own energy (e.g. solar panels) and strive to create a “net-zero” neighbourhood.
3. Encourage both active and passive green roofs wherever possible to reduce run-off, capture heat and extend useable open space.
4. Explore opportunities to integrate other sustainable energy technologies within open spaces (i.e. geothermal heating).

APPENDIX A: PRECEDENT STUDY

THE TOWN OF COBOURG
SUSTAINABLE NEIGHBOURHOOD MASTER PLAN
FOR THE TANNERY DISTRICT

SUSTAINABILITY COMMUNITY PRECEDENT SUMMARY

Prepared by: URBAN EQUATION

July 19, 2017

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FCM

INTRODUCTION

The following sustainable communities will be used as precedents to inspire, guide and inform the Sustainable Neighbourhood Master Plan & Implementing Secondary Plan/Zoning By-law project for the Tannery District. The key sustainability features of the communities are presented here. The history, planning and implementation strategies behind these projects will also be used to help define how ambitious goals were realized.

Precedents were analysed and compared against the ten principles from the One Planet Living framework (see principle list and description below). While most communities implemented features in all categories, only exemplary features are described in this summary.

ONE PLANET LIVING PRINCIPLES

Health and happiness

Encouraging active, social, meaningful lives to promote good health and wellbeing

Equity and local economy

Creating safe, equitable places to live and work which support local prosperity and international fair trade

Culture and community

Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living

Land use and nature

Protecting and restoring land for the benefit of people and wildlife

Sustainable water

Using water efficiently, protecting local water resources and reducing flooding and drought

Local and sustainable food

Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein

Materials and products

Using materials from sustainable sources and promoting products which help people reduce consumption

Travel and transport

Reducing the need to travel, encouraging walking, cycling and low carbon transport

Zero waste

Reducing consumption, reusing and recycling to achieve zero waste and zero pollution

Zero carbon

Making buildings and manufacturing energy efficient and supplying all energy with renewables

SUSTAINABLE COMMUNITY PRECEDENTS

Image source: zibi, Windmill Development Group

South East False Creek, Vancouver, BC

Image source: City of Vancouver

Southeast False Creek (SEFC) was designed as a mixed-use community with the 2010 Olympic Village at its core. It committed to meeting LEED ND silver, with the goal of meeting the gold standard. The development surpassed this goal by becoming the second neighbourhood in the world to meet the platinum standard in 2011.

Key project stats

Location	Vancouver, BC
Land Size	80 acres
Building GFA	1.4M existing, 6M new sq ft
Population	12,000 (at build out)
Rating System	LEED ND Platinum
Owner/Developer	City of Vancouver/Various

Key sustainability features

- The Neighborhood Energy Utility's five exhaust pipes are hung with LED lights (the visual effect being "fingernails" at the top of the pipe fingers) that can be programmed to change colours to educate community on energy use.
- Services during construction were procured from inner city businesses and 120 inner city residents were trained and placed in construction jobs. Athlete's Village contributed 250 units of affordable housing.
- Rainwater is harvested for uses such as irrigation and toilet flushing.
- All projects are required to use the SEFC Neighbourhood Energy Utility, which reclaims waste heat from the sewer system and uses it to warm coolant water via a heat exchanger. In the Olympic Village, the warmed water then circulates through buildings' innovative radiant capillary mat heating system.

Key planning and implementation strategies

City Council decided the first SEFC study, which replicated the developer-friendly status quo of existing neighbourhoods, did not meet their goals and developed a Policy Statement for SEFC to generate a set of performance targets. This led to four major environmental studies to support a preliminary Official Development Plan (ODP): SEFC Urban Agriculture Study, SEFC Energy Options Study, SEFC Water and Waste Management Plan, and the SEFC Transportation Study. Two additional studies assessed the potential for applying LEED building designations to the SEFC project, and reviewed the four main environmental studies to combine their recommendations in a meaningful way for the Official Development Plan and Urban Design Guidelines for SEFC. Key indicators were developed to put this vision into Ten Principles of Sustainable Development and five categories of Performance Targets.

Mariposa District, Denver, Colorado

Image source: Denver Housing Authority

Formerly a distressed public housing development next to a contaminated site, Mariposa now offers residents affordable and market-rate living options with easy access to light rail transportation. Goal was to demonstrate renewable energy, measure performance, energy efficient buildings with lower operating costs, aggressive carbon footprint reduction, sustainable materials utilization, natural process stormwater management, healthy food access benefits, multifaceted education opportunities and job training access in a transit based neighborhood that promotes a walkable, safe, sustainable community.

Key project stats

Location	Denver, Colorado
Land Size	17.5 acres
Building GFA	457 of 800 planned units complete so far, (300 affordable, 147 market-rate),
Population	2000
Rating System	LEED NC Platinum and Gold
Owner/Developer	Denver Housing Authority (DHA)

Key sustainability features

Physical activity is encouraged through thoughtful design and programming choices: an active staircase includes buttons in the railings that trigger sounds and lights to make taking the stairs attractive to children. The on-site café offers cooking classes and affordable, healthy meals made by area youths training for jobs in the culinary arts. Murals and public art were commissioned on buildings and in plazas to support neighborhood safety and reflect cultural diversity in the public realm. Resident retention rate was 45 percent.

Community gardens and a greenhouse provide residents with the opportunity to engage in physical activity and social interaction while growing fresh produce for consumption in an area of Denver once considered a food desert. A weekly farmers market is run by the Denver Botanic Gardens.

Mariposa is within walking distance of the light-rail station, providing residents without cars with a heathy and affordable way to get around. A B-Cycle bike-sharing station connects residents to Denver destinations throughout. Residents have access to free health care shuttle bus to the local medical plaza.

Key planning and implementation strategies

DHA and their partners began planning for Transit-Oriented Development and completed a cultural audit that revealed residents were afraid of being displaced and wanted new housing to include affordable units. DHA used a customized set of indicators (based on the Healthy Development Measurement Tool from San Francisco) which is based on other standards such as LEED ND. DHA also obtained public input to help shape the master plan, with more than 140 community meetings and group interviews to increase resident involvement.

Dockside Green, Victoria, BC

Image source: Windmill Development Group

A brownfield located on a former industrial site in Victoria's Inner Harbour was revitalized into a model sustainable community with exemplary energy performance, on-site renewable energy sources, on-site wastewater treatment, and a wide array of green building materials. Dockside Green earned the international distinction of being one of 16 Clinton Climate Initiative Climate Positive developments, and is a new benchmark for triple bottom line achievement.

Key project stats

Location	Victoria, BC
Land Size	15 acres
Building GFA	1.3M sq ft
Population	2500
Rating System	LEED ND Platinum; LEED NC
Owner/Developer	Vancity/Windmill Development Group

Key sustainability features

- Dockside's central greenway connects the site to the river and adjacent neighborhoods via a constructed stream and terraced ponds, managing stormwater and providing habitat. Rehabilitated shoreline including a new beach, tidal pool, all native or adaptive plant species, reintroduction of crayfish to improve water quality, and extensive tree planting to provide shade and cooling, promote urban ecology and habitat.
- Developers built a membrane bioreactor package wastewater treatment facility that treats all wastewater on-site and then reuses the treated water for toilets and landscape irrigation, an anticipated reduction of 65% over baseline water usage. After years of dumping its raw sewage directly into the ocean, Victoria's new municipal treatment system will cost homeowners approximately $500 a year in assessments. Dockside Green residents are exempt from such fees.
- Bio-solids from sewage treatment plant used as compost for landscape and could possibly fuel biomass gasification plant. Salvaged wood products to promote sustainable harvesting practices, GHG-neutral tiles, carpets with low emissions. Bamboo flooring and cabinets, and divert 90% of construction waste.
- With a goal to be GHG neutral, the developers pursued a district energy system fueled by resource recovery of waste wood to energy in a biomass gasification facility. Although not fully online yet, operation would allow Dockside Green to be the first North American community to be "greenhouse gas positive."

Key planning and implementation strategies

Public amenities and environmental benefits were part of the sale agreement negotiated between the city and developers in exchange for a reduced price of $8.5 million for the land. Lesson learned to stage delivery of common amenities to development phasing. The city had required the delivery of amenities within certain time frames. Dockside Green fully built out its energy system, but had only delivered 25% of the built form, when market shifted in 2008, which resulted in a lot of 'sunk-cost'.

Zibi, Ottawa, ON

Image source: Windmill Development Group

Located on both sides of the Ottawa River, Zibi is transforming a neglected brownfield industrial site into a world-class, pedestrian-oriented, mixed-use community. This award-winning master plan has been endorsed as the only One Planet Living community in Canada, making Zibi one of the world's greenest communities. It is estimated to create 500 new permanent jobs and maintain a 90 percent walkability score. Twelve percent of the master planned area is dedicated to public space.

Key project stats

Location	Ottawa, ON / Gatineau, QC
Land Size	37 acres
Building GFA	~92,900 m2;1200 residential units, 6900 m2 retail & 9500 m2 office
Population	~2000
Rating System	One Planet Living
Owner/Developer	Windmill Development Group, Dream

Key sustainability features

Connect building occupants with the outdoors, reinforce circadian rhythms, and introduce daylight. Promote occupants' comfort, well-being, and productivity by improving indoor air quality.

Achieve near-zero export of pollutants via stormwater outflow, reduce runoff by replicating natural water balance of site. Eliminate potable water use in landscaping. By 2020, reduce potable water use to 125L/person/day and all new buildings to utilize non-potable water for sewage conveyance. Water metering with high visibility.

Promote sustainable food with home garden spaces, increased access to local foods, and rooftop bee keeping; edible landscaping throughout the site.

Design for hyper-local living, in which any resident can easily walk to their place of work, home of residence or enjoy leisurely activities at the nearby restaurants or green space.

Near zero waste goal (minimize waste generation so that only 2% of waste can end up in a landfill). Divert organic and recyclable waste; reduce total waste produced (including recyclables and organics): to less than 5.6 kg/person/week by 2020.

All buildings are designed to be net zero carbon by 2020, including a net zero district utility system for the distribution of energy, heating and cooling needs. The community energy system includes a heat capture system, ultra-efficient appliances & smart devices, electric car charging stations, optimized building passive heating and cooling, solar generation and ultra-efficient building envelops.

Key planning and implementation strategies

To gain alignment around sustainability and development principles, Urban Equation facilitated several working sessions with a wide-group of stakeholders, including First Nations groups and various government groups. The site plan application was well received by both Ottawa and Gatineau City Planning departments and was approved unanimously by both City Councils in record time.

Greensburg, Kansas

Image source: BNIM

After a tornado severely damaged 95% of the small town of Greensburg, the community committed to rebuilding as a model sustainable community. It is now home to the most LEED buildings per capita in the U.S. and a model of how clean energy can bring jobs, businesses and opportunity back into a devastated place.

Key project stats

Location	Greensburg, Kansas USA
Land Size	946 acres
Population	777
Rating System	LEED NC
Owner/Developer	Various

Key sustainability features

Financial incentives for energy efficiency and renewable energy for the business sector, including:
- Energy Saving Performance Contracts
- Incentives for Energy Efficiency and Renewable Energy

A Business Incubator building provides start-up space for small businesses to grow for a limited period of time at attractive rental rates until they can relocate or build a larger facility. A loyalty card for shopping locally and for using locally provided services.

Achieved 100% Renewable Energy, 100% of the Time. The Greensburg Wind Farm consists of ten wind turbines that supply 12.5 MW of renewable power to the town—enough to power every house, business, and municipal building in Greensburg. The town uses only about 25% to 30% of the power generated and excess power is sold back on the grid as renewable energy credits.

Key planning and implementation strategies

Greensburg gathered a diverse group of experts, including the Department of Energy (DOE) and National Renewable Energy Laboratory (NREL), to help make their vision of rebuilding green a reality. The town developed a master plan for community redevelopment, and the residents formed a nonprofit organization “Greensburg GreenTown” to provide resources and support. Incorporating energy efficiency targets and clear implementation recommendations into the master planning process was a key early step for Greensburg to reach its energy efficiency and renewable energy goals. The city passed an ordinance in December 2007 that all city-owned buildings (more than 4,000 sq.ft.) must be designed to LEED Platinum rating—with a minimum of 42% energy savings. This encouraged other projects to consider similar goals and create a sustainable business environment.

Wesbrook Village, Vancouver, BC

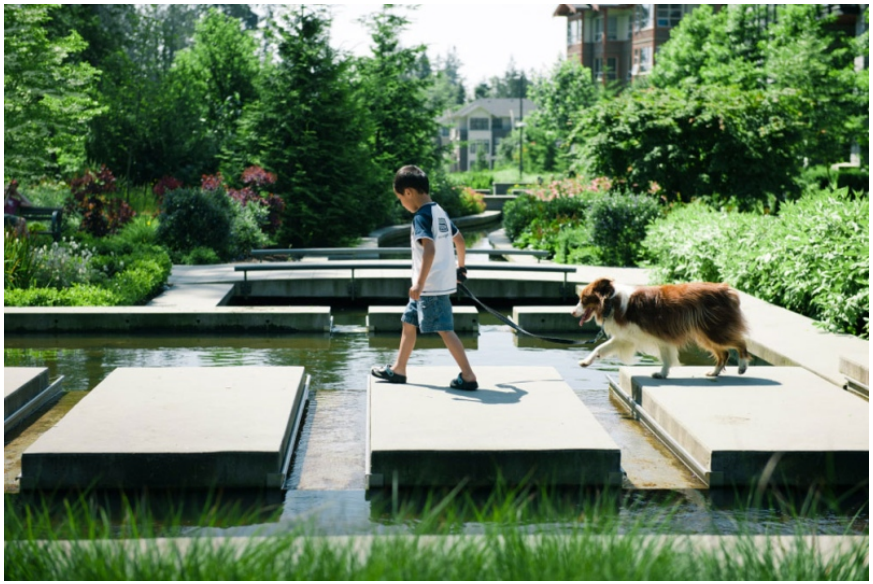


Image source: Wesbrook Village

Wesbrook Village was designed since 2005 to be a compact and complete community and to bring to life a thriving sustainable neighbourhood on University of British Columbia (UBC) campus. The community provides high density living with connections to nature, with diverse housing that supports a range of needs with an emphasis on work-study housing, 20% rental units, and family units.

Key project stats

Location	Vancouver, BC
Land Size	115 acres
Building GFA	6M sq ft
Population	12,500
Rating System	UBC's Residential Environmental Assessment Program (REAP)
Owner/Developer	Wallgroup of Companies, Adera, Polygon Homes

Key sustainability features

UBC built the green infrastructure before the residences themselves. The infrastructure consists of green streets that form of a network of car-free walkways every second street, and water features along each green street, which provide both amenity and rainwater management. The water follows the natural hydrologic cycle and carrying rainwater from a pond located in a community park. This allows residents to see the water move as part of their community design.

UBC required native species augmented by other drought tolerant species to preserve the integrity of the historical ecosystem and provide habitat. Any viable mature trees had to be replaced at a ratio of 1:1. Community garden plots are provided so that everyone who wants to garden can grow their own food, teach their children.

Key planning and implementation strategies

The Design Vision Supplement required social spaces with interaction and play to be included in design of outdoor spaces. Buildings must meet UBC's REAP guidelines for sustainability.

BedZED, Hackbridge/Beddington, UK

Image source: ZedFactory

The Beddington Zero Energy Development, the UK's first large-scale, mixed-use eco-village, was conceived in 1997 and completed in 2002.

Key project stats

Location	Hackbridge/Beddington, UK
Land Size	3.5 acres
Building GFA	112,000 sq ft
Population	244
Rating System	One Planet Living
Owner/Developer	Peabody/Bioregional

Key sustainability features

- Designed to be fossil-fuel free by reducing energy use with high insulation, airtightness, thermal mass and solar gain; using a wood-burning combined heat and power plant (CHP) to generate both electricity and heat; and 777 sq m of photovoltaic panels to generate electricity from sunlight. The brightly coloured rooftop wind cowls rotate to face into the wind and collects fresh exterior air to provide ventilation without electrically powered fans. Energy bills 68% less than for London average.
- Majority of homes have their own gardens and there is a large community playing field and village square.
- Reclaimed structural steel and wall studs from local demolition sites for reuse. Most bulk materials and labour were sourced within a 50 mile radius of the site, keeping the embodied carbon better than typical home despite thicker walls and considerably higher thermal mass.
- Only 0.6 car parking spaces per home. Membership enables residents to use the City Car Club's low-emission, fuel-efficient hybrid car parked at BedZED rather than owning their own car.
- Waste Collector technology captures information about households as they drive, including extra bins, overloaded or contaminated bins, missing bins, low recycling rates and virtually anything else. They communicate to customers to improve recycling behaviour and attitudes. Results in the second highest recycling/composting rate in the country.

Key planning and implementation strategies

The BedZED project introduced the first legally binding Green Transport Plan as a condition of planning permission. On-site charging points for electric cars are available in Sutton town centre.

Greenwich Millennium Village, London, UK

Image source: Smart New Homes

Greenwich Millennium Village is a mixed-use, brownfield redevelopment on waterside that is well-served by transit, with strict parking regulations and a layout that limits through car traffic.

Key project stats

Location	London, UK
Land Size	72 acres
Building GFA	2,956 residential units; 70,396 square feet of office space, and 25,000 square feet of retail property
Population	2300
Rating System	BREEAM Excellent
Owner/Developer	Public/Private Partnership (Countryside Properties, Taylor Woodrow, Thames Gateway, Moat Housing Group)

Key sustainability features

- Site-wide rainwater harvesting is used to feed water into the local ecology park lake. The ecology park, covering 0.2 square kilometers, includes two lakes and a thriving wildlife population. There is a village square, landscaped courtyards, and garden squares are located through-out the residential areas.
- Reduced car dependency is supported by giving priority to cyclists and pedestrians with separated pathways, dedicated secure cycling spaces and electric vehicle charging points.
- Energy display devices are installed in the apartments, enabling residents to understand their energy consumption and help reduce energy use. Passive and active energy management measures include a highly efficient community heating system, high levels of natural daylight, energy-efficient lighting with daylight sensing, composite windows, high performance glazing including triple glazing on some elevations, high levels of thermal insulation, whole-house ventilation heat recovery systems, and air tightness to improve the buildings' fabric efficiency.
- 30% of the units were designated as affordable housing.

Key planning and implementation strategies

Planning conditions were used to require a range of sustainability targets during the life of the project. These included an 80% reduction in primary energy consumption, 30% reduction in water use, 50% reduction in embodied energy, 50% reduction in construction waste and 25% reduction in car usage within 10 years from implementation.

Vauban, Frieburg, Germany

Image source: Construction21

The main goal for Vauban was to become a city district in a co-operative, participatory way that met ecological, social, economic and cultural requirements. The co-operative has built 36 housing units (10 of which are publicly co-financed flats) in the first development section and another 40 units in the second section. The entire project is being monitored using lifecycle and regional material flow analysis with software, including buildings, infrastructure, electricity supply, heat supply, water and waste, traffic and consumption with a full life-cycle perspective.

Key project stats

Location	Frieburg, Germany
Land Size	109 acres
Building GFA	2000 housing units
Population	5500
Rating System	Passivhaus
Owner/Developer	Community owned co-housing, Forum Vauban was founded in 1994 to support the planning and building process

Key sustainability features

Organic household waste is treated with an anaerobic digester. The place contains a unique ecological sewage system in one pilot project: sewage is sucked by vacuum pipes into the digester, generating biogas, which is used for cooking. Grey-water is cleaned in biofilm plants and returned to the water cycle

The district includes streets, cars hardly ever pass through, and car parking is limited. Pedestrian and bicycle paths form a highly-connected, efficient, green transportation network with every home within walking distance of a tram stop, and all schools, businesses, and shopping centers located within walking distance. When moving into Vauban, 57% of the households that previously owned a car decided to let their car go and now 70% of the inhabitants live without a car.

Organic household waste is treated with an anaerobic digester. The district contains a unique ecological sewage system in one pilot project. The system sucks sewage by vacuum pipes to a digester that generates biogas, which is used for cooking. Greywater is cleaned in biofilm plants and returned to the water cycle.

Buildings were required to meet minimum low energy consumption standards of 65 kWh/m2 (i.e., at least half the average German energy standards). Energy and heat are generated by a highly efficient woodchip-powered combined heat and power generator connected to a district heating grid. 42 building units are of the Passivhaus standard, consuming under 15 kWh/m2a. 100 houses adhere to a "net positive" standard, producing more energy than they use, with surpluses sold back to the city grid and profits split between each household. Every building in Vauban has solar panels on its roof.

Key planning and implementation strategies

The district was planned around green transportation, because other than consumption, transportation is the hardest ecological impact of development to reduce. Cooperative local planning is an outstanding characteristic of Vauban that can be transferred to other cities. Awareness raising and integration of residents' individual interests achieved a high level of motivation among residents, local politicians and persons in charge of implementation.

Bo01, Malmö, Sweden

Image source: Sébastien Ludwig; Jonathan Perrin

Bo01 began as an international housing exhibition in 2001 for this formerly industrial, waterfront real estate and transformed into a mixed-use residential community built according to sustainable principles.

Key project stats

Location	Malmö, Sweden
Land Size	44.5 acres
Building GFA	120,000m^2
Population	30,000
Rating System	Green Space Factor
Owner/Developer	City owned, Klas Tham + 20 other developers

Key sustainability features

A Green Area Factor system was introduced to ensure that all developers met an adequate standard that supports an enhanced level of biodiversity. The intention was that greenery or water should be visible from all dwelling units. The city set rules requiring the landscape architect to be engaged at a very early stage to ensure consistency of quality of the residential courtyards.
To ensure that the trees were properly planted and looked after, each developer had to organize long-term management and maintenance as part of the service charges. The developers paid for the trees and all that needed to be done to prepare them for the site.

100% locally renewable. To restrict the usage of energy and heat there were contracts made with the building developers. The starting point was that by the houses 105 kWh/m2/year will be used for both energy and heat. Facilities were made so that the residents can track their energy consumption, with IT-solutions for reading meters and control of energy use and ventilation.

Key planning and implementation strategies

The sustainability accomplishments of Bo01 are attributable in part to the control the city exerted through ownership, goal formulation, and planning. The 20 developers selected for the project committed to material, technological, environmental, and architectural quality measures before any parcel was sold. Since the city owned the property, it funded soil decontamination and the installation of the project infrastructure. The city was responsible for the master plan and sold in small parcels to developers for site design, in coordination with the master plan and the Quality Program. Purchasing the land purchase and decontaminating the soil in order to prepare it for redevelopment— rather than developing other sites with agricultural or habitat value—is a substantial sustainability accomplishment.

Hammarby, Stockholm, Sweden

Image source: Laure Blanco

Previously a run-down, polluted and unsafe industrial and residential area, Hammarby Sjöstad is now one of the world's most successful urban renewal districts.

Key project stats

Location	Stockholm, Sweden
Land Size	494 acres (200 hectares)
Building GFA	11,000 residential apartments when completed
Population	20,000 residents plus an additional 10,000 workers
Rating System	n/a
Owner/Developer	Stockholm City Development Administration and the City Planning Administration/ 40 construction partners

Key sustainability features

- An environmental centre called GlashusEtt provides education about sustainable urban planning and encourages residents to adopt a more sustainable lifestyle.
- Wastewater is used in multiple different ways and then returned to the natural cycle
- Sustainable public transportation consists of electric trains, biogas powered buses and commuter boats.
- Residents are offered recycling stations and food waste collection for biogas production. The sewage from all apartments is cleaned and used to produce biogas used locally.
- All apartments are connected to the district heating system and the household waste supplies fuel for the district heating plant. In 900 of the apartments biogas stoves have been installed. Some apartments also have solar hot water.

Key planning and implementation strategies

Integrating the environmental program into the planning process and ensuring the inclusion of all stakeholders was a key component in getting technical solutions in place. The planning process also provided new platforms for discussing local environmental goals.

A small, but important grant in the form of a local investment program from the Swedish Environmental Protection Agency made it possible for developers to meet the environmental goals.

Using a systems perspective helped Hammarby Sjöstad achieve its environmental goals by linking district heating, sewage treatment, biogas production, and waste management into an integrated system.

One Brighton, Sussex, UK

Image source: Bioregional

One Brighton's goal was to create a place which would enable residents to lead sustainable lifestyles.

Key project stats

Location	Sussex, UK
Building GFA	172 units; 1,913 m2 of community and office space
Rating System	One Planet Living, with BRE Eco-Homes
Owner/Developer	Bioregional, Quintain Estates, Crest Nicholson

Key sustainability features

- 32% social housing with no compromise on space allocation compared to privately owned apartments.
- Two-thirds of residents changing to more pro- environmental behaviour based on design and information. Inspired the city of Brighton to become a One Planet City.
- Pouring of greenest concrete frame in UK – post- tensioned concrete comprising 50% ground granulated blast furnace slag (GGBS) and use of 100% secondary aggregates.
- No private car parking to encourage walking cycling and public transport with Brighton Station and other commercial areas nearby. City Car Club provides an on-site car club service.
- Established a community-owned Energy Services Company to bulk purchase guaranteed green electricity (Renewable Energy Guarantee of Origin) and operate an on-site communal heating/biomass system and PV panels; overall delivering a green energy package cost-effectively. On a whole carbon lifecycle assessment basis (operational and embodied impacts), One Brighton is achieving a 60% carbon reduction over existing housing stock. Green power for construction, with Green generators on-site.

Key planning and implementation strategies

One Planet Living principles were used throughout the project to guide design and delivery and formed the sustainable framework. In order to deliver against the One Planet Living principles, a One Planet Action Plan was created. To ensure the best sustainable outcomes possible from using One Planet Living principles, profiles of imaginary residents were used to drive design for sustainable lifestyles.

Perthworks, Perth, ON

Image source: Geoff Hodgins Architect

PerthWorks is a 2.3 acre municipally-owned brownfield site. It was intended to be a demonstration project to show that sustainable alternatives to suburban-type residential development are appropriate for small-town Canada. It includes a mix of passive-solar singles, townhouses and small apartment-style condominiums connected by a shared backyard green space.

Key project stats

Location	Perth, Ontario
Land Size	2.3 acres
Building GFA	38 units
Population	~75
Rating System	n/a
Owner/Developer	Various

Key sustainability features

- Partnered with Algonquin College's Advanced Housing Program to build a series of prototypes homes focusing on both environmental performance and affordability. Partnered with Habitat for Humanity to build affordable houses.
- Required minimum 30% of open space to be xeriscaped. Shared backyard greenspace.
- Required minimum 50% of driveway and parking areas must have permeability >20%
- Required 30% better than OBC; Energy Star windows and mechanicals

Key planning and implementation strategies

The Town identified that there were no local green developers/builders, that green developers from outside of town would have minimal interest in Perth, and that green developers would need invitation and some incentive to “gamble” in Perth.

The Town developed an RFP for purchase and development that included minimum design criteria and incentives (including deferred purchase so payment for the property could be spread out over two years, with 5 equal payments made every six months; 10% rebate on development charges if criteria are met; 50% of the development charges would be deferred until occupancy permits; option to use concept plan from design charrette; site specific zoning to facilitate concept plan).

An unanticipated delay in site remediation caused the first bid team to withdraw; the Town had to revise to a “made-in-Perth” approach with small parcels that local builders or potential residents could take on. Town is now playing more of a developer role (servicing installation, subdividing lots etc.) and collaborating with a local College as a partner.

APPENDIX B: PUBLIC CONSULTATION

THE TOWN OF COBOURG
SUSTAINABLE NEIGHBOURHOOD MASTER PLAN FOR THE TANNERY DISTRICT

SUSTAINABILITY WORKSHOP SUMMARY

Prepared by: **URBAN EQUATION**
June 22, 2017

URBAN EQUATION FOTENN Planning + Design Cobourg "Ontario's Feel Good Town" Ontario, Canada FCM

TABLE OF CONTENTS

INTRODUCTION

Sustainable Neighbourhood Master Plan Objective

The objective of the Sustainable Neighbourhood Master Plan is to develop a comprehensive plan to achieve a healthy, vibrant and sustainable neighbourhood in the Tannery District. The Sustainable Neighbourhood Master Plan will build on the goals of the Official Plan to establish a vision for the Tannery District and provide the policy, governance and implementation framework to guide future development and decision-making.

Building on the previous Community Improvement Plan and charrette process, this project aims to develop a long range Sustainable Neighbourhood Master Plan for the Tannery District which is on the “cutting edge” of sustainability. The plan will aspire to set ambitious goals, yet offer a viable path that is grounded in economic and implementation realities.

History of the Project

The Town of Cobourg previously completed a Tannery District Community Improvement Plan (CIP) and Background Report and the Tannery District Design Charrette Summary in 2009. From 2010 to present, the Town of Cobourg has conducted environmental assessments and soil and groundwater sampling. Test results have been consistent with a former tanning operation, indicating minor contamination with no notable concerns to the neighbourhood, and were shared with residents and the public. After several failed tax sales, the site was vested under the ownership of the Town of Cobourg in 2014. The Council Strategic Plan 2015-2018 directed that a Secondary Planning process with sustainability principles be initiated for the Tannery District, subject to budget deliberations and 50% funding from Federation of Canadian Municipalities FCM’s Green Municipal Fund. The Town filed an application with FCM in Summer of 2016 and funding of $50,000 was confirmed by FCM in December 2016.

Later in December 2016, the Town released an RFP for a “Sustainable Neighbourhood Master Plan & Implementing Secondary Plan/Zoning By-law for the Tannery District”. Five proposals were received in response to the RFP. An Evaluation Committee consisting of representatives of the Planning & Sustainability Advisory Committee (PSAC), Council, municipal staff and the Tannery District Citizens Group reviewed the proposals and conducted interviews based on a weighted scoring system. The consultant selection process resulted in a consensus choice based on:

- Quality and experience of project team in matters pertaining to sustainable land use planning policy, design and development;
- Capacity for developing a sustainable master plan based on leading edge approaches and practical experience in the field;
- Demonstrated an enthusiastic passion for sustainability and the Tannery District project;

- Considerably more time devoted to project relative to other proposals; and
- Proposed methodical ‘grass-roots’ approach to public engagement and awareness.

The Evaluation Committee selected the consulting team of Fotenn Planning + Design, Urban Equation (formerly BuildGreen Solutions), Crozier & Associates, and Altus Group was successful (50% funded by FCM).

Project Location

The focus of the Tannery District project is on the ‘primary study area’ as identified on the location map below.

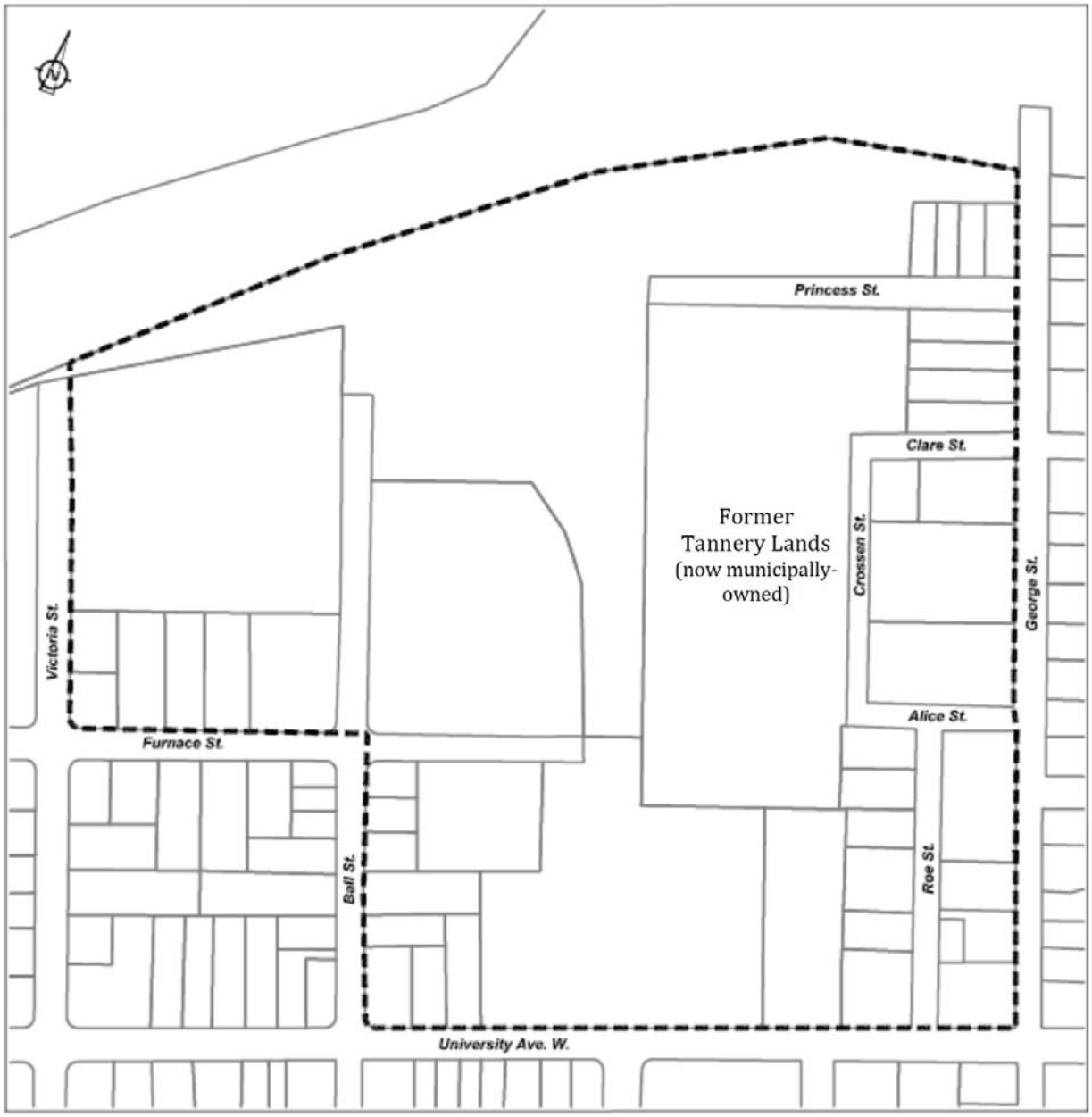


Figure 1: Tannery District Primary Study Area (Source: RFP No. CO-16-24)

Our Challenge

As a society, we are facing increasing environmental and social challenges. As Canadians, we currently consume natural resources at a rate that would require 4.5 planets to support us. Natural resources are being consumed at an unprecedented rate, and our activities are generating greenhouse gas emissions that are accelerating climate change. In addition to the environmental challenges, our cities and communities could do far more to improve life for their residents, from providing spaces for social interaction to facilitating healthier lifestyles.

Envisioning a Sustainable, Mixed-Use Community

The Tannery District presents an opportunity to take action aligned with the federal, provincial and local governments' focus on environmental sustainability. The Tannery District can become a showcase for Cobourg as a sustainable, transit-oriented mixed-use community and employment node that prioritizes the reduction of environmental impact, increases cultural and social connectivity and the creation of economic opportunities for the community and the region.

The project also creates an opportunity to think creatively about sustainability and the long-term health and vitality of the community. At the Tannery District, one might envision a community that encourages sustainable practices long after the buildings are occupied, such as access to on-site local and sustainable food. The development of a Sustainable Neighbourhood Master Plan for the Tannery District is an important step in the Town's movement towards a net-zero carbon, net-zero waste economy, which includes opportunities for renewable energy production, energy conservation strategies and other evolving approaches created as the community reduces greenhouse gases to address climate change.

SUSTAINABILITY WORKSHOP

Purpose

The Sustainability Workshop offered an opportunity for key stakeholders to identify strategies that will transform Tannery District into a mixed-use sustainable community. The objectives of the workshop were to:

- Introduce the Tannery District opportunity to key stakeholders;
- Inspire stakeholders to share their vision for a future Tannery District;
- Inspire participants to consider how Tannery District can incorporate sustainability in a holistic manner (considering people, planet and prosperity) over the lifetime of the community (from planning to operations);
- Introduce key sustainability principles / topic areas and a range of sustainability strategies;
- Identify existing initiatives, commitments, requirements, etc., that would support and/or be barriers to implementation.

Workshop Format

The Sustainability Workshop was a creative and interactive, half-day session that identified ideas to inform the future redevelopment of Tannery District. It was an exercise in the art of the possible, with a focus on envisioning a future ideal community that has successfully and responsibly incorporated sustainability.

To guide the discussion, the facilitators (Consultant Team) used the sustainability principles found in the One Planet Living Framework. While there are many sustainability standards and tools that support the implementation of sustainability at a community level, it was agreed with the Town to use the One Planet framework due to its clear and simple structure.

During the workshop, participants were asked to consider ways in which Tannery District can achieve the principles noted below. Participants were given an opportunity to contribute towards 3 of the 10 principles, using the following questions as guidance:

1. Looking 15-20 years in to the future, describe the **future ideal state** for residents, employees and visitors to Tannery District.
2. What **unique site and neighbourhood opportunities** are available for the Tannery District?
3. What related **policy** directions, commitments, existing town initiatives and challenges will affect the ideal state?
4. Who needs to be involved to make this happen? Champions, **partners, collaborators.**
5. Which topic areas should be **prioritized** and why?

Participants

Around 30 people attended the workshop, including local residents, business owners, community groups (Cobourg Ecology Garden, Downtown Coalition, Tannery District Citizens Group, Sustainable Cobourg, etc.), utilities (Lakefront Utilities), Planning & Sustainability Advisory Committee, and staff from the Town of Cobourg.

Public Open House

After the Sustainability Workshop, the Town and consultant team hosted a Public Open House where wider input and commentary from the community was gathered from 6-8pm. There was an open discussion to collect ideas and feedback on the material developed in the sustainability workshop earlier in the day.

Website

For ongoing information about the Tannery District Sustainable Neighbourhood Master Plan project, participants and interested stakeholders are encouraged to refer to the Town of Cobourg's website: **http://www.cobourg.ca/en/business-and-development/Former-Tannery-Lands.aspx**\

BACKGROUND

One Planet Living

The ten sustainability principles are:

1. **Health & Happiness**. Encourage active, sociable, meaningful lives to promote good health and well-being.
2. **Equity & Local Economy.** Create safe, equitable places to live and work which support local prosperity and international fair trade.
3. **Culture & Community.** Nurture local identity and heritage, empowering communities and promoting a culture of sustainable living.
4. **Land & Nature.** Protect and restore land for the benefit of people and wildlife.
5. **Sustainable Water**. Use water efficiently, protect local water resources and reduce flooding and drought.
6. **Local & Sustainable Food.** Promote sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein.
7. **Sustainable Materials.** Use materials from sustainable sources and promote products which help people reduce consumption.
8. **Sustainable Transport.** Reduce the need to travel, encourage walking, cycling and low carbon transport.
9. **Zero Waste.** Reduce consumption, re-use and recycle to achieve zero waste and zero pollution.
10. **Zero Carbon**. Make buildings and manufacturing carbon efficient and supply all energy with renewables.

More information was provided at each table, outlining the goals and specific topics within each principle.

SUMMARY OF RESULTS

Health and happiness

One Planet Principle	Encouraging active, social, meaningful lives to promote good health and wellbeing
Why is this important?	Sustainable communities make it easy for all residents, workers or guests to keep healthy and active at all ages. They are places where residents feel part of a safe, inclusive, neighbourly and supportive community. Key determinants of health and happiness include diet, exercise, interpersonal relationships, meaningful work and involvement in community and civic life. They also include a safe environment, interaction with nature, greater equity, opportunities for spiritual and artistic practice, and shared values.

Culture and community

One Planet Principle	Nurturing local identity and heritage, empowering communities and promoting a culture of sustainable living
Why is this important?	A vibrant and active community adds value to existing and surrounding communities and provides welcoming outdoor and indoor public space for people to come together and socialize, reducing crime and the fear of crime, supporting community cohesion, and mental and emotional health. Connecting to the local cultural and natural heritage honours our past. Nurturing a new culture of sustainability encourages people to take responsibility and engage in sustainability initiatives.
Summary of Sustainability Workshop Comments	
Key Opportunities	• Mix of uses – employment, residential, commercial/retail • Via rail as attractive option, satellite open/go train • Attracting a range of ages, abilities • Provide employment options • Community spaces for social gathering • Maintain heritage, tell story through public art • Non-profits as partners to provide space for arts + culture • Coops working together
Other Comments	• Options to work at home • Central park, dog park, adult fitness equipment, community gardens • Move low-income in first
Policy and Challenges	• Land use changes
Partners/ Collaborators	• Heritage groups and artist co-ops

Equity and local economy

One Planet Principle	Creating safe, equitable places to live and work which support local prosperity and international fair trade
Why is this important?	It is important to promote diversity and equality of opportunity across all abilities, gender, race, age and sexual orientation and to create a vibrant and resilient economy where a significant proportion of money is spent locally.
Summary of Sustainability Workshop Comments	
Key Opportunities	• Sweat equity options • Local bike coop/ sharing shed • Experimental microcosm • District heating and cooling to decrease expense for all • Social housing while decreasing stigma • Stays affordable over time • Live/work mixed use • Decrease construction costs • Keep youth on site – opportunities
Other Comments	• Infrastructure for active transportation • Barrier free design • District heating - community owned • Barter economy • Shared spaces, daycare/elderly homes • Local jobs, local ownership, community shares
Policy and Challenges	• High costs of construction • Tax breaks (community improvement plans)
Partners/ Collaborators	• Local partners • Northumberland county • Co-ops

Land use and nature

One Planet Principle	Protecting and restoring land for the benefit of people and wildlife
Why is this important?	The built environment often has a negative impact on natural systems and wildlife. It is important to protect and restore natural systems for the benefit of people, local wildlife and the biosphere (the living part of our planet).
Summary of Sustainability Workshop Comments	
Key Opportunities	• Site is near rail corridor, which is a challenge for green connections • Consider engineered green space • Multifunctional (gardens, active space) • Model for inclusivity • Linkages to adjacent parks (most on otherside of tracks) • Naturalizing public space to linger in, open public green space • Multiple land use – retail, employment • Community hubs – library pop ups

Other Comments	• Wildlife rehabilitation • Tree canopy • Use nature as a model for inclusivity • Green roofs, green streets • Pollinators

Sustainable water

One Planet Principle	Using water efficiently, protecting local water resources and reducing flooding and drought
Why is this important?	Water is a very local issue and so demands solutions specific to the particular location. As climate change occurs and the earth's population increases, it is likely that even more areas will become 'water-stressed' or prone to flooding. The process of storing, treating and transporting water has a wide range of environmental impacts and a carbon footprint, even in water-rich areas, so it should always be used efficiently.
Summary of Sustainability Workshop Comments	
Key Opportunities	• Native planting, decrease irrigation • Intelligent use + supply split potable from grey water • Not tech challenge: communication, policy, education culture shit to different methods • Easier to use grey water • Policy: storm water charge • Leverage partners + connect them on site • Water: reclaim heat/energy
Other Comments	• Rainwater harvesting • Low impact development • On-site treatment, bioswales, increase infiltration • No plastic water bottles, bottle filling stations • Water conservation garden near by • Low flow fixtures
Policy and Challenges	• No more existing storm infrastructure, limited availability to move water downstream • Plumbing code restrictions for grey water
Partners/ Collaborators	• Clarington metering

Local and sustainable food

One Planet Principle	Promoting sustainable humane farming and healthy diets high in local, seasonal organic food and vegetable protein
Why is this important?	Food and food growing has a huge impact on a range of issues including physical and mental health, culture, heritage, climate change, biodiversity and the local economy. It represents about one quarter of our ecological footprint.
Summary of Sustainability Workshop Comments	

Key Opportunities	• Growing food on site, community garden, edible landscape • Beside railway = greenhouse • Native plants = pollinators for fruit trees • Expand farmers market • Website links residents to local farmers + producers, create delivery hub • Boulevard gardening • Community garden co-ops + associate • Post-secondary to help with greenhouse heating • Policy change to raise chickens onsite
Other Comments	• Local food sharing, avoid food wastage • Roof top apiaries • Integrating food production into building design • Community composting • Fruit tree gleaners non-profit • Edilble landscape • Greenhouse for winter production • Seed exchanges, local nursery, native berry, shrubs
Policy and Challenges	• Chicken by-law • Food/health regulations
Partners/ Collaborators	• Community garden co-ops, Farmers market • Northumberland county • Peterborough "Transition Town"

Materials and Products

One Planet Principle	Using materials from sustainable sources and promoting products which help people reduce consumption.
Why is this important?	Sharing and reducing consumption of natural materials promotes sustainable living, improving people's quality of life while reducing their environmental impact. It's important to consider the use of materials and products that are not toxic to humans or wildlife at any stage in their lifecycle, from raw material through to manufacturing, use, and end-of-life.
Summary of Sustainability Workshop Comments	
Key Opportunities	• Energy is related to material production • Education: there is a need to traintrades on local materials/practices/technology = partnerships • Technology to help capture and reuse 'waste' as resource • Showcase for the rest of Cobourg • Locally available materials • Permeable surfaces, recycled gravel • Sensitive to heritage materials + architecture • Policy challenge – more than OBC, need local policy support • Local companies already focus on recycling/ support those with sustainable missions
Other Comments	• No toxic materials
Policy and Challenges	• Energy efficient heritage supplies • Life cycle goals • Mandated sustainable building standard • Using university research to improve products
Partners/ Collaborators	• Endeavor centre • Second hand stores, Restore • Political green leadership • Local artisans, trades, techniques for construction

Travel and transport

One Planet Principle	Reducing the need to travel, encouraging walking, cycling and low carbon transport
Why is this important?	An overly car-dependent society contributes to carbon emissions and air pollution, takes up valuable land for roads, reduces the attractiveness and safety of the public realm and promotes obesity and respiratory illness. In many cities, commuting is one of the main contributors to reported unhappiness. Communities and destinations which avoid car domination are generally healthier and more neighborly and attractive.
Summary of Sustainability Workshop Comments	
Key Opportunities	• Complete streets walkable, bikeable, interconnected • Increased amenities within walking distance on site • Regional train – tourism • Safety + comfort, convenient linkages • Density to justify better transit, increase mobility • Accessibility for all ages
Other Comments	• Provide food amenity on-site, which considers affordability • Bike train to Niagara, become a destination for cycling • Living streets active, beauty • Covered walking options
Policy and Challenges	• Provincial land use regulations
Partners/ Collaborators	• Metrolinx + GO access • Regional tourism

Zero waste

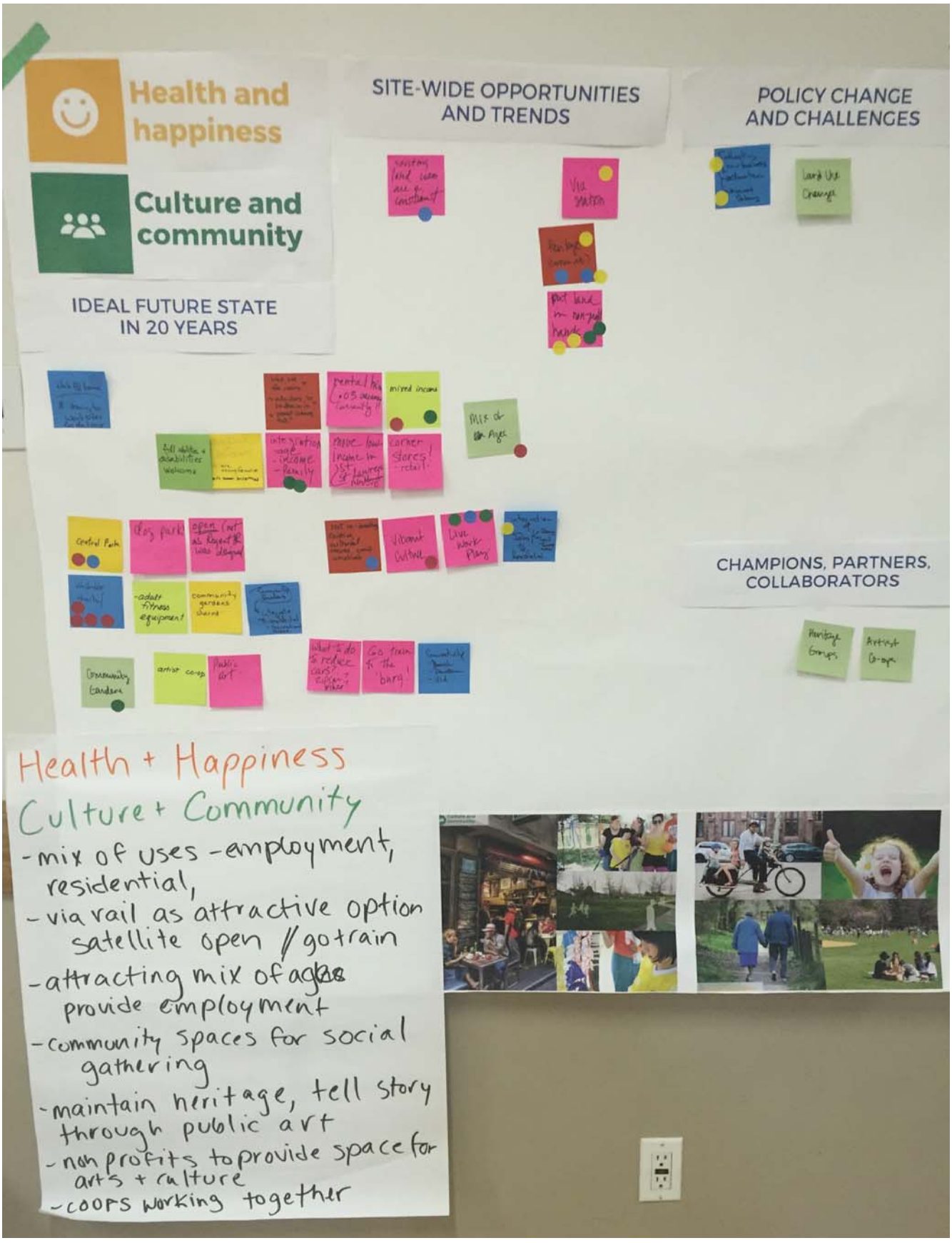
One Planet Principle	Reducing consumption, reusing and recycling to achieve zero waste and zero pollution
Why is this important?	Waste can be considered a resource and can be part of the circular economy. Designing a community around the waste hierarchy can reduce wasteful consumption during design, construction, and operations.
Summary of Sustainability Workshop Comments	
Key Opportunities	• Demonstrate best practice, lead by example • Make it clear that it goes to landfill • Reuse greywater = less sewage • Emulate nature – internal system compost into community gardens • Use design to create built in waste management systems = easy • Reclaim waste heat = resource • Methane recapture, waste to energy • How to reuse existing concrete onsite • Long life durable materials • Education – how to recycle properly • Reuse green landscape waste - > mulch • Construction waste: policy to reduce, choose conscious developers/contractors, private sector investment

Other Comments	• Extend recycling to other material types • Zero waste culture • Closed loop systems
Policy and Challenges	• Education campaign, city lead • Landscape waste • Integrate policy with county
Partners/ Collaborators	• Local environmental services

Zero carbon

One Planet Principle	Making buildings and manufacturing energy efficient and supplying all energy with renewables
Why is this important?	Reducing energy consumption and using clean energy sources will help reduce greenhouse gases and address climate change. This is a key priority to meet our Canadian commitments under the 2015 Paris agreement. Buildings account for 19% of the total GHG emissions in Ontario (Ontario Climate Change Action Plan 2016-2020). Locally resilient grids can help decarbonise the electricity grid and avoid transmission losses.
Summary of Sustainability Workshop Comments	
Key Opportunities	• Need for renewable onsite generation, go beyond rooftops • Use tech to drive efficiency up, costs down • Community energy (geothermal central heating, solar) • Embodied carbon, consider materiality, life cycle analysis, provide incentive to go beyond code • Motivate behaviour change through transparency/measurement • Community sustainability office • Passive solar design • Showcase site for town and beyond
Other Comments	• Energy storage • Durability • Consider technological and economic trends
Policy and Challenges	• Remove clothesline bylaw
Partners/ Collaborators	• Community housing • Utilities

APPENDIX A: IMAGES OF OPL COMMENTS




Equity and local economy
IDEAL FUTURE STATE IN 20 YEARS
SITE-WIDE OPPORTUNITIES AND TRENDS
POLICY CHANGE AND CHALLENGES
CHAMPIONS, PARTNERS, COLLABORATORS
SWEAT EQUITY
DIVERSITY
BARTER ECONOMY
DISTRICT HEATING
BUSINESS RESIDENTIAL
UTILISE EXISTING BUILDINGS
VERTICAL GARDENS
LABELLING MATTERS IN POLICY
TENSION BUSINESS / RESIDENTIAL
TAX BREAKS (CIP)
TECHNOLOGY + TECH INDUSTRY
Bike Shop
GOOD DESIGN TO MINIMISE NEED FOR COOLING + HEATING
NO SOCIAL HOUSING STIGMA
LIVE OFF THE LAND
DE-CATEGORISING PEOPLE
BEYOND BIKE SHOP MODEL
SIGHT - MOBILITY - INCLUSIVE EMPLOYMENT
BARRIER FREE DESIGN
EXPERIMENT - AT MICRO-COSM TEST CASE - MODEL FOR LIVING
MIXING HOUSING - OLD - YOUNG - DISPOSABILITY
SHARING
Equity and Economy
-sweat equity (bike shop)
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-district heating and cooling to ↓expense for all
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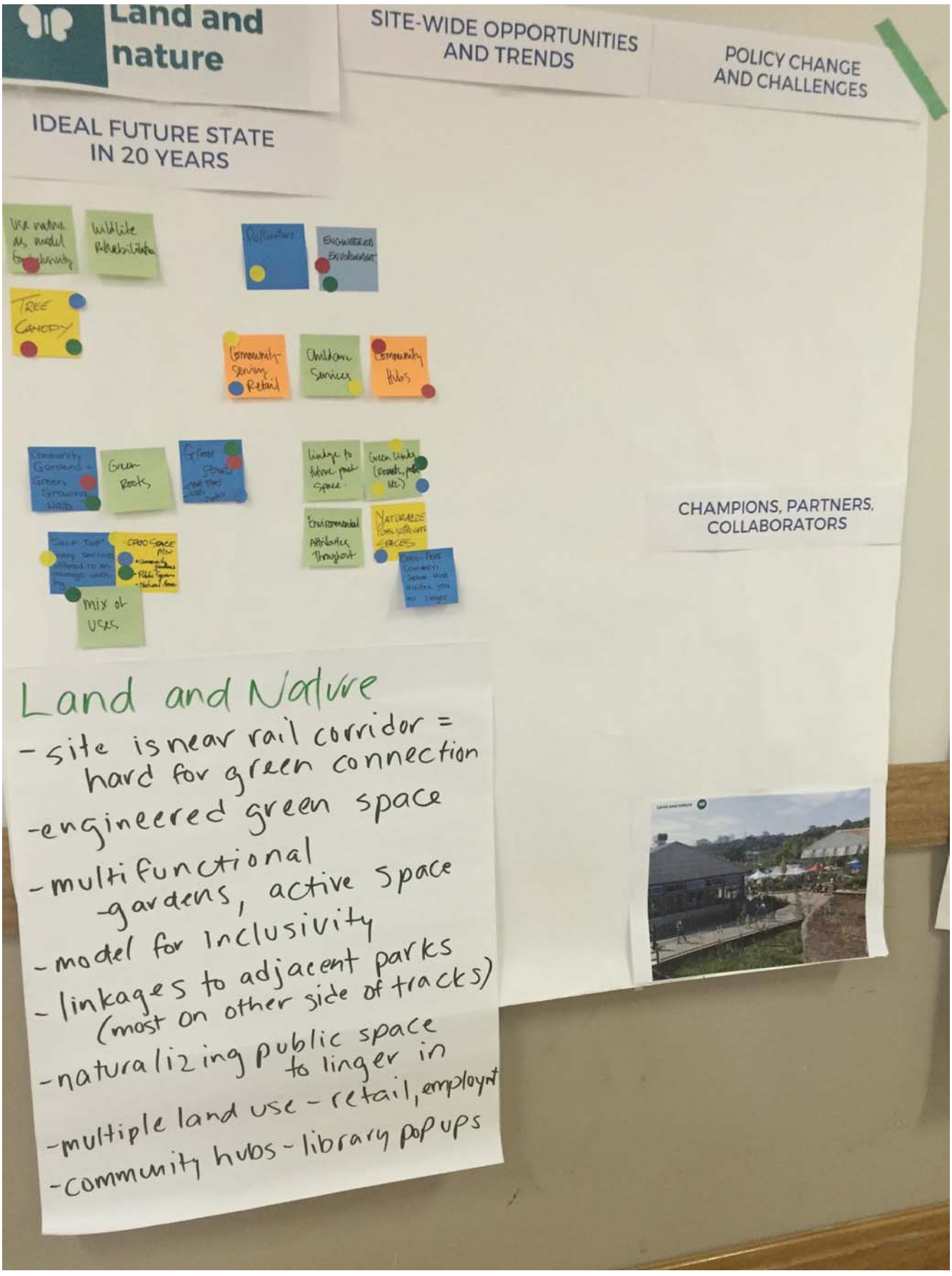
-stays affordable over time
-live/work mixed use
-↓construction costs
-on site-opportunities


Land and nature
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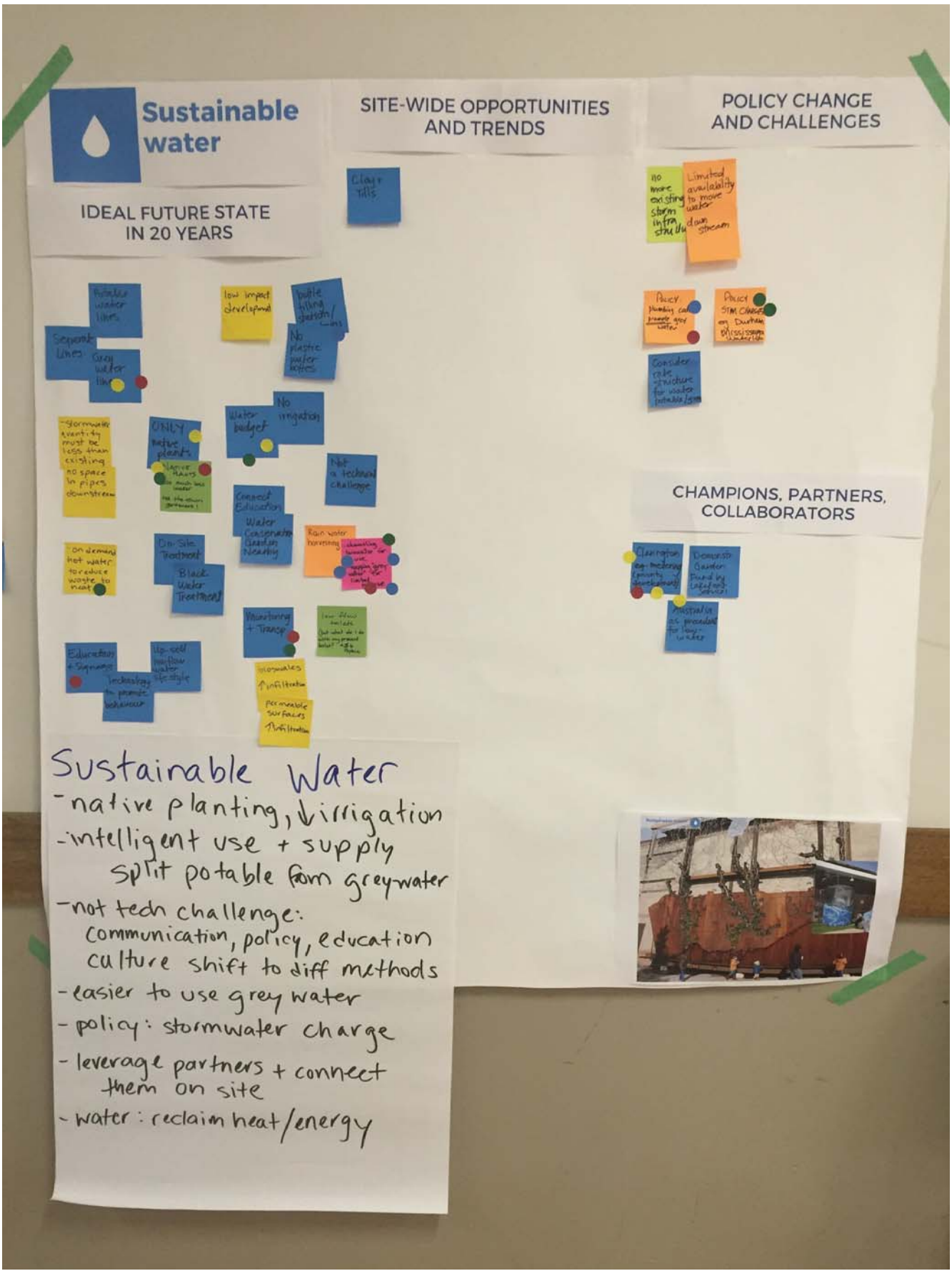
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CHAMPIONS, PARTNERS, COLLABORATORS
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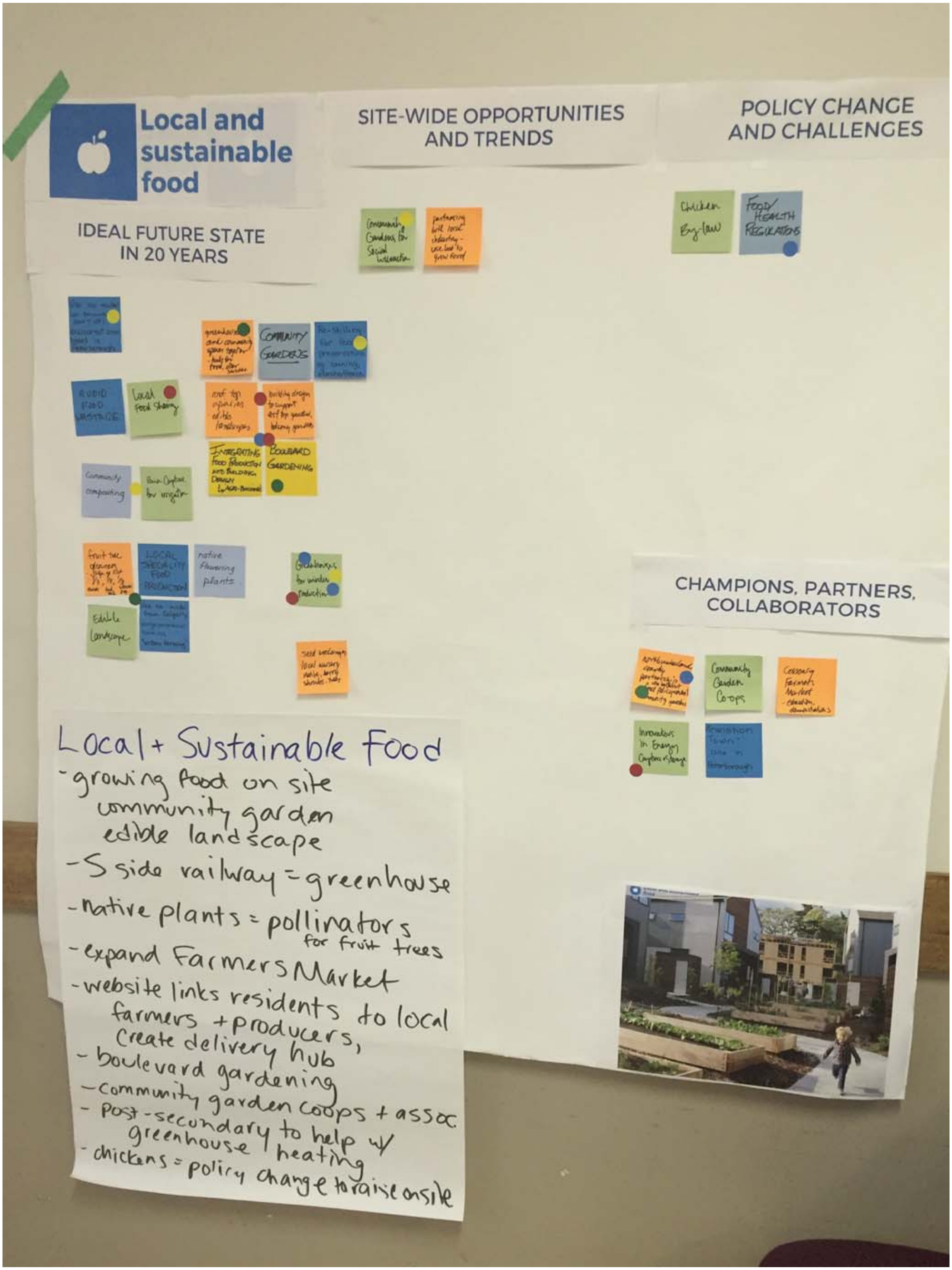
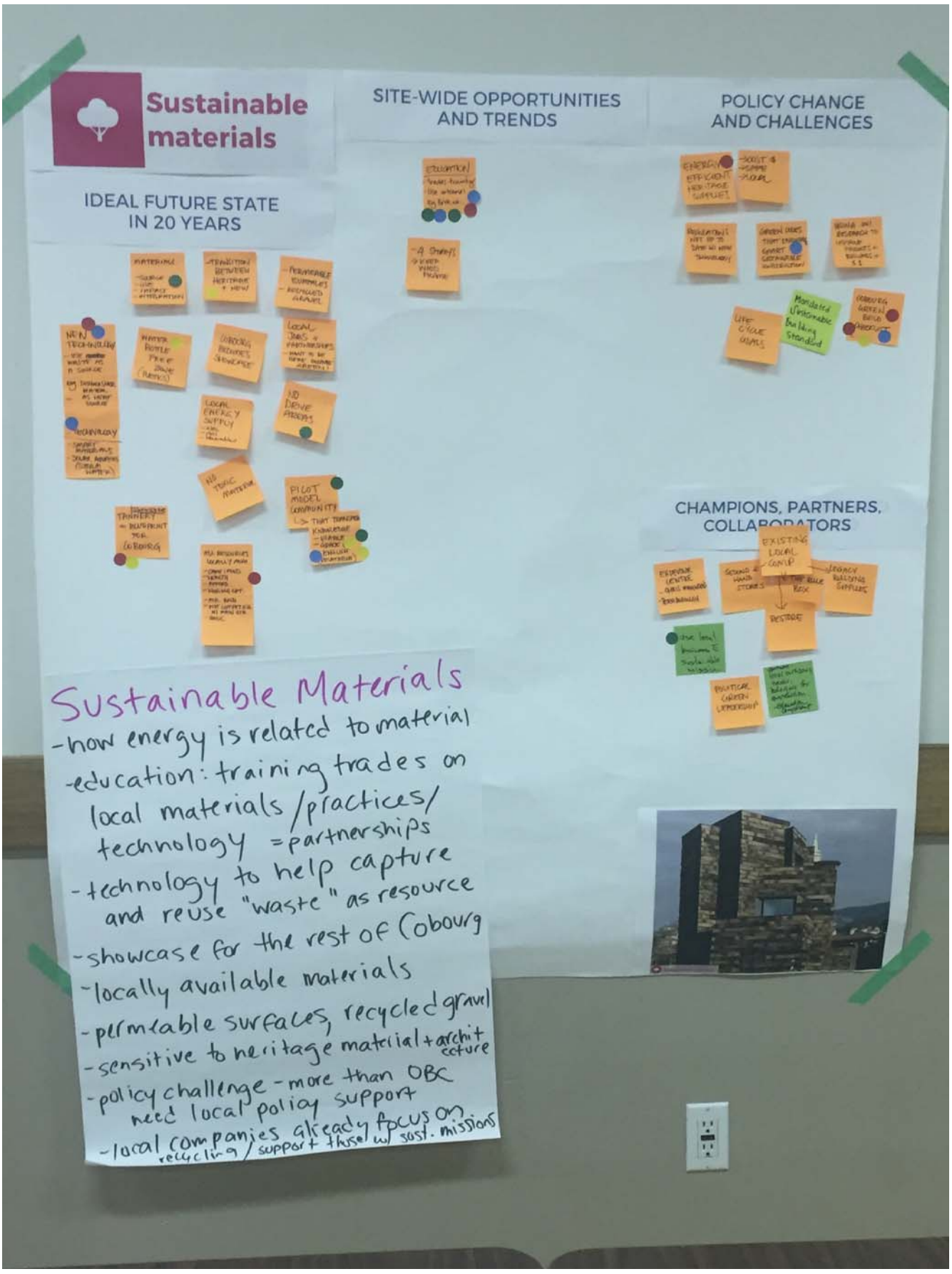
- intelligent use + supply split potable form grey-water
- not tech challenge: communication, policy, education culture shift to diff methods
- easier to use grey water
- policy: stormwater charge
- leverage partners + connect them on site
- water: reclaim heat/energy


Local and sustainable food
SITE-WIDE OPPORTUNITIES AND TRENDS
POLICY CHANGE AND CHALLENGES
IDEAL FUTURE STATE IN 20 YEARS
CHAMPIONS, PARTNERS, COLLABORATORS
Local + Sustainable Food
-growing food on site
community garden
edible landscape
-S side railway = greenhouse
-native plants = pollinators for fruit trees
-expand Farmers Market
-website links residents to local farmers + producers, create delivery hub
-boulevard gardening
-community garden coops + assoc
-post-secondary to help w/ greenhouse heating
-chickens = policy change to raise onsite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POLICY CHANGE AND CHALLENGES
IDEAL FUTURE STATE IN 20 YEARS
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-technology to help capture and reuse "waste" as resource
-showcase for the rest of Cobourg
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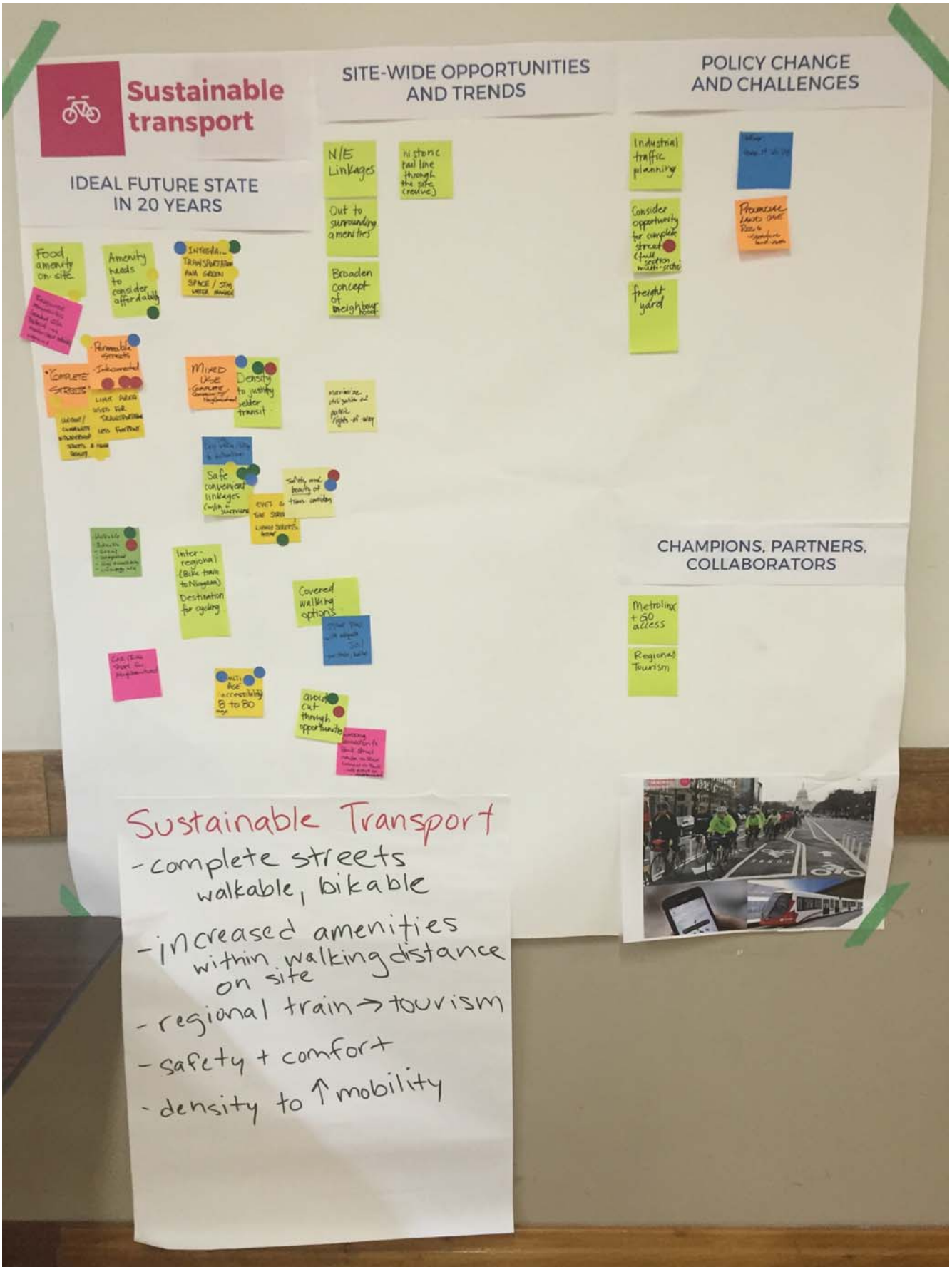
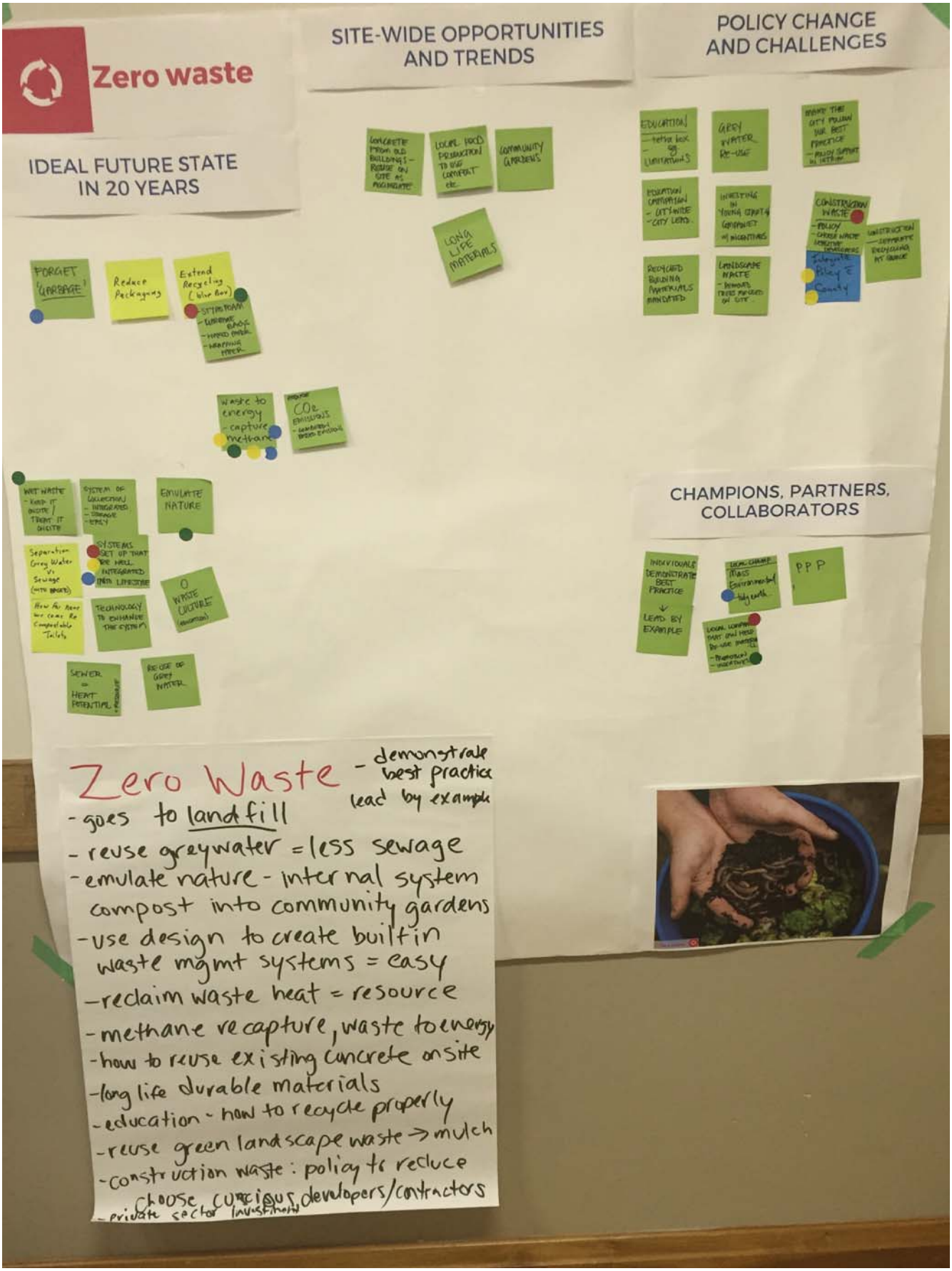
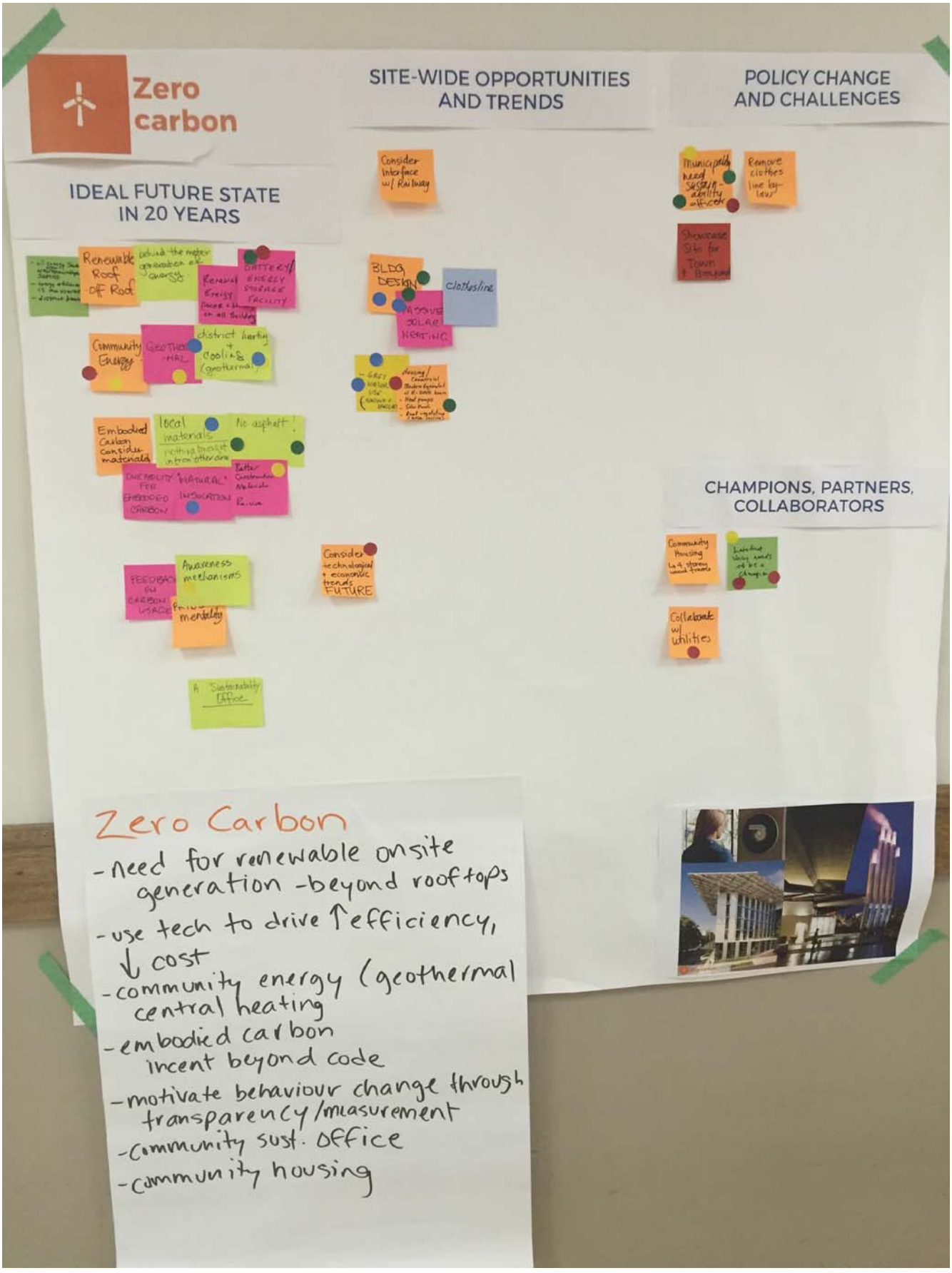
-permeable surfaces, recycled gravel
-sensitive to heritage material+architecture
-policy challenge - more than OBC need local policy support
-local companies already focus on recycling/support those w/ sust. missions


Sustainable transport
IDEAL FUTURE STATE IN 20 YEARS
SITE-WIDE OPPORTUNITIES AND TRENDS
POLICY CHANGE AND CHALLENGES
CHAMPIONS, PARTNERS, COLLABORATORS
N/E Linkages
Historic rail line through the site (reserve)
Out to surrounding amenities
Broaden concept of neighbourhood
Food amenity on site
Amenity needs to consider affordability
Permeable streets
Interconnected
Complete Streets
Mixed Use
Density to justify better transit
Safe convenient linkages
Inter-regional (Bike train to Niagara) Destination for cycling
Covered walking options
8 to 80
Industrial traffic planning
Consider opportunity for complete street (full section multi-modal)
freight yard
Promenade
Metrolinx + GO access
Regional Tourism
Sustainable Transport
- complete streets walkable, bikable
- increased amenities within walking distance on site
- regional train → tourism
- safety + comfort
- density to ↑ mobility


Zero waste
IDEAL FUTURE STATE IN 20 YEARS
SITE-WIDE OPPORTUNITIES AND TRENDS
POLICY CHANGE AND CHALLENGES
CHAMPIONS, PARTNERS, COLLABORATORS
FORGET 'GARBAGE'
Reduce Packaging
Extend Recycling
Waste to energy - capture methane
EMULATE NATURE
SYSTEMS SET UP THAT WE WILL INTEGRATED
TECHNOLOGY TO ENHANCE THE SYSTEM
0 WASTE CULTURE
SEWER = HEAT POTENTIAL
REUSE OF GREY WATER
COMMUNITY GARDENS
LONG LIFE MATERIALS
EDUCATION
GREY WATER RE-USE
CONSTRUCTION WASTE
PPP
Zero Waste - demonstrate best practice lead by example
- goes to landfill
- reuse greywater = less sewage
- emulate nature - internal system compost into community gardens
- use design to create built in waste mgmt systems = easy
- reclaim waste heat = resource
- methane recapture, waste to energy
- how to reuse existing concrete on site
- long life durable materials
- education - how to recycle properly
- reuse green landscape waste → mulch
- construction waste: policy to reduce
- private sector investment: choose curious developers/contractors


Zero carbon
IDEAL FUTURE STATE IN 20 YEARS
SITE-WIDE OPPORTUNITIES AND TRENDS
POLICY CHANGE AND CHALLENGES
CHAMPIONS, PARTNERS, COLLABORATORS
Consider Interface w/ Railway
Municipality need sustainability officer
Remove clothes line by-law
Showcase Site for Town + Beyond
Renewable Roof Off Roof
BATTERY/ ENERGY STORAGE FACILITY
BLDG DESIGN
clothesline
PASSIVE SOLAR HEATING
Community Energy
GEOTHERMAL
district heating + cooling (geothermal)
Embodied Carbon construction materials
local materials
no asphalt!
Awareness mechanisms
Consider technological + economic trends FUTURE
Community Housing
Collaborate w/ utilities
A Sustainability Office
Zero Carbon
- need for renewable onsite generation - beyond rooftops
- use tech to drive ↑efficiency, ↓cost
- community energy (geothermal central heating
- embodied carbon incent beyond code
- motivate behaviour change through transparency/measurement
- community sust. office
- community housing

APPENDIX C: FUNCTIONAL SERVICING & TRANSPORTATION OVERVIEW

FUNCTIONAL SERVICING & TRANSPORTATION OVERVIEW

TANNERY DISTRICT SUSTAINABLE NEIGHBOURHOOD MASTER PLAN

TOWN OF COBOURG
NORTHUMBERLAND COUNTY

PREPARED FOR:

FOTENN CONSULTANTS INC.

PREPARED BY:

C.F. CROZIER & ASSOCIATES INC.
2800 HIGH POINT DRIVE, SUITE 100
MILTON, ON L9T 6P4

MARCH 2018

CFCA FILE NO. 1379-4615

CROZIER
CONSULTING ENGINEERS

Revision Number	Date	Comments
Rev. 0	July 18, 2017	Draft issued to Fotenn Consultants Inc. for review
Rev.1	August 14, 2017	Issued for first submission
Rev. 2	October 6, 2017	Issued for second submission
Rev. 3	March 16, 2018	Issued for third submission

TABLE OF CONTENTS

LIST OF TABLES

LIST OF APPENDICES

LIST OF FIGURES

1.0 Background

The Town of Cobourg retained C.F. Crozier & Associates ("Crozier") through Fotenn Consultants Inc. ("Fotenn") as part of an interdisciplinary consulting team to assist in creating a Sustainable Neighbourhood Master Plan for the Tannery District Lands. The vision and scope of the Sustainable Neighbourhood Master Plan was defined in the Town's Request for Proposal (RFP) document that was issued December 20, 2016. Crozier's expertise in civil and traffic engineering was used to study existing servicing, stormwater management, and transportation opportunities and constraints for the Tannery Lands and surrounding area. This background information will be used to advise whether the Tannery Lands require infrastructure upgrades to meet the initiatives of the Sustainable Neighbourhood Master Plan and future development.

The Tannery Lands make up a former industrial neighbourhood in central Cobourg. A map of the Tannery Lands and surrounding area can be seen in Figure 1. Currently, the Lands are primarily vacant or existing industrial lots bordered by residential developments and the Canadian National Railway. A Land Use Map of the Tannery area is shown in Figure 2, which was referenced from the Community Improvement Plan Background Report. The approximately 14 ha site is bounded by:

- The Canadian National Railway to the north
- George Street to the east
- University Avenue West to the south
- Ball Street, Furnace Street and Victoria Street to the west

As stated in the RFP document, the goal of the Tannery District redevelopment is to achieve a healthy, vibrant, and sustainable neighbourhood, which will be guided by the Sustainable Neighbourhood Master Plan. The plan will seek to be on the "cutting edge" of sustainability by emphasizing high quality green initiatives, complete streetscapes, land use compatibility, and low-impact development techniques.

From a servicing perspective, the Plan will seek to address how intensification will increase water and wastewater demands, and how these demands will be accommodated by the municipal system. The Plan's stormwater management guidelines will address how increased impervious surfaces and runoff will be conveyed and controlled in order to meet quantity, quality, and erosion control criteria for the Town.

2.0 Purpose

The Servicing & Transportation Background Study identifies existing infrastructure servicing the Tannery Lands. The suitability of the infrastructure was examined, taking into account factors such as capacity, material/infrastructure quality, and connectivity. These criteria will be used in the future to determine the need for upgrading local infrastructure.

At this time, the future population and demands for the Tannery Lands are not certain, but they have been estimated for the purposes of this Study. Further analysis will be required during the design development and approvals stage that will quantify water, sanitary, stormwater, and traffic demands on an individual basis. These demands will be used to determine how new developments can be serviced through the existing infrastructure.

The existing civil and transportation works that were studied consist of:

- Watermains
- Sanitary sewers
- Sanitary pumping stations
- Sanitary (wastewater) treatment facilities servicing the lands
- Stormwater sewers
- Stormwater facilities servicing the lands
- Transit network
- Active transportation network and connectivity
- Multi-modal opportunities

3.0 Population Estimates

The Tannery District Sustainable Neighbourhood Master Plan RFP document outlines the opportunity for future intensification of the Tannery Lands. Intensification aligns with the new Provincial Policy Statement and density targets imposed by the Provincial Government. A thorough review of applicable population density targets was completed in order to estimate the future population of the subject lands. Table 1 summarizes relevant density targets from various sources, and estimates of the future Tannery Lands population.

Table 1: Population Density Targets and Estimates

Source	**Density Criteria**	**Density Target** (people / ha)		**Population Estimate** (people & jobs)[2]	
		Min	**Max**	**Min**	**Max**
2006 Growth Plan for the Greater Golden Horseshoe	"Designated Greenfield Areas"[1]	50	50	700	700
2016 Official Plan, Northumberland County	Town of Cobourg	35	35	490	490
2010 Official Plan, Town of Cobourg	**Density Criteria**	**Density Target** (units / ha)		**Population Estimate** (units / ha)[2]	
		Min	**Max**	**Min**	**Max**
	Low Density	12	20	168	280
	Medium Density	20	50	280	700
	High Density	50	100	700	1400

Note 1: Lands are not "Designated Greenfield Area", although significant redevelopment opportunity equates similar uses
Note 2: Population estimates calculated using 14 ha site area

Sources for the population density target criteria can be found in Appendix C1-C4.

As stated above, the future population and demands of the Tannery Lands are unknown at this time. Intensification will likely result in a medium to high density population (50-100 people per hectare). To consider both possibilities, the future population was estimated under both the high and the medium density scenarios. The two analyses will show the range of demands likely required by the future population. A medium density target of 50 people per hectare and high density target of 100 people per hectare were used. This equates to future populations of 700 and 1400, respectively.

The Tannery Lands have an existing population density that is likely in the range of 12-20 people per hectare. Assuming an average of 16 people per hectare, this equates to an existing populace of 224. Therefore, it is estimated that the future development of the Tannery Lands will result in an increase of approximately 475-1175 people and jobs. Densities and land-use mix will be better established in the Sustainable Neighbourhood Master Plan.

4.0 Servicing

The following observations were based on a review of as-built drawings as well as background reports and documents supplied by the Town of Cobourg. Further information regarding Cobourg infrastructure was assisted by discussions with Lakefront Utilities Inc. who manage municipal utilities in Cobourg.

This is a preliminary review of existing sanitary, water, and stormwater servicing. Prior to development, the exact location and capacity of relevant services should be determined.

4.1 Sanitary Servicing

Wastewater from the Town of Cobourg is treated in one of two Water Pollution Controls Plants (WPCPs). The Tannery Lands are directly north of the sewer shed line, which separates sanitary drainage between the two plants. The Tannery Lands therefore drain to WPCP No. 1 located at 420 King Street West. Based on the direction of sanitary flows, the Tannery Lands appear to be directly connected to WPCP No. 1 through the University Avenue West trunk sewer.

Stantec reviewed the reserve capacity of both WPCPs in November 2016. The Stantec Report states that WPCP No.1 is currently servicing sanitary flows of 8,055 m^3/day (equivalent population of 12,447) and has a total capacity of 13,630 m^3/day (equivalent population of 21,066). The plant is expected to service an additional 1,823 unconnected approved lots in committed or committed reserve status, at an equivalent capacity of 2,713 m^3/day. Using this information, they have concluded that WPCP No. 1 has a reserve capacity of 2,862 m^3/day at an equivalent population of 4,424 persons. Therefore, there is sufficient capacity at the municipal wastewater treatment plant to service the intensified Tannery Lands. Excerpts from the Stantec Report can be found in Appendix D1.

Sanitary sewers internal to the site flow towards the larger George Street sewer or directly south towards University Ave. The University Ave. trunk sewer likely carries flows from a large portion of the sanitary drainage boundary. For this reason, upgrades to the University Ave. trunk sewer may be required to meet redevelopment demands. Confirmation of available capacity would require an analysis of sanitary drainage volumes for the entire sewer shed area.

The slope of the sewers servicing the majority of the Tannery Lands could not be obtained from as-built drawings. As-built drawings of Ontario Street suggest that the minimum slope of sanitary sewers in Cobourg is 0.4%. To remain conservative, an assumed minimum slope of 0.3% was used to estimate the capacity of each sanitary sewer. The sewer size and slope were used to calculate the theoretical minimum capacity, which is summarized in Table 2. This information is visually depicted in the Sanitary Services Sketch, shown in Appendix A.

Table 2: Sanitary Sewer Infrastructure

Sewer Location	Sewer Size	Slope (%)	Estimated Capacity (L/s)
George Street	375	0.3	100
Princess Street	250	0.3	33
Clare Street	300	0.3	50
Crossen Street	200	0.3	18
Alice Street	200	0.3	18
Roe Street	200	0.3	18
Spencer/George Street	200	0.3	18
University Avenue West	600	0.3	340
University Avenue West	675	0.3	460
Ball Street	200	0.3	18

The status of existing sanitary sewers in the Tannery Lands was described in the Tannery District Community Improvement Plan (CIP) Background Study (2009) prepared by Macaulay Shiomi Howson Ltd. Section 3.5.1 of the Study states that the majority of the sanitary system is comprised of vitrified clay pipes, with a single PVC pipe on Princess Street. The Study states that Town Public Works staff advise that any vitrified clay pipes are likely in poor condition and would require replacement before substantial additional development occurs in the area. Further analysis is required to assess the status of the George Street and University Ave. trunk sewers. Excerpts from the CIP Background Study can be found in Appendix D2.

Preliminary sanitary demand calculations were completed for the Tannery Lands assuming two population scenarios with a population increase of 700 and 1400 people. A conservative demand was calculated by using the upper limit of residential demand flows, as stated in the MOE Design Guidelines for Sewage Works at 450 L/capita/day. Assuming a standard infiltration rate of 0.2 L/ha/s and using the Harmon Peaking Factor Formula, the estimated peak sanitary flows for the future populace were calculated as 17.00 L/s (700 people) and 29.79 L/s (1400 people). Sanitary design calculations can be found in Appendix D3. Medium density peak flows can be accommodated by a 200mm sewer at 0.3% minimum slope. However, at higher densities, the existing sanitary infrastructure may require upgrades to convey peak flows. Further analysis will be required at the detailed design stage to assess the capacity of individual sewer connections.

4.2 Water Servicing

Water servicing information was supplied by the Town of Cobourg's Public Works department as well as discussions with Larry Spyrka of Lakefront Utilities Inc. Documentation provided by Lakefront Utilities Inc. confirmed that the Tannery Lands are currently within Pressure Zone 1 and serviced by the nearby water tower on Victoria Street. The Town of Cobourg water distribution system has a system capacity of 31,822 m^3/day and operates at an average capacity of 33-37% based on 2015-2017 data. Therefore, the Town of Cobourg has sufficient operating/system capacity to fulfil the needs of the additional development of the Tannery Lands.

Sizes of watermains internal to the Tannery Lands were found using as-built drawings of the area. Hydrant flow test data for the area would need to be analyzed to evaluate the exact capacities of the watermains. Table 3 summarizes the watermains in the area and the material type of each. Material type information was supplied by the Town of Cobourg's Asset Management Plan (2014).

Table 3: Watermain Infrastructure

Sewer Location	Sewer Size	Material Type
George Street	200	PVC
Princess Street	200	PVC
Clare Street	200/50	Plastic
Alice Street	300	Cast Iron
Roe Street	200	PVC
University Avenue West	300	Ductile Iron
Ball Street	150	PVC
Victoria Street	300	Ductile Iron
Furnace Street	300	Ductile Iron

The status of existing watermains servicing the Tannery Lands was described in the Tannery District CIP Background Study (2009) prepared by Maucalay Shiomi Howson Ltd. Section 3.5.2 states that the existing pipes are in good condition and that there is ample water capacity to accommodate any redevelopment. The study also notes that the 150mm pipe which was used to service the Tannery site (96 Alice Street) was disconnected at Alice Street and Clare Street. Excerpts from the CIP Background Study can be found in Appendix D2.

At the time of detailed design, Lakefront Utility Services Inc. requests that the water system be looped through the Tannery Lands. The specific connections and extensions of the water infrastructure to create a looped system are to be determined at the detailed design stage.

Based on a preliminary analysis of water infrastructure, the Town has additional operating capacity for the Tannery Lands. Further analysis and hydrant flow tests will be required to determine capacities and servicing opportunities for individual developments and the reserve pressure within the municipal system. These calculations are dependent on individual site plans and the results of surrounding hydrant flow tests, and cannot be accurately estimated at this stage.

5.0 Stormwater Management

The Town of Cobourg generally drains from north to south towards Lake Ontario. Topographic mapping of the Tannery Lands depicting 1m contour lines can be found in Appendix D4. Within Cobourg is the Cobourg Creek Watershed, which conveys runoff through various rivers and tributaries south towards Lake Ontario. The Tannery Lands are situated between Cobourg Creek to the west of the study area and Midtown Creek to the east of the study area. These watercourses are depicted in the Cobourg Creek Watershed Map, found in Appendix D5.

The Tannery Lands are serviced by internal municipal storm sewers. These sewers generally drain from north to south along the Tannery Lands where they are diverted by the trunk storm sewer on University Avenue. The drainage divide for the University Avenue storm sewer is approximately 60 m east of Spring Street, where drainage splits between the east and west. The westerly drainage ultimately outlets to Cobourg Creek, while the easterly drainage ultimately outlets to Midtown Creek.

Sizes and slopes of stormwater sewers internal to the Tannery Lands were found using as-built drawings. Approximate drainage boundaries were defined by high and low points found on the drawings. The size and slope of each sewer were used to estimate its capacity. Table 4 summarizes the stormwater infrastructure servicing the Tannery Lands. Additional information on drainage conditions within the Tannery Lands can be found within the GRCA report titled *DRAFT Technical Review of Downtown Cobourg Storm Sewers* (2012).

Table 4: Stormwater Infrastructure

Sewer Location	Sewer Size	Minimum Slope (%)	Estimated Capacity (L/s)
George Street (CNR to Princess)	300	0.85	90
George Street (Princess to Clare)	450	1.00	290
George Street (Clare to Alice)	600	0.95	595
George Street (Alice to Spencer)	675	1.03	840
George Street (South of Spencer to University)	300	1.02	100
Princess Street	450	0.97	270
University Avenue West (George to Roe)	450	1.90	380
University Avenue West (Roe to HP[1])	300	0.41	60
University Avenue West (HP[1] to Spring)	300	0.30	40
University Avenue West (Spring to east of Ball St.)	450	0.34	160
University Avenue West (East of Ball)	525	0.32	240
University Avenue West (Ball to Victoria)	900	0.23	810
Ball Street	375	-	-
Victoria Street	600	-	-

Note 1: "HP" refers to the high-point in the stormwater sewer between Spring Street and Bond Street

Preliminary stormwater runoff calculations were completed for the Tannery Lands under pre and post-development conditions. It was assumed that pre-development lands are approximately 50% impervious surfaces, and post-development lands will increase to approximately 70% impervious surfaces. A post-development approximation of 70% was assumed as this would generally represent a medium to high density development. There are opportunities to reduce the impervious area, but this value provides a fair and conservative estimate for the purpose of this report. We recommend that this value be revisited at the time of development when more accurate information is available on the form of development.

The Modified Rational Method was used to calculate runoff, using parameters taken from the Ganaraska Region Conservation Authority's (GRCA) Technical and Engineering Guidelines for Stormwater Management (December 2014). The GRCA SWM guidelines state that storm sewers will need to convey flows from the 5-year storm. For the largest drainage catchment (9.1 ha) the 5-year peak flow was found to be 1.229 m^3/s.

Additionally, the 1992 Cobourg/Midtown Creeks Master Drainage Plan Study recommended a post-development peak flow reduction of 50% of the pre-development flows for the 2-year event and a reduction of 70% of the pre-development flows for the 5-year through 100-year events. Lot-level controls are recommended to meet conveyance initiatives where storm sewers cannot adequately convey flows. Modified rational calculations can be found in Appendix D6. At the detailed design stage, all calculations must meet the Town of Cobourg engineering standards, and consider the parameters listed in the GRCA Technical and Engineering Guidelines for Stormwater Management Submissions (2014).

No existing stormwater management (SWM facilities) were identified in the review of infrastructure servicing the Tannery Lands. Full SWM facilities will likely be required within the Tannery Lands in order to meet quantity, quality, and erosion control criteria defined in the GRCA's Technical and Engineering Guidelines for Stormwater Management (December 2014). Such end of pipe facilities as SWM ponds, oil and grit separators, and SWM pond hybrids will need to be correctly implemented to meet stormwater objectives. As a rough estimate, SWM ponds generally comprise 6-7% of their contributing drainage area, or 0.9 ha in the case of the Tannery Lands.

There are also opportunities to control stormwater flows through retention, natural infiltration, and low-impact development (LID) techniques to enhance infiltration, water balance, and provide erosion and sediment controls for the Tannery Lands. These techniques can be used to maintain the natural hydrological cycle and reduce the need for end-of-pipe facilities. In areas of high runoff, source controls may be implemented to treat and retain stormwater to decrease loading to other SWM facilities. Quantity and quality credits for specific LIDs will be confirmed by the Town and GRCA. The ability to effectively implement LID techniques will depend on the site's native soils, infiltration rates, and groundwater table. Should any LID techniques be incorporated at the detailed design stage, full soils analyses will be required as specified in the TRCA/CVC Low Impact Development Stormwater Management Planning and Design Guide (2010).

The soil type within the Tannery Lands was established in the Phase II Environmental Site Assessment for the Former Tannery Property, authored by Genivar (June 2010). Genivar determined that the subject property generally consisted of up to 0.8 m of sand or gravelly sand fill with cinders and brick fragments. Genivar also noted that beneath the top layer soils, the site was underlain by lacustrine deposits with a range of gravelly sand to sandy silt. Excerpts from the Genivar Phase II ESA can be found in Appendix D7. Soil type, infiltration rates, and groundwater information should be confirmed through a geotechnical study across the entire Tannery site. Should the soils be found suitable, LID techniques should be implemented to compliment the goals of the Sustainable Neighbourhood Master Plan. This report does not comment on the environmental suitability of infiltration and LID implementation within the Tannery Lands due to possible soil and groundwater contaminants.

6.0 Electrical Power

A draft of this report was circulated to Lakefront Utilities Inc. as part of the first submission. Lakefront Utilities Inc. has commented that there is sufficient electrical power to service the area. Further, specific comments were provided and are as follows:

Lakefront Utilities Inc. (LUI) general comment is that there is sufficient electrical power to service the subject area, however the following specific comments apply:

- *All buildings and structures to adhere to LUI 0 Building Clearances as stated in the attached PDF*
- *Services would fall under current LUI Conditions of Service and all paperwork and fees to be submitted for review*
- *All curbs and driveways and intersections to be clearly set prior to any electrical charging stations for electrical vehicles this would have to be reviewed and follow as per the Ontario Electrical Safety Code current edition*
- *Any green energy projects would be subject to provincial standards and regulation along with LUI standards and costs*
- *If an underground system is being proposed this property would be required to have a loop feed as to isolate problems and keep a majority of customers and businesses energized*

7.0 Transportation

From a transportation perspective, the Sustainable Neighbourhood Master Plan will consider a multimodal transportation network that minimizes automobile dependency and maximizes pedestrian and cycling connectivity. The purpose of this Phase 1 assessment is to review relevant background documentation to confirm common issues, trends and constraints associated with the Tannery District lands and surrounding areas from a transportation perspective.

The Study area is currently designated as Mixed-Use Corridor Area and Residential Area in the 2010 Town of Cobourg Official Plan Schedule A Land Use Plan and zoned as District Commercial, General Industrial, Residential 2, Residential 3, Neighborhood Commercial, and Industrial per the Town of Cobourg Zoning By-Law No. 85-2003 Schedule A, Map 7. The relevant map has been included in Appendix E1.

7.1 Existing Transportation Network

The Subject Lands are bounded by the network of George Street, Princess Street, Clare Street, Crossen Street, Alice Street, Roe Street, University Avenue, Bond Street, Spring Street, Furnace Street, Ball Street, Spencer Street, and Victoria Street. Each of these roadways are two-way roadways with one lane in each direction, their respective designations can be observed in Schedule E of the Official Plan and lane configurations can be observed in Appendix B. Table 5 summarizes the relevant characteristics of the boundary road network.

Table 5: Boundary Road Network Characteristics

Roadway	Functional Classification	Jurisdiction	Posted Speed Limit[1]
University Avenue	Arterial	Town of Cobourg	50 km/h *40km/h between Bond Street and Division Street*
Spring Street	Collector		50 km/h
Princess Street	Local Roadway		
Clare Street			
Crossen Street			
Alice Street			
Roe Street			
Bond Street			
Spring Street			
Furnace Street			
Ball Street			
Spencer Street			
Victoria Street			

Note: For speed limits not posted, speed limit assumed to be 50 km/h per municipal regulation.
The intersections surrounding the subject lands are stop-controlled; except for the signalized George Street and University Avenue intersection. An at-grade crossing exists at the intersection of George Street and the rail line north of Princess Street.

Concrete pedestrian sidewalks exist on both sides of George Street, Spencer Street, University Avenue, Bond Street, Spring Street, and the section of Victoria Street south of Furnace Street.

No sidewalks are provided on Crossen Street, Clare Street, Alice Street, Roe Street, Princess Street, or the sections of Ball Street and Victoria Street North of Furnace Street. These sidewalks are well connected to the downtown area of Cobourg via sidewalks on most roadways between the Tannery District and Downtown Cobourg.

7.1.1 Active Transportation

The Town of Cobourg generally has an extensive network of pedestrian facilities. As previously mentioned, concrete sidewalks exist on at least one side of most roadways. With respect to the subject lands, the pedestrian facilities are discontinuous, primarily due to a lack of connected roadway infrastructure. Some roadways such as Roe Street, Alice Street and Crossen Street do not have dedicated pedestrian facilities and therefore presents discontinuity in the active transportation network. However, the network surrounding the Tannery District is well connected to Downtown Cobourg and its adjoining trail systems.

On-street bicycle lanes exist on the south side of University Avenue, west of Spring Street. The cycling facilities on University Avenue and Division Street connect the Tannery District lands to Downtown Cobourg. Moreover, University Avenue and Division Street are designated pedestrian/cycling paths, with further potential for a designated pedestrian/cycling path along William Street. Refer to Appendix E2 for relevant excerpts of the Town's Transportation Master Plan.
The current network of sidewalk facilities in the study area can be observed in Appendix B.

7.1.2 Transit Network

Cobourg Transit operates two transit routes, typically from 6:15 a.m. to 7:45 p.m. on weekdays and from 8:45 a.m. to 6:45 p.m. on weekends with one-hour headways.

Route 1 generally operates along King Street West - east of Division Street, and along Elgin Street West - west of Division Street. Route 2 generally operates on William Street and West Wood Drive as well as along Elgin Street, east of Division Street. Both routes operate along Division Street. A more extensive illustration of the transit network can be found in Appendix E2.

Relative to the subject lands, bus stops for Route 2 exist along University Avenue West between Spring Street and Division Street, allowing for travel to Downtown Cobourg. However, the Cobourg Transit network is not considered extensive and has relatively long headways. As a result, this may not be conducive to increasing transit mode share.

The Cobourg VIA Rail station is located northwest of the study area on George Street. Service operates from Toronto to Ottawa and Montreal. The station is also pedestrian accessible via sidewalks on the east side of George Street.

7.2 Challenges and Opportunities

Evaluating Cobourg's current and future transportation needs from a sustainability perspective is one of the first steps towards achieving Cobourg's goal of becoming a leader in sustainability, while maintaining the vision of a progressive lakeside community that honors the past and embraces the future, as expressed in The Town of Cobourg's Strategic Plan (2015-2018). This section aims to help establish a framework within which the Town's sustainability objectives can be met from a transportation perspective; and identifies the challenges and opportunities associated with each. Further details and recommendations will be provided during the completion of the Phase 2 report.

7.2.1 Active Transportation

An efficient active transportation network connects pedestrians and cyclists to desired destinations while minimizing distance travelled. In addition, as all transit trips begin and end with active transportation, an efficient active transportation network also contributes to increased transit use by connecting destinations to transit stops.

Future development in the subject lands should have an active transportation network that connects to the existing network in an uninterrupted manner where feasible. Such continuity expands the range of destinations conveniently available, making walking and cycling a feasible alternative to automobile use for future occupants and the existing surrounding community. The continued provision of a grid-like network creates more direct routes that are easy to navigate and also increases the attractiveness of active transportation.

Future development of the Tannery Lands should ensure pedestrian connectivity to the nearby Cobourg VIA Rail station. As sidewalks exist on the east side of George Street that connect to the Cobourg VIA Rail Station, future connections to George Street via Princess Street, Clare Street or Alice Street should also incorporate pedestrian facilities for continuity. This may require improvements to these roadways as the network should avoid discontinuity where feasible.

The provision of Wayfinding signs on cycling facilities to key destinations also encourages increased cycling use. Within the Tannery Lands, connectivity can be supported during the development of the road network.

It is important to note that Right-of-Way constraints may exist on some roadways, which may present a challenge for incorporating new pedestrian/cycling facilities on existing roadways. Moreover, as demand for cycling increases, separating infrastructure on existing roadways such as cycling lanes or paved lanes may become more desirable, at which stage the feasibility of incorporating such facilities should be considered in greater detail.

7.2.2 Transit

Reliable and effective transit service can materially reduce automobile use, provided that the transit system is competitive. In this regard, accessibility to major retail/shopping areas, essential government services, recreational uses and employment areas should be maximized. While the development of the Tannery Lands may facilitate transit connectivity via internal design, constraints with transit service frequency and route options may limit increased transit mode utilization. However, it is also recognized that a lack of sufficient demand may not warrant increased service; thus, future transit needs as anticipated should be reviewed in further detail.

7.2.3 Parking

Sustainable parking practices can be incorporated during several stages of the development process. Generally, oversupply is undesirable as it encourages automobile use; however, it is also important to provide adequate parking supply to ensure safe roadways and traffic operations.

Shared parking should be encouraged among mixed-use developments as confirmed appropriate via the completion of Parking Justification Studies. In mixed use developments, peak parking demand associated with one land use type often occurs at a different time of day than the peak parking demand associated with a different land use type. By considering shared parking, the likelihood of oversupply is reduced, with lands otherwise dedicated to parking facilities being utilized more feasibly.

Where feasible, reduced parking requirements as confirmed appropriate via the completion of Parking Justification Studies should be facilitated. This should be further explored as proximity to the Via Rail Station and future active transportation connectivity may reduce parking demand associated with specific development types. However, it is acknowledged that less-than-ideal transit service may pose a challenge to widespread reduced parking rates in the Tannery Lands; thus, appropriate Parking Justification Studies should confirm the acceptability of any proposed reduced parking supply.

In new developments, preferred parking spaces for carpooling vehicles and electric vehicles should be encouraged. The provision of preferred parking spaces for carpoolers and electric vehicle users in close proximity to building accesses can increase the attractiveness of these transportation methods via increased convenience, thereby resulting in reduced emissions for trips made.

Parking areas should encourage connectivity to pedestrian and cycling facilities in order to discourage single occupancy vehicle use for multiple short trips. Pedestrian connectivity throughout mixed-use developments increase walkability and pedestrian activity between land uses.
Safe and secure long-term and short-term bicycle parking should be provided in new developments. Provision of such facilities encourages cycling and pedestrian trips; while reducing automobile reliance.

7.2.4 Complete Streets

An essential component to creating an effective multimodal transportation network includes the development of "complete streets". Future Rights-of-Way and cross-section configurations should be able to accommodate pedestrians, cyclists, transit vehicles, and automobiles. This may be incorporated via the use of shared roadways for cyclists and automobiles/transit vehicles, dedicated cycling lanes, multi-use paths or pedestrian sidewalks.

Challenges may exist on existing roadways due to constrained ROWs that may limit options for a connected multi-modal network. In this regard, the implementation of future transit routes and planned active transportation infrastructure with practical ROW constraints should be considered. However, implementation of complete streets in the subject lands should be considered where feasible.

7.2.5 Electric Vehicle Charging Stations

The use of electric vehicles is becoming more prevalent not only to reduce operating costs for owners, but also as a part of more sustainable living to reduce automobile emissions. However, the lack of infrastructure may prohibit consideration for existing and potential electric vehicle owners.

In this regard, future development on the Tannery Lands could consider being designed to accommodate electric vehicle charging stations to encourage increased use of electric vehicles. These charging stations may also be provided at convenient locations in reasonably close proximity to building entrances, and signed accordingly. By considering its implementation, this may reduce the barrier of entry to future residential owners who may wish to install charging stations associated with their individual parking spaces, and provide increased incentive for visitors to non-residential development.

7.2.6 Policy

Further aspects of sustainable transportation initiatives may also be considered. For instance, "No Idling" policies seek to reduce emissions due to unnecessary automobile idling. Transportation Demand Management strategies could be considered during the development process to promote the development of more complete communities with reduced reliance on automobile use.

8.0 Conclusions and Recommendations

1. The Tannery Lands redevelopment population was estimated using medium density and high density targets at 700 and 1400 people and jobs, respectively. These targets reflect the desire for intensification of the Tannery Lands.

2. Municipal sanitary treatment system has a reserve capacity of 2,862m^3/day (4,424 people) and can adequately service the future development of the Tannery district.

3. Sanitary sewers internal to the Tannery Lands likely have sufficient capacity to convey future development demands. Further analysis will be needed to assess the conveyance capacity of internal sewers and the up-stream flows contributing to trunk sewers. The status of the aging infrastructure should be reviewed prior to redevelopment.

4. Municipal water distribution system is currently servicing the Town, and operating at 42-45% capacity, as advised by Lakefront Utilities Inc.

5. Water services internal to the Tannery Lands are adequately sized to convey future water demands. Further analysis will be required to calculate individual fire flow rates.

6. The Tannery Lands drain stormwater flows from north to south along larger storm sewers. Post-development flows will likely increase as a result of development. Lot level controls may be required to convey peak runoff from the site.

7. Full SWM facilities will likely be required to meet quality, quantity and erosion control criteria to comply with GRCA guidelines. Such facilities as SWM ponds, oil-grit separators, and hybrid/vegetated filtration techniques will need to be correctly implemented to meet design criteria.

8. Soil types within the Tannery district will suitably provide infiltration for the implementation of low-impact development techniques. Such techniques will aid in promoting 'sustainable development' of the Tannery Lands.

9. The active transportation network surrounding the Tannery District lands provides adequate connectivity to Downtown Cobourg. Future development on the subject lands should provide connectivity with the existing active transportation network; however, as some roadways do not provide pedestrian facilities, optimum routes should be further explored.

10. The Town provides transit services along key arterials and collectors, providing connectivity to Downtown Cobourg. Opportunities for improvements in headway and service routes exist, but should be further explored in consideration of specific transit objectives. Future development should ensure adequate pedestrian connectivity to the existing VIA Rail station.

11. In achieving a multi-modal transportation network, future Rights-of-Way on the subject lands should accommodate transit vehicles, cyclists and pedestrians in a "complete streets approach"; with adequate active transportation facilities to and from transit stops.

12. The subject lands provide opportunities to achieve the Town's sustainability objectives. Opportunities exist via Transportation Demand Management (TDM) strategies, parking strategies, site design and provision of electric vehicle charging stations, but should be further explored to identify constraints for implementation and integration with the existing road network.

Respectfully submitted,

C.F. CROZIER & ASSOCIATES INC.

Michael Linton, MA Sc., P. Eng
Transportation

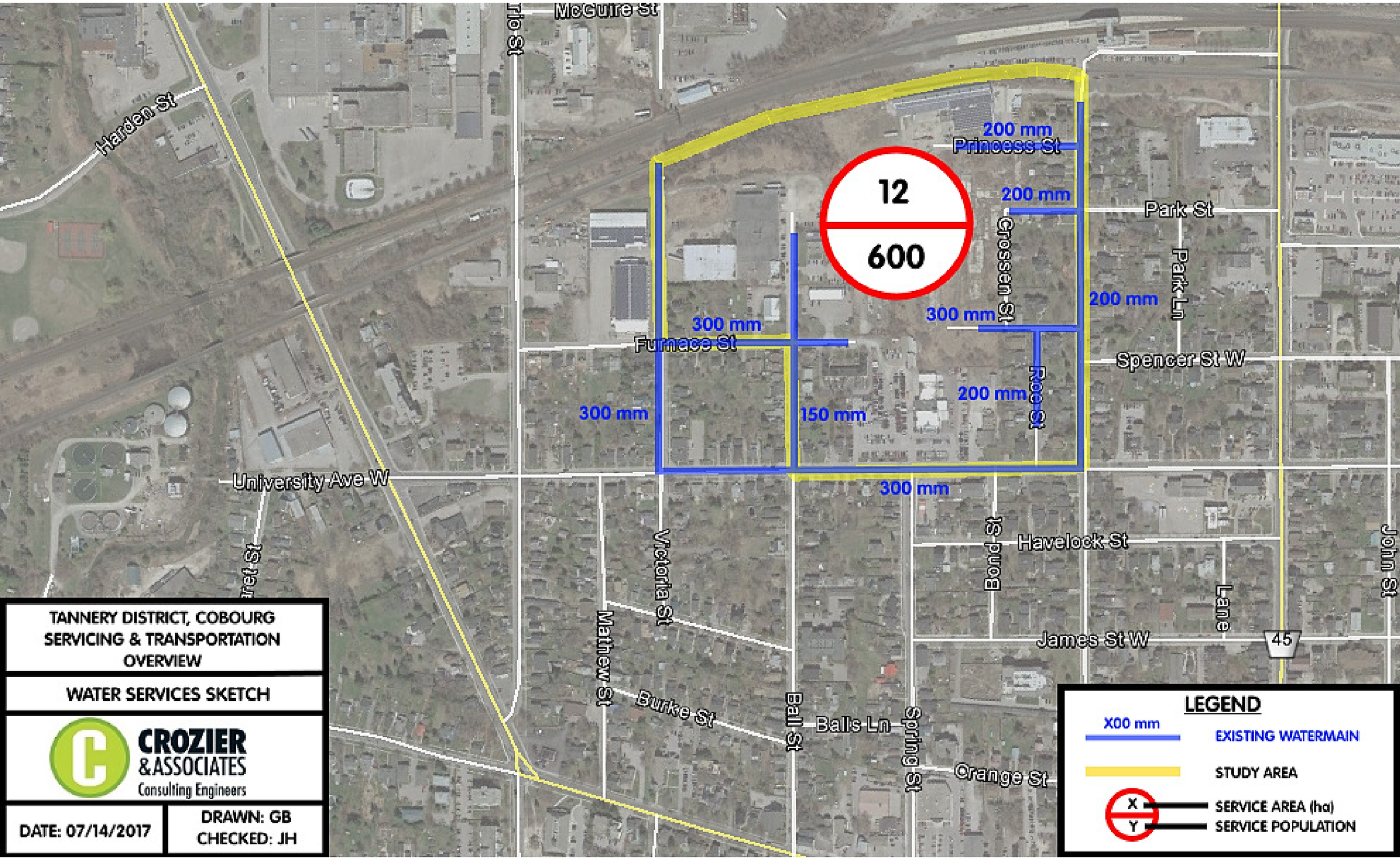
C.F. CROZIER & ASSOCIATES INC.

K.J. Firth, P. Eng.
Associate

I:\1300\1379-Fotenn\4615-Tannery District\Reports\2018.03.16_Functional Servicing and Transportation Overview.docx

APPENDIX A

CIVIL INFRASTRUCTURE FIGURES

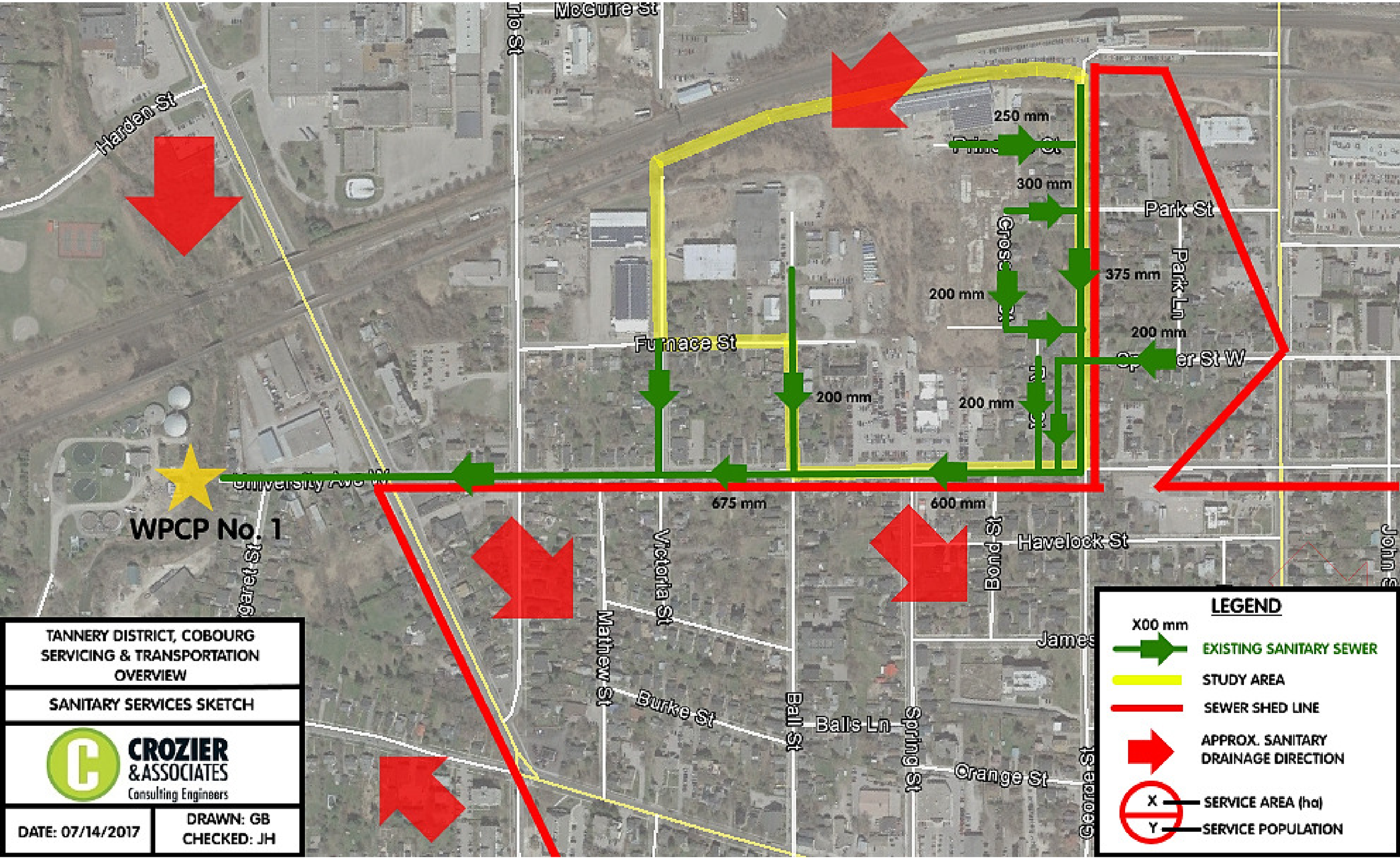


TANNERY DISTRICT, COBOURG
SERVICING & TRANSPORTATION
OVERVIEW

WATER SERVICES SKETCH

CROZIER & ASSOCIATES
Consulting Engineers

DATE: 07/14/2017	DRAWN: GB CHECKED: JH

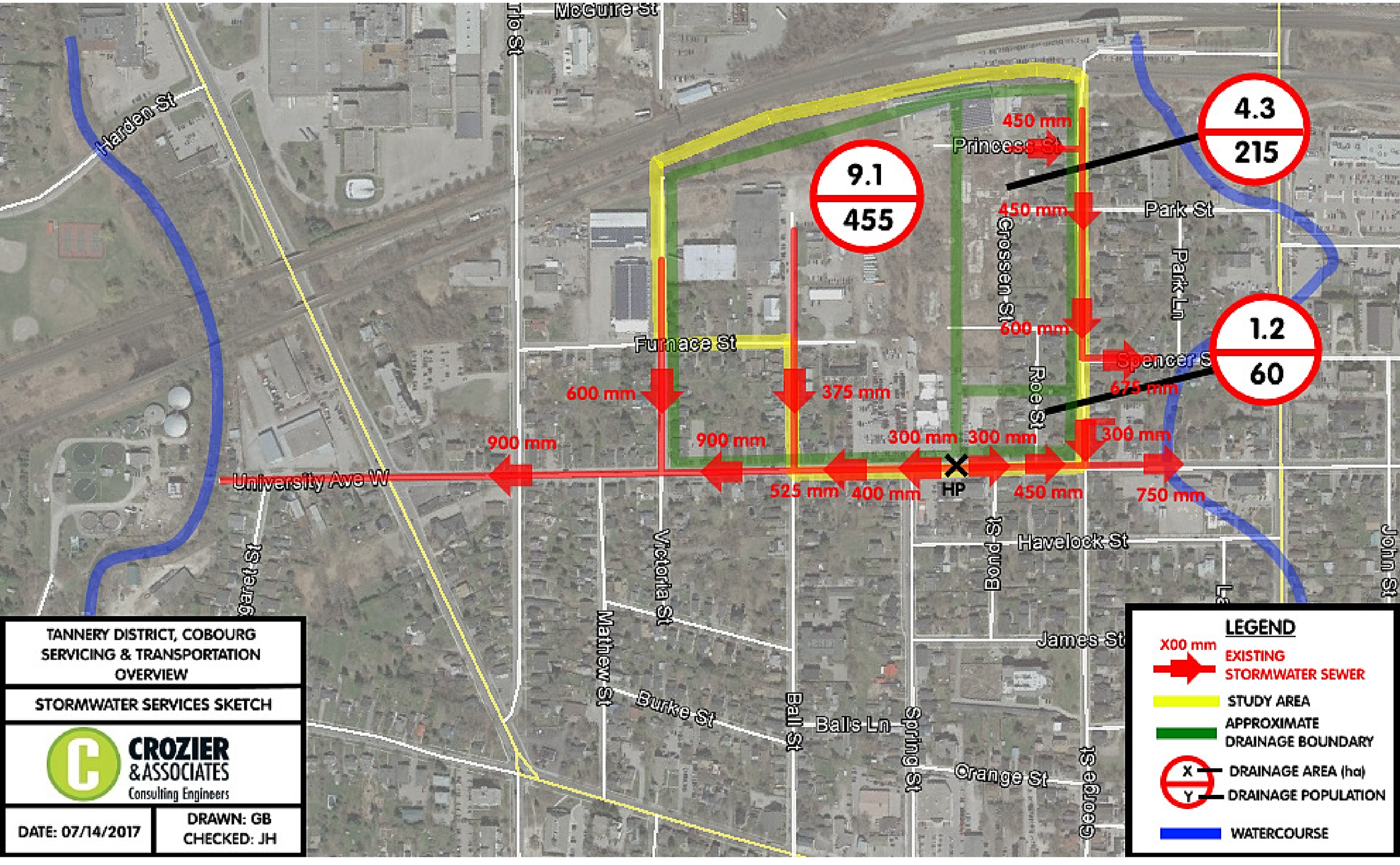


TANNERY DISTRICT, COBOURG
SERVICING & TRANSPORTATION OVERVIEW

SANITARY SERVICES SKETCH

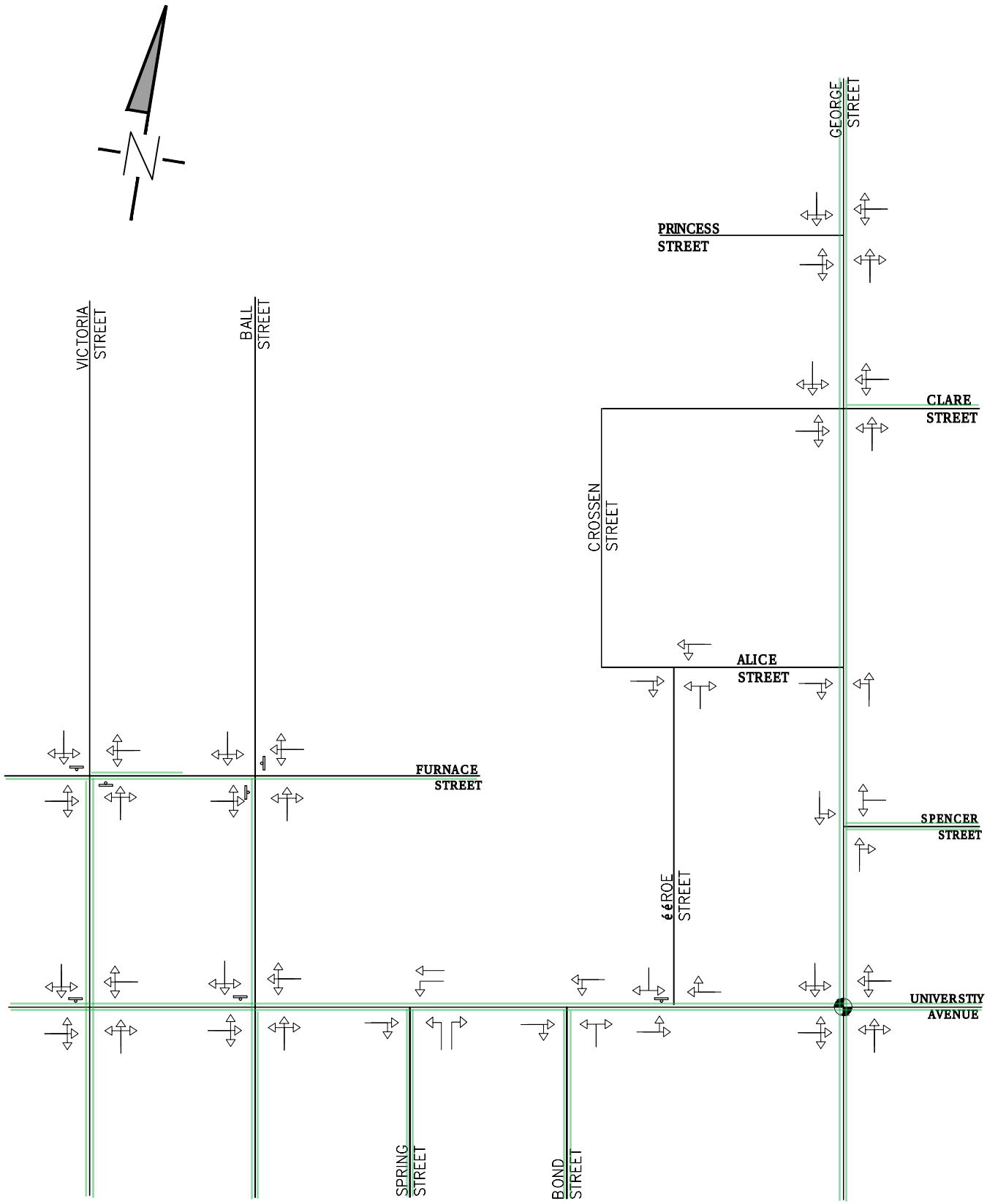
CROZIER &ASSOCIATES
Consulting Engineers

DATE: 07/14/2017	DRAWN: GB CHECKED: JH


McGuire St
Harden St
Princess St
Park St
Grosser St
Park Ln
Furnace St
Spencer St
Roe St
University Ave W
Victoria St
Mathew St
Burke St
Ball St
Balls Ln
Spring St
Orange St
George St
Bond St
Havelock St
James St
John St
9.1
455
4.3
215
1.2
60
450 mm
450 mm
600 mm
675 mm
600 mm
375 mm
900 mm
900 mm
300 mm
300 mm
300 mm
525 mm
400 mm
HP
450 mm
750 mm
TANNERY DISTRICT, COBOURG
SERVICING & TRANSPORTATION
OVERVIEW
STORMWATER SERVICES SKETCH
CROZIER
&ASSOCIATES
Consulting Engineers
DATE: 07/14/2017
DRAWN: GB
CHECKED: JH
LEGEND
X00 mm
EXISTING
STORMWATER SEWER
STUDY AREA
APPROXIMATE
DRAINAGE BOUNDARY
X
Y
DRAINAGE AREA (ha)
DRAINAGE POPULATION
WATERCOURSE

APPENDIX B

TRANSPORTATION INFRASTRUCTURE FIGURES



NOTE: THIS FIGURE IS FOR SCHEMATIC PURPOSES ONLY & IS NOT TO BE SCALED.

Legend

SIGNAL CONTROL

STOP CONTROL

XX(YY)[ZZ] A.M. (P.M.) [SAT] WEEKDAY PEAK HOUR TRAFFIC VOLUMES

SIDEWALK

Project

COBOURG SUSTAINABLE MASTER PLAN

Drawing

ROAD NETWORK

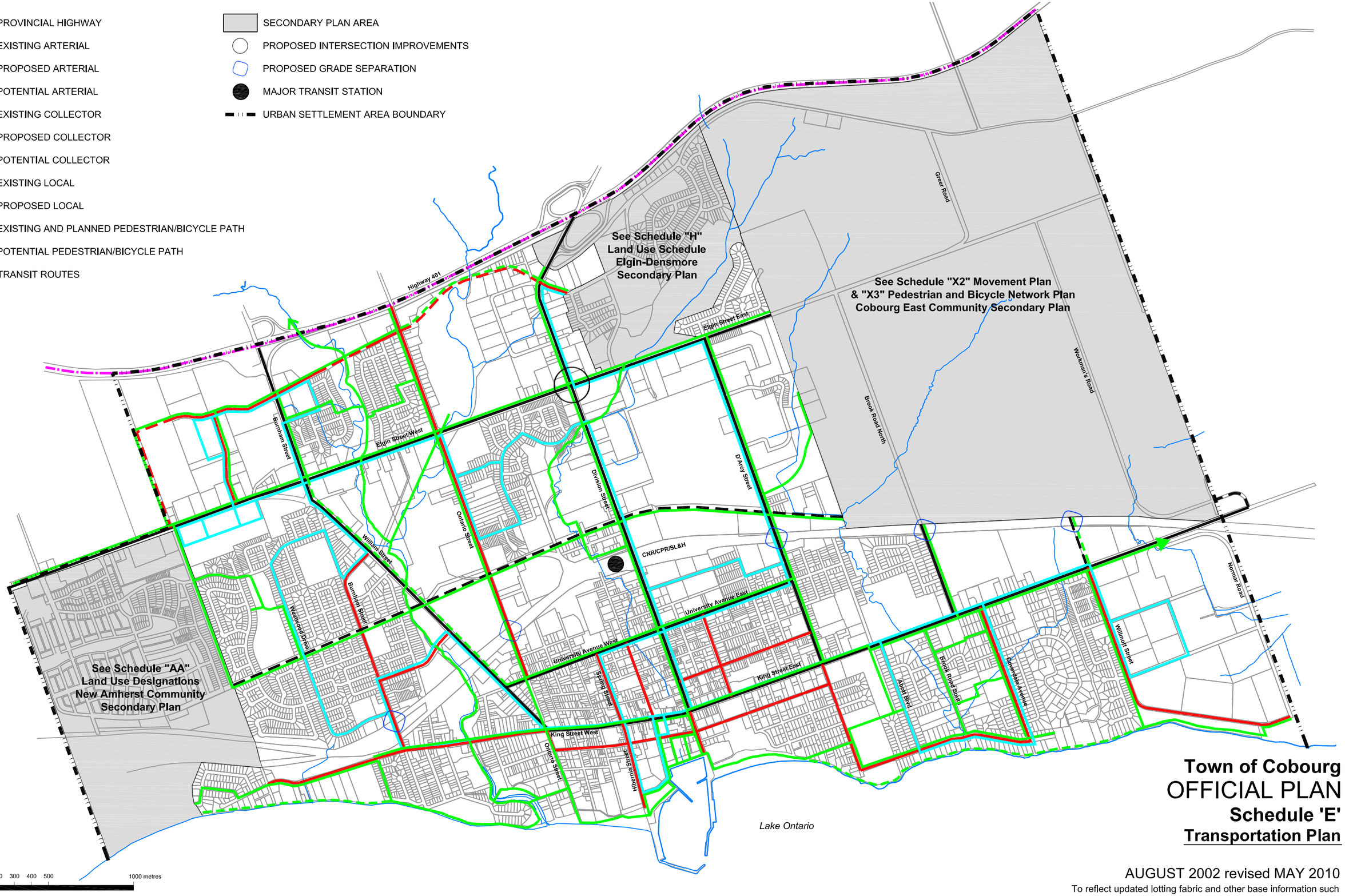
CROZIER & ASSOCIATES Consulting Engineers
The HarbourEdge Building, 40 Huron Street, Suite 301, Collingwood, ON L9Y 4R3
705-446-3510 T
705-446-3520 F
www.cfcrozier.ca
info@cfcrozier.ca

Drawn By	Design By	Project
E.H.	E.H.	1379-4615

Scale	Date	Check By	Drawing
N.T.S.	JUNE 29, 2017	M.L.	FIG.1

LEGEND

- PROVINCIAL HIGHWAY
- EXISTING ARTERIAL
- PROPOSED ARTERIAL
- POTENTIAL ARTERIAL
- EXISTING COLLECTOR
- PROPOSED COLLECTOR
- POTENTIAL COLLECTOR
- EXISTING LOCAL
- PROPOSED LOCAL
- EXISTING AND PLANNED PEDESTRIAN/BICYCLE PATH
- POTENTIAL PEDESTRIAN/BICYCLE PATH
- TRANSIT ROUTES
- SECONDARY PLAN AREA
- PROPOSED INTERSECTION IMPROVEMENTS
- PROPOSED GRADE SEPARATION
- MAJOR TRANSIT STATION
- URBAN SETTLEMENT AREA BOUNDARY



Town of Cobourg
OFFICIAL PLAN
Schedule 'E'
Transportation Plan

AUGUST 2002 revised MAY 2010

To reflect updated lotting fabric and other base information such as designation tones, which do not change the intent of the Plan

APPENDIX C

POPULATION ESTIMATE DOCUMENTS

APPENDIX C1

ONTARIO GROWTH PLAN FOR THE GREATER GOLDEN HORSESHOE EXCERPTS

9. Municipalities are encouraged to designate and preserve lands within *settlement areas* in the vicinity of existing major highway interchanges, ports, rail yards and airports as areas for manufacturing, warehousing, and associated retail, office and ancillary facilities, where appropriate.

10. In planning lands for employment, municipalities will facilitate the development of *transit-supportive*, compact built form and minimize surface parking.

2.2.7 Designated Greenfield Areas

1. New development taking place in *designated greenfield areas* will be planned, designated, zoned and designed in a manner that –

   a) contributes to creating *complete communities*

   b) creates street configurations, densities, and an urban form that support walking, cycling, and the early integration and sustained viability of transit services

   c) provides a diverse mix of land uses, including residential and employment uses, to support vibrant neighbourhoods

   d) creates high quality public open spaces with site design and urban design standards that support opportunities for transit, walking and cycling.

2. The *designated greenfield area* of each upper- or single-tier municipality will be planned to achieve a minimum *density target* that is not less than 50 residents and jobs combined per hectare.

3. This *density target* will be measured over the entire *designated greenfield area* of each upper- or single-tier municipality, excluding the following features where the features are both identified in any applicable official plan or provincial plan, and where the applicable provincial plan or policy statement prohibits development in the features: 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 area of the features will be defined in accordance with the applicable provincial plan or policy statement that prohibits development in the features.

4. Policy 2.2.7.3 is provided for the purpose of measuring the minimum *density target* for *designated greenfield areas*, and is not intended to provide policy direction for the protection of natural heritage features, areas and systems.

5. The Minister of Public Infrastructure Renewal may review and permit an alternative *density target* for an upper- or single-tier municipality that is located in the *outer ring*, and that does not have an *urban growth centre*, to ensure the *density target* is appropriate given the characteristics of the municipality and adjacent communities.

APPENDIX C2

NORTHUMBERLAND COUNTY OFFICIAL PLAN EXCERPTS

TABLE J
Minimum Greenfield Density Target for Greenfield Development in Urban Areas during the Planning Period

Municipality	Minimum Density Target for Greenfield Areas (people and jobs per gross hectare)
Brighton	25
Campbellford	25
Cobourg	35
Colborne	25
Hastings	25
Port Hope	35

The minimum Greenfield density target can be reviewed at the time of a County *municipal comprehensive review.*

B11 URBAN AREA AND RURAL SETTLEMENT AREA BOUNDARY EXPANSIONS

An expansion to an *urban area* or *rural settlement area* boundary may only occur as part of a County *municipal comprehensive review* as set out in Section 2.2.8 of the Growth Plan and as part of a *comprehensive review* as set out in Section 1.1.3.8 of the Provincial Policy Statement.

B12 EFFECT OF FORECASTS ON EXISTING PLANNING APPROVALS WITHIN URBAN AREAS AND RURAL SETTLEMENT AREAS

There is a sufficient supply of land designated in local Official Plans to meet the need for residential *development* over the 20 year time period of the Plan. However, the *urban area* population and employment forecasts set out in Tables A and B for *urban areas* and the population and employment forecasts for *rural lands* as set out in Tables C and D do not have an impact on the ability of the County and local municipalities to consider applications to develop lands that are within an *urban area* or *rural settlement area* boundary that existed on the date this Plan came into effect.

B13 PLANNING FOR EMPLOYMENT

a) Ensuring that there is employment land in appropriate locations to attract the widest range of possible uses is a key objective of this Official Plan. On this basis, certain lands within the Municipality of Port Hope having an approximate area of 112 hectares shown on Schedule A have been identified as a preferred location for a future Major Employment Area designation. Until such time as the potential Port Hope Major Employment Area is approved in accordance with subsection B13 d) below, the designation of the subject lands shall remain as Agricultural. Other lands that are considered suitable for such

APPENDIX C3

TOWN OF COBOURG OFFICIAL PLAN EXCERPTS

iv) the prevailing building type including any special built form features; and,

v) any special landscape or other features.

3.4.3.2 New Residential Areas

In new residential areas or significant redevelopment areas, applications for development shall be evaluated based on their conformity with the Growth Management Strategy in Section 3.2 and all other applicable policies of this Plan and the following criteria:

i) a mix of development forms and densities;

ii) medium density residential uses are encouraged and shall be :

a) intermixed with low density development in smaller groups;

b) primarily street oriented in design; and,

c) located adjacent to collector and arterial roads, park and greenland areas, community facilities and commercial areas and/or as a physical transition between high and low density residential development.

iii) the road pattern is a modified, rectilinear grid pattern which provides for the maximum possible degree of connectivity internally, and externally with the existing developed areas and abutting arterial and collector roads with short blocks to promote active transportation modes; and,

iv) the development incorporates linkages to the Town's greenland system and, incorporates private or public open space features or areas including Village Squares which serve as focal points for the residential development and/or structural elements which define the character and structure of the area.

3.4.3.3 Density

The ~~maximum~~ density ranges for residential development shall be:

i) Low Density

a) 12 units per net hectare (5 units per net acre) minimum
b) 20 units per net hectare (8 units per net acre) maximum

ii) Medium Density

a) 20 units per net hectare (8 units per net acre) minimum
b) 50 units per net hectare (20 units per net acre) maximum.

3.4.3.4 Height

The maximum height for residential development shall be three storeys in Stable Residential Areas and four storeys in New Residential Areas.

3.4.4 Special Provisions

3.4.4.1 King Street West Village Area

The following special development criteria shall be considered by Council in reviewing any proposals for development or redevelopment in the King Street West Village area. This area is generally described as those lands situated between Burnham Street and Tracey Road, south of the railway corridor to Lake Ontario, excluding those lands west of Burnham Street to Maher Street.

In addition to the other development policies in this Plan, in the King Street West Village Area, the Land Use Plan shall be subject to the following:

i) A continuous parkland area shall be provided adjacent to Lake Ontario. Acquisition of this parkland shall occur at the time of development of the lands through the subdivision, condominium, *consent* or site plan approval processes.

ii) Architecturally significant, historically and/or contextually significant buildings within the area shall be retained wherever possible on their original foundation. In the event that placement of a heritage resource precludes the reasonable development of a parcel, consideration may be given to accommodating the building elsewhere on the site or another location. Relocation of buildings ~~or significant alteration of buildings~~ shall only be permitted in accordance with the advice of the ~~Local Architectural Conservation Advisory~~ Municipal Heritage Committee (Heritage Cobourg)and approval of Council.

e) retention of the existing street pattern, unless modifications will improve accessibility for active transportation modes~~.~~ *, and,*

f) any proposed redevelopment shall take into consideration adjacent uses including low density development, as well as adjacent development across a street.

A holding zone may be used to ensure that the appropriate review of new development is undertaken in accordance with these criteria.

3.5.3.2 New High Density Residential Areas

Applications for new High Density Residential Area designations shall be evaluated based on their conformity with the Growth Management Strategy in Section 3.2 and other applicable policies of this Plan and the following criteria:

i) a mix of development forms and densities;

ii) high density residential uses are:

a) intermixed with medium density development;

b) primarily street oriented in design; and,

c) located with direct access to collector and arterial roads, park and greenland areas, community facilities and/or commercial areas.

iii) designed to ensure that there are no significant negative impacts with respect to privacy and shadowing, and that appropriate buffering can be provided for any adjacent lands in the Residential Area designation; and,

iv) size and scale of the development is such that it can be integrated with any adjacent residential areas, in particular conforms with the policies of Section 5.5, Cultural Heritage Preservation and preserves designated and listed cultural heritage buildings and structures, and where located adjacent to such buildings and structures is designed to be compatible.

.

3.5.3.3 Density

The minimum density for residential development in the High Density Residential Area designation shall be 50 units per net hectare (20 units per net acre). The maximum density for residential development in the High Density Residential Area designation shall be 100 units per net hectare (40 units per net acre).

3.5.3.4 Height

The maximum height for residential development shall be six storeys. The minimum height shall be three storeys, other than a podium attached to a building may be two storeys.

3.5.4 Special Provisions

3.5.4.1 980 Burnham Street

Notwithstanding any other policies of this Plan, the maximum overall density for the property known as 980 Burnham Street shall not exceed 98 units per hectare (39.7 units per acre).

3.5.4.2 Southwest Corner Burnham Street and Westwood Drive

Notwithstanding any other policies of this Plan, on lands described as the southwest corner of Burnham Street and Westwood Drive, an apartment building shall be permitted provided appropriate noise control techniques are incorporated into the building design, in accordance with the guidelines of the Ministry of the Environment.

3.5.4.3 Blocks bounded by King Street, D'Arcy Street, Queen Street and Church Street

In addition to the policies of Section 3.5 *including 3.5.3.1 f)*, new development in this area shall reflect the heritage character of the surrounding area*, including designated and listed heritage properties,* and the direction in Section 5 of this Plan, particularly Section 5.2.3. Whenever possible, new development shall preserve existing heritage buildings ~~*and/or*~~ *incorporate portions of such buildings* in accordance with the policies of Section 5.2.3 of this Plan.

APPENDIX D

SUPPORTING CIVIL DOCUMENTS

APPENDIX D1

STANTEC SANITARY SEWAGE TREATMENT PLANTS RESERVE CAPACITY REPORT EXCERPTS

4.0 RESERVE CAPACITY CALCULATIONS

Using the formula noted in Section 1 of this report the uncommitted reserve capacities were calculated for WPCPs No. 1 and 2 are summarized in the following Table 4.1.

Table 4.1 Reserve Capacity Calculations

WPCP No. 1 –Reserve Capacity	
Persons Per Unit [ppua]	2.3
Plant Capacity [Qrated] (m^3/day)	13,630
Existing Flows [Qe] (m^3/day)	8,055
Hydraulic Reserve Capacity [Cr= Qrated – Qe] (m^3/day)	5,575
Number of Unconnected Approved Lots [L] (Committed and Committed Reserve Status)	1,823
Existing Population Served By WPCP No. 1 [P]	12,447
Number of Connected Households [H]	5,412
Average Day Per Capita Flow [F] (m^3/cap/day)	0.647
Uncommitted Reserve Capacity (m^3/day) $$Cu = Cr - \frac{LxFxP}{H}$$	2,862
Uncommitted Reserve Capacity Population Equivalent [Pu = Cu/F]	4,424
Uncommitted Reserve Capacity Equivalent Residential Lots [Lu = Pu/ppua]	1,924

Legend

- Water Pollution Control Plant
- Sewage Pumping Station
- Sewershed Boundary

A1 Multi Phase Residential Development
B1 Other Residential Development
C27 Commercial Developments
D1 Mixed Use Developments
F3 Institutional Developments

WPCP No. 1 Sewershed
WPCP No. 2 Sewershed

A1 A2 A3 A4a A4b A5 A6 A7
B1 B2 B3 B4 B5 B6 B7 B8 B9 B10 B11 B12 B13 B14 B15 B16 B17 B18 B19 B20 B21 B22 B23
C27
D1 D2 D3 D4 D7
F3

WPCP No. 1
WPCP No. 2
Monks Cove SPS
Forth St. SPS
McGill St. SPS
Brook Rd. SPS

N

TOWN OF COBOURG

Sanitary Sewer

Cobourg GEOMATICS

500 250 0 500 m

Manhole
Forcemain
Diameter
No Value
200

LAKE ONTARIO

Figure 3.1
Residential Developments

APPENDIX D2

TANNERY DISTRICT COMMUNITY IMPROVEMENT PLAN
BACKGROUND REPORT
EXCERPTS

Table 1 Tannery Site Chronology	
	• Town initiates prosecution of non-compliance with OBC order
2005-2007	Ongoing litigation regarding OBC order.
July–August 2006	Town issues order to demolish under Town's Property Standards By-law. Owner appealed to Property Standards Committee and the Committee upheld the order issued by the Chief Building Official. Owner did not appeal.
November 2006	Town awarded contract for demolition of buildings and structures and removal of debris and refuse and grading and leveling of the property.
2007	Demolition and grading and leveling of property carried out.

3.5 Servicing[6]

Town staff has advised that any significant new redevelopment in the Study Area would require new infrastructure. Specific information is outlined in the following subsections.

3.5.1 Sanitary System

The Study Area is serviced by municipal sewers. However, the majority of the system is comprised of vitrified clay pipes, with the exception of one sanitary PVC pipe on Princess Street. There is no condition rating on these pipes as they have not been camera inspected. However, the Town Public Works staff advises that any vitrified clay pipe is considered to be in very poor condition. As such, these pipes would require replacement should any substantial additional development occur in the area.[7]

It should also be noted that the network of sanitary sewers under the Tannery site have been blocked off. A letter from the Ministry of Environment (December 12, 2005) to the owner of the property indicates that the sewers are "filling with stormwater". No environmental concerns were noted by the Ministry.

3.5.2 Water

The Study Area is serviced by the municipal water system. All existing pipes are in good condition and there is ample water capacity to accommodate any redevelopment. However, the 150 mm pipe which serviced the Tannery site was disconnected at the 300 mm main on Alice St, as well as on Clare St., which now has a 50 mm plastic line. Any redevelopment of the Tannery Site will require the extension of new water pipes to the site. A connection from Clare will require approximately 33 m of pipe and from Alice 40 m. In addition, Lakefront Utility

[6] Note: Information on servicing is based on input from the staff of the Town with respect to sanitary and storm sewers, and Lakefront Utility Services Inc. with respect to water services.
[7] Source: Email from Ms. M. Chatten, Town of Cobourg Public Works, 5/25/09

Services Inc. advise that if contaminated soils are encountered it will require special handling of removed soils and possibly special attention to the selection and installation of mains.

3.5.3 Stormwater Management

The Tannery site is served by a storm sewer on Princess Street. There are also storm sewer stubs on Clare and Alice Streets just off of George Street, but they do not extend close to the Tannery site. The only other storm sewers are found on Ball St. and University Ave. W.

3.6 Transportation System

3.6.1 Roads

All the roads in the Study Area are local roads, with the exception of University Avenue West which is designated as an Arterial Road. The condition of these local roads is variable and would require upgrading should any significant redevelopment be proposed.

3.6.2 Transit

Currently, a portion of the Town's Transit Route 2 is located along University Avenue West from Spring Street to Division Street providing direct access to the Study Area. Transit Route 1 travels along Division St. which is located a short distance east of the Study Area.

3.6.3 Rail

The Town's railway station and related parking is located at the end of George Street, immediately northeast of the Study Area. Via Rail provides regular passenger service at the station including commuter rail service to Toronto.

3.7 Conclusions

The major portion of the Study Area is comprised of an older industrial area which initially developed because of its proximity to the railway. The current uses have no direct link to the rail corridor. They appear to be active operations, with a focus on uses which require open storage. However, there are some indications of poor maintenance of the buildings. The exception is the Tannery site and adjacent lands to the west which are vacant.

Information about environmental issues is limited to the Tannery site, the site at 90 Princess St. and lands to the south and east of the Tannery site. Based on that information it would appear that the Tannery site potentially may require a significant environmental clean-up, while the lands at 90 Princess St. have already undergone such a clean-up. This may mean that other sites in the vicinity, including

APPENDIX D3

SANITARY DEMAND CALCULATIONS

Project: Tannery District Sustainable | Created By: GB | Date: 7/24/2017
Project No.: 1379-4615 | Checked By: JH | Updated:

Domestic Sanitary Design Flow

			Notes & References
Site Area:	14	ha	Town of Cobourg Official Plan (2010) - Maximum
Population Density:	50	persons/hectare	Medium Density
Population:	700		

Design Parameters

Average Flow (L/capita/d)	
450	MOE Design Guidelines for Sewage Works

Sanitary Design Flow:

	Average Daily Flow =	450.0	L/capita/d	Average Daily Flow = Average Daily Flow (L/cap./day)
	Average Daily Flow =	3.65	L/s	* population / 86400
Harmon Peak Factor:	M =	3.89		M = 1 + 14 / (4 + (p/1000)^.5)
	Peak Flow =	14.20	L/s	Peak Flow = Average Daily Flow * M
Infiltration Flow:	Infiltration =	0.20	L/ha/s	Assumed Standard Infiltration
	Total Infiltration =	2.80	L/s	
	Total Peak Flow =	17.00	L/s	Total Peak Flow = Peak Flow + Total Infiltration

Summary Table

Average Daily Flow (L/s)	Peaking Factor	Peak Flow (L/s)	Infiltration Flow (L/s)	Total Peak Flow (L/s)
3.65	3.89	14.20	2.80	17.00

Project: Tannery District Sustainable | Created By: GB | Date: 7/24/2017
Project No.: 1379-4615 | Checked By: JH | Updated:

Domestic Sanitary Design Flow

			Notes & References
Site Area:	14	ha	Town of Cobourg Official Plan (2010) - Maximum Medium Density
Population Density:	100	persons/hectare	
Population:	1400		

Design Parameters

Average Flow (L/capita/d)	
450	MOE Design Guidelines for Sewage Works

Sanitary Design Flow:

	Average Daily Flow =	450.0	L/capita/d	Average Daily Flow = Average Daily Flow (L/cap./day)
	Average Daily Flow =	7.29	L/s	* population / 86400
Harmon Peak Factor:	M =	3.70		M = 1 + 14 / (4 + (p/1000)^.5)
	Peak Flow =	26.99	L/s	Peak Flow = Average Daily Flow * M
Infiltration Flow:	Infiltration =	0.20	L/ha/s	Assumed Standard Infiltration
	Total Infiltration =	2.80	L/s	
	Total Peak Flow =	29.79	L/s	Total Peak Flow = Peak Flow + Total Infiltration

Summary Table

Average Daily Flow (L/s)	Peaking Factor	Peak Flow (L/s)	Infiltration Flow (L/s)	Total Peak Flow (L/s)
7.29	3.70	26.99	2.80	29.79

APPENDIX D4

TANNERY LANDS TOPOGRAPHIC MAPPING

1m Contours Tannery

June 29, 2017

— 1m Contour 2006

1:4,514

0 0.0425 0.085 0.17 mi

0 0.04250.085 0.17 km

Web AppBuilder for ArcGIS
Town of Cobourg

APPENDIX D5

COBOURG CREEK WATERSHED MAP

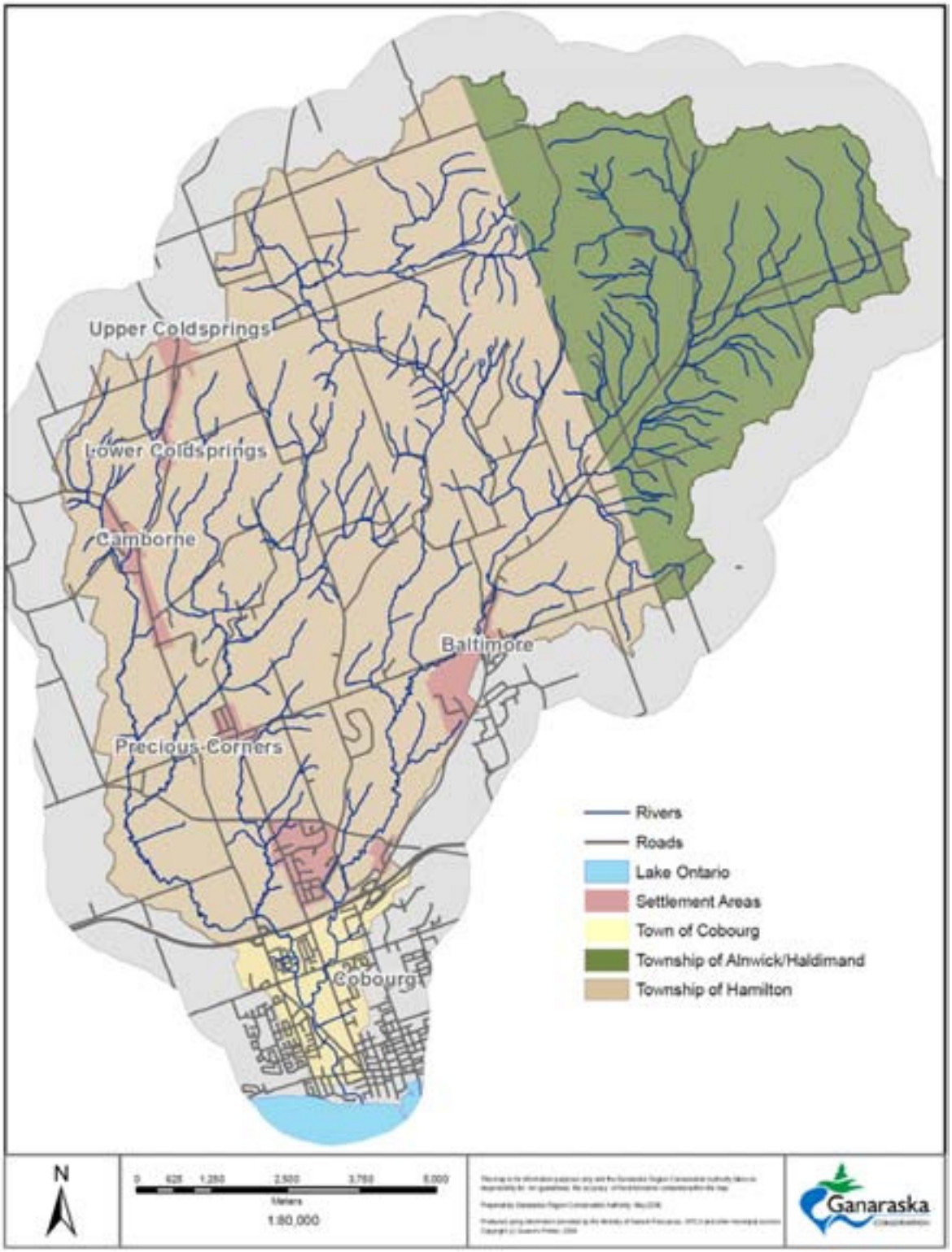


Figure 1: Cobourg Creek watershed

APPENDIX D6

STORMWATER CALCULATIONS

CROZIER & ASSOCIATES Consulting Engineers

Project: Tannery District SNMP **Created By:** GB **Date:** 7/14/2017
Project No.: 1379-4615 **Checked By:** JH **Updated:** 10/3/2017

Modified Rational Calculations - Input Parameters

Time of Concentration: T_c = **15** **min** (per GRCA SWM Guidelines, 2014)

Return Period	A	B	C	I (mm/hr)
2 yr	1778	13	-	63.50
5 yr	2464	16	-	79.48
10 yr	2819	16	-	90.94
25 yr	3886	18	-	117.76
50 yr	4750	24	-	121.79
100 yr	5588	28	-	129.95

Note: All intensity calculations are referenced from Appendix B of the GRCA SWM Guidelines, 2014

Pre - Development Conditions				
Land Use	**Area** (ha)	**Area** (m^2)	**C**	**Weighted Average C**[1]
Pervious	4.60	46000	**0.25**	**0.13**
Impervious	4.60	46000	**0.75**	**0.38**
Total Site	**9.20**	**92000**	**-**	**0.50**

Post - Development Conditions				
Land Use	**Area** (ha)	**Area** (m^2)	**C**	**Weighted Average C**
Pervious	2.76	27600	**0.25**	**0.08**
Impervious	6.44	64400	**0.75**	**0.53**
Total Site	**9.20**	**92000**	**-**	**0.60**

Equations:

Peak Flow
$$Q_{post} = 0.0028 \bullet C_{post} \bullet i(T_d) \bullet A$$

Intensity
$$i(T_d) = A / (T + B)^{\wedge}C$$

Modified Rational Calculations - Peak Flows Summary

Peak Flows (m^3/s)			
Return Period	**Q_{pre}**	**Q_{target}**	**Q_{post}**
2 yr	0.818	0.409	0.981
5 yr	1.024	0.717	1.229
10 yr	1.171	0.820	1.405
25 yr	1.517	1.062	1.820
50 yr	1.569	1.098	1.882
100 yr	1.674	1.172	2.009

Note: Qtarget is based off of reduced Qpe flows per the GRCA SWM Guidelines

Equations:

Peak Flow

$$Q_{post} = 0.0028 \bullet C_{post} \bullet i(T_d) \bullet A$$

Modified Rational Calculations - 100-Year Storm Event

Control Criteria

100 yr: Control Post-Development Peak Flows to Pre-Development Peak Flow

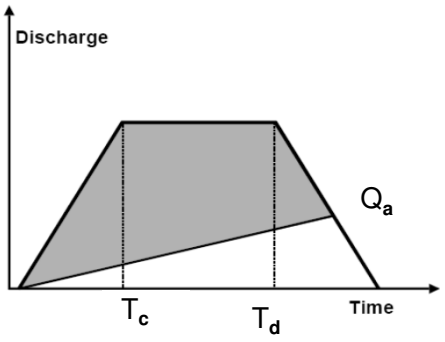
100 yr: Uncontrolled Post-Development Flow:

Q_{post} = 2.009 m^3/s

100 yr: Pre-Development Flow:

Q_{pre} = 1.172 m^3/s

Storage Volume Determination				
T_d (min)	i (mm/hr)	T_d (sec)	Q_{Uncont} (m^3/s)	S_d (m^3)
5	169.33	300	2.617	82.2
10	147.05	600	2.273	485.0
15	129.95	900	2.009	753.2
20	116.42	1200	1.799	929.0
25	105.43	1500	1.630	1038.4
30	96.34	1800	1.489	1098.6
35	88.70	2100	1.371	1121.4
40	82.18	2400	1.270	1115.0
45	76.55	2700	1.183	1085.4
50	71.64	3000	1.107	1037.1
55	67.33	3300	1.041	973.4
60	63.50	3600	0.981	897.0
65	60.09	3900	0.929	809.9
70	57.02	4200	0.881	713.8
75	54.25	4500	0.839	609.9
80	51.74	4800	0.800	499.4
85	49.45	5100	0.764	383.0
Required Storage Volume:				**1121.4**



Peak Flow
$$Q_{post} = 0.0028 \bullet C_{post} \bullet i(T_d) \bullet A$$

Storage
$$S_d = Q_{post} \bullet T_d - Q_{target} (T_d + T_c) / 2$$

Modified Rational Calculations - 50-Year Storm Event

Control Criteria

50 yr: Control Post-Development Peak Flows to Pre-Development Peak Flow

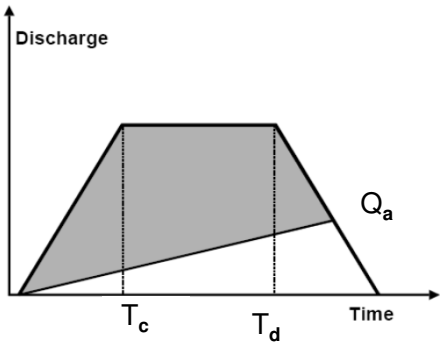
50 yr: Uncontrolled Post-Development Flow:

Q_{post} = 1.882 m^3/s

50 yr: Pre-Development Flow:

Q_{pre}= 1.098 m^3/s

Storage Volume Determination				
T_d (min)	i (mm/hr)	T_d (sec)	Q_{Uncont} (m^3/s)	S_d (m^3)
5	163.79	300	2.532	100.6
10	139.71	600	2.159	472.0
15	121.79	900	1.882	705.9
20	107.95	1200	1.669	849.2
25	96.94	1500	1.498	929.7
30	87.96	1800	1.360	964.8
35	80.51	2100	1.244	966.0
40	74.22	2400	1.147	941.2
45	68.84	2700	1.064	896.2
50	64.19	3000	0.992	835.0
55	60.13	3300	0.929	760.7
60	56.55	3600	0.874	675.7
65	53.37	3900	0.825	581.7
70	50.53	4200	0.781	480.1
75	47.98	4500	0.742	372.2
80	45.67	4800	0.706	258.8
85	43.58	5100	0.674	140.8
Required Storage Volume:				**966.0**



Peak Flow
$$Q_{post} = 0.0028 \bullet C_{post} \bullet i(T_d) \bullet A$$

Storage
$$S_d = Q_{post} \bullet T_d - Q_{target} (T_d + T_c) / 2$$

Modified Rational Calculations - 25-Year Storm Event

Control Criteria

25 yr: Control Post-Development Peak Flows to Pre-Development Peak Flow

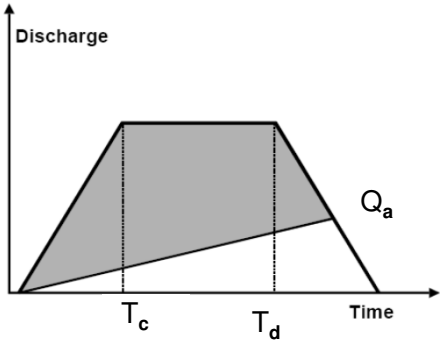
25 yr: Uncontrolled Post-Development Flow:

Q_{post}= 1.820 m^3/s

25 yr: Pre-Development Flow:

Q_{pre}= 1.062 m^3/s

Storage Volume Determination				
T_d (min)	i (mm/hr)	T_d (sec)	Q_{Uncont} (m^3/s)	S_d (m^3)
5	168.96	300	2.611	146.4
10	138.79	600	2.145	490.8
15	117.76	900	1.820	682.5
20	102.26	1200	1.581	781.9
25	90.37	1500	1.397	821.1
30	80.96	1800	1.251	819.0
35	73.32	2100	1.133	787.3
40	67.00	2400	1.036	733.5
45	61.68	2700	0.953	663.0
50	57.15	3000	0.883	579.5
55	53.23	3300	0.823	485.6
60	49.82	3600	0.770	383.3
65	46.82	3900	0.724	274.1
70	44.16	4200	0.683	159.3
75	41.78	4500	0.646	39.6
Required Storage Volume:				**821.1**



Peak Flow

$$Q_{post} = 0.0028 \bullet C_{post} \bullet i(T_d) \bullet A$$

Storage

$$S_d = Q_{post} \bullet T_d - Q_{target} (T_d + T_c) / 2$$

Modified Rational Calculations - 10-Year Storm Event

Control Criteria

10 yr: Control Post-Development Peak Flows to Pre-Development Peak Flow

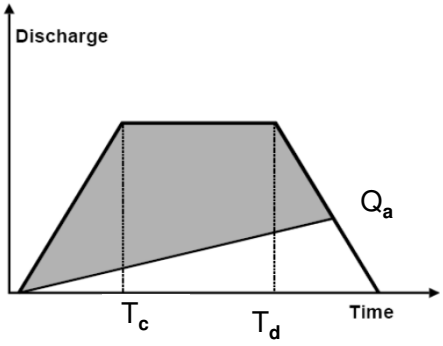
10 yr: Uncontrolled Post-Development Flow:

Q_{post} = 1.405 m^3/s

10 yr: Pre-Development Flow:

Q_{pre} = 0.820 m^3/s

Storage Volume Determination				
T_d (min)	i (mm/hr)	T_d (sec)	Q_{Uncont} (m^3/s)	S_d (m^3)
5	134.24	300	2.075	130.5
10	108.42	600	1.676	390.6
15	90.94	900	1.405	527.1
20	78.31	1200	1.210	591.5
25	68.76	1500	1.063	610.2
30	61.28	1800	0.947	598.1
35	55.27	2100	0.854	564.3
40	50.34	2400	0.778	514.5
45	46.21	2700	0.714	452.8
50	42.71	3000	0.660	381.7
55	39.70	3300	0.614	303.4
60	37.09	3600	0.573	219.1
65	34.80	3900	0.538	130.1
70	32.78	4200	0.507	37.2
Required Storage Volume:				**610.2**



Peak Flow
$Q_{post} = 0.0028 \bullet C_{post} \bullet i(T_d) \bullet A$

Storage
$S_d = Q_{post} \bullet T_d - Q_{target} (T_d + T_c) / 2$

Modified Rational Calculations - 5-Year Storm Event

Control Criteria

5 yr: Control Post-Development Peak Flows to Pre-Development Peak Flow

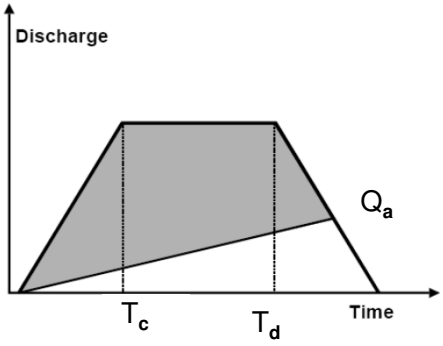
5 yr: Uncontrolled Post-Development Flow:

Q_{post} = 1.229 m^3/s

5 yr: Pre-Development Flow:

Q_{pre}= 0.717 m^3/s

Storage Volume Determination				
T_d (min)	i (mm/hr)	T_d (sec)	Q_{Uncont} (m^3/s)	S_d (m^3)
5	117.33	300	1.814	114.1
10	94.77	600	1.465	341.4
15	79.48	900	1.229	460.7
20	68.44	1200	1.058	517.0
25	60.10	1500	0.929	533.3
30	53.57	1800	0.828	522.8
35	48.31	2100	0.747	493.2
40	44.00	2400	0.680	449.7
45	40.39	2700	0.624	395.7
50	37.33	3000	0.577	333.7
55	34.70	3300	0.536	265.2
60	32.42	3600	0.501	191.5
65	30.42	3900	0.470	113.8
70	28.65	4200	0.443	32.5
Required Storage Volume:				**533.3**



Peak Flow
$Q_{post} = 0.0028 \bullet C_{post} \bullet i(T_d) \bullet A$

Storage
$S_d = Q_{post} \bullet T_d - Q_{target} (T_d + T_c) / 2$

Modified Rational Calculations - 2-Year Storm Event

Control Criteria

2 yr: Control Post-Development Peak Flows to Pre-Development Peak Flow

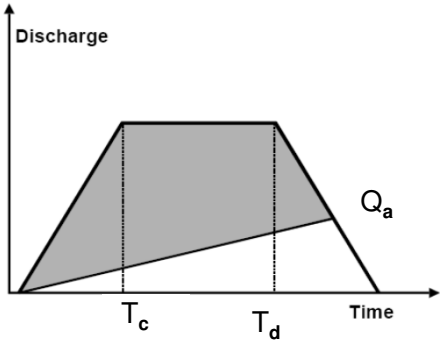
2 yr: Uncontrolled Post-Development Flow:

Q_{post}= 0.981 m^3/s

2 yr: Pre-Development Flow:

Q_{pre} = 0.409 m^3/s

Storage Volume Determination				
T_d (min)	i (mm/hr)	T_d (sec)	Q_{Uncont} (m^3/s)	S_d (m^3)
5	98.78	300	1.527	212.6
10	77.30	600	1.195	410.2
15	63.50	900	0.981	515.3
20	53.88	1200	0.833	569.9
25	46.79	1500	0.723	594.0
30	41.35	1800	0.639	598.3
35	37.04	2100	0.573	588.9
40	33.55	2400	0.519	569.7
45	30.66	2700	0.474	543.2
50	28.22	3000	0.436	511.2
55	26.15	3300	0.404	474.9
60	24.36	3600	0.376	435.1
65	22.79	3900	0.352	392.6
70	21.42	4200	0.331	347.8
75	20.20	4500	0.312	301.1
80	19.12	4800	0.295	252.9
85	18.14	5100	0.280	203.3
Required Storage Volume:				**598.3**



Peak Flow
$Q_{post} = 0.0028 \bullet C_{post} \bullet i(T_d) \bullet A$

Storage
$S_d = Q_{post} \bullet T_d - Q_{target} (T_d + T_c) / 2$

Modified Rational Calculations - Summary

Storm Event (yr)	Peak Flow Rate			Required Storage (m^3)
	Pre-Development (L/s)	Post-Development[1] (L/s)		
		Uncontrolled	Controlled	
2	0.818	0.981	0.409	598.3
5	1.024	1.229	0.717	533.3
10	1.171	1.405	0.820	610.2
25	1.517	1.820	1.062	821.1
50	1.569	1.882	1.098	966.0
100	1.674	2.009	1.172	1121.4

APPENDIX D7

EXCERPTS FROM THE FORMER TANNERY PROPERTY PHASE II ENVIRONMENTAL SITE ASSESSMENT

3. Field Testing Program

3.1 Borehole Investigation

Thirteen (13) boreholes, designated as BH10-1 through BH10-13, were drilled at the site. The boreholes were advanced to a maximum depth of 5.0 m at accessible locations throughout the site, to evaluate the significance of any chemical effects on subsurface soils and groundwater. The attached site plan, Figure 1, shows site details, including former building locations and the current borehole locations. Drilling was conducted on May 20 and May 21, 2010, using a track-mounted drill-rig under the supervision of GENIVAR staff.

Soil samples were collected and inspected for evidence of potential contaminants using visual and olfactory procedures. Soil samples for possible laboratory testing were placed in labelled glass jars with Teflon-lined caps. Jar samples were immediately placed into a cooler with ice to reduce the rate of volatilization during transport from the site.

Groundwater monitors were installed in BH10-2, BH10-3, BH10-4, BH10-5 and BH10-6 upon completion of drilling. The monitoring wells are constructed of Schedule 40 PVC screen and riser. The groundwater monitors were installed on May 20, and groundwater levels were measured and samples taken the following day after a period of 24 hours.

Selected soil and groundwater samples were submitted for testing to AGAT Laboratories of Mississauga, Ontario, a CALA-certified testing laboratory, for analysis of volatile organic carbons (VOC's), total petroleum hydrocarbons in the F1 to F4 fractions (PHC F1-F4), polycyclic aromatic hydrocarbons (PAH's) and selected heavy metal parameters. These parameters were selected based on the former land use at the site and previous ESA testing completed at adjacent properties. The results of this testing is discussed in the following section.

3.2 Findings

The soil profile at the borehole locations generally consists of up to 0.8 m of sand or gravelly sand fill, which also contained cinders and brick fragments, overlying a thin layer of topsoil. The surficial fill and/or topsoil was underlain by lacustrine deposits ranging in texture from gravelly sand to sandy silt. These lacustrine soils extended to depths ranging from 4.0 m to 4.7 m below the existing site grades. The boreholes were terminated at a depth of 5.0 m below the existing ground surface in a layer of clayey silt. Borehole logs are appended. Depths to water and caving soils were measured in the open boreholes on completion of drilling at depths ranging from 0.9 m to 2.1 m below the existing site grades. The boreholes generally caved to the depth of the water table upon completion. Groundwater levels were measured in the five monitors, at depths of between 1.4 m and 2.3 m below ground surface on May 21, 2010.

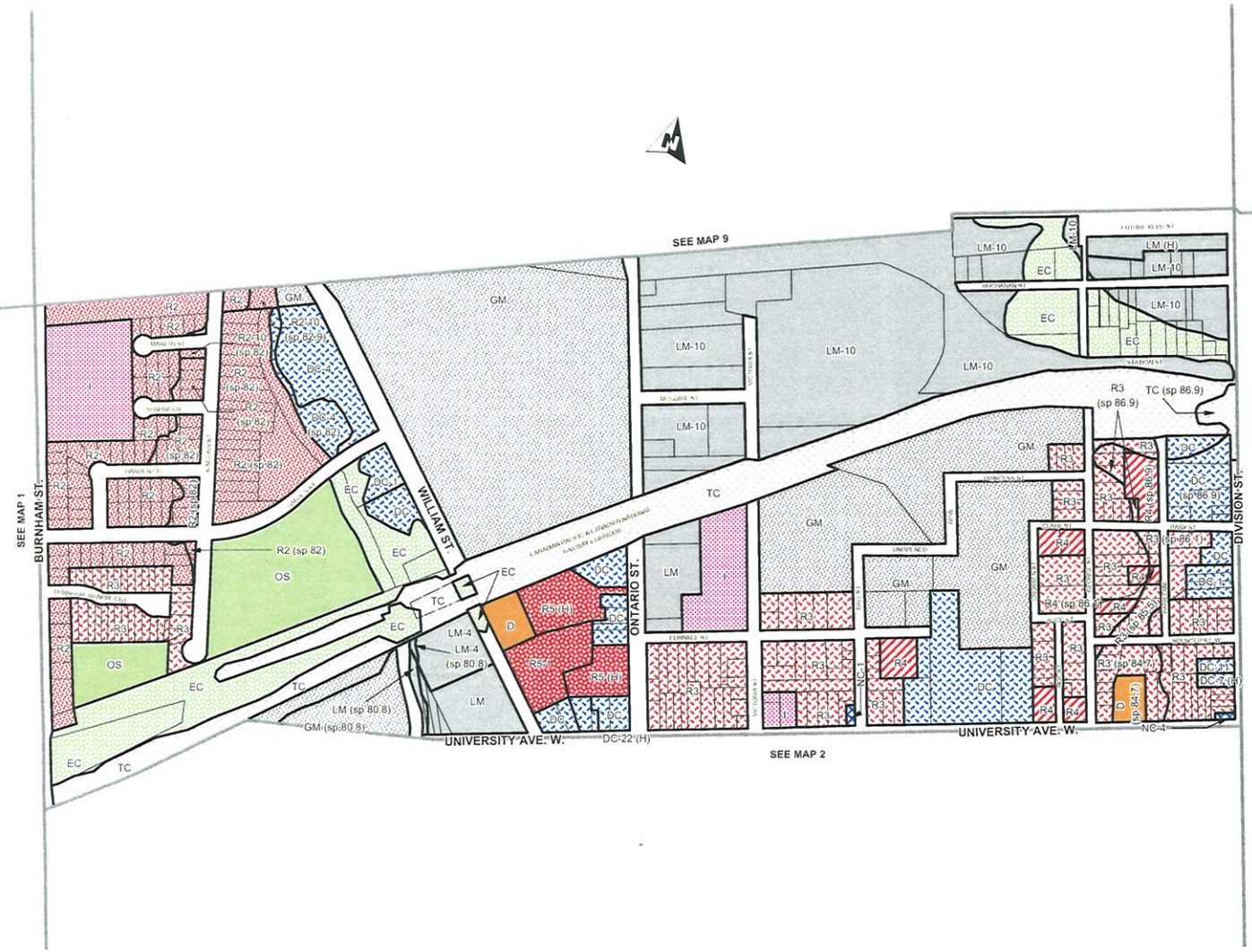
None of the boreholes contained soil with significant chemical odours at the time of extraction. Surficial fill at boreholes BH10-2, BH10-7, BH10-9 and BH10-10 was black and contained cinders and coal fragments, while black sand extended to a depth of 4.7 m in borehole BH10-3. Selected soil samples from the borehole investigation were submitted for laboratory chemical analysis of VOC's, PHC's in the F1 to F4 fractions, PAH's and selected heavy metals. Similarly, the five groundwater monitors installed on May 20, 2010 were purged and sampled on May 21 and groundwater samples from these monitors were submitted for laboratory analysis of similar parameters. These parameters were selected based upon the inferred chemical contamination risks associated with the historic use of the site as well as those chemicals found during historic subsurface investigations at adjacent sites, as documented in the D.L Services reports provided by the Town. Laboratory soil and groundwater test certificates are appended to this report and are compared to the applicable site condition standards from Table 3 of the Ministry of the Environment's (MOE) *Soil, Ground Water and Sediment Standards for Use Under Part XV.1 of the Environmental Protection Act* (July 2009). These guidelines apply to residential land uses in a potable groundwater environment.

APPENDIX E

SUPPORTING TRANSPORTATION DOCUMENTS

APPENDIX E1

TOWN OF COBOURG ZONING BY-LAW EXCERPTS



LEGEND - ZONING

- R1 - RESIDENTIAL 1
- R2 - RESIDENTIAL 2
- R3 - RESIDENTIAL 3
- R4 - MULTIPLE RESIDENTIAL 4
- R5 - HIGH DENSITY RESIDENTIAL 5
- NC - NEIGHBOURHOOD COMMERCIAL
- SC - SHOPPING CENTRE COMMERCIAL
- DC - DISTRICT COMMERCIAL
- MC - MAIN CENTRAL COMMERCIAL
- LM - LIGHT INDUSTRIAL
- GM - GENERAL INDUSTRIAL
- BP - BUSINESS PARK
- I - INSTITUTIONAL
- OS - OPEN SPACE
- EC - ENVIRONMENTAL CONSTRAINT
- RU - RURAL
- D - DEVELOPMENT
- TC - TRANSPORTATION CORRIDOR
- NR1 - NEIGHBOURHOOD RESIDENTIAL 1
- NR2 - NEIGHBOURHOOD RESIDENTIAL 2
- NMU - NEIGHBOURHOOD MIXED USE
- B - URBAN RURAL TRANSITION

0 100 200 300m
SCALE

KEY MAP

THIS TILE BASED MAPPING IS PROVIDED FOR CONVENIENT REFERENCE ONLY. SCHEDULE 'A' PASSED BY COUNCIL ON OCT 14, 2003 UNDER BY-LAW 85-2003 SHOULD BE REFERENCED FOR ACCURATE, LEGAL INFORMATION.

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513 Division Street,
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TEL. 905-372-2121
FAX. 905-372-3621
E-mail cobourg@tsh.ca

THE CORPORATION OF
THE TOWN OF COBOURG
VICTORIA HALL
55 KING STREET WEST
COBOURG, ONTARIO
K9A 2M2

ZONING BY-LAW
No. 85-2003
SCHEDULE A

DATE	PROJECT No.	MAP
APR-2004	12-29344	7

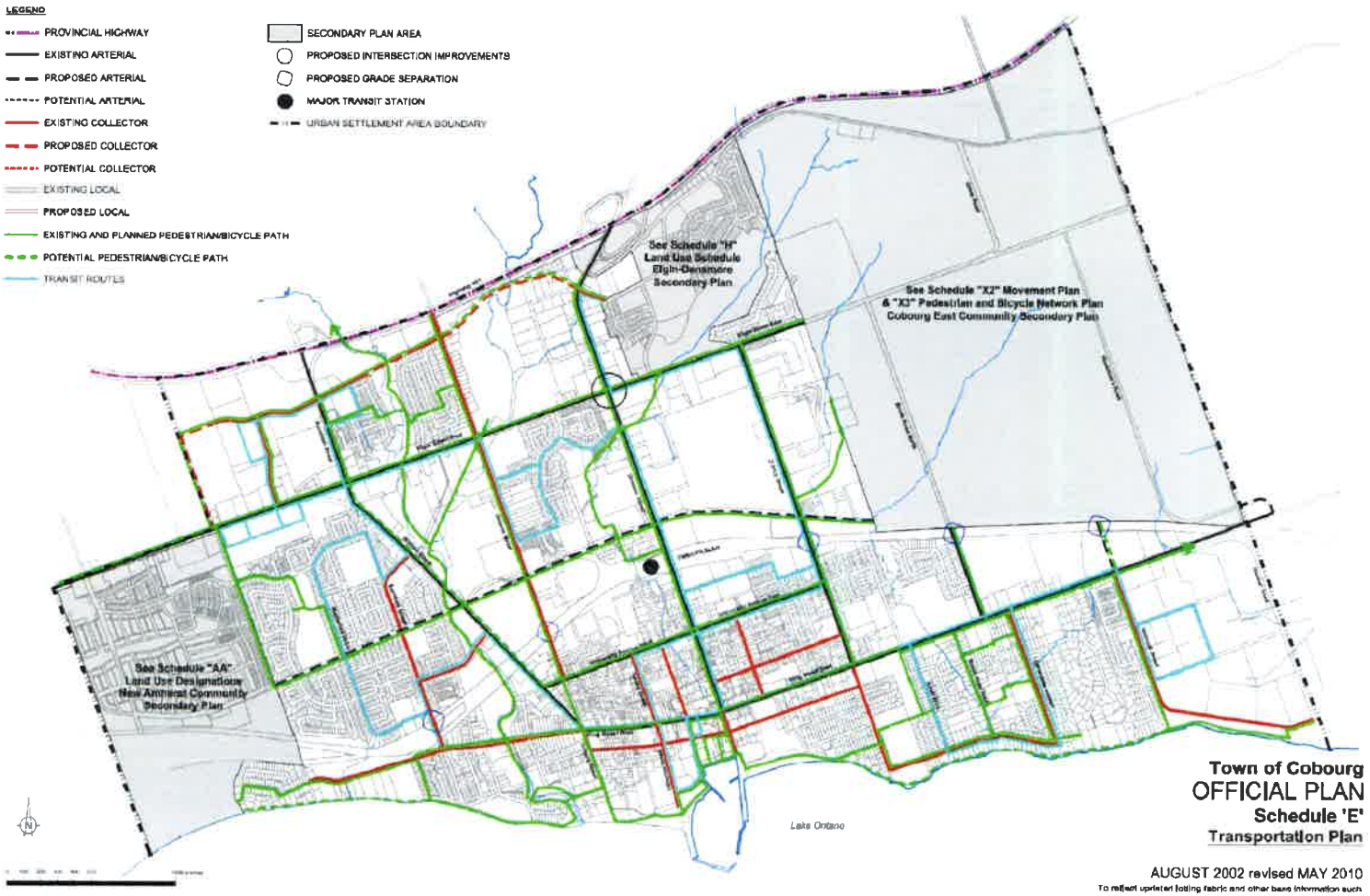
COBOURGZONINGTILESSHEET7.WOR

APPENDIX E2

TOWN OF COBOURG TRANSPORTATION MASTER PLAN (RELEVANT EXCERPTS)

Exhibit 3: Official Plan Schedule 'B' Pedestrian / Bicycle Path

Exhibit 2: Official Plan Schedule 'E' Transportation Plan



APPENDIX E3

TOWN OF COBOURG TRANSIT MAP

ROUTE 2 - NORTHUMBERLAND MALL > DOWNTOWN > DENSMORE RD		
NORTHUMBERLAND MALL		**:30**
Zellers	South	:30
Staples - east side of Staples	East	:31
William @ Court Building	West	:36
William @ University	West	:38
King St @ Ontario St	South	:40
King St @ Spring West High Sch	South	:41
Legion Village	West	:41
Marina	South	:42
DOWNTOWN TERMINAL**	**SOUTH**	**:42**
Spring @ King	East	:43
University @ St. Michaels School	South	:44
Division @ Munroe	East	:47
Division @ Elgin	South	:48
Lions Centre	South	:49
Elgin @ D'Arcy St	South	:50
D'Arcy @ Alexandria Dr.	West	:51
COBOURG COMMUNITY CENTRE	Entrance	:54
D'Arcy @ Alexandria Dr.	East	:55
DENSMORE RD > DOWNTOWN > MALL		
D'Arcy @ Elgin	East	:55
Birchwood Trail @ SMSS	East	:57
Densmore Rd @ Rosewood Est	South	:58
Parkview Hills @ Alder Rd	East	:59
Parkview Hills @ Ashland Dr	East	:00
Extendicare	North	:02
Densmore @ Division	North	:03
Division @ Elgin	West	:06
Division @ KFC	West	:08
Division @ University	West	:09
Spring @ University Ave	West	:10
Spring @ King	West	:11
Legion Village	West	**:12**
Marina	North	:12
DOWNTOWN TERMINAL	**SOUTH**	**:15**
King @ Spring	North	:17
King @ William	North	:18
William @ University	East	:20
William @ Harnden	North	:20
Harden @ Sinclair	North	:21
Burnham @ Westwood	North	:21
Westwood @ Ewing	East	:22
Westwood @ Burwash	East	:22
Westwood @ Carlisle	East	:23
Carlisle @ Burnham	South	:23
Burnham @ Heath	West	:24
Heath @ William	South	:24
William @ Court Building	East	:25
Elgin @ Courthouse Rd	North	:26
Courthouse @ Golden Plough	North	:26
NORTHUMBERLAND MALL		**:30**

COBOURG - PORT HOPE SHUTTLE $2.00

SHUTTLE - Bus from Port Hope arrives every hour at 10 minutes past the hour at Northumberland Mall, you can transfer to a Cobourg bus for $1.00 or ride the Port Hope bus to the Hospital (:14), WalMart (:15) – bus then goes back to Port Hope.

HOURS:
MONDAY- FRIDAY
At the Mall every hour 10 minutes past the hour from 7:00 a.m. to 8:00 p.m. (Last Shuttle – 7:10 p.m.)

SATURDAY
At the Mall every hour 10 minutes past the hour from 9:00 a.m. to 4:00 p.m. (Last Shuttle – 3:10 p.m.)
****No Shuttle Service on SUNDAYS or HOLIDAYS**

Port Hope Bus leaves Town Hall (56 Queen St) every hour on the hour for more info, please call (905) 885-2431

VIA Rail: Riders can be dropped off right at Via Rail upon request.
For pick up at VIA Rail call 905-373-0582.
****South Bound ONLY**

*** No Transfers at the :42 stop at the Downtown Terminal on Route 2*

STREET SIDE
East - East Side
North - North Side
South - South Side
West - West Side

Purchase passes/tickets:
Victoria Hall & Cobourg Library

COBOURG TRANSIT SCHEDULE

"Ontario's Feel Good Town"
Cobourg
Ontario. Canada

Monday to Friday
6:15 a.m. to 7:45 p.m.
STARTS/ENDS AT THE DOWNTOWN TERMINAL

Saturday
8:15 a.m. to 6:45 p.m.
STARTS/ENDS AT THE DOWNTOWN TERMINAL

Sunday
8:45 a.m. to 3:45 p.m.
STARTS/ENDS AT THE DOWNTOWN TERMINAL

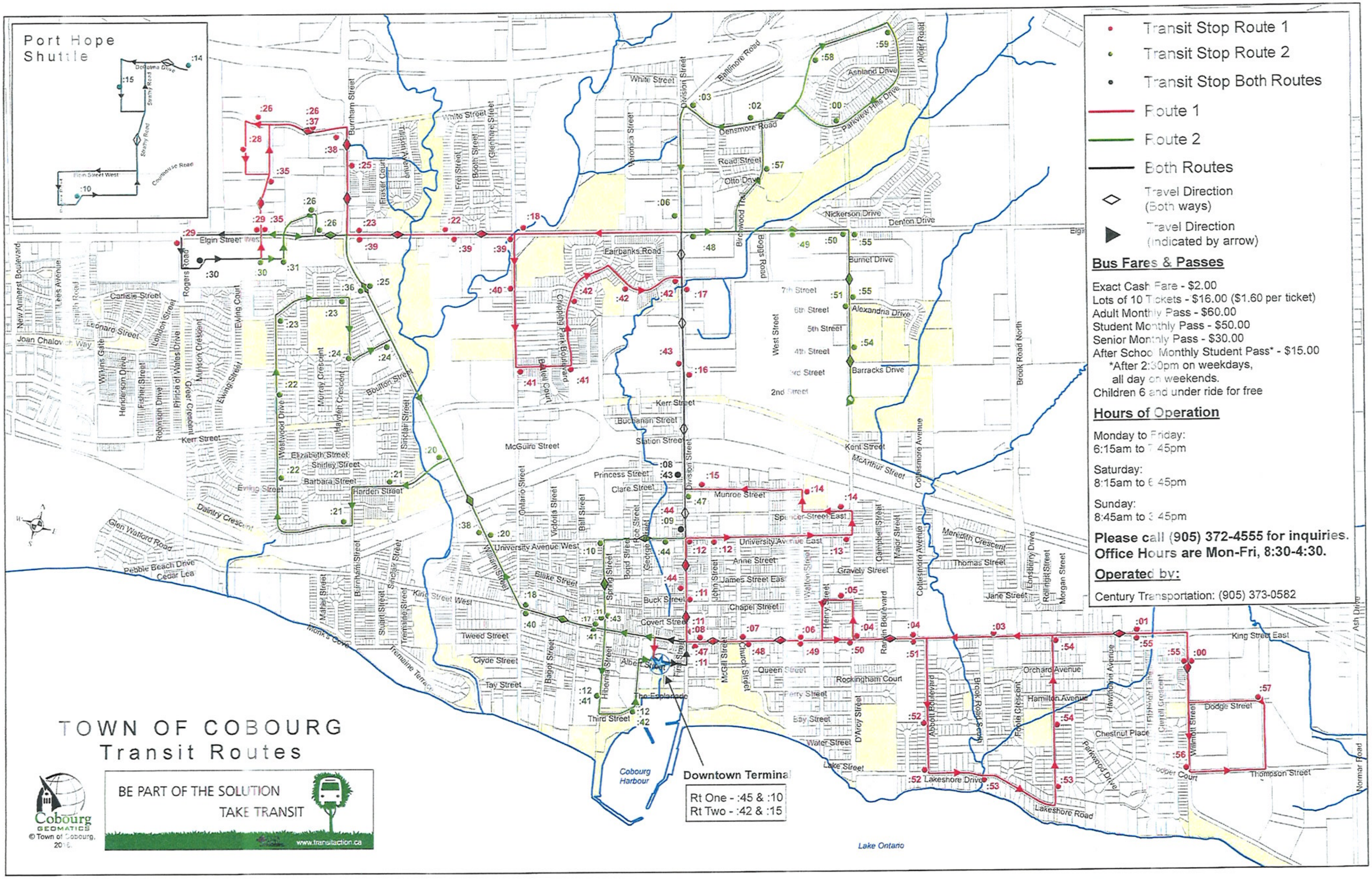
DOWNTOWN TERMINAL - ALBERT STREET SHELTER

EFFECTIVE SEPTEMBER 1, 2006
Revised July 2013
Updated 2016

FARE $ 2. 00

PLEASE CALL (905) 372-4555 FOR INQUIRIES

ROUTE 1 - NORTHUMBERLAND MALL > DOWNTOWN> LUCAS POINT		
NORTHUMBERLAND MALL		**:30**
Strathy Lot @ Elgin	East	:35
Strathy Rd @ Lights	East	:35
Hospital	**At Door**	**:37**
DePalma @ Burnham	South	:38
Elgin @ Best Western	South	:39
YMCA (South)	South	:39
Ontario @ Elgin	West	:39
Ontario @ Huyke	West	:40
Sutherland @ Ontario	South	:41
Sutherland @ Chipping Park	South	:41
Chipping Park @ Huycke	East	:42
Ballantine @ Morley Cane Park	South	:42
Ballantine @ Division	West	:42
Division @ Ewart	West	:43
Division @ KFC	West	:43
Division @ University	West	:44
Divison @ Buck St	West	:44
DOWNTOWN TERMINAL	**SOUTH**	**:45**
King @ Division	South	:47
King @ Victoria Park	South	:48
King @ Walton	South	:49
King @ D'Arcy	South	:50
King @ Cottesmore	South	:51
Abbott @ Coronation	West	:52
Abbott @ Lakeshore Dr	South	:52
Lakeshore Dr @ Brook Rd S	South	:53
Coverdale @ Springbrook	East	:53
Coverdale @ Park	East	:54
Coverdale @ King	East	:54
King @ Maplewood Blvd	South	:55
Willmott @ Carroll Cres	West	:55
Willmott @ Thompson	West	:56
LUCAS POINT > DOWNTOWN > MALL		
Local 183	North	:57
Willmott @ Carroll Cres	East	:00
King @ Maplewood Blvd	North	:01
Brookside	North	:03
King @ Cottesmore	North	:04
King st @ D'Arcy St	North	:04
Chapel @ Palisade Gardens	North	:05
King @ Walton	North	:06
King @ College	North	:07
King @ Division	North	:08
DOWNTOWN TERMINAL	**SOUTH**	**:10**
Division @ King	East	:11
Division @ Chapel	East	:11
Divison @ University	East	:12
University @ John St	South	:12
University @ D'Arcy St	South	:13
Knights of Columbus Centre	North	:14
Munroe @ Walton	North	:14
Munroe @ No Frills	North	:15
Division @ Ewart	East	:16
Division @ Ballantine (Honda)	East	:17
Elgin @ Ontario	North	:18
Elgin @ Frei (YMCA)	North	:22
Elgin @ Burnham (Best Western)	North	:23
Burnham @ Gateway Plaza	East	:25
Hospital @ Lights (at Hospital)	**North**	**:26**
Home Depot - DePalma	North	:26
Wal Mart (at store)	West	:28
Strathy Rd @ Elgin	West	:29
Rogers Rd @ Canadian Tire	West	:29
NORTHUMBERLAND MALL		**:30**


TOWN OF COBOURG
Transit Routes
Port Hope Shuttle
Transit Stop Route 1
Transit Stop Route 2
Transit Stop Both Routes
Route 1
Route 2
Both Routes
Travel Direction (Both ways)
Travel Direction (indicated by arrow)
Bus Fares & Passes
Exact Cash Fare - $2.00
Lots of 10 Tickets - $16.00 ($1.60 per ticket)
Adult Monthly Pass - $60.00
Student Monthly Pass - $50.00
Senior Monthly Pass - $30.00
After School Monthly Student Pass* - $15.00
*After 2:30pm on weekdays, all day on weekends.
Children 6 and under ride for free
Hours of Operation
Monday to Friday: 6:15am to 7:45pm
Saturday: 8:15am to 6:45pm
Sunday: 8:45am to 3:45pm
Please call (905) 372-4555 for inquiries.
Office Hours are Mon-Fri, 8:30-4:30.
Operated by:
Century Transportation: (905) 373-0582
Downtown Terminal
Rt One - :45 & :10
Rt Two - :42 & :15
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TAKE TRANSIT
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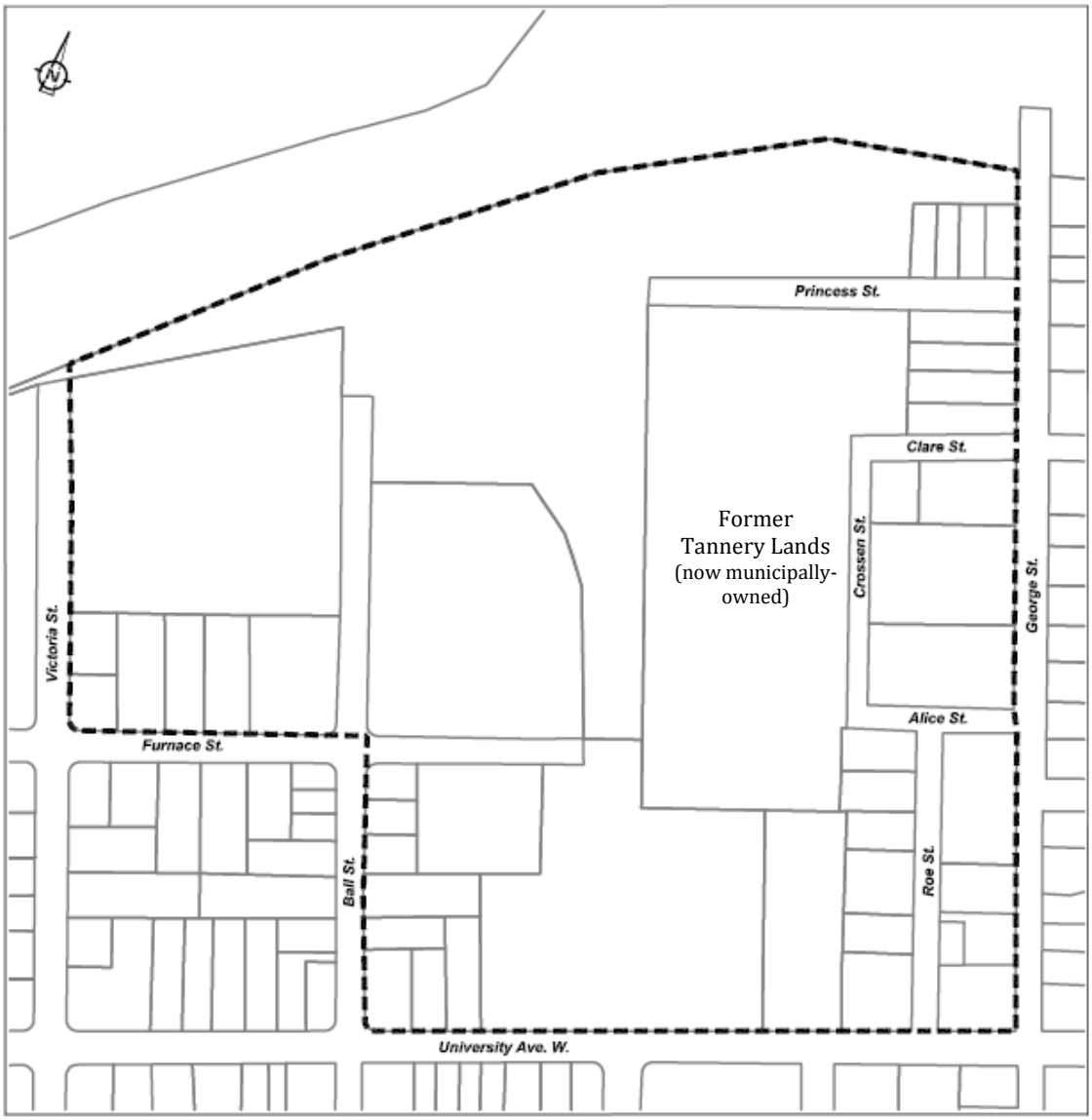
Cobourg GEOMATICS
© Town of Cobourg, 2016
Cobourg Harbour
Lake Ontario
Elgin Street West
King Street East
Division Street
Burnham Street
University Avenue West
University Avenue East
Lakeshore Drive
Lakeshore Road

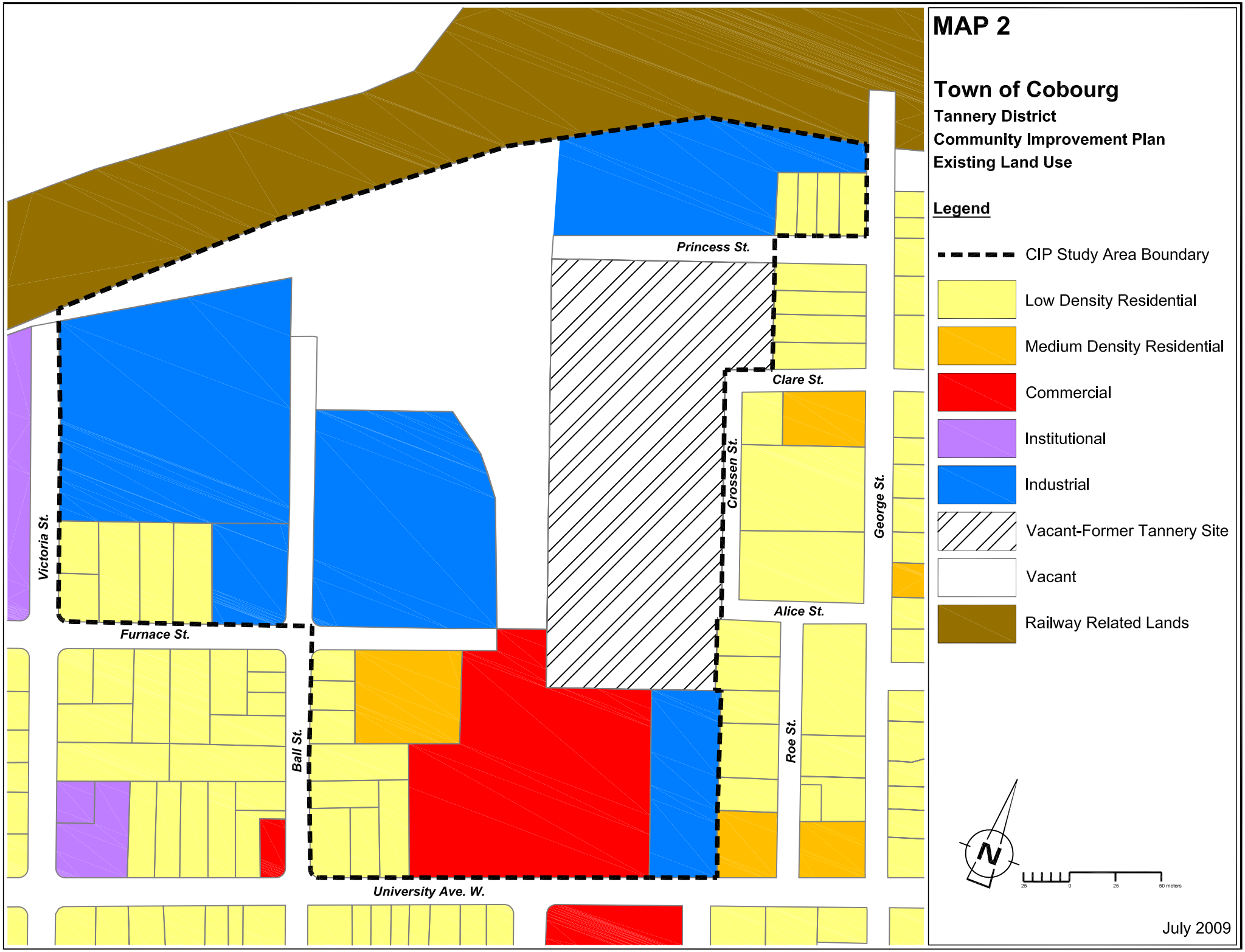
FIGURES

3.0 STUDY AREA

The focus of the project will be on the 'primary study area' as identified on the location map below, however the Sustainable Neighbourhood Master Plan shall also consider relevant additional lands outside of the primary study area. This "contextual area of influence" will form an important component of the study process and will examine inter-relationships and linkages between other neighbourhoods and destinations in the community (ie. downtown, waterfront, VIA Station, Midtown Centre, open spaces, etc.), as well as matters such as streetscapes and 'complete streets', servicing, land use compatibility, and other important elements that may have an impact on the transformation of the Tannery District into a sustainable neighbourhood.

Tannery District Primary Study Area




MAP 2
Town of Cobourg
Tannery District
Community Improvement Plan
Existing Land Use
Legend
CIP Study Area Boundary
Low Density Residential
Medium Density Residential
Commercial
Institutional
Industrial
Vacant-Former Tannery Site
Vacant
Railway Related Lands
Princess St.
Clare St.
Crossen St.
George St.
Alice St.
Victoria St.
Furnace St.
Ball St.
Roe St.
University Ave. W.
N
25
0
25
50 meters
July 2009

APPENDIX D: MARKET ANALYSIS

Sustainable Neighbourhood Master Plan and Implementing Secondary Plan/Zoning By-law for the Tannery District, Town of Cobourg: Background Report – Current and Future Market Conditions and Growth

Independent Real Estate Intelligence

March 21, 2018

Altus Group

Sustainable Neighbourhood Master Plan and Implementing Secondary Plan/Zoning By-law for the Tannery District, Town of Cobourg: Background Report – Current and Future Market Conditions and Growth

Prepared for:

Town of Cobourg

Prepared by:

Altus Group Economic Consulting

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March 21, 2018

EXECUTIVE SUMMARY

Altus Group Limited is part of a consulting team led by Fotenn Planning + Design and including Urban Equation, and Crozier & Associates, that was retained by the Town of Cobourg to prepare the Sustainable Neighbourhood Master Plan and Implementing Secondary Plan/Zoning By-law for the Tannery District. As part of this consulting team, Altus Group was tasked with preparing a background analysis of current and future market conditions and growth in the Town of Cobourg in relation to the Tannery District lands.

The following is a summary of the key findings:

Town of Cobourg Housing Market Trends

- Cobourg accounted for almost 23% of Northumberland County's population in 2016.
- Apartment and row units combined accounted for almost 40% of the household growth in Cobourg during 2011-2016.
- Single-person households comprised a majority of the households living in apartments in Cobourg in 2016.
- Persons age 65 and over accounted for more than 100% of the growth in population in apartments and row housing in Cobourg during 2011-2016.
- Total housing completions in Cobourg have averaged between 100 and 131 units per year during the past five census periods.
- Several projects have accounted for most of the row and apartment completions in Cobourg in recent years.
- Only 79 private (purpose-built, market) rental apartment units have been built in Cobourg since 2000.
- The overall vacancy rate for private rental apartments in Cobourg was in tight market territory (vacancy rate below 1.5%) in 2016.
- The overall average rent for private rental apartments in Cobourg was $950 in 2016.
- Most of the private rental row units in Cobourg were built before 1960.

Profile of Households in Row and Apartment Units in the Town of Cobourg

- A sizeable majority of owner households in both row and especially low-rise apartments units in the Town of Cobourg in 2011 were headed by a person age 60 and over.
- The age distribution of household heads of renter households in row and low-rise apartment units was more diverse.
- Just over one third of the mover owner households in both low-rise apartments and row units in 2011 moved from within the Town of Cobourg with the rest moving from elsewhere in Ontario.
- About half of the mover renter households living in low-rise apartments in 2011 and 84% in row units moved from within Cobourg.
- The data suggest that for apartment and row units, the ownership housing market in Cobourg is more geared to households moving to Cobourg than the rental market.

Housing Growth Forecast for the Town of Cobourg

- According to the residential growth forecast by dwelling type prepared by Watson & Associates Economists Ltd.(Watson) on behalf of the Town of Cobourg, which is presented in a report entitled *Town of Cobourg 2016 Development Charges Background Study*, November 3, 2016, average annual housing growth in Cobourg is forecast to be 150 units during 2017-2022, 164 units during 2022-2027 and 184 units during 2027-2037.
- The growth forecast for 2017-2022 is about 27% higher than the actual household growth during 2011-2016, and higher than the average annual housing completions during each of the past five Census periods.
- The forecast growth by dwelling type is for lower shares of single and semi-detached housing, and higher shares of row and apartment units compared to the shares of housing completions during the past five Census periods.
- The early 2017-buildout forecast prepared by Watson shows that there is more than sufficient supply of potential residential units for each dwelling type category to accommodate the forecast growth by dwelling type in Cobourg well beyond 2037.

Active and Proposed Residential Development

- There are several residential projects actively selling units and/or under development in the Town of Cobourg. Some have been under development for many years and others more recently. These projects collectively offer a range of housing product on infill and greenfield sites.
- Major active residential development projects in Cobourg include:
  - New Amherst (by New Amherst Ltd.);
  - West Park Village (by Vandyk Homes);
  - East Village (by Stalwood Homes);
  - Parkview Hills (by LeBlanc Enterprises);
  - Densmore Meadows (by Hetti Group);
  - Mansions on James (by Phonenix Genesis); and
  - Harbour Breeze (by TVM Group).
- In addition to remaining phases of active residential developments, there are several other projects in the development pipeline that are not yet active, including Heritage Village and Lawn Condominium Residences.
- Three rental apartment projects with a total of 90 units and one rental project with 22 ground-related units are under application or recently approved, including two subsidized projects. All four projects are located not far from the Primary Study Area.
- It is expected that Downtown Cobourg will continue to accommodate a significant share of household growth in row and apartment units in Cobourg for a number of years into the future.

Market Opportunity for New Housing in the Primary Study Area

- The Town of Cobourg overall and the Primary Study Area have a number of attributes that over the longer term would make the Primary Study Area an attractive location for new housing from a market perspective.
- A key to potential future townhouse and apartment development in Cobourg, including in the Primary Study Area, is expected to be offering housing product that can appeal to older households already living in Cobourg or moving to Cobourg.

- Although the forecast by Watson for higher growth in row and apartment units in Cobourg during the next 20 years is positive for the Primary Study Area, this area is expected to face competition for these units from a number of other new home projects in the Town during the 20-year forecast period.
- While the development and marketing of the Primary Study Area as a sustainable community may attract some households to live there, the analysis presented in this report suggests that even if some of the potential challenges facing residential development there can be addressed absorption of new residential units within the Primary Study Area is likely to be slow without some additional initiatives.
- There are some initiatives that could potentially enhance the attractiveness of the Primary Study Area for residential development over the longer term:
  - Extending GO train service from Toronto to the existing VIA Rail station in Cobourg could entice some households where at least one member commutes to work in the GTA to consider living in the Primary Study Area.
  - Consideration should be given to directing future affordable housing projects to be developed by the Town or the County to the Primary Study Area.
  - Developing an attractive, functional and easily accessible open space feature within the community is viewed as a key factor in attracting future residents to the Primary Study Area.
  - Recognizing the importance of retirees in the Cobourg housing market, developing an adult lifestyle community within the Primary Study Area could also help differentiate this area from other residential communities within the Town of Cobourg, although this depends on plans for the potential development of an adult lifestyle community within the Heritage Village community in Cobourg East.

Employment Trends and Opportunities

- Employment in the Town of Cobourg totalled some 11,545 persons in 2011, some 1,670 higher than in 2001.

- The manufacturing, trade, health care and social assistance, accommodation and food services and educational services industries comprised over 60% of employment in Cobourg in 2011.
- The manufacturing sector accounted for 26% of jobs in Cobourg in 2001; however, like the broader province, the number of manufacturing jobs has been in decline. By 2011, the share of manufacturing employment dropped to 19%.
- The share of Northumberland County's employment accounted for by Cobourg increased from 31% in 2001 to 36% in 2011, as employment expanded in Cobourg and dropped slightly in Northumberland County.
- During 2001-2011, employment in Northumberland County was negatively impacted by the manufacturing sector as industry competitiveness was significantly hampered by the significant appreciation in the Canadian dollar from 2002 to 2011.
- However, manufacturing employment dropped by a lesser amount in Cobourg, as strength in food manufacturing sales helped support the labour force.
- The Town of Cobourg's current economic development strategy places an emphasis on developing the Town's manufacturing industry and supporting its tourism sector.
- Another prominent component of Cobourg's economic development strategy includes the vitalization of the Downtown, including increasing the number of businesses within target markets as well as the number of consumers.
- A key element of the Downtown vitalization plan includes enhancing existing buildings to create retail clusters that integrate seamlessly with the surrounding realm. Plans to redevelop existing parcels into mixed-use residential developments are also central to the Downtown development vision.
- In Cobourg, total employment is projected to advance by about 3,100 persons during 2011-2041.
- Office-based employment is projected to expand by some 465 persons during 2011-2041, while service commercial employment is anticipated to grow by 290 employees over that same time.

- These employment projections translate into about 120,000 sq. ft. of office-based employment space needs and 125,000 sq. ft. of service commercial space needs during 2011-2041.
- Other competitive projects likely to come on-line during the projection horizon combined with Town's focus on the vitalization of the Downtown (thereby making it more attractive for businesses) will restrict the Primary Study Area's ability to accommodate new office space.
- The Downtown vitalization, future competitive supply already in the pipeline and a less than ideal location may hamper the Primary Study Area's effectiveness in attracting service commercial tenants. However, should residential development take place in the Primary Study Area, some minor service commercial development could be viable.
- Major components of the Primary Study Area could be attractive to a large newcomer to the community, based on the possibility of larger footprints relative to a downtown setting, and due to its more centralized location than existing employment lands.
- This scenario would involve the development of the Primary Study Area as an office campus for a single tenant (i.e. corporation or government department).
- This new employer would likely draw existing workers into the local economy (either through in-commuting, or additional in-migration over and above the current anticipated demographic growth potential for the Town).
- There are likely worker retention challenges faced by corporations and government agencies in a large move situation. Furthermore, research suggests that bigger cities tend to attract larger shares of skilled workers. As such, the probability of such an opportunity arising may be limited.

TABLE OF CONTENTS

Page

1 INTRODUCTION

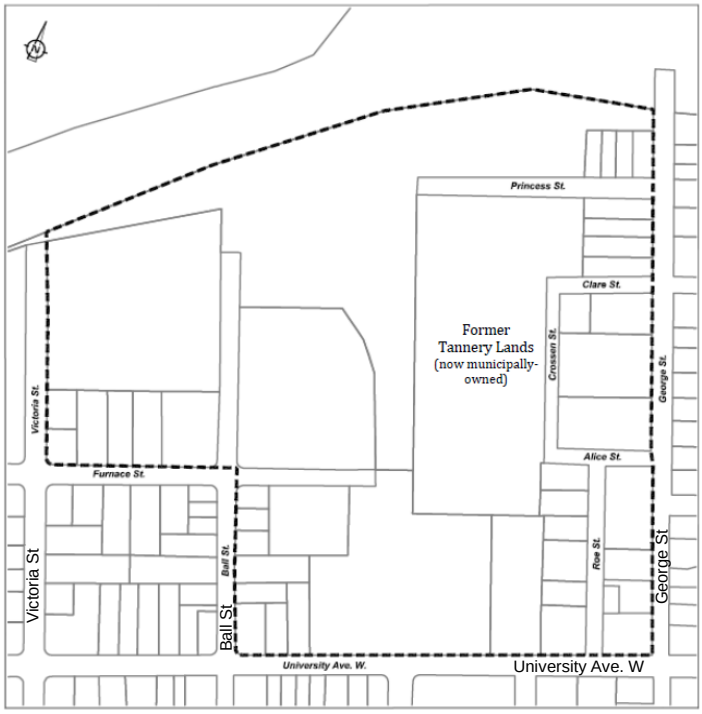
Altus Group Limited is part of a consulting team led by Fotenn Planning + Design and including Urban Equation, and Crozier & Associates, that was retained by the Town of Cobourg to prepare the Sustainable Neighbourhood Master Plan and Implementing Secondary Plan/Zoning By-law for the Tannery District. As part of this consulting team, Altus Group was tasked with preparing a background analysis of current and future market conditions and growth in the Town of Cobourg in relation to the Tannery District lands.

1.1 BACKGROUND, OBJECTIVES AND APPROACH

The Town of Cobourg has retained the consulting team to develop a comprehensive Sustainable Neighbourhood Master Plan and Implementing Secondary Plan/Zoning By-law for the 12-hectares (30-acres) of land known as the "Tannery District". Figure 1 shows the boundaries of the Primary Study Area, which is the focus of the project.

Figure 1

Primary Study Area



Source: Altus Group Economic Consulting based on map from the Town of Cobourg

Altus Group's role within the consulting team is to provide a background analysis of current and future market conditions and growth in the Town of Cobourg as input into the overall project.

This background analysis is not intended to be a detailed market feasibility analysis nor does it address the financial feasibility of development in the Primary Study Area. Rather, it is intended to provide an overview of current and future market conditions based on a review of various published data as well as data from Altus Group's in-house databases.

1.2 REPORT OUTLINE

This report contains two chapters in addition to the Introduction. Chapter 2 provides an overview of the Town of Cobourg housing market and concludes with an analysis of the market opportunity for new housing within the Primary Study Area. Chapter 3 outlines recent employment trends and presents an outlook for employment in the Town of Cobourg and Northumberland County as well as office and service commercial space projections.

1.3 CAVEAT

This analysis has been prepared on the bases of the information and assumptions set forth in the text. However, it is not possible to fully document all factors or account for all the changes that may occur in the future. This report relies on information from a variety of secondary sources. While every effort is made to ensure the accuracy of the data, we cannot guarantee the complete accuracy of the information used in the report from these secondary sources.

This report has been prepared solely for the purposes outlined herein and is not to be relied upon or used for any other purposes or by any other party without the prior written authorization of Altus Group Limited.

2 OVERVIEW OF THE TOWN OF COBOURG HOUSING MARKET

This chapter begins with an analysis of data from the 2011 and 2016 Censuses of Canada and 2011 National Household Survey (NHS) as well as various housing market data for the Town of Cobourg. It continues with an analysis of the housing growth forecast included in the *Town of Cobourg 2016 Development Charges Background Study* and analysis of the potential future supply of housing in the Town. It concludes with an analysis of the market opportunity for new housing within the Primary Study Area.

The focus of this chapter is on row/townhouse and apartment units as these dwelling types are expected to be the most likely to meet objectives for sustainable development in the Primary Study Area.

2.1 HOUSING MARKET TRENDS

2.1.1 Cobourg Accounted for Almost 23% of Northumberland County's Population in 2016

The Town of Cobourg is the largest municipality in Northumberland County in terms of population (19,440 persons) and private dwellings occupied by usual residents (8,639 dwellings) in 2016. In 2016, almost 23% of the County's population lived in Cobourg.

Cobourg is also located within commuting distance of the City of Toronto and especially the Region of Durham via Highway 401 or VIA Rail service.

2.1.2 Apartment and Row Units Combined Accounted for Almost 40% of the Household Growth in Cobourg During 2011-2016

Figure 2 presents data from the Census of Canada on households by dwelling type in the Town of Cobourg in 2011 and 2016 as well as the change between 2011 and 2016. The Census recorded an increase of approximately 590 households between 2011 and 2016. Slightly more than half of the growth was in single-detached dwellings, over one quarter in row housing, about 12% in low-rise apartments[1] and about 7% in semi-detached units. In 2016, approximately 59% of households lived in a single-detached home, 19% in a

[1] A low-rise apartment building is an apartment building with less than five storeys, while a high-rise apartment building has five storeys or more.

low-rise apartment, 12% in a row house and less than 5% in each of the other dwelling types.

Figure 2

Households by Dwelling Type, Town of Cobourg, 2011 and 2016

Dwelling Type	2011	2016	2011-2016
		Households	
Single-detached house	4,745	5,060	315
Apartment, high-rise	365	365	0
Other attached dwelling	2,935	3,220	285
Semi-detached house	365	410	45
Row house	855	1,020	165
Apartment, duplex	140	145	5
Apartment, low-rise	1,535	1,605	70
Other single-attached house	35	40	5
Movable dwelling	0	0	0
Total	**8,050**	**8,640**	**590**
		Percent	
Single-detached house	59.0	58.5	52.1
Apartment, high-rise	4.5	4.2	0.0
Other attached dwelling	36.5	37.2	47.5
Semi-detached house	4.5	4.7	7.4
Row house	10.6	11.8	27.3
Apartment, duplex	1.7	1.7	0.8
Apartment, low-rise	19.1	18.6	11.6
Other single-attached house	0.4	0.5	0.8
Movable dwelling	0.0	0.0	0.0
Total	**100.0**	**100.0**	**100.0**

Note: Values may not add to totals due to rounding by Statistics Canada
Source: Altus Group Economic Consulting based on 2011 and 2016 Censuses of Canada

Data for households by tenure from the 2016 Census of Canada have not yet been released, while tenure data for 2011 is from the National Household Survey (NHS) and therefore may not be comparable to data from the Census of Canada. Data for Cobourg from the 2011 NHS show that approximately 29% of the households in low-rise apartments were owners and 71% renters. For households in high-rise apartments, only 18% were owners and 82% were renters, while the split for households in row units was more balanced with 51% owners and 49% renters. Since 2011, the tenure shares for apartment and especially row units have likely shifted slightly in favour of owners based on the tenure of units created through new construction and conversion since the 2011 NHS was conducted.

2.1.3 Single-Person Households Comprised a Majority of the Households Living in Apartments in Cobourg in 2016

Figure 3 presents data from the Census of Canada on households by household size in low-rise and high-rise apartments as well as row housing in 2011 and 2016 in the Town of Cobourg. In both low-rise and high-rise apartments, a majority of the households comprised only one person in both 2011 and 2016. Most of the remaining households comprised two persons. This suggests that a majority of the households looking to live in a new apartment unit in Cobourg may only need one bedroom, although some may prefer a second bedroom. In row units, the largest share of households in both 2011 and 2016 comprised two persons (39% in 2016) followed by one person (37%). Most of the growth for both apartment and row units during 2011-2016 was in households with one or two persons.

Figure 3 **Households in Low-Rise, High-Rise Apartments and Row House by Household Size, Town of Cobourg, 2011 and 2016**

Year / Dwelling Type	1 Person	2 Persons	3 Persons	4 Persons	5 or More Persons	Total
			Households			
2016						
Low-Rise Apartment	940	545	90	25	10	1,610
High-Rise Apartment	190	145	25	10	0	365
Row House	375	395	145	65	40	1,015
2011						
Low-Rise Apartment	895	505	100	25	5	1,530
High-Rise Apartment	195	140	25	5	5	365
Row House	290	340	115	70	45	855
Growth 2011-2016						
Low-Rise Apartment	45	40	(10)	0	5	80
High-Rise Apartment	(5)	5	0	5	(5)	0
Row House	85	55	30	(5)	(5)	160
			Percent			
2016						
Low-Rise Apartment	58.4	33.9	5.6	1.6	0.6	100.0
High-Rise Apartment	51.4	39.2	6.8	2.7	0.0	100.0
Row House	36.8	38.7	14.2	6.4	3.9	100.0
2011						
Low-Rise Apartment	58.5	33.0	6.5	1.6	0.3	100.0
High-Rise Apartment	52.7	37.8	6.8	1.4	1.4	100.0
Row House	33.7	39.5	13.4	8.1	5.2	100.0
Growth 2011-2016						
Low-Rise Apartment	56.3	50.0	(12.5)	0.0	6.3	100.0
High-Rise Apartment	n.a.	n.a.	n.a.	n.a.	n.a.	n.a.
Row House	53.1	34.4	18.8	(3.1)	(3.1)	100.0

Source: Altus Group Economic Consulting based on data from the 2011 and 2016 Censuses of Canada

2.1.4 Persons Age 65 and Over Accounted for More than 100% of the Growth in Population in Apartments and Row Housing in Cobourg During 2011-2016

Figure 4 presents data from the Census of Canada on population in private households in apartment and row units by age group in the Town of Cobourg. Most notably, persons age 65 and over accounted for 57% of the persons living in high-rise apartments in 2016. While this age group accounted for smaller shares of the population living in low-rise apartments (39%) and row units (35%), it accounted for more than 100% of the population growth in all three dwelling types between 2011 and 2016. This likely reflects a combination of the aging of the population that lived in these units in 2011 but also a growing share of persons age 65 and over moving into these units between 2011 and 2016. With many more members of the baby boom generation set to reach age 65 during the current and the subsequent two Census periods, it is likely that the profile of persons living in apartments and row housing in Cobourg will continue to age through at least 2031.

Figure 4

Population in Private Households in Low-Rise, High-Rise Apartments and Row House by Age Group, Town of Cobourg, 2011 and 2016

Year / Dwelling Type	0 to 14	15 to 19	20 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 and Over	65 to 69	70 to 74	75 to 79	80 to 84	85 and Over	Total
									Persons									
2016																		
Low-Rise Apartment	160	50	140	130	110	100	105	110	180	200	210	950	235	195	175	150	195	2,445
High-Rise Apartment	25	15	20	15	10	15	15	25	30	35	45	325	70	75	60	60	55	575
Row House	330	115	65	85	110	95	75	85	100	120	165	710	240	190	130	90	60	2,060
2011																		
Low-Rise Apartment	175	85	140	160	100	115	105	170	150	170	190	790	170	170	160	150	140	2,350
High-Rise Apartment	30	10	15	10	10	20	20	20	35	45	50	305	55	70	60	70	60	575
Row House	350	100	105	125	105	85	80	100	95	130	140	410	120	105	85	60	35	1,830
Growth 2011-2016																		
Low-Rise Apartment	(15)	(35)	0	(30)	10	(15)	0	(60)	30	30	20	160	65	25	15	0	55	95
High-Rise Apartment	(5)	5	5	5	0	(5)	(5)	5	(5)	(10)	(5)	20	15	5	0	(10)	(5)	0
Row House	(20)	15	(40)	(40)	5	10	(5)	(15)	5	(10)	25	300	120	85	45	30	25	230
2016									*Percent by Age Group*									
Low-Rise Apartment	6.5	2.0	5.7	5.3	4.5	4.1	4.3	4.5	7.4	8.2	8.6	38.9	9.6	8.0	7.2	6.1	8.0	100.0
High-Rise Apartment	4.4	2.6	3.5	2.6	1.8	2.6	2.6	4.4	5.3	6.1	7.9	56.5	12.3	13.2	10.5	10.5	9.6	100.0
Row House	16.1	5.6	3.2	4.1	5.4	4.6	3.6	4.1	4.9	5.8	8.0	34.5	11.7	9.2	6.3	4.4	2.9	100.0
2011																		
Low-Rise Apartment	7.4	3.6	6.0	6.8	4.3	4.9	4.5	7.2	6.4	7.2	8.1	33.6	7.2	7.2	6.8	6.4	6.0	100.0
High-Rise Apartment	5.2	1.7	2.6	1.7	1.7	3.4	3.4	3.4	6.0	7.8	8.6	53.5	9.5	12.1	10.3	12.1	10.3	100.0
Row House	19.2	5.5	5.8	6.9	5.8	4.7	4.4	5.5	5.2	7.1	7.7	22.5	6.6	5.8	4.7	3.3	1.9	100.0
Growth 2011-2016																		
Low-Rise Apartment	(15.8)	(36.8)	0.0	(31.6)	10.5	(15.8)	0.0	(63.2)	31.6	31.6	21.1	168.4	68.4	26.3	15.8	0.0	57.9	100.0
High-Rise Apartment	50.0	(50.0)	(50.0)	(50.0)	0.0	50.0	50.0	(50.0)	50.0	100.0	50.0	400.0	(150.0)	(50.0)	0.0	100.0	50.0	100.0
Row House	(8.5)	6.4	(17.0)	(17.0)	2.1	4.3	(2.1)	(6.4)	2.1	(4.3)	10.6	130.4	51.1	36.2	19.1	12.8	10.6	100.0

Source: Altus Group Economic Consulting based on data from the 2011 and 2016 Censuses of Canada

2.1.5 Total Housing Completions in Cobourg have Averaged Between 100 and 131 Units Per Year During the Past Five Census Periods

Figure 5 presents data from CMHC on housing completions by dwelling type and tenure in the Town of Cobourg since 1990, annually and by Census period.[2] It should be noted that the housing completions data exclude units created through the conversion of non-residential space to residential units (e.g., apartment units at Mansions on George).

Average annual total housing completions have been relatively steady in the Town of Cobourg during the past five Census periods, ranging from a low of 100 units per year in 1996-2001 to a high of 131 units per year in 2006-2011. With the exception of 2006-2011, average annual total housing completions fell within an even narrower range of 100 to 112 units per year.

During the past five Census periods, the mix of housing completions by dwelling type and tenure has varied significantly. The share of single-detached completions has varied from a low of 38.1% in 2006-2011 to a high of 78.4% in 1996-2001. While the share declined significantly between the 1996-2001 and 2006-2011 Census periods, the share rebounded in 2011-2016.

The vast majority of the semi-detached housing completions since 1990 have been freehold (homeowner), and slightly more than half (52%) of all semi-detached units completed since the beginning of 1990 were completed during 2013-2016. While the number of condominium semi-detached units completed since 1990 (16 units) matches the number of semi-detached units within the Ryerson Commons project, all of the 16 units at Ryerson Commons were completed since 2010 whereas six of the units completed according to CMHC were completed in 2005 or 2006. Therefore, it appears that CMHC may have misclassified (or omitted) some of the condominium row units completed at Ryerson Commons.

[2] Because CMHC has only published quarterly data for housing completions in Cobourg for many years, for the purposes of this analysis Census periods run from July 1 of the first year to June 30 of the last year, coinciding roughly with the period between Census enumerations.

Figure 5

Housing Completions by Dwelling Type and Tenure, Town of Cobourg, 1990-2017(June)

Annual	Single-Detached	Semi-Detached		Row				Apartment			Total
	Homehowner	Homehowner	Condominium	Homehowner	Condominium	Rental	Co-op	Condominium	Rental	Co-op	
					Units						
1990	244	0	0	0	0	24	0	30	70	0	368
1991	58	2	0	22	0	0	60	0	6	18	166
1992	56	2	0	0	0	0	0	0	0	0	58
1993	89	2	0	0	0	0	0	8	0	0	99
1994	129	0	0	0	0	0	0	45	44	0	218
1995	74	0	0	0	0	0	0	32	0	0	106
1996	91	0	0	0	0	0	0	28	0	0	119
1997	116	6	0	0	0	0	0	30	0	0	152
1998	77	0	0	0	0	0	0	34	0	0	111
1999	76	6	0	0	0	0	0	0	0	0	82
2000	44	6	0	14	5	0	0	0	0	0	69
2001	25	0	0	0	0	0	0	0	16	0	41
2002	48	0	0	0	0	0	0	0	4	0	52
2003	76	2	0	0	0	0	0	0	0	0	78
2004	71	12	0	0	18	0	0	12	9	0	122
2005	63	2	4	0	12	0	0	87	0	0	168
2006	60	2	2	24	35	0	0	35	1	0	159
2007	59	0	0	32	36	0	0	1	16	0	144
2008	38	2	0	6	10	0	0	0	0	0	56
2009	44	0	0	48	17	0	0	93 [3]	50	0	252
2010	48	2	0	0	21	0	0	8	0	0	79
2011	51	4	0	30	14	0	0	0	0	0	99
2012	67 [2]	4	0	15	20	0	0	4	0	0	110
2013	57	14	6	26	0	0	0	0	0	0	103
2014	75	16	4	37	10	0	0	0	12	0	154
2015	49	14	0	8	14	0	0	0	0	0	85
2016	50	12	0	17	0	0	0	0	27	0	106
TOTAL (1990-2016)	1,935	110	16	279	212	24	60	447	255	18	3,356
2017 (Jan-June)	18	12	0	0	0	0	0	0	0	0	30
Census Period[1] (Average Annual)											
1991-1996	79	1	0	1	0	0	0	21	10	0	112
1996-2001	78	4	0	3	1	0	0	14	0	0	100
2001-2006	58	3	1	2	9	0	0	27	6	0	107
2006-2011	50	2	0	23	22	0	0	20	13	0	131
2011-2016	61	11	2	20	10	0	0	1	2	0	107
Under Construction (June 2017)	15	2	0	40	4	0	0	10	0	0	71
					Percent						
1990	66.3	0.0	0.0	0.0	0.0	6.5	0.0	8.2	19.0	0.0	100.0
1991	34.9	1.2	0.0	13.3	0.0	0.0	36.1	0.0	3.6	10.8	100.0
1992	96.6	3.4	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
1993	89.9	2.0	0.0	0.0	0.0	0.0	0.0	8.1	0.0	0.0	100.0
1994	59.2	0.0	0.0	0.0	0.0	0.0	0.0	20.6	20.2	0.0	100.0
1995	69.8	0.0	0.0	0.0	0.0	0.0	0.0	30.2	0.0	0.0	100.0
1996	76.5	0.0	0.0	0.0	0.0	0.0	0.0	23.5	0.0	0.0	100.0
1997	76.3	3.9	0.0	0.0	0.0	0.0	0.0	19.7	0.0	0.0	100.0
1998	69.4	0.0	0.0	0.0	0.0	0.0	0.0	30.6	0.0	0.0	100.0
1999	92.7	7.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
2000	63.8	8.7	0.0	20.3	7.2	0.0	0.0	0.0	0.0	0.0	100.0
2001	61.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	39.0	0.0	100.0
2002	92.3	0.0	0.0	0.0	0.0	0.0	0.0	0.0	7.7	0.0	100.0
2003	97.4	2.6	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
2004	58.2	9.8	0.0	0.0	14.8	0.0	0.0	9.8	7.4	0.0	100.0
2005	37.5	1.2	2.4	0.0	7.1	0.0	0.0	51.8	0.0	0.0	100.0
2006	37.7	1.3	1.3	15.1	22.0	0.0	0.0	22.0	0.6	0.0	100.0
2007	41.0	0.0	0.0	22.2	25.0	0.0	0.0	0.7	11.1	0.0	100.0
2008	67.9	3.6	0.0	10.7	17.9	0.0	0.0	0.0	0.0	0.0	100.0
2009	17.5	0.0	0.0	19.0	6.7	0.0	0.0	36.9	19.8	0.0	100.0
2010	60.8	2.5	0.0	0.0	26.6	0.0	0.0	10.1	0.0	0.0	100.0
2011	51.5	4.0	0.0	30.3	14.1	0.0	0.0	0.0	0.0	0.0	100.0
2012	60.9	3.6	0.0	13.6	18.2	0.0	0.0	3.6	0.0	0.0	100.0
2013	55.3	13.6	5.8	25.2	0.0	0.0	0.0	0.0	0.0	0.0	100.0
2014	48.7	10.4	2.6	24.0	6.5	0.0	0.0	0.0	7.8	0.0	100.0
2015	57.6	16.5	0.0	9.4	16.5	0.0	0.0	0.0	0.0	0.0	100.0
2016	47.2	11.3	0.0	16.0	0.0	0.0	0.0	0.0	25.5	0.0	100.0
TOTAL (1990-2016)	57.7	3.3	0.5	8.3	6.3	0.7	1.8	13.3	7.6	0.5	100.0
2017 (Jan-June)	60.0	40.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	100.0
Census Period[1] (Average Annual)											
1991-1996	70.4	0.7	0.0	1.1	0.0	0.0	0.0	18.9	8.9	0.0	100.0
1996-2001	78.4	3.6	0.0	2.8	1.0	0.0	0.0	14.2	0.0	0.0	100.0
2001-2006	54.7	3.0	0.7	2.2	8.6	0.0	0.0	25.1	5.6	0.0	100.0
2006-2011	38.1	1.2	0.3	17.7	17.0	0.0	0.0	15.6	10.1	0.0	100.0
2011-2016	56.9	10.5	1.9	18.4	9.4	0.0	0.0	0.7	2.2	0.0	100.0
Under Construction (June 2017)	21.1	2.8	0.0	56.3	5.6	0.0	0.0	14.1	0.0	0.0	100.0

[1] Census periods run from July 1 of the first year to June 30 of the last year

[2] Includes one condominium unit

[3] Includes two homeowner units

Source: Altus Group Economic Consulting based on data from CMHC

Row housing completions have comprised a mix of freehold and condominium units since 1991, and the most recent rental row units completed were 24 units in 1990. There were also 60 co-operative row units (and 18 apartment units) completed in the first half of 1991 (Sutherland Place Co-operative Homes at 199A Sutherland Crescent, located a short distance north of the Primary Study Area). During the 1991-1996 and 1996-2001 Census periods combined, row housing accounted for less than 3% of total housing completions in Cobourg. The share rose to almost 11% during the 2001-2006 Census period, and rose further to almost 35% during 2006-2011 before declining to 28% in 2011-2016. There was an almost even split between freehold and condominium row completions during 2006-2011, while in 2011-2016 twice as many freehold row units were completed as condominium row units.

2.1.6 Several Projects have Accounted for Most of the Row and Apartment Completions in Cobourg in Recent Years

Most of the condominium row completions since 1990 have occurred in five projects:

- Ryerson Commons is a condominium project located at 120 University Avenue East (east of the Primary Study Area) that was developed in phases over approximately 10 years and was completed in 2015. The overall project comprises 85 units with a mix of 16 semi-detached, 56 townhouse and 13 low-rise (three-storey) apartment units. Phase III (the final phase) comprises 12 semi-detached units and eight townhouse units. The ground-related units are one to one-and-a-half storeys.
- Densmore Village (325 Densmore Road) comprises 15 blocks of four back-to-back, x-shaped units within one condominium block in the Parkview Hills community. Most recently, the same builder has built six freehold townhouses in the same community. A similar project with 64 units is located at 1055 Birchwood Trail in an earlier phase of the Parkwood Hills Community.
- Victoria Gardens is located on the east side of Hibernia Street, north of Third Street in Downtown Cobourg. The project comprises a mix of row and apartment units, with development commencing in the early 1990s.

- Esplanade on the Wharf (165 Division Street) comprises 16 row units and two semi-detached units with rear lanes, and two apartment units located over ground floor commercial space.
- Dunbar Gardens (300 D'Arcy Street) comprises 19 townhouse and six semi-detached units on an infill site. The semi-detached units appear to match the six units completed according to CMHC in 2005-2006.

Most of the freehold row completions since 2016 have occurred in the New Amherst and West Park Village communities in the west end of Cobourg.

Not surprisingly in a smaller market like Cobourg, apartment completions have fluctuated from year to year. In addition to the apartment units completed within the Victoria Gardens and Ryerson Commons projects reviewed above, most of the remaining newer condominium apartment units are located in two projects:

- Harbour Walk Condominiums (125, 128 and 145 Third Street) comprises a total of approximately 180 condominium apartment units in three buildings. The building at 128 Third Street includes ground floor retail space. Sales began in 2002, the first building was completed in 2005 and the third building in 2009.
- Mansions on George (323 George Street, a short distance south of the Primary Study Area) comprises the recent conversion of a former school into 35 condominium apartment units. A second phase (Mansions on James) will comprise 36 newly constructed units adjoining Mansions on George.

As of June 30, 2017, CMHC reported 10 condominium apartment units under construction in Cobourg, which are believed to comprise the first 10-plex (stacked townhouses) being developed in the East Village project by Stalwood Homes in the east end of Cobourg. According to CMHC there were also 40 freehold and four condominium row units under construction, all or most of which are located in the West Park Village and New Amherst projects in the west end of Cobourg. Only two freehold semi-detached units were under construction (believed to be located in the Parkview Hills project in the northeast part of the Town) and 15 single-detached units (most or all in the New Amherst project).

Site visits conducted in mid-July 2017 indicated that there were 20 condominium apartment units under construction in Cobourg versus the 10

recorded by CMHC as of June 30, 2017. In addition to the 10-plex under construction in the East Village project cited above, a 10-unit condominium apartment project (Beach Walk Place, at 169 Division Street) is well under construction.

2.1.7 Only 79 Private Rental Apartment Units have Been Built in Cobourg Since 2000

Figure 6 presents data from CMHC on the private (purpose-built, market) rental apartment universe (stock) in the Town of Cobourg by year of construction since 2010. The data show that in both 2015 and 2016, there were 920 private rental apartment units in the Town, of which 55% were built during 1960-1979, about 18% each before 1960 and during 1980-1999, and 9% (79 units) in 2000 or later. Housing completions data published by CMHC show that there were 135 total rental apartment units completed in Cobourg in 2000 or later, which indicates that up to 56 of the apartment units completed in 2000 or later were subsidized units or in buildings with less than three units.

Figure 6 **Private Rental Apartment Universe in the Town of Cobourg by Year of Construction, 2010-2016**

Annual	Before 1960	1960-1979	1980-1999	2000 or Later	Total
			Units		
2010	165	507	170	67	909
2011	161	507	170	67	905
2012	170	507	170	67	914
2013	166	507	169	67	909
2014	165	507	169	67	908
2015	165	507	169	79	920
2016	165	507	169	79	920
			Percent		
2010	18.2	55.8	18.7	7.4	100.0
2011	17.8	56.0	18.8	7.4	100.0
2012	18.6	55.5	18.6	7.3	100.0
2013	18.3	55.8	18.6	7.4	100.0
2014	18.2	55.8	18.6	7.4	100.0
2015	17.9	55.1	18.4	8.6	100.0
2016	17.9	55.1	18.4	8.6	100.0

Note: Includes buildings with three or more units.
Source: Altus Group Economic Consulting based on data from CMHC

Comparing data for renter households living in apartments from the 2011 NHS with data from CMHC, it appears that up to about two thirds of the renter households living in an apartment dwelling in Cobourg lived in a private rental apartment unit in 2011.

Figure 7 presents similar data to Figure 6 but by structure size. The data show that there are only 119 private rental apartment units in buildings with 50 more units in the Town – Trillium Apartments (434 Williams Street) is a six-storey building with 68 units, and Manor Tower Apartments (47 Munroe Street) is a six-storey building with 51 units. Over 81% of the units are in buildings with six to 49 units and 52 units (6%) are in buildings with less than six units.

Figure 7

Private Rental Apartment Universe in the Town of Cobourg by Structure Size, 2010-2016

Annual	3-5 Units	6-19 Units	20-49 Units	50-199 Units	200+ Units	Total
			Units			
2010	50	323	417	119	n.a.	909
2011	45	324	417	119	n.a.	905
2012	48	330	417	119	n.a.	914
2013	47	326	417	119	n.a.	909
2014	52	320	417	119	n.a.	908
2015	52	332	417	119	n.a.	920
2016	52	332	417	119	n.a.	920
			Percent			
2010	5.5	35.5	45.9	13.1	n.a.	100.0
2011	5.0	35.8	46.1	13.1	n.a.	100.0
2012	5.3	36.1	45.6	13.0	n.a.	100.0
2013	5.2	35.9	45.9	13.1	n.a.	100.0
2014	5.7	35.2	45.9	13.1	n.a.	100.0
2015	5.7	36.1	45.3	12.9	n.a.	100.0
2016	5.7	36.1	45.3	12.9	n.a.	100.0

Note: Includes buildings with three or more units.
Source: Altus Group Economic Consulting based on data from CMHC

Figure 8 presents similar data to Figure 6 but by suite type. The data show that since 2013, about 62% of the private apartment rental units were two-bedroom suites followed by one-bedroom suites (28%), three-bedroom-and-larger suites (7%) and bachelor suites (3%). Additional CMHC data show that for the 79 units built in 2000 or later, the suite mix comprises 57 two-bedroom, 19 one-bedroom and three three-bedroom-and-larger suites.

Figure 8

Private Rental Apartment Universe in the Town of Cobourg by Suite Type, 2010-2016

Annual	Bachelor	One Bedroom	Two Bedroom	Three Bedroom +	Total
			Units		
2010	32	247	570	60	909
2011	31	243	571	60	905
2012	34	246	574	60	914
2013	31	253	565	60	909
2014	30	255	563	60	908
2015	30	255	573	62	920
2016	31	255	572	62	920
			Percent		
2010	3.5	27.2	62.7	6.6	100.0
2011	3.4	26.9	63.1	6.6	100.0
2012	3.7	26.9	62.8	6.6	100.0
2013	3.4	27.8	62.2	6.6	100.0
2014	3.3	28.1	62.0	6.6	100.0
2015	3.3	27.7	62.3	6.7	100.0
2016	3.4	27.7	62.2	6.7	100.0

Note: Includes buildings with three or more units.
Source: Altus Group Economic Consulting based on data from CMHC

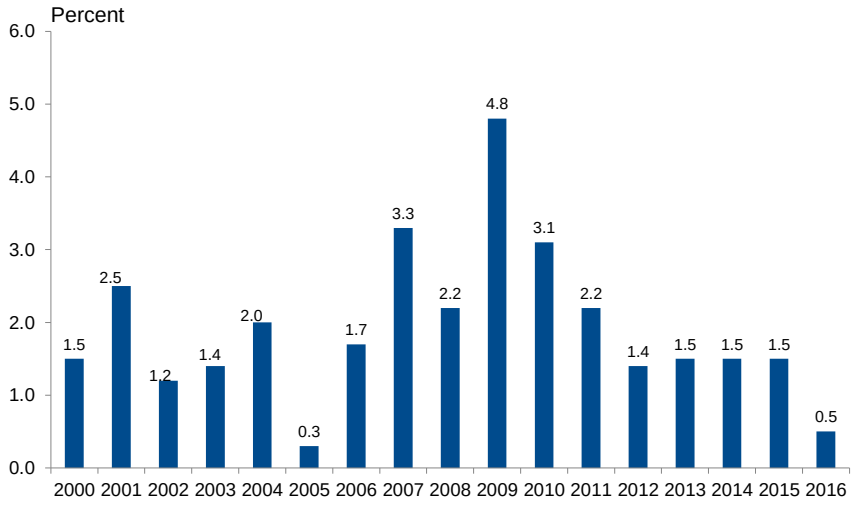
2.1.8 The Overall Vacancy Rate for Private Rental Apartments in Cobourg was in Tight Market Territory in 2016

Figure 9 presents vacancy rates for private rental apartments in the Town of Cobourg since 2000. The data show that the overall vacancy rate was in or just above tight market territory (1.4% or 1.5%) in each year during 2012-2015 before declining to its lowest rate since 2005 at 0.5%.[3]

[3] Altus Group characterizes markets as being tight if the vacancy rate is below 1.5%, balanced if the vacancy rate is between 1.5% and 2.5%, and soft if the vacancy rate is over 2.5%.

Figure 9

Private Rental Apartment Vacancy Rate, City of Cobourg, 2000-2016



Note: Includes buildings with three or more units.
Source: Altus Group Economic Consulting based on data from CMHC

Figure 10 presents more detailed data on vacancy rates in private rental apartments since 2000 by suite type. The data show that vacancy rates were 0.4% for both one and two-bedroom suites and 0% for three-bedroom-and-larger suites in 2016. Since 2000, the vacancy rate for two-bedroom suites has been in tight or balanced market territory in all but three years, while vacancy rates for the small number of bachelor and three-bedroom-and-larger suites have been zero in most years. Although vacancy rates for one-bedroom suites were in soft market territory in at least seven of the past 17 years, they were in tight market territory in three of the past four years. Overall the data indicate a tight private rental apartment market in the Town of Cobourg in 2016.

Figure 10

Vacancy Rates for Private Rental Apartments by Suite Type, Town of Cobourg, 2000-2016

	Bachelor	One-Bedroom	Two-Bedroom	Three-Bedroom +	Total
			Percent		
2000	6.7	1.1	1.5	0.0	1.5
2001	0.0	3.5	2.5	0.0	2.5
2002	0.0	1.4	1.3	0.0	1.2
2003	0.0	2.8	1.0	0.0	1.4
2004	0.0	4.5	1.1	0.0	2.0
2005	0.0	0.0	0.5	0.0	0.3
2006	**	2.1	1.2	0.0	1.7
2007	**	4.0	2.8	0.0	3.3
2008	**	**	**	**	2.2
2009	**	4.6	4.0	6.4	4.8
2010	**	2.2	3.0	4.2	3.1
2011	0.0	3.4	2.0	0.0	2.2
2012	0.0	3.8	0.6	0.0	1.4
2013	0.0	1.1	1.9	0.0	1.5
2014	0.0	1.1	2.1	0.0	1.5
2015	0.0	2.4	1.3	0.0	1.5
2016	**	0.4	0.4	0.0	0.5

** Data suppressed to protect confidentiality or data not statistically reliable
Note: Includes buildings with three or more units.
Source: Altus Group Economic Consulting based on data from CMHC

2.1.9 The Overall Average Rent for Private Rental Apartments in Cobourg was $950 in 2016

Figure 11 presents data on average rents by suite type for private rental apartments in the Town of Cobourg since 2000. In 2016, the overall average rent for private rental apartments in Cobourg was $950, the fifth highest amongst Census Agglomerations (CA) as well as municipalities not located in a Census Metropolitan Area or CA in Ontario in which CMHC conducts its annual rental market survey, although lower than in Port Hope. The average rent for a two-bedroom suite in Cobourg exceeded $1,000 for the first time when it rose to $1,011 in 2016.

After a 6.8% increase in overall average rent in 2015 following a 2.3% decline in 2014, the overall average rent increased by only 1.1% in 2016 despite the decline in the vacancy rate. So far the low vacancy rates have not put undue upward pressure on rents, which only increased by an average of 2.1% per year between 2011 and 2016. This may be due in part to relatively low turnover rates. However, over the longer term, if the vacancy rate remains in tight market territory, this is likely to lead to upward pressure on rents.

Figure 11

Average Rents for Private Rental Apartments by Suite Type, Town of Cobourg, 2000-2016

	Bachelor	One-Bedroom	Two-Bedroom	Three-Bedroom +	Total
			Dollars		
2000	432	601	687	792	657
2001	443	605	712	808	677
2002	443	626	734	821	691
2003	467	625	757	843	713
2004	473	649	776	878	732
2005	474	685	805	885	766
2006	530	680	849	905	801
2007	473	705	834	863	789
2008	483	696	840	939	786
2009	482	696	877	967	808
2010	510	733	864	959	821
2011	583	745	883	1,077	856
2012	517	770	924	1,111	880
2013	609	802	931	1,026	901
2014	517	801	932	1,100	880
2015	498	817	997	1,195	940
2016	613	811	1,011	1,262	950
			Percent Change		
2001	2.5	0.7	3.6	2.0	3.0
2002	0.0	3.5	3.1	1.6	2.1
2003	5.4	(0.2)	3.1	2.7	3.2
2004	1.3	3.8	2.5	4.2	2.7
2005	0.2	5.5	3.7	0.8	4.6
2006	11.8	(0.7)	5.5	2.3	4.6
2007	(10.8)	3.7	(1.8)	(4.6)	(1.5)
2008	2.1	(1.3)	0.7	8.8	(0.4)
2009	(0.2)	0.0	4.4	3.0	2.8
2010	5.8	5.3	(1.5)	(0.8)	1.6
2011	14.3	1.6	2.2	12.3	4.3
2012	(11.3)	3.4	4.6	3.2	2.8
2013	17.8	4.2	0.8	(7.7)	2.4
2014	(15.1)	(0.1)	0.1	7.2	(2.3)
2015	(3.7)	2.0	7.0	8.6	6.8
2016	23.1	(0.7)	1.4	5.6	1.1

Note: Includes buildings with three or more units.
Source: Altus Group Economic Consulting based on data from CMHC

2.1.10 Most of the Private Rental Row Units in Cobourg were Built Before 1960

Figure 12 presents data on the universe of private rental row units in the Town of Cobourg by year of construction. The vast majority (86%) of these units were completed before 1960. Over 80% of the private rental row units are located in one project – Benart Homes at 886 D'Arcy Street in the east end of the Town with 132 two-storey units.

Figure 13 presents similar data to Figure 12 but by suite type. During the past three years, three-bedroom-and-larger suites have comprised about 75% of the private rental row units in Cobourg followed by two-bedroom (19%) and one-bedroom (6%) suites.

Figure 12

Private Rental Row (Townhouse) Universe in the Town of Cobourg by Year of Construction, 2010-2016

Annual	Before 1960	1960-1979	1980-1999	2000 or Later	Total
			Units		
2010	139	6	11	n.a.	156
2011	139	6	11	n.a.	156
2012	139	6	11	n.a.	156
2013	139	6	11	n.a.	156
2014	139	6	17	n.a.	162
2015	139	6	17	n.a.	162
2016	139	6	17	n.a.	162
			Percent		
2010	89.1	3.8	7.1	n.a.	100.0
2011	89.1	3.8	7.1	n.a.	100.0
2012	89.1	3.8	7.1	n.a.	100.0
2013	89.1	3.8	7.1	n.a.	100.0
2014	85.8	3.7	10.5	n.a.	100.0
2015	85.8	3.7	10.5	n.a.	100.0
2016	85.8	3.7	10.5	n.a.	100.0

Note: Includes buildings with three or more units.
Source: Altus Group Economic Consulting based on data from CMHC

Figure 13

Private Rental Row (Townhouse) Universe in the Town of Cobourg by Suite Type, 2010-2016

Annual	Bachelor	One Bedroom	Two Bedroom	Three Bedroom +	Total
			Units		
2010	n.a.	6	28	122	156
2011	n.a.	6	28	122	156
2012	n.a.	6	28	122	156
2013	n.a.	6	28	122	156
2014	n.a.	9	31	122	162
2015	n.a.	9	31	122	162
2016	n.a.	9	31	122	162
			Percent		
2010	n.a.	3.8	17.9	78.2	100.0
2011	n.a.	3.8	17.9	78.2	100.0
2012	n.a.	3.8	17.9	78.2	100.0
2013	n.a.	3.8	17.9	78.2	100.0
2014	n.a.	5.6	19.1	75.3	100.0
2015	n.a.	5.6	19.1	75.3	100.0
2016	n.a.	5.6	19.1	75.3	100.0

Note: Includes buildings with three or more units.
Source: Altus Group Economic Consulting based on data from CMHC

Unfortunately, the vacancy rate data for private rental row units in Cobourg have been suppressed by CMHC since 2004. However, extrapolating from the vacancy rates for private rental apartments and private rental apartment and row units combined, it appears that vacancy rates for private rental row units were in tight market territory in both 2015 and 2016.

Comparing data from the 2011 NHS with data from CMHC, less than 40% of the renter households living in row units in the Town of Cobourg in 2011 lived in a private rental row unit. The rest would have lived in a subsidized rental row unit or a freehold/condominium row unit occupied by a renter household.

Most of the historical data on average rents for private rental row units in Cobourg have been supressed by CMHC; however, in 2015 the overall average rent was $875, which was 7% lower than for private rental apartment units. The data suggest that in Cobourg, private rental row units may be more affordable than private rental apartment units. This likely reflects in part the older age of the private rental row housing stock versus the private rental apartment stock.

2.2 PROFILE OF HOUSEHOLDS IN ROW AND APARTMENT UNITS IN THE TOWN OF COBOURG

Figure 14 presents data from the 2011 National Household Survey (NHS) on the age of household head of owner and renter households living in row and low-rise apartment units in the Town of Cobourg at the time that the 2011 NHS was conducted.[4] Figure 15 presents similar data but for mobility status and previous place of residence. Similar data tabulations from the 2016 Census of Canada are not expected to be available until 2018.

The data show that a sizeable majority of owner households in both row and especially low-rise apartments units in the Town of Cobourg in 2011 were headed by a person age 60 and over. Available data from the 2016 Census suggest that this was also the case in 2016.

[4] Data for renter households in high-rise apartment units have been excluded due to the small sample size.

Figure 14

Households in Row House and Low-Rise Apartments by Age of Household Head, Town of Cobourg, 2011

Tenure / Dwelling Type	15 to 24	25 to 29	30 to 34	35 to 39	40 to 44	45 to 49	50 to 54	55 to 59	60 to 64	65 to 69	70 to 74	75 and Over	75 to 79	80 to 84	85 and Over	Total
								Households								
Owner Households																
Row House	0	0	20	0	25	0	40	40	70	90	55	60	25	25	0	420
Low-Rise Apartments	0	0	0	0	0	0	0	0	70	60	75	155	40	75	0	435
Renter Households																
Row House	0	30	0	40	45	70	75	30	0	25	0	40	0	0	20	400
Low-Rise Apartments	45	90	60	65	30	130	180	85	65	80	75	180	35	50	95	1,085
								Percent								
Owner Households																
Row House	0.0	0.0	5.1	0.0	6.4	0.0	10.3	10.3	17.9	23.1	14.1	15.0	6.4	6.4	0.0	100.0
Low-Rise Apartments	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	21.9	18.8	23.4	43.1	12.5	23.4	0.0	100.0
Renter Households																
Row House	0.0	9.0	0.0	11.9	13.4	20.9	22.4	9.0	0.0	7.5	0.0	11.3	0.0	0.0	6.0	100.0
Low-Rise Apartments	4.1	8.3	5.5	6.0	2.8	12.0	16.6	7.8	6.0	7.4	6.9	16.6	3.2	4.6	8.8	100.0

Note: Values may not add to totals due to rounding by Statistics Canada. Percentages are based on calculated totals.
Source: Altus Group Economic Consulting based on special tabulations from the 2011 National Household Survey

Figure 15

Households in Row House and Low-Rise Apartments by Previous Place of Residence, Town of Cobourg, 2011

Five-Year Mobility	Row House		Low-Rise Apartments	
	Owner Households	Renter Households	Owner Households	Renter Households
		Households		
Non-movers	190	210	235	285
Movers	225	185	190	790
Within the Town of Cobourg	80	155	70	400
From Elsewhere in Ontario	145	30	120	365
From Elsewhere in Canada	0	0	0	25
From Outside Canada	0	0	0	0
Total	420	400	435	1,085
	Percent by Previous Place of Residence			
Movers				
Within the Town of Cobourg	35.6	83.8	36.8	50.6
From Elsewhere in Ontario	64.4	16.2	63.2	46.2
From Elsewhere in Canada	0.0	0.0	0.0	3.2
From Outside Canada	0.0	0.0	0.0	0.0
Total	100.0	100.0	100.0	100.0

Note: Values may not add to totals due to rounding by Statistics Canada. Percentages are based on calculated totals.
Source: Altus Group Economic Consulting based on special tabulations from the 2011 National Household Survey

For renter households in row and low-rise apartment units, which include renter households living in purpose-built rental units and in freehold or

condominium units owned by investors, the age distribution of household heads was more diverse.

The highest mobility rates were for renter households in low-rise apartments where almost three quarters of the renter households that were living in a low-rise apartment in Cobourg in 2011 had moved at least once during the previous five years.

For owner households in both low-rise apartment and row units, just over one third of the households that moved at least once during 2006-2011 moved from within the Town of Cobourg with the rest moving from elsewhere in Ontario. For renter households that moved at least once during 2006-2011, about half of the households living in low-rise apartments and 84% of those living in row units moved from within Cobourg. The data suggest that for apartment and row units, the ownership housing market in Cobourg is more geared to households moving to Cobourg than the rental market.

2.3 HOUSING GROWTH FORECAST FOR THE TOWN OF COBOURG

Altus Group did not prepare projections of household growth by dwelling type in Cobourg for this assignment but rather reviewed recent forecasts prepared for the Town of Cobourg and County of Northumberland.

Figure 16 presents a residential growth forecast by dwelling type prepared by Watson & Associates Economists Ltd. (Watson) on behalf of the Town of Cobourg, which is contained in a report entitled *Town of Cobourg 2016 Development Charges Background Study*, November 3, 2016. According to Watson, this forecast is derived from the *Northumberland County Housing Forecast by Area Municipality, 2011-2041*, September 30, 2014, which was also prepared by Watson, the *Northumberland County Official Plan*, and housing supply information from the Town of Cobourg, July 2016.

The forecast is for average annual housing growth of 150 units during 2017-2022, 164 units during 2022-2027 and 184 units during 2027-2037. The growth forecast for 2017-2022 is about 27% higher than the actual household growth during 2011-2016, and higher than the average annual housing completions during each of the past five Census periods.

The forecast growth by dwelling type is for lower shares of single and semi-detached housing, and higher shares of row and apartment units compared to the shares of housing completions during the past five Census periods.

This may in part reflect policies related to the *Growth Plan for the Greater Golden Horseshoe (Growth Plan)*, *Northumberland County Official Plan* and the *Town of Cobourg Official Plan*. For example, the latter two documents both include an intensification target of at least 39% for the Town of Cobourg.

Figure 16 **Residential Growth Forecast, Town of Cobourg, Early 2017 to 2037 and Buildout**

Period	Single and Semi-Detached	Multiple Dwellings [1]	Apartments	Other	Total
			Units		
Early 2017 - Early 2022	174	347	229	0	750
Early 2022 - Early 2027	149	406	262	0	818
Early 2027 - Early 2037	480	793	567	0	1,840
Early 2017 - Early 2027	323	753	491	0	1,568
Early 2017 - Early 2037	803	1,546	1,058	0	3,408
Early 2017 - Buildout	4,052	2,392	1,987	0	8,431
			Percent		
Early 2017 - Early 2022	23.2	46.3	30.5	0.0	100.0
Early 2022 - Early 2027	18.2	49.7	32.1	0.0	100.0
Early 2027 - Early 2037	26.1	43.1	30.8	0.0	100.0
Early 2017 - Early 2027	20.6	48.1	31.3	0.0	100.0
Early 2017 - Early 2037	23.6	45.4	31.1	0.0	100.0
Early 2017 - Buildout	48.1	28.4	23.6	0.0	100.0

[1] Includes townhouses and apartments in duplexes

Source: Altus Group Economic Consulting based on Watson & Associates Economists Ltd., *Town of Cobourg 2016 Development Charges Background Study*, November 3, 2016

The early 2017-buildout forecast prepared by Watson shows that there is more than sufficient supply of potential residential units for each dwelling type category to accommodate the forecast growth by dwelling type in Cobourg well beyond 2037. According to Watson, a large share of the forecast growth would be accommodated in the Cobourg East Serviced Area. It should be pointed out that it is not clear to what extent Watson has accounted for potential intensification opportunities within the built boundary in the Town of Cobourg, such as in Downtown Cobourg and the Tannery District.

2.4 ACTIVE AND PROPOSED RESIDENTIAL DEVELOPMENT

Figure 17 presents information on the approved or proposed number of units (by dwelling type where available) for all (or almost all) known residential development projects in the Town of Cobourg as of July 2017 that are under development or under active application for development, including:

- Projects that are being actively marketed and/or are under construction/development or in pre-construction sales; and
- Projects that are not yet being actively marketed but are the subject of one or more development applications, including applications for an amendment to the Official Plan and/or Zoning By-law, site plan, plan of subdivision, or plan of condominium, including applications that are approved or under review.

Applications that have been inactive for several years are not included. Projects that are proposed to be rental are grouped separately from freehold and condominium projects; however, it is possible that the tenure of some proposed units could change when they are actually built. Apartment units include stacked townhouse units as both the Census of Canada and CMHC classify stacked townhouse units as apartments.

There are several residential projects actively selling units and/or under development in the Town of Cobourg. Some have been under development for many years and others more recently. These projects collectively offer a range of housing product on infill and greenfield sites.

More information on the larger projects is presented below.

Figure 17

Information for Selected Residential Projects in the Development Pipeline In the Town of Cobourg, July 2017

Project Name	Address	Approval Status	Applicant / Developer	Dwelling Type: Single-Detached (Units)	Semi-Detached (Units)	Row (Units)	Apartment (Units)	Total Units	Single-Detached (Percent)	Semi-Detached (Percent)	Row (Percent)	Apartment (Percent)	Total (Percent)
Tenure - Freehold and Condominium													
Actively Marketed													
Beach Walk Place (Esplanade on the Wharf - Phase II)	169 Division Street	Under construction	Harry James Group Inc.	0	0	0	10	10	0.0	0.0	0.0	100.0	100.0
Densmore Meadows	North Side of Densmore Road (East of Extendicare)	Site Plan approved in 2013	Hetti Group	0	0	34	54	88	0.0	0.0	38.6	61.4	100.0
Harbour Breeze	135 & 136 Orr Street	Site Plan approved in 2017	TVM Cobourg Inc.	0	0	0	53	53	0.0	0.0	0.0	100.0	100.0
Enclaves of West Park Village	South side of Elgin Street West (County Road #2)	Draft Plan of Subdivision approval extended in 2017	Vandyk Development Group	0	10	62 [2]	0	72	0.0	13.9	86.1	0.0	100.0
Mansions on James	323 George Street	n.a.	1226577 Ontario Ltd. (Phoenix Genesis Investments Inc.)	0	0	0	36	36	0.0	0.0	0.0	100.0	100.0
East Village - Phase 3	Southeast Cobourg	Subdivision registered	Stalwood Homes	8	14	16	20 [3,9]	58	13.8	24.1	27.6	34.5	100.0
West Park Village - Phase 4D	694-746 Wilkins Gate	Under construction	Vandyk Development Group	0	0	23	0	23	0.0	0.0	100.0	0.0	100.0
New Amherst, Stage 1	Joan Chalovich Way	Subdivision registered	New Amherst Ltd.	4	0	5	0	9	44.4	0.0	55.6	0.0	100.0
New Amherst, Stage 1	Bradbury Avenue & Hornell Park Drive	Subdivision registered	New Amherst Ltd.	n.a.	n.a.	n.a.	0	20-25 [11]	n.a.	n.a.	n.a.	0.0	100.0
New Amherst, Stage 2 - Phase 1		Under construction	New Amherst Ltd.	n.a.	n.a.	n.a.	0	178-192 [4]	n.a.	n.a.	n.a.	0.0	100.0
Subtotal[1]				**12**	**24**	**140**	**173**	**547-566**	**3.4**	**6.9**	**40.1**	**49.6**	**100.0**
Not Actively Marketed													
Cedar Shore Estates	589 King Street West	Zoning By-law Amendment & Draft Plan of Subdivision approved in 2016	EIE Corporation	15	0	0	0	15	100.0	0.0	0.0	0.0	100.0
Lawn Condominium Residences	240 Queen Street	Site Plan approved	DePalma Family	0	0	0	29	29	0.0	0.0	0.0	100.0	100.0
Heritage Harbour Townhouse Condominiums	77-93 Albert Street	Site Plan under review	1226577 Ontario Ltd. (Phoenix Genesis Investments Inc.)	0	0	15	0	15	0.0	0.0	100.0	0.0	100.0
Heritage Village (Cobourg East Community)	Brook Road North and Elgin Street East (Rondeau Lands)	Official Plan & Zoning By-law Amendments & Draft Plan of Subdivision under review	1351745 Ontario Ltd. (Rondeau/Mason Homes)	n.a.	n.a.	n.a.	n.a.	1,635-1,973 [6]	n.a.	n.a.	n.a.	n.a.	100.0
East Village - Phase 4	Southeast Cobourg	Subdivision registered	Stalwood Homes	16	4	18	60 [3]	98	16.3	4.1	18.4	61.2	100.0
New Amherst, Stage 1, Phase 3B	New Amherst Boulevard	Approved	New Amherst Ltd.	n.a.	n.a.	8 [12]	108	116	n.a.	n.a.	100.0	93.1	100.0
New Amherst, Stage 2 - Phase 2	North of Kerr Street Extension	Draft Plan of Subdivision approved in 2017	New Amherst Ltd.	n.a.	n.a.	n.a.	n.a.	277-296 [5]	n.a.	n.a.	n.a.	n.a.	100.0
New Amherst, Stage 2 - Phase 3	North of Kerr Street Extension	Draft Plan of Subdivision submitted	New Amherst Ltd.	n.a.	n.a.	n.a.	n.a.	80-97 [10]	n.a.	n.a.	n.a.	n.a.	100.0
Parkview Hills - Alder Court	Alder Road	OP & Zoning By-law Amendment & Draft Plan of Subdivision under review	2020910 Ontario Ltd. (LeBlanc Enterprises)	9	2	0	0	11	81.8	18.2	0.0	0.0	100.0
Parkview Hills - 39M-853, Block 89	West of 325 Densmore Road	Site Plan under review	2020910 Ontario Ltd. (LeBlanc Enterprises)	0	0	24	0	24	0.0	0.0	100.0	0.0	100.0
n.a.	Extension of D'Arcy Street & North of Nickerson Drive	OP & Zoning By-law Amendment & Draft Plans of Subdivision/Condominium under review	2020910 Ontario Ltd. (LeBlanc Enterprises)	24	0	0	0	24	100.0	0.0	0.0	0.0	100.0
n.a.	440-448 Elgin Street West	Zoning approved	Heli Homes Inc.	0	0	23	0	23	0.0	0.0	100.0	0.0	100.0
Subtotal[1]				**64**	**6**	**88**	**197**	**2,347-2,721**	**18.0**	**1.7**	**24.8**	**55.5**	**100.0**
Total[1]								**2,894-3,287**					
Tenure - Rental													
n.a.	680 Ontario Street	Site Plan approved in 2017	Crystal Gardens Development Inc. (Stalwood Homes)	0	6	16	0	22	0.0	27.3	72.7	0.0	100.0
n.a.	82 Munroe Street	Site Plan Amendment approved in 2017	EHCS Inc.	0	0	0	31	31	0.0	0.0	0.0	100.0	100.0
n.a.	86 Munroe Street	Site Plan Amendment approved in 2017	EHCS Inc.	0	0	0	35	35 [7]	0.0	0.0	0.0	100.0	100.0
n.a.	25 James Street East & 321 John Street	OP & Zoning By-law Amendment under review	Trinity Housing of Cobourg Corporation	0	0	0	24	24 [8]	0.0	0.0	0.0	100.0	100.0
Subtotal				**0**	**6**	**16**	**90**	**112**	**0.0**	**5.4**	**14.3**	**80.4**	**100.0**
Total								**112**					

[1] Subtotal by suite type excludes projects where suite mix data were not available
[2] Bungalow townhouse units
[3] 10-plex (stacked townhouse) units
[4] Consists of a mix of single-detached, semi-detached and townhouse dwellings (67-81 residential units) and 111 mixed use units. Includes units completed or under construction
[5] Consists of up to 78-97 residential units, 58 mixed use units and 141 multiple residential units
[6] Includes 675-1,013 single-detached, semi-detached and row units, 295 medium/high density units, 65 mixed use units and 600 mixed use/seniors units
[7] Subsidized units (affordable housing)
[8] A three-storey addition to an existing 20-unit, three-storey affordable apartment building
[9] One 10-plex building was under construction in July 2017
[10] Unit count may be revised to accommodate proposed school site
[11] Excludes additional potential units on mixed use lands
[12] Includes four units under construction
Note: Data exclude inactive applications.
Source: Altus Group Economic Consulting based on information from the Town of Cobourg, Altus Group, Data Solutions, and project websites

2.4.1 Active Residential Development

2.4.1.1 New Amherst – New Amherst Ltd.

This large-scale community, located in the west end of Cobourg, began marketing almost 20 years ago. Current product offerings include single-detached, semi-detached and townhouse units for sale. Stage 1 is largely developed, although construction has not yet begun on the proposed apartment units, and some ground-related units are still under construction or yet to be started. Development in Stage 2 is in the early stages. The draft plan of subdivision for Stage 2 is planned to accommodate up to 585 dwelling units, including 141 multiple units (townhouse and apartment in one block) and 169 mixed used dwelling units. Typical units in New Amherst have rear-lane garages.

2.4.1.2 West Park Village – Vandyk Homes

This large-scale community, located immediately east of New Amherst, is now sold out; however, the final phase called Enclaves of West Park Village (comprising 10 semi-detached and 62 townhouse units, all bungalows) is not yet under development. Sales at Enclaves began in mid-July 2016, and all the units were pre-sold in July and August 2016, a very fast pace of sales in the Cobourg market context.

As of mid-July 2017, there were still 23 townhouse units under construction in the previous phase of West Park Village. The most recent phase(s) of West Park Village excluding Enclaves comprise(s) 67 single-detached, 34 semi-detached and 94 row units. The row units have rear-lane garages. West Park Village is believed to account for the largest share of semi-detached and row units completed in Cobourg during the past few years.

2.4.1.3 East Village – Stalwood Homes

This greenfield project in southeast Cobourg has been under development since 2012 and is now in its third phase of development offering a mix of single-detached, semi-detached, townhouse and stacked townhouse units for sale. Several revisions to the planned mix of dwelling types have been made since the plan of subdivision was registered in response to market conditions. Phase 3, the current phase, comprises eight single-detached, 14 semi-detached, 16 townhouse and two 10-plex units (stacked townhouses with surface parking). Sixty more 10-plex units are planned in a future phase(s).

Excluding 10-plex units, Phase 4 is proposed to comprise 16 single-detached, four semi-detached and 18 townhouse units.

Servicing of Phase 3 has not yet begun. So far 50 single-detached, 10 semi-detached and 12 row units have been completed in the first two phases.

2.4.1.4 Parkview Hills – LeBlanc Enterprises

This community, located in northeast Cobourg, has been under development for a number of years and is now nearing completion. Nine single-detached and two semi-detached units are planned on parts of two blocks on Alder Road. As of June 30, 2017, there were also two semi-detached units nearing completion and two under construction as well as two vacant single-detached lots on Alder Road.

In addition, a site plan application is under review to permit 24 condominium townhouse units similar to those built at 325 Densmore Avenue on a block located immediately west of 325 Densmore Avenue.

2.4.1.5 Densmore Meadows – Hetti Group

This site is located on the north side of Densmore Avenue, east of Birchwood Trail. Although the site is already serviced, sales have not yet begun. Approvals are in place to permit 34 row and 54 apartment units.

2.4.1.6 Mansions on James – Phoenix Genesis

This 36-unit condominium apartment project with five storeys (including one parking level) is in pre-construction sales with scheduled occupancy in late 2018. It is to be developed adjacent to the 35-unit Mansions on George project by the same developer, which is located at 323 George Street on the south side of James Street West, west of George Street and just south of the Primary Study Area.

2.4.1.7 Harbour Breeze – TVM Group

This five-storey building with 53 units began sales in July 2015 and is almost sold out. First occupancy is scheduled for fall 2018 but construction has not yet begun. The site is located on the southwest corner of Hibernia and Orr Streets in Downtown Cobourg.

2.4.2 Proposed Residential Development

In addition to remaining phases of active residential developments, there are several other projects in the development pipeline that are not yet active.

2.4.2.1 Heritage Village

This is the largest residential development under application in Cobourg that is not yet under development. A portion of the draft plan subdivision was previously draft approved, but in 2016 applications were filed to revise portions of the overall draft plan of subdivision to accommodate a total of between 1,635 and 1,973 residential units. Heritage Village is expected to be the first subdivision to begin development within the Cobourg East Community.

2.4.2.2 Lawn Condominium Residences

This proposed five-storey, 29-unit condominium apartment project was to be located at the corner of Queen and D'Arcy Streets. Sales began in 2014 but sales were subsequently halted and have not resumed.

2.4.3 Proposed Rental Projects

Three rental apartment projects with a total of 90 units and one rental project with 22 ground-related units are under application or recently approved, including two subsidized projects (at 86 Munroe Street and 25 James Street East/321 John Street). All four projects are located not far from the Primary Study Area.

2.4.4 Potential Residential Development

2.4.4.1 Downtown Cobourg Master Plan

The *Downtown Cobourg Master Plan* is intended to guide new development, investment and community building initiatives in Downtown Cobourg for the next 10-20 years. A number of potential infill development and/or intensification opportunities are identified; however, no specific estimates of the potential number of residential units that can be accommodated are provided. Taking into account the amount of residential development that has taken place in Downtown Cobourg in recent years as well as the identified infill development and/or intensification opportunities, it is expected that Downtown Cobourg will continue to accommodate a significant share of household growth in row and apartment units in

Cobourg for a number of years into the future. Sites in Downtown Cobourg are expected to pose direct competition for the Primary Study Area as sites in Downtown Cobourg are in many/most cases likely to be more attractive for residential development than sites in the Primary Study Area, at least until redevelopment and transformation is well underway in the Primary Study Area.

2.4.4.2 Other Potential Residential Development on Infill Sites

Information provided by the Town of Cobourg indicates that there are several approved applications for infill residential development comprising apartment and/or townhouse units outside Downtown Cobourg as well as applications for this type of development that have been inactive for a number of years.

2.5 MARKET OPPORTUNITY FOR NEW HOUSING IN THE PRIMARY STUDY AREA

2.5.1 Market-Related Attributes of the Primary Study Area

The Town of Cobourg overall and the Primary Study Area have a number of attributes that over the longer term would make the Primary Study Area an attractive location for new housing from a market perspective:

- The Primary Study Area is located centrally within the Town of Cobourg, with good access to Downtown Cobourg as well as Highway 401 via Division Street to the east and County Road 2 to the west.
- Shopping is located nearby along Division Street, in particular at the Midtown Mall located at the northeast corner of Division and Munroe Streets. The Mall includes a No Frills supermarket.
- The Town of Cobourg has a modern recreational complex, marina, yacht club, beach and golf course. A newly constructed 142,000 square foot community centre houses two arenas as well as youth and seniors activity centres.
- Cobourg has both public and separate elementary and secondary schools, as well as private schools.
- Of particular note for attracting seniors, Cobourg is home to Northumberland Hills Hospital, which was built in 2003 and offers a broad range of acute, post-acute, outpatient and diagnostic services.

- Parts of the Primary Study Area are served by the two local bus routes that provide service within the Town of Cobourg. Route 2 provides service on University Avenue West, east of Spring Street, while Route 1 provides service on Division Street, just east of the Primary Study Area. Both routes provide service to the Downtown Terminal and to Northumberland Mall. A shuttle service runs between Northumberland Mall and Port Hope.
- VIA Rail currently offers six train trips on weekdays from Cobourg to Toronto and eight trains on the return trip from Toronto to Cobourg, most of which also stop in Oshawa. The scheduled travel time between Cobourg and Union Station in Toronto (as little as 62 minutes) and frequency of service are superior to some other areas outside the Greater Toronto Area (GTA) serviced by GO train service, which is typically only one way at rush hour. However, VIA Rail's rush hour service is limited, especially in the morning when only one train arrives in Toronto before 9:00AM. Also, fares on VIA Rail between Cobourg and Toronto are relatively high compared to fares for a similar length train trip on GO Transit. Much of the Primary Study Area is located within 500 metres walking distance to the VIA Rail station.

The main drawbacks from a market perspective to attracting new residential development to the Primary Study Area are the mix of industrial and commercial uses that are located there and the lack of parks within or immediately surrounding the Primary Study Area.

2.5.2 Potential Market Opportunity for New Housing in the Primary Study Area

Apartment and townhouse units have already comprised a sizeable share of housing completions in the Town of Cobourg in recent years. The housing forecasts prepared by Watson project even higher shares in the future. A variety of both one and two-storey townhouse and apartment product has been marketed and developed in Downtown Cobourg as well as in greenfield communities within the Town. Apart from conventional freehold and condominium townhouses, these include townhouses on rear lanes and in x-shaped condominium blocks. Condominium apartments have been developed with different parking arrangements and with varying heights, although typically five storeys or less. Recently, stacked townhouse units have been marketed in the East Village project. The positive market response

to a diversity of townhouse and apartment product in Cobourg provides some flexibility with regard to potential housing product that could be marketed within the Primary Study Area over the longer term.

A key to potential future townhouse and apartment development in Cobourg, including in the Primary Study Area, is expected to be offering housing product that can appeal to older households already living in Cobourg or moving to Cobourg. Cobourg has already had some success in attracting older households from outside the Town. The Town's location within the Greater Golden Horseshoe, within approximately an hour's drive from the City of Toronto, its various community amenities and its revitalizing downtown are among the attributes that make the Town an attractive location to retire for some older households. The location of several newer residential projects within or close to downtown and close to the waterfront have helped attract some households, although prime development opportunities near the waterfront are diminishing.

Although the forecast by Watson for higher growth in row and apartment units in Cobourg during the next 20 years is positive for the Primary Study Area, this area is expected to face competition for these units from a number of other new home projects in the Town during the 20-year forecast period.

While the development and marketing of the Primary Study Area as a sustainable community may attract some households to live there, the preceding analysis suggests that even if some of the potential challenges facing residential development there can be addressed absorption of new residential units within the Primary Study Area is likely to be slow without some additional initiatives. Taking this into account, there are some initiatives that could potentially enhance the attractiveness of the Primary Study Area for residential development over the longer term:

- Extending GO train service from Toronto to the existing VIA Rail station in Cobourg could entice some households where at least one member commutes to work in the GTA to consider living in the Primary Study Area where they could take advantage of being located within walking distance to the train station. Alternatively, this could be accomplished if VIA Rail's service between Cobourg and Oshawa/Toronto was more attractive to commuters with regard to schedules and fares.

- Consideration should be given to directing future affordable housing projects to be developed by the Town or the County to the Primary Study Area as a means of accelerating residential development in the Primary Study Area.
- Developing an attractive, functional and easily accessible open space feature within the community is viewed as a key factor in attracting future residents to the Primary Study Area. If a sufficient number of residents can be attracted to live in the Primary Study Area to support such a facility, including a small community recreation/social centre within the Primary Study Area would also be helpful. A child-care facility within the Primary Study Area could help attract families with young children.
- Recognizing the importance of retirees in the Cobourg housing market, developing an adult lifestyle community within the Primary Study Area could also help differentiate this area from other residential communities within the Town of Cobourg, although this depends on plans for the potential development of an adult lifestyle community within the Heritage Village community in Cobourg East.

Finally, consideration should be given to undertaking an analysis of the extent to which lands in the Primary Study Area may be needed to enable the Town of Cobourg to achieve its intensification target.

3 EMPLOYMENT TRENDS AND OPPORTUNITIES

This chapter assesses employment trends in Cobourg and presents projections for overall, office-based and service commercial employment and the associated space needs for each employment category. Finally, the suitability of the Primary Study Area for accommodating office or service commercial space is discussed.

3.1 EMPLOYMENT TRENDS

3.1.1 Town of Cobourg

Figure 18 shows place-of-work employment in Cobourg during 2001-2011 based on Census of Canada data:

- Employment totalled some 11,545 persons in 2011, some 1,670 higher than in 2001. Employment growth slowed in 2006-2011 compared to the earlier five-year period, as job gains in the retail sector moderated;
- The manufacturing sector accounted for 26% of jobs in 2001; however, like the broader province, the number of manufacturing jobs has been in decline. By 2011, the share of manufacturing employment dropped to 19%;
- The trade industry (wholesale and retail) accounted for about 17% of jobs in 2011;
- In the retail sector, employment expanded by some 500 workers during 2001-2011, the most of any industry;
- The health care and social assistance industry represented some 13% of total jobs in 2011. Employment in this sector advanced by 480 during 2001-2011, the second largest expansion in any sector;
- The accommodation and food services and educational services industries also accounted for relatively large shares of overall employment in 2011; and
- Together, these five industries accounted for over 60% of employment in 2011, compared to 55% for the province overall.

The share of Northumberland County's employment accounted for by Cobourg increased from 31% in 2001 to 36% in 2011, as employment expanded in Cobourg and dropped slightly in Northumberland County during that time.

Figure 18

Employment Located in Cobourg, By Industry, 2001-2011

Industry	Total Employment, 15 Years and Over 2001	2006	2011	Change 2001-2011
		Persons		
Agriculture, forestry, fishing and hunting	15	45	0	(15)
Mining and oil and gas extraction	0	0	0	0
Utilities	45	60	40	(5)
Construction	225	230	205	(20)
Manufacturing	2,540	2,260	2,205	(335)
Wholesale trade	260	205	200	(60)
Retail trade	1,310	1,745	1,810	500
Transportation and warehousing	220	120	200	(20)
Information and cultural industries	100	165	130	30
Finance and insurance	285	260	300	15
Real estate and rental and leasing	115	105	165	50
Professional, scientific and technical	325	315	370	45
Management of companies and enterprises	0	0	0	0
Administrative and support, etc.	185	440	465	280
Educational services	600	610	535	(65)
Health care and social assistance	1,055	1,430	1,535	480
Arts, entertainment and recreation	65	190	90	25
Accommodation and food services	790	1,010	745	(45)
Other services (except public administration)	365	540	480	115
Public administration	435	505	675	240
Other*	940	1,205	1,395	455
Total	9,875	11,440	11,545	1,670

* Includes those with no fixed workplace address and those who worked at home in all industries

Source: Altus Group Economic Consulting based on 2001 and 2006 Census of Canada and 2011 National Household Survey data

3.1.2 Northumberland County

Figure 19 shows place-of-work employment in Northumberland County during 2001-2011 based on Census of Canada data:

- Employment totalled some 31,950 persons (on a place-of-work basis, in 2011), slightly lower than in 2001;

Figure 19

Employment Located in Northumberland County, By Industry, 2001-2011

Industry	Total Employment, 15 Years and Over			Change 2001-2011
	2001	2006	2011	
	Persons			
Agriculture, forestry, fishing and hunting	1,350	455	525	(825)
Mining and oil and gas extraction	10	50	145	135
Utilities	200	310	275	75
Construction	880	870	890	10
Manufacturing	5,685	4,985	4,200	(1,485)
Wholesale trade	950	710	575	(375)
Retail trade	3,360	3,715	3,695	335
Transportation and warehousing	645	515	500	(145)
Information and cultural industries	315	350	295	(20)
Finance and insurance	715	485	570	(145)
Real estate and rental and leasing	250	280	220	(30)
Professional, scientific and technical	885	735	715	(170)
Management of companies and enterprises	10	25	0	(10)
Administrative and support, etc.	585	810	810	225
Educational services	1,660	1,555	1,925	265
Health care and social assistance	2,590	2,870	3,300	710
Arts, entertainment and recreation	500	495	440	(60)
Accommodation and food services	2,110	2,135	1,650	(460)
Other services (except public administration)	1,260	1,310	1,160	(100)
Public administration	1,230	1,300	1,625	395
Other*	7,015	7,900	8,435	1,420
Total	32,205	31,860	31,950	(255)

* Includes those with no fixed address and who worked at home in all industries

Source: Altus Group Economic Consulting based on 2001 and 2006 Census of Canada and 2011 National Household Survey data

- The manufacturing sector represented the second largest share of employment in Northumberland County in 2011 (13%). However, this is lower than the 18% share observed in 2001 as the number of jobs in the sector dropped by about 1,485 during 2001-2011;
- The trade industry (wholesale and retail) accounted for the largest share of employment in Northumberland County in 2011 (over 13%). Employment in the retail sector increased by 335 persons during 2001-2011;

- The health care and social assistance industry represented 10% of total jobs in 2011. Employment in this sector increased by 710 persons, the largest such gain of any industry, during 2001-2011. In percentage terms, this marked faster growth than the province overall. This is likely due in part to the relatively older population of Northumberland County (22% of the population was age 65 and older in 2011, versus 15% for Ontario). However, Northumberland County's population is younger than Cobourg's, with 26% of the latter's population age 65 and older in 2011. The median population age was about 50 years old in Cobourg, compared to 48 years old in Northumberland in 2011;
- The accommodation and food services industry and educational services industries have also been relatively large sources of employment in Northumberland; and
- About half of employment was accounted for by these five industries in 2011, with the "other services" and public administration industries also comprising a relatively large share.

3.1.3 Greater Golden Horseshoe – Outer Ring

The *Growth Plan for the Greater Golden Horseshoe* divides the Greater Golden Horseshoe (GGH) into Inner and Outer Rings (Figure 20). The Inner Ring is comprised of:

- The Cities of Toronto and Hamilton; and
- The Regional Municipalities of Halton, Peel, York and Durham.

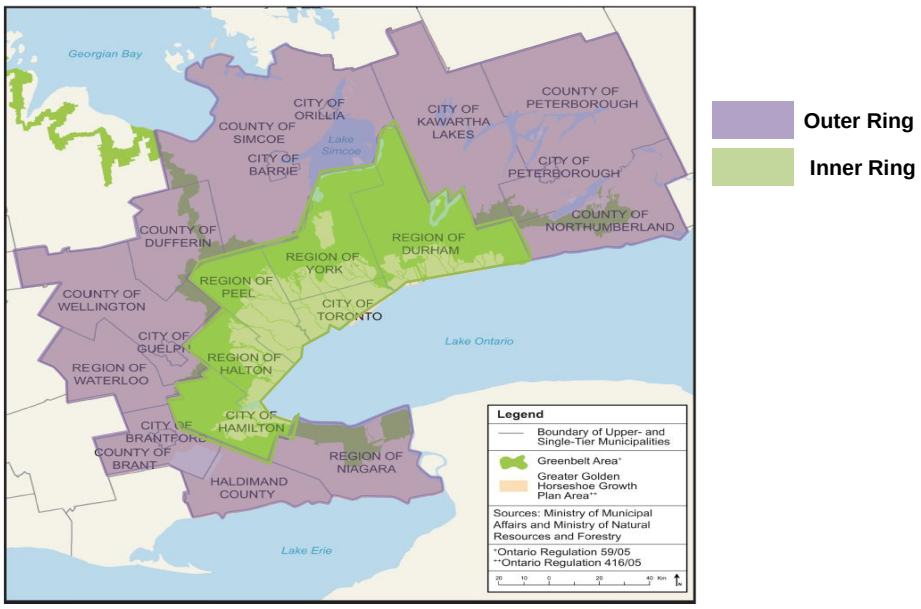
In addition to Northumberland County, the Outer Ring includes:

- The Counties of Brant, Dufferin, Haldimand, Peterborough, Simcoe, and Wellington;
- The Cities of Barrie, Brantford, Guelph, Kawartha Lakes, Orillia and Peterborough; and
- The Regional Municipalities of Niagara and Waterloo.

These jurisdictions are generally less dense, urbanized and populated than those in the Inner Ring.

Figure 20

Greater Golden Horseshoe



Source: Altus Group Economic Consulting based on Ministry of Municipal Affairs

Figure 21 shows historical place-of-work employment in the Inner and Outer Rings of the GGH, the overall GGH and Northumberland County:

- Employment growth was fastest in the Inner Ring of the GGH during 2001-2011. The share of GGH employment accounted for by the Inner Ring was slightly higher in 2011 compared to 2001;
- Employment growth was slower but positive in the Outer Ring of the GGH from 2001-2011. As a result, the share of GGH employment captured by the Outer Ring was slightly lower in 2011 compared to 2001;

Figure 21

Place of Work Employment, Various Jurisdictions, 2001-2011

Jurisdiction	2001	2006	2011	2001-2011 Av. Ann. Growth
		Persons		*Percent*
GGH: Inner Ring	3,047,415	3,186,050	3,327,435	0.9
GGH: Outer Ring	1,138,170	1,208,735	1,212,910	0.6
GGH Total	4,185,585	4,394,785	4,540,345	0.8
Northumberland	32,205	31,860	31,950	-0.1

Source: Altus Group Economic Consulting based on 2001, 2006 Census of Canada and 2011 National Household Survey data

The Outer Ring's economy is growing at a more modest pace relative to the Inner Ring, as reflected in its slower employment growth. Outer Ring employment growth during 2001-2011 was weighed on primarily by the Niagara Regional Municipality and Haldimand County. Significant declines in the manufacturing sector in these two jurisdictions pushed employment lower.

Employment also dropped slightly in Northumberland County during 2001-2011, also negatively impacted by the manufacturing sector. From 2002 to 2011, the Canadian dollar appreciated significantly, substantially hampering the competitiveness of manufacturers, weighing on manufacturing activity and employment. In addition, in a review of the County's Official Plan, it was noted that there was little available investment-ready employment lands in Northumberland County and that these lands are not ideally located[5]. This has likely also dampened employment growth.

In Cobourg, manufacturing employment dropped by a lesser amount during 2001-2011 as strength in food manufacturing sales helped support the labour force. For example, during 2001-2011, overall manufacturing sales dropped 10% in Ontario, while food manufacturer sales advanced by 34%. Food manufacturing sales have continued to increase, boding well for this sector and suggesting that Cobourg will comprise an increasing share of Northumberland County's employment going forward.

3.2 ECONOMIC DEVELOPMENT STRATEGIES – TOWN OF COBOURG

The Town of Cobourg's current economic development strategy[6] places an emphasis on developing the Town's manufacturing industry with the aim of creating new investment opportunities for firms in the sector, attracting new investment, increasing the sector's profile and determining the viability of new markets.

The tourism sector is also highlighted in the plan, with the Town developing a "four-seasons" tourism strategy involving increasing the number of visitors, building awareness with target audiences and improving existing events.

[5] Northumberland County, *Official Plan Recommendation Report*, September 2014

[6] Town of Cobourg, *Economic Development & Tourism Strategic Plan Components (2015-2018),* December 2015

The emphasis on manufacturing and tourism is consistent with the Town's prior economic development strategy[7], released in 2011, which highlights the significance that the Town places on these two sectors.

Another prominent component of Cobourg's economic development strategy includes the vitalization of the Downtown, including increasing the number of businesses within target markets as well as the number of consumers. The plan calls for increased financing in order to increase the number of residential units and quality commercial spaces in the Downtown. The plan also encourages activities geared towards attracting young entrepreneurs to Cobourg.

3.2.1 Downtown Vitalization

The *Downtown Cobourg Master Plan* (DMP) provides a direction for the vitalization of Downtown Cobourg by building on policies outlined in the Official Plan and leveraging financing available through the Community Improvement Plan. The DMP applies to the Downtown core bounded roughly by:

- Durham Street to the west;
- College Street to the east;
- James Street West to the north; and
- The Cobourg Waterfront and Marina to the south (Figure 22);

A key element of the plan includes enhancing existing buildings to create retail clusters that integrate seamlessly with the surrounding realm. Plans to redevelop existing parcels into mixed-use residential developments are also central to the Downtown development vision. The vitalization of the Downtown should help attract investment and business activity to the Downtown area.

[7] Town of Cobourg, *Economic Development& Tourism Strategic Plan*, December 2011

Figure 22

Downtown Cobourg

Source: Altus Group Economic Consulting based on *Downtown Cobourg Master Plan*

3.3 EMPLOYMENT AND SPACE NEEDS PROJECTIONS – TOWN OF COBOURG

3.3.1 Employment

In the 2017 *Growth Plan for the Greater Golden Horseshoe* (Growth Plan), the provincial government envisions employment in Northumberland County expanding to 39,000 persons in 2041 from 32,000 persons in 2011, an increase of about 7,000 workers over 30 years, or slightly over 230 net new jobs per year. In the 2006 Growth Plan, the province had forecasted employment to total some 32,000 workers by 2011. As the actual level of employment essentially equalled the projection, this indicates that the province's forecast is tracking well.

Projections for overall, office-based[8] and service commercial[9] employment in the Town of Cobourg are generated by adopting the province's forecast for Northumberland County.

Figure 23 shows projected overall, office-based and service commercial employment for Cobourg:

- In Cobourg, total employment is projected to advance by about 3,100 persons during 2011-2041, supported by ongoing economic growth in both Canada and the U.S. This projection, which considers market factors, is in line with and slightly higher than the employment planning guildelines in the Northumberland Offical Plan of some 2,700 net new jobs over that same period. The Town's relatively large manufacturing sector as well as its tourism industry should be supported in the short-term by a low Canadian dollar while the Town's economic development strategies further support these sectors. Cobourg's relatively older population (32% of residents were aged 65 or older in 2016, compared to 17% for Ontario overall), should also support increased employment in health care services;
- Office-based employment is projected to expand by some 465 persons during 2011-2041, supported by ongoing economic growth and the Town's efforts to attract young entrepreneurs, though the majority of this growth is anticipated to occur during 2031-2041; and
- Service commercial employment is anticipated to grow from an estimated 1,090 workers in 2011 to 1,380 by 2041. This yields total growth of 290 employees.

3.3.2 Space Need Projections

This section presents space needs projections of the Town of Cobourg, with office-based space requirements forecasted based on projected employment

[8] Office-based employment is the sum of employment in the following industries: finance, insurance, real estate and rental and leasing, professional, scientific and technical services, management of companies and enterprises, public administration and healthcare and social assistance.

[9] Service commercial employment is defined to be those employed in the personal and laundry services industries (e.g. hair salons, laundromats etc.), the food services sector (e.g. restaurants, drinking places etc.), other amusement and recreation industries (e.g. bowling alleys), and motion picture and sound recording industries (e.g. movie cinemas).

and a sq. ft. / worker benchmark[10]. Service commercial space is projected based on expected population growth and per capita space needs[11]:

Figure 23 **Historical and Projected Employment, 2011-2041**

Jurisdiction and Type	2011 (Actual / Estimated)	2021 (projection)	2031 (projection)	2041 (projection)
	Total Employment, 15 Years and Over			
	Persons			
Northumberland County[1,2]	31,950	33,975	36,000	39,000
Cobourg: Overall[3]	11,545	12,400	13,320	14,630
Cobourg: Office-based[4]	3,045	3,140	3,260	3,510
Cobourg: Service Commercial[4]	1,090	1,170	1,260	1,380

Jurisdiction and Type	2011-2021	2021-2031	2031-2041	2011-2041
	Change in Employment			
	Persons			
Northumberland County	2,025	2,025	3,000	7,050
Cobourg: Overall	855	920	1,310	3,085
Cobourg: Office-based	95	120	250	465
Cobourg: Service Commercial	80	90	120	290

1 2011 employment for Northumberland County is based on 2011 National Household Survey data

2 2021-2041 employment projections for Northumberland County are adapted from the 2017 *Growth Plan for the Greater Golden Horseshoe*

3 2011 employment for Cobourg is based on 2011 National Household Survey data

4 2011 office-based and service commercial employment for Cobourg are estimated based on 2011 National Household Survey data

Source: Altus Group Economic Consulting based on 2011 National Household Survey data and 2017 *Growth Plan for the Greater Golden Horseshoe*

3.3.2.1 Population Forecasts

In order to project service commercial space needs using a per capita benchmark, population projections are required. This analysis adapts population projections contained in the *Town of Cobourg 2016 Development Charges Background Study* to fit the 2021, 2031 and 2041 periods. The projections are contained in Figure 24.

[10] For office-based employment, it is assumed that 250 sq. ft. / worker is needed.

[11] In a balanced market, it is generally assumed that 12 - 15 sq. ft. / capita of service commercial space is required. This analysis uses the average of this range.

Figure 24 **Historical and Projected Population, Town of Cobourg, 2011-2041**

	2011	2021	2031	2041
		Persons		
Population (adjusted for undercount)	19,160	21,809	24,975	28,440

Source: Altus Group Economic Consulting based on Watson & Associates Economists Ltd., *Town of Cobourg 2016 Development Charges Background Study*, November 3, 2016

Figure 25 displays space need projections for the Town of Cobourg based on projected population and employment growth as well as the relevant benchmarks:

- It is estimated that office-based employment needs will total about 120,000 sq. ft. during 2011-2041. Most of the space requirements will come during the 2031-2041 period; and
- It is estimated that service commercial employment space requirements will total about 125,000 sq. ft. from 2011-2041.

Figure 25 **Projected Space Needs, Town of Cobourg, 2021-2041**

Building Type	2011-2021	2021-2031	2031-2041
		Sq. Ft.	
Office-based	24,000	30,000	63,000
Service Commercial	36,000	43,000	47,000

Source: Altus Group Economic Consulting based on Watson & Associates Economists Ltd., *Town of Cobourg 2016 Development Charges Background Study*, November 3, 2016

3.4 COMMERCIAL DEVELOPMENT

Figure 26 shows commercial projects in the Town of Cobourg in various stages of development:

- There is over 300,000 sq. ft. of commercial development either under construction or in the pipeline in the Town of Cobourg. A portion of

these projects are likely to have office space, which could potentially fill the Town's office-based space requirements.

Figure 26 **Commercial Projects in Cobourg, by Project Status**

Applicant	Commercial Project Name/Description	Location	Status	Floor Space (ft^2)	Office Space
Narine Holdings Inc.	Dental Clinic	436 King Street East	Approved	3,600	Yes
Linmac Inc/Lett Architects	Victoria Place Shopping Centre	955 Elgin Street West	Construction	14,799	
Northumberland Medical Arts Inc./Lett	Northumberland Medical Arts Building	1000 DePalma Drive	Approved	32,615	Yes
Sobey's Development Ltd./ MHBC Planning	Foodland	990-1000 Division Street	Proposed	32,660	
2275048 Ontario Inc.	Shell Gas Station Redevelopment (Ph.1 Convenience Store/Fuelling Station and Ph.2 Drive Through Restaurant)	1154 Division Street	Gas bar complete – Phase 2 approved	3,432	
Vandyk Development Group	Commercial Development (3 Stand Alone Buildings With Units for Lease)	Vacant Lands Immediately West of Canadian Tire (1125 Elgin St. W.)	Proposed	13,240	
Kingandbrook Inc.	Commercial Development Phase 1 (Gas Station, Convenience Store and Drive-Through Rest.)	428-432 King Street East	Approved - inactive	7,375	
Calloway REIT (Cobourg Inc.)	Winners Site – Two Additional Commercial Buildings	66 Strathy Road	Phase 1 complete – Phase 2 approved	17,245	
Goldmanco	Grocery Store & Shopping Centre	545 King Street East	Approved/ inactive	60,000	
G. Cheema	Hotel	1144 Division Street	Proposed - inactive	70 rooms	
Loblaw	Loblaws (Grocery Store)	Strathy Road	Rezoned/ inactive	100,000	
Venture 13	Venture 13 (office space, SME incubation areas, lecture hall and other uses)	739 D'Arcy Street	Proposed	30,000	Yes
			Total Space*	**314,966**	

* Excludes Hotel at 1144 Division Street
Source: Altus Group Economic Consulting based on Town of Coburg documents

Figure 27 displays mixed-use projects under construction or in the pipeline in Cobourg:

- These projects are likely to have ground floor commercial space that could potentially compete with the Primary Study Area.

Figure 27 **Mixed-Use Projects in Cobourg, by Project Status**

Applicant	Mixed Use Project Name	Location	Status	Commercial Space (ft^2)
TVM Group	Legion Redevelopment (Legion on ground floor with 53 residential units above)	135 & 136 Orr Street	Construction	14,108
Harry James Group Inc.	Beachwalk, Esplanade Ph.2 (Ground floor commercial with 10 residential units above)	165 Division Street	Construction	2,070
1327995 Ontario Inc. (Russell Dickson)	702-726 Ontario St. Ph. 1 (Commercial Property Enhancements and Semi- Detached Dwelling)	702-726 Ontario Street	Approved	
Cobourg Harbourpark Properties	Mixed Use Development	202 Second Street	Approved - inactive	
New Amherst Ltd.	New Amherst on the Blvd. (Phase 1 & 2)	Carlisle Street & New Amherst Boulevard	Approved	
Hetti Inc.	Densmore Commons	Densmore Road	Approved	
2168307 Ontario Ltd.	22 Queen Street	Queen Street	Rezoned/	

Source: Altus Group Economic Consulting based on Town of Coburg documents

3.5 ANALYSIS OF THE PRIMARY STUDY AREA'S POTENTIAL TO ACCOMMODATE NON-RESIDENTIAL SPACE

Between 2021 and 2031 it is likely that the Town of Cobourg will have a need to accommodate some 30,000 sq. ft. of new office space. During 2031-2041, it is expected that some 63,000 sq. ft. of new office space will be required to accommodate office-based employment. However, with other competitive projects likely to come on-line during the projection horizon, the viability of the Primary Study Area as a location that accommodates new office space is severely restricted.

Additionally, the focus on the vitalization of Cobourg's downtown could make that area of the Town more attractive for business to locate, thus further eroding the competitiveness of the Primary Study Area. Overall, it is

likely that the ability of the Primary Study Area to accommodate new office space is limited.

It is estimated that some 43,000 sq. ft. of new service commercial space will be required between 2021 and 2031. During 2031-2041, it is expected that the Town of Cobourg will have a need to accommodate some 47,000 sq. ft. of new service commercial space. In the *Downtown Cobourg Master Plan*, the development of mixed-use residential buildings will be encouraged, which could draw potential tenants away from the Primary Study Area and into the Downtown. Additionally, the Primary Study Area's location may hamper its effectiveness in accommodating service commercial tenants as it is not located on a major arterial road such as Division Street, which would potentially limit its visibility to customers. However, should residential development take place in the Primary Study Area, a development dedicated to servicing potential residents could be viable. However, it should be noted that relatively limited demand coupled with a steady flow of competitive projects means that any development should be minor.

3.5.1 Employment Land Conversion Criteria

Given the foregoing, the subject lands are unlikely to be required to accommodate potential employment growth from a market or planning perspective over the 2011-2041 period, and the potential to develop the lands for residential purposes will assist in accommodating the Town's residential intensification requirements over that same period.

Therefore, it is our conclusion that, with respect to Town, County and Provincial policies in Section 3.10.5.4 of the Cobourg Official Plan, Section B17 of the County Official Plan and Section 1.3.2.2 of the PPS:

- The lands are not required for employment purposes,
- There is a need for the conversion and
- The conversion will not affect the municipality's ability to meet its employment projections, among other prescribed criteria

3.5.2 Other Development Options

In the preceding analysis, the flow of competitive supply in the pipeline coupled with limited demand restricts the ability of the Primary Study Area to accommodate office or service commercial uses. This analysis is fully consistent with the planning context set out in the *Growth Plan for the Greater*

Golden Horseshoe and with a reasonable economic development scenario regionally and specific to Cobourg.

However, economic development patterns can always differ over time from expectations, and in particular, regional patterns can be affected by big decisions by corporations or government departments about relocation. The Primary Study Area might, for example, be attractive for such a special relocation use over and above the base growth and economic development planning scenarios. In such a scenario, major components of the Primary Study Area could be attractive to a large newcomer to the community, based on the possibility of larger footprints relative to a downtown setting, and due to its more centralized location than existing employment lands.

In this scenario, the land would be used to accommodate a new employer[12], likely drawing existing workers into the local economy (either through in-commuting, or additional in-migration over and above the current anticipated demographic growth potential for the Town). Such an employer would be leveraging existing advantages including the Primary Study Area's close proximity to the Cobourg railway station, Downtown Cobourg and Highway 401 as well the Town's beautiful natural setting and status as a tourist destination.

This scenario would involve the development of the Primary Study Area as an office campus for a single tenant (i.e. corporation or government department). In this case, the feasibility would not hinge on drawing labour from current workforce, but drawing in additional workers through in-migration or relocation. Attracting this type of employer would likely require access to a skilled labour pool, telecommunications services and infrastructure and quality amenities. However, there are likely worker retention challenges faced by corporations and government agencies in a large move situation. Furthermore, research suggests that bigger cities tend to attract larger shares of skilled workers[13]. As such, the probability of such an opportunity arising may be limited.

[12] Examples of large firms choosing to locate their headquarters in relatively smaller communities include Facebook and IBM.

[13] Brinkman, Jeffrey C. *Big Cities and the Highly Educated: What's the Connection?*, Federal Reserve Bank of Philadelphia, 2015