Southwest Kitchener

Urban Area Studies
Community Master Planning

Compilation: Background Report / Land Use Options Evaluation Report / Community Master Plan / Technical Study / Public Proceedings

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1.1 Introduction & Purpose

Southwest Kitchener Urban Area Studies

The Planning Partnership

The City of Kitchener requires a Community Master Plan to be developed for a new greenfield area in order to ensure that a comprehensive approach is undertaken for community, or “macro-scale” planning issues, such as land use, transportation, water management and the natural environment.

The subject lands are approximately 430 hectares in size and are located in the southwest portion of the city along Fischer Hallman Road, mostly between Bleams Road to the north and Huron Road to the south. They represent one of the last large undeveloped lands within the City’s current urban boundary.

A candidate mixed use corridor is under review within the Study area and consists of most of the properties along both sides of Fischer Hallman Road, between Rockwood Road and Plains Road. Various land use scenarios are to be investigated and analyzed based on established criteria. A follow-up to this planning study will be the preparation of a Secondary Plan and amendment to the City’s Official Plan.

The scope of this study includes a transportation network study, a commercial needs assessment and an analysis of infrastructure and the compliance of community facilities requirements such as parks, recreational uses, schools and cultural amenities.

The intent is to determine the preferred land use for the study area to be incorporated as designations and policies into the City’s Official Plan.

The Southwest Kitchener Urban Area Study / Community Master Plan Terms of Reference is attached to this report as Appendix A4.1.
1.2 Planning Context

This chapter summarizes, in a succinct form, the existing Planning Policy regulating the Study Area.

Planning Act
(Part 1, Section 2)

Part 1 of the Planning Act concerns provincial administration. Section 2 defines provincial interest, establishing that the Minister, the council of a municipality, a local board, a planning board and the Municipal Board, in carrying out their responsibilities, shall have regard to matters such as:

(a) the protection of ecological systems, including natural areas, features and functions;

(b) the protection of the agricultural resources of the Province;

(c) the conservation and management of natural resources and the mineral resource base;

(d) the conservation of features of significant architectural, cultural, historical, archaeological or scientific interest;

(e) the supply, efficient use and conservation of energy and water;

(f) the adequate provision and efficient use of communication, transportation, sewage and water services and waste management systems;

(g) the minimization of waste;

(h) the orderly development of safe and healthy communities;

(h.1) the accessibility for persons with disabilities to all facilities, services and matters to which this Act applies;

(i) the adequate provision and distribution of educational, health, social, cultural and recreational facilities;
b) Protecting resources for economic and/or environmental benefit; and,

c) Reducing the potential for public cost or risk to Ontario’s residents by directing development away from areas where there is a risk to public health or safety or of property damage.”

The PPS identifies that healthy, livable and safe communities are sustained by accommodating an appropriate range and mix of residential, employment, recreational and open space uses to meet long-term local, regional and Provincial needs. In addition, the PPS supports the efficient use of municipal infrastructure and the avoidance of uneconomical Settlement Area expansions.

All of the policies of the PPS are geared to ensuring that municipalities utilize their land and infrastructure resources wisely. Part of the wise use of resources is to ensure an adequate supply of land is designated for urban development and that the urban land is allocated to the full range of land uses that create a well-balanced community. In order to achieve these Provincial objectives, it is absolutely crucial that within areas designated for urban development there is an appropriate balance among residential, and employment generating land uses, community facilities, environmental protection and the conservation of heritage resources.

Provincial Policy Statement (2005)

All planning authorities “shall be consistent with” the Provincial Policy Statement (PPS) in making decisions on all applications. It is a Province-wide policy, to be read in its entirety, while giving consideration to the specific ‘local’ circumstances. The PPS, as amended March 1, 2005, is based on three fundamental principles:

“a) The management of change and promotion of efficient, cost-effective development and land use patterns which stimulate economic growth and protect the environment and public health;
Policy Statement (2005), the Greenbelt Plan and the Planning Act. The Growth Plan provides direction for building stronger communities by better growth management over the next 30 years.

**Vision for 2031**

The vision of Places to Grow is articulated through a number of guiding principles. These guiding principles, found in Section 1.2.2 of Places to Grow, are intended to provide the basis for making decisions on how land is developed, resources are managed and public dollars invested. The guiding principles of the vision articulated in Places to Grow are as follows:

- “Build compact, vibrant and complete communities.
- Plan and manage growth to support a strong and competitive economy.
- Protect, conserve, enhance and wisely use the valuable natural resources of land, air and water for current and future generations.
- Optimize the use of existing and new infrastructure to support growth in a compact, efficient form.
- Provide for different approaches to managing growth that recognize the diversity of communities in the GGH.
- Promote collaboration among all sectors - government, private and non-profit - and residents to achieve the vision.”

The Subject Lands are within the Designated Greenfield Area, and, as such, are subject to the policies of Section 2.2.7 of the Growth Plan, which states:

“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;
Chapter 7- Principles 2 and 3 state:

“2. Compact development, mixed land use and increased residential densities are essential to reduce the need for growth at the urban fringe, reduce impacts on natural resources such as Prime Agricultural Areas, wetlands and environmentally sensitive areas, and support the more efficient use of transit and other municipal infrastructure and services.

3. Comprehensive community planning is necessary to address the broad range of development issues in a streamlined manner.”

The policies in Section 7.4.2 further discuss the requirement for comprehensive community planning for extensive areas of potential new development. There are several policies that provide direction for considerations of the City’s Urban Area, transportation, the natural environment, etc. Specifically, Policy 11.4.6 states “where new areas of urban development are being comprehensively planned, the Region and Area Municipalities will consider developing the Regional and Area Municipal road systems to facilitate the provision of transit service.”


The Region of Waterloo Official Policies Plan (ROPP) contains objectives and policies that are directed at achieving a sustainable regional community. The six key elements include: environmental integrity, planned growth, economic vitality, partnerships, public participation and safe and healthy communities.
The goals of the RGMS include: Enhancing our Natural Environment, Building Vibrant Urban Places, Providing Greater Transportation Choice, Protecting our Countryside, Fostering a Strong Economy and Ensuring Overall Coordination and Communication.
Regional Official Policies Plan Amendment No.16  
(Sepember 2003)

Regional Official Policies Plan Amendment No. 16- City Urban Area Expansion, West Side City of Kitchener, added the majority of the study area to the City’s Urban Area (CUA). One of the reasons for the amendment was to change the CUA limit on the west side of Kitchener to accommodate some of the long term growth projected for the Region of Waterloo, to partially address an outstanding Deferral No. 6, and to be consistent with the Countryside Line shown in the RGMS.

The lands affected by this amendment include approximately 501 gross hectares and are situated on the east side of Trussler Road, south of Highway 7 & 8 and extend to Huron Road. The primary land use being investigated at the time for this area was industrial. The Regional Amendment explains that comprehensive planning of the area should be done through local Official Plan Amendments and the community planning processes.

Region of Waterloo Official Plan (June 2009-ongoing)

A new Regional Official Plan 2029 (ROP) was adopted on June 16, 2009 by Regional Council as the guiding document for directing growth over the next 20 years*. The ROP continues Waterloo Region’s tradition of innovative planning by refining the Region’s balanced approach to growth management and incorporates the key principles of the RGMS. Chapter two of the ROP provides the policy framework for “Shaping Waterloo Region’s Urban Communities” in both the cities and the townships, and outlines the policies that direct a greater share of new urban development towards existing communities.

*Note: As of the date of this study the ROP 2029 was approved, with modifications, by the Minister of Municipal Affairs and Housing on December 22, 2010 but was under appeal before the Ontario Municipal Board. The remainder of this study may refer to the ‘new ROP’ and it is understood that it is not in final form but is used for reference.

Urban Area Development Policies

The Urban Area broadly identifies where the majority of the region’s future growth will occur. Within the Urban Area, most of the region’s future growth will be directed to Urban Growth Centres, Major Transit Station Areas, Reurbanization Corridors, Major Local Nodes and Urban Designated Greenfield Areas. The planned function and development provisions for each of these areas are outlined in the policies below. In general, these areas will be planned to create a more compact urban form with a greater mix of employment, housing and services in close proximity to each other.

The ROP contains General Development Policies for the Urban Area to guide development (including greenfield areas) consistent with the provisions of the Provincial Policy Statement and in conformity to the requirements of the Growth Plan.

Policy 2.D.1 states:

“In preparing or reviewing planning studies, or in reviewing development applications or site plans, the Region and/or Area Municipalities will ensure that development occurring within the Urban Area is planned and developed in a manner that:

(a) supports the Planned Community Structure described in this Plan;

(b) is serviced by a municipal drinking-water supply system and a municipal wastewater system;
(c) contributes to the creation of complete communities with development patterns, densities and an appropriate mix of land uses that supports walking, cycling and the use of transit;

(d) protects the natural environment, and surface water and groundwater resources;

(e) conserves cultural heritage resources and supports the adaptive reuse of historic buildings;

(f) respects the scale, physical character and context of established neighbourhoods in areas where reurbanization is planned to occur;

(g) facilitates residents’ access to locally grown and other healthy foods in neighbourhoods; and

(h) promotes building designs and orientations that incorporate energy conservation features and the use of alternative and/or renewable energy systems.

In addition to the above mentioned development policies described in Policy 2.D.1, the Region and Area Municipalities will apply the Transit Oriented Development provisions in reviewing development applications or site plans, on or near sites that are served by existing or planned rapid transit, or higher frequency transit.
Urban Designated Greenfield Areas

The Urban Designated Greenfield Areas identifies lands within the Urban Area that are located outside the built boundary as identified by the Province but within the Settlement Area.

Policy 2.D.17 states:

Area Municipalities, in collaboration with the Region, will ensure that development occurring in Urban Designated Greenfield Areas will be planned and developed to:

(a) conform to the general development provisions described in Policy 2.D.1;

(b) achieve the following density targets:

i) areas serving primarily a residential function will meet or exceed a minimum density of 55 residents and jobs combined per hectare on lands not subject to a plan of subdivision application as of June 16, 2006;

ii) areas serving solely an employment function (serviced) will be planned to meet or exceed a minimum density of 40 residents and jobs combined per hectare;

iii) lands designated as Prime/Industrial Strategic Reserve (Serviced) as shown on Map 3a will be planned to meet or exceed a minimum density target of 25 jobs per hectare; In all cases, densities will be measured on average over the entire Urban and Township Designated Greenfield Areas of the region in accordance provincially constrained environmental areas.

(c) establish a network of continuous sidewalks, community trails and bicycle pathways that provide direct, safe, comfortable and convenient linkages within the neighbourhood and externally to other neighbourhoods, including linkages to transit stops, employment areas, school sites, food destinations and community facilities;

(d) provide any required easements, land dedications and pedestrian amenities in accordance with Policy 5.A.3 to support walking, cycling and existing or planned transit services for everyday activities;

(e) ensure that the design of the road network provides for direct and efficient transit routes within and between communities;

(f) locate land uses such that the distance to a transit stop is generally within a 450 metre walking distance; and

(g) discourage the use of noise attenuation walls and berms through the use of passive noise attenuation measures in accordance with Policy 2.G.15.

Area municipalities are to establish methods to achieve the density targets identified in 2-D-17.6 above.

The new ROP includes “Map 5a Regional Transit Network” and “Map 5c Regional Cycling Routes” identifies Fischer Hallman Road through the study area as a ‘Planned Transit Corridor’ and a ‘Planned Cycling Route’ respectively.
Regional Transportation Master Plan- Moving Forward 2031
(April 2010)

“The Regional Transportation Master Plan – Moving Forward 2031 (RTMP) builds upon the successes of the 1999 Regional Transportation Master Plan which placed greater emphasis on the role of public transit to provide a more balanced transportation system. It is guided by the Ontario government’s Places to Grow Growth Plan, the Regional Growth Management Strategy, the Regional Official Plan, and the Rapid Transit Plan. It also reflects the significant public interest for greater transportation choice, which was strongly reflected in consultation and survey efforts.”

A high level policy, comprised of four goals and principles and a series of objectives, was developed. The goals, principles and objectives recognize the transportation needs of current and future generations and also the differing requirements of the residents in the urban and rural areas of the community. These are summarized below:

Optimize the Transportation System

Make the most of what exists: preserve and maximize the use of facilities and services - avoid or defer the need for new infrastructure that does not support the other goals.

Promote Transportation Choice

Provide and maintain a transportation system that offers competitive choices for moving people and goods in an integrated and seamless manner while minimizing single occupancy vehicle trips.

Foster a Strong Economy

Provide a transportation system that supports the retention of existing businesses and attraction of sustainable economic activity.

Support Sustainable Development

Provide and maintain a transportation system that supports sustainable growth in both urban and rural areas and reduces transportation contributions to climate change.

“As part of supporting sustainable development, there was a recognition that the Region needs to review its current approach to identifying transportation priorities, particularly around future high density growth nodes and transit station areas. While it is recognized that local context will influence transportation design choices, in these high growth areas priority will be given in the following order:

- Walking;
- Cycling;
- Public transit;
- Carpooling and other smart commute strategies;
- Single occupant vehicles.”

The Study also developed three transit oriented transportation networks, each satisfying the basic goals, principles and objectives of the RTMP to achieve predefined transit mode share targets along specified corridors. These alternatives included:

- High Frequency High Transfer (Alternative A);
- Medium Frequency Low Transfer (Alternative B);
- High Frequency Low Transfer (Alternative C).

The three alternatives were developed with progressively more aggressive mode share and system wide ridership targets as illustrated in the table below. Each of the transit concepts achieves a different level of ridership and this translates into different levels of auto usage as well. Each alternative therefore includes a companion road improvement network that features a series of new roads, road widenings, and other road improvements designed to:
Support enhanced transit services;
Address remaining screenline deficiencies that cannot be served by transit;
Enhance goods movement opportunities to industrial areas; and/or
Resolve localized capacity or operational deficiencies.

Characteristics of Alternative Transit Oriented Networks
(PM peak hour)

<table>
<thead>
<tr>
<th>ALTERNATIVE</th>
<th>TRANSIT CONCEPTS</th>
<th>2016</th>
<th>2021</th>
<th>2031</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>High Frequency, High Transfer</td>
<td>9,200</td>
<td>6%</td>
<td>11,600</td>
</tr>
<tr>
<td>B</td>
<td>Medium Frequency, Low Transfer</td>
<td>9,200</td>
<td>6%</td>
<td>12,400</td>
</tr>
<tr>
<td>C</td>
<td>High Frequency, Low Transfer</td>
<td>9,200</td>
<td>6%</td>
<td>20,000</td>
</tr>
</tbody>
</table>

“All three alternatives incorporate strategic road improvements to either support the transit system or provide capacity where required to address operational issues. Each alternative was evaluated against a set of transportation, social, natural environment and economic criteria related to the goals, principles and objectives of the RTMP study. The results of the evaluation supported the implementation of the High Frequency Low Transfer alternative (Alternative C), which prescribes a high level of investment in transit by 2031 to achieve a 17.3% transit share.”

Alternative C, High Frequency, Low Transfer

“The high frequency low transfer network... increases the share of trips that have 5 min frequency or better by providing some routes within the Central Transit Corridor (CTC) that operate parallel to the rapid transit service and offer more frequent stop spacing to attract trips that are beyond a convenient walking distance of a rapid transit station. These additional routes could be implemented in the later years as the Rapid Transit system ridership matures.

There is a need to improve access to provincial highways and to ensure a strong network of Regional Roads to promote safe and efficient goods movement routes to meet the existing demographic and economic needs of the Region. There are currently only two interchanges servicing the area north of Highway 401 and west of the Grand River. Both routes are heavily travelled and if there is an incident on either connection, significant delays to transit, trucks and cars occur. Additional access to the highway system, specifically Highway 401, is recommended to maximize accessibility to existing and future industrial and employment areas.

Key highlights resulting from the RTMP related to the study include direction on achieving a higher transit modal split such as on Fischer Hallman Road and to investigate a connection to Highway 401.
City of Kitchener Strategic Plan

The City of Kitchener Strategic Plan “unites the focus and activity of city government and citizens over the next two decades toward building and maintaining a healthy and sustainable city for future generations”; most importantly however, it enables a clear understanding of the vision for Kitchener’s future and how the City intends to get there. Combining the key components of three major City of Kitchener initiatives developed over the past several years including: The City of Kitchener Corporate Plan, 2002; A Plan for a Healthy Kitchener, 2006; and The City of Kitchener People Plan, 2008; the Strategic plan creates a framework from which it can focus specifically on Community Priorities. Forming the Plan’s core, these Priorities are listed as: Quality of Life, Leadership and Engagement, Diversity, Dynamic Downtown, Development, and the Environment. The Community Priorities are underpinned by two critical foundations, these being The People Plan, which corresponds to the City’s strategy for supporting its workforce and an Efficient and Effective Government, which is based on the City’s Corporate Plan and encompasses the corporate systems that are vital to “delivering the services, programs, policies and initiatives that citizens need and want.”

To ensure that Kitchener achieves and sustains its vision throughout the City as well as in the Southwest Kitchener Community Master Plan, the Community Strategic Plan recommends the following directions for the priority area of ‘Development’:

1. That the City manages its growth and development relative to the Province’s “Places to Grow”, the “Regional Growth Management Strategy” and the “City of Kitchener’s Official Plan” with a view to the critical elements of a healthy community. As such the City must consider the economic, social, cultural and environmental implications of all future development projects and initiatives.

2. That, as part of its growth management strategy, the City maintains its balanced approach to replacing and/or expanding existing infrastructure and
building new infrastructure, such as water, sewer capacity and roads, to support current and anticipated growth.”

City of Kitchener Municipal/Official Plan (1994, as amended)

The South West Kitchener Community Master Plan will draw from the following planning principles contained within the Official Plan, Section 1.3:

1. Develop a compact urban form development, where higher overall residential densities of twenty units per hectare are considered;

2. Develop compact mixed use nodes and transit corridor;

3. Deliver appropriately scaled retail/servicing areas within the appropriately located neighbourhoods centres, Mixed Use Nodes and Mixed Use Corridor;

4. Deliver balanced employment land use opportunities scaled to service the local community including for appropriate types of home business;

5. Deliver a range of housing types that respond to a wide range of economic and age demographics;

6. Deliver an efficient and comprehensive road system that is fully compatible with a public transportation system. This transportation system will be fully linked to a community wide trail system;

7. Explore future links and/or improvement of connections to Hwy 401;

8. Deliver quality community and social services such as parks and recreational facilities, fire protection, libraries, etc as per existing and future local community needs;

9. Protect and preserve the existing Natural Heritage System including water recharge areas;

10. Integrate energy conservation measures into the plan including the provision of efficient and effective public transit;

11. Protect and enhance existing heritage resources including buildings, structures, streetscapes, urban and rural landscapes as well as archaeological and natural heritage features;

12. If feasible, encourage the reuse and integration of heritage buildings into the community design;

13. Deliver a safe and accessible environment through appropriate urban design, lighting, signage and other safety features; and,

14. Deliver good quality design and landscape standards.

The City of Kitchener is committed to improving the design and quality of neighbourhoods. This is further described in Part 2, Section 1.4:

“1. The City is strongly committed to excellence in community design as a way of creating and maintaining pleasant, attractive and functional neighbourhoods. The City shall take an active role in identifying, evaluating, developing and implementing improved community design approaches.

“4. Neighbourhoods shall have a range of community, institutional and commercial establishments to serve the needs of residents. Where possible these
establishments shall be grouped together to encourage the development and sharing of complementary facilities and programs, and to create a centre of identity and convenience within the neighbourhood.”

The current Official Plan provides description of the overall urban design framework in Part 2:

1. To deliver an attractive living and working environment through the use of high standards of Urban Design;

2. to develop a transit supportive corridor that encourages pedestrian movement and transit access and provides a linkage for cyclist to transit services

3. to ensure that proposed development compliments and conserves all significant natural resources located within the study area and adjacent to it;

4. to ensure, where feasible, that existing trees are retained and incorporated into landscaping plans;

5. to ensure, were possible, that views and vistas of Kitchener’s built and natural features are preserved and enhanced;

6. to ensure the conservation of cultural heritage buildings and structures;

7. to deliver pedestrian scaled, safe streetscapes;

8. to deliver a full range of accessible open space amenity spaces ;

9. to deliver an attractive living and working environment through the use of high Architectural standards;

10. to deliver universally accessible public spaces;
11. to deliver a aesthetic and modern storm water management strategy; and,

12. to introduce energy efficient design features.

The Official Plan points to the Urban Design Manual as the primary document to guide urban design, including the design of new suburban neighbourhoods. Further, policies in Part 4 identify that the preparation of new Community Plans should generally follow the design objectives and guidelines provided in the Manual.

In addition, it should also be noted that the City of Kitchener Official Plan also supports the principle of subwatershed planning in Policy 7.3. Specifically, Policy 7.3.2.9 states that the City will implement the recommendations of a finalized Subwatershed Master Plan within Community Plans and where appropriate, through conditions to the approval of development applications and decisions respecting municipal infrastructure.

City of Kitchener Strategic Plan for the Environment Update (2008)

Recognizing the true value and significance of a healthy environment’s role in sustaining its residents and future population, The City of Kitchener Strategic Plan for the Environment states its mission as being “to ensure an environment that is ecologically sound and supportive of the health, safety and well-being of its residents by identifying and implementing policies and practices which reflect community values and impact positively on the environment.” The guiding principles to achieve this mission will include working in partnership with both public and private sectors, supporting citizen involvement and collaborating with all orders of government, as well operating as an advocate for the environment, achieving a net gain in the quality of the environment and committing to the continuous improvement of the environment through a balanced, responsible fiscal and social framework. Identified by the community, The Plan indicates objectives and priorities for action in seven key areas of concentration. These focal points and their primary objectives are outlined below.

Natural Heritage System and Recreational Amenity Areas

“To develop and maintain an ecologically diverse open space network which incorporates typical naturally occurring landscapes, significant natural features and the urban forest, all of which embody our valued natural heritage.”

Water Resources

“To ensure the integrity and long-term sustainability of the city’s surface watercourses and municipal water supply through the protection and enhancement of essential hydrological, hydro-geological and ecological functions using best management practices, conservation strategies and public education.”

Air Quality

“To improve air quality and, thus, to minimize the associated risk to public health.”

Land Resource and Growth Management

“To develop and maintain a land-use planning process which allows the city to coordinate and implement its growth-related projects and policies in a sustainable and cost-effective manner.”

Energy Systems

“To achieve continual reductions in per capita energy consumption and to promote a sustainable energy use lifestyle through public education and the increased use of renewable energy sources and new technologies.”
Kitchener Growth Management Strategy

“Planning for a Healthy Kitchener”

January 2009

Kitchener Growth Management Study

City of Kitchener Growth Management Plan

Intensification Area Boundary
(Includes Primary Nodes, Mixed Use Nodes and Corridors, Neighbourhood Mixed Use Centres, and Comprehensive Development Areas)

Planning Community/Growth Area

Delineation of Fisher Hallman Corridor Plan Boundary to be Determined

Countryside Line/City Urban Boundary

As shown in Adopted Regional Growth Management Strategy, subject to Region Official Plan review)
Resource Consumption and Waste Management

“To reduce resource consumption and pollution at city facilities and properties through the use of renewable resources, the implementation of effective monitoring programs, and the employment of efficient operating practices including state-of-the-art waste management.”

Environmental Education and Public Awareness

“To promote an environmentally healthy lifestyle through the development of strategies to increase environmental literacy, the implementation of effective monitoring programs and the introduction of cooperative public outreach initiatives.”

City of Kitchener Growth Management Strategy (KGMS) (January 2009)

The City of Kitchener Growth Management Strategy (KGMS) is an integral part of a collection of documents that support the City of Kitchener Strategic Plan. The strategy provides a long-term framework for the effective management of planning throughout the growing city of Kitchener by improving business processes and contributing to healthy and complete communities. A comprehensive initiative, the KGMS coordinates the provision of infrastructure and services with new development, outlines where growth should take place, and proposes goals and actions which address and support Ontario’s Places to Grow Plan, as well as the Regional Growth Management Strategy (RGMS).

The KGMS is a collaborative effort that was developed in consultation with the general public and community groups, along with the project task force. The strategy intends to ensure that growth would be managed effectively, and that required density and intensification targets would be met, while still achieving a desirable built form and function.

KGMS Goals:

The KGMS is comprised of six overarching goals that apply to managing growth and development. These goals are:

1. Enhance our Valued Natural and Cultural Heritage Resources
2. Create Vibrant Urban Places, building communities where people want to live, invest and be creative
3. Ensure Greater Transportation Choice
4. Foster a Strong Economy
5. Strengthen Communities, to improve the social, cultural and recreational network
6. Manage Change in an Effective and Coordinated Manner

Goal 2 includes a specific action to investigate the role of Fischer Hallman Road within the study area as a potential focal point or mixed use corridor within southwest Kitchener. Goal 6 includes an action item regarding the preparation of a growth management plan, which in turn further identifies the major action items needed for the comprehensive planning of the study area.

City of Kitchener Growth Management Plan (KGMP) (May 2009)

The Kitchener Growth Management Plan (KGMP) provides a comprehensive analysis of Kitchener’s growth areas and proposes recommended timing for development and major initiatives in those areas. The plan assigns a Relative Priority for all development applications within a specific growth area.
*Major Remaining Initiatives | Proposed Timing
--- | ---
FH Design Study (Vision/Design Princ.) | 2009
*Area Study (Define Corridor/Scope) | 2009
*Kitchener Transportation Master Plan | 2010-11
*SW Kitch. Transport. Network Study | 2010-2011
*Community/Secondary/Master Plan and Land Use Determination | 2010-June 2011
Fischer Hallman Rd. EA | (Region)
Development Plans - Corridor | Pot. 2011+
Development/Subd Plans – SE Trussler | Pot. 2011
Middle & South Strasburg Trunk Sewers | 2013-16 & 2012-14

City of Kitchener; Growth Management Plan - Area Under Review, Trussler Northwest, Trussler Northeast
Coordination with growth-related infrastructure and municipal projects is also an important feature of the KGMP. The overall intent is to provide a tool that helps coordinate and prioritize the timing of these developments with the goals of the City of Kitchener Growth Management Strategy (KGMS). These subject study area is identified as Priority C and D within the KGMP and an action plan is provided that outlines the major steps in the planning process for these lands. Included in the action items are the preparation of a Community/Master Plan and a determination of land use prior to the consideration of development applications.

The KGMP specifically identifies that:

**Priority C, Striped Red**

“Detailed design work and application approvals are not expected to take place unless all other active Priority A and B lands are considered and all necessary studies and technical items are complete. There may be initiatives (such as a transportation study, etc.) that may be indicated in the Growth Area Subplan as Priority A or B. These lands may not currently achieve the overall criteria.”

**Priority D, Red**

“The intent is to not conduct any municipal work on development applications within this area in the coming 2-year timeframe. There may be specific high level initiatives (perhaps by other levels of government) that are required and the timing of those initiatives will be indicated in the Growth Area Subplan. These lands currently do not achieve the overall criteria, they may be considered for future urban use and/or may have significant environmental, servicing or financial implications.”

“The KGMP and its proposed priorities are intended to guide the initiatives and staging of development within the area in the southwest portion of the city on either side of Fischer Hallman Road between Bleams Road and south of Huron Road. This area is under study for potential new Secondary Planning work and is recommended to prepare and approve a transportation network study and other initiatives prior to development proceeding.”

### City of Kitchener Leisure Facilities Master Plan (2005)

The City has an approved Leisure Facilities Master Plan (LFMP) from 2005. The LFMP investigated the current status, future requirements and potential provision of recreational facilities for the City as it grows. Specific recommendations that may have some relation to the study area (either due to future growth in this area contributing towards the need for such facilities and/or due to the potential for some of the facilities to be located in or around the southwest area) include:

- Twin pad arena
- Indoor pool
- Community centre
- Branch library
- Major sportsfields (baseball, soccer, other with potential for lit facilities)
- Southwest District Park (including other recreation facilities such as playground, basketball courts, pathways, etc)
- Parks and trails

### City of Kitchener Park Master Plan (2010)

The Kitchener Park Master Plan (PMP) states its mission as being one which “directs the City’s investments and ambitions in delivering a balanced parks system that continuously improves the health and sustainability of the City’s physical, social
and economic environments. It brings together and integrates all of the community’s park system capabilities and resources to contribute to an exceptional quality of life for all residents.” The Park Master Plan provides a strategic focus for parks that integrates and aligns with the directions of other current and related initiatives.

Objectives and Goals

In support of the ongoing development and delivery of Kitchener’s parks system, a series of eight principles were conceived. These provide a range of fundamental statements that serve as the foundation for planning and decision-making. Each principle is then further articulated through a number of related goals. The Goals identify aims of the Plan, and add detail to the Vision and Mission. Collectively, these two provide a basis for the policies, strategies and initiatives developed in the Master Plan. The principles and goals are as follows:

Principle #1: Healthy Community

The City is committed to recognizing and maximizing the contribution of parks to the health and wellness of residents and the physical, social and economic environment, and to quality of life.

Principle #2: City Leadership

The City will continue to take the lead in achieving the shared vision for the parks system.

Principle #3: Engaged Community

The City recognizes that parks are a shared responsibility with the community, and is committed to promoting and facilitating broad public participation, public safety and awareness, partnerships and collaborative approaches.

Principle #4: Environmental Stewardship

The City is committed to providing well maintained, safe, flexible, clean and sustainable park resources, maximizing the capacity of existing facilities, cost effective operations, and integrating management needs in park planning, design and development.

Principle #5: Urban Quality

The City is committed to continuous improvement of the parks system and its contributions to the quality of the urban environment.

Principle #6: Strategic Alignment

Parks will align with and contribute to City and community strategic priorities and initiatives.

Principle #7: Accessible Participation

The City will ensure fairness and inclusiveness in encouraging and facilitating accessible use and enjoyment of parks by all residents.

Principle #8: Sustained Investment

The City is committed to steady, ongoing investment in the parks system to maximize returns in the form of a healthier, more sustainable community.

The PMP further states that “neighbourhood parks provide immeasurable benefits to local communities... They contribute to individual, community and environmental health and well-being. In essence, neighbourhood parks serve as a focal point for the local community and are a critical component of urban infrastructure for healthy communities.” “This Master Plan should be referenced in the course of all development decisions and used as a guide for the acquisition and development of all new neighbourhood parks.”
City of Kitchener Urban Design Manual
(1999, as amended in 2010)

The City of Kitchener's Urban Design Manual is a comprehensive document intended to foster a high quality of urban design on a city-wide basis. Combining urban design guidelines and urban design standards into one document, the Manual also provides detailed design suggestions and requirements for specific site conditions or types of land use. It is intended to be utilized by a range of groups, including the development industry, City Council and staff, special interest groups as well as residents.

Part A – Urban Design Guidelines

The City's Vision

“To create a safe, attractive, stimulating, accessible, and barrier free environment in which to live and work”.

The following principles will be used in implementing this Vision and in guiding Kitchener’s urban form.

Function

- Promote accessibility/usability/safety for all groups.
- Offer choices and variety in terms of housing, commerce and modes of transport.
- Promote the protection and sustainability of natural environments.
- Encourage strong and clearly defined pedestrian connections and linkages.

Order

- Encourage “legibility” in design i.e. clearly understandable design patterns.
- Provide a balanced and efficient distribution of activities.
- Promote the continuity and improvement of established development patterns and streetscape design.

Identity

- Encourage distinctive and recognizable design.
- Provide a focus for activity.
- Reinforce neighbourhood character and place-making.
- Encourage innovative, high quality design at landmark locations
- Provide a high quality public realm.

Appeal

- Provide functional and attractive design.
- Provide an appropriate scale and a sense of proportion.

Built Form

- Encourage a compatible built form.
- Encourage high density.
- Support compact development in the central neighbourhoods.

“The Urban Design Guidelines represent a framework for establishing Kitchener’s future urban form. It sets out a number of positive design principles, which should be followed in the design of new communities, sites and buildings. These guidelines should be reviewed and evaluated with all planning processes and approvals including plans of subdivision and site plan approval.” “The Guidelines are supported by Design Briefs (Part B) and a comprehensive set of Design Standards (Part C). Although comprehensive Design Briefs are only available for certain forms of development, the requirements contained in Part A and Part C of the Urban Design Manual should be regarded at the early design stage of all projects.”
The Urban Design Manual is concerned with the following:

- Designing buildings and the spaces between them.
- Managing the resources of the built environment, both new and existing.
- Meeting the needs of the developers and the users of the urban environment.
- Coordinating the various design disciplines to achieve a team approach to urban development.
- Encouraging sustainability

Community Design

- Creating a Sense of Place
  Goal: To create communities that have a distinctive character, pedestrian-friendly streets and prominent landmarks, views and vistas.

- Trees and Woodlands
  Goal: To incorporate trees and woodlands of value into new development.

- Heritage Resources
  Goal: To ensure new development complements and, where possible, incorporates heritage resources of natural, historical, architectural or cultural significance.

- Street Network
  Goal: To create a highly connected street network providing for appropriate traffic distribution, safe pedestrian and cycling conditions, barrier free access and efficient public transit.

- Transit
  Goal: To ensure new development is transit supportive.

- Parks, Open Spaces and Trails
  Goal: To provide a variety of outdoor recreational and amenity opportunities for all age groups. To provide an accessible linked parks and open space system.

Neighbourhood Design

- Central Neighbourhoods
  Goal: To ensure new infill development is compatible with the existing neighbourhood.

- Suburban Neighbourhoods
  Goal: To create diverse, attractive, walkable
neighbourhoods that contribute to complete communities.

Site Design

- Site Circulation
  Goal: To ensure that site circulation is safe and functional for all persons and vehicles.

- Site Services
  Goal: To ensure that site servicing components are functional, attractive and appropriately screened from public view.

- Landscape Design
  Goal: To provide landscaping which enhances each building or project as well as the streetscape.

- Site Signage
  Goal: To ensure that exterior site signage provides an adequate amount of information and does not dominate the streetscape.

- Lighting
  Goal: To provide clarity of night-time visibility for pedestrians and motorists and to minimize the intrusion of light onto adjacent properties.

- Emergency Access
  Goal: To minimize emergency response time.

- Building Clusters
  Goal: To arrange buildings to create safe, secure and usable internal spaces.

- Public Art
  Goal: To encourage the provision of art in major building projects.

Building Design and Massing

- Massing and Building Design
  Goal: To provide attractive building forms, facades and roof designs which are compatible with surrounding buildings.

- Infill Development
  Goal: To ensure infill development complements existing buildings and neighbourhood character.

- Building Design and Microclimate
  Goal: To minimize adverse microclimate impacts through building design.

Crime Prevention Through Environmental Design

- Crime Prevention Through Environmental Design (CPTED) is defined as the proper design and effective use of the built environment to reduce crime and the fear associated with crime, and an improvement in the quality of life.

- The key principles of CPTED are: Access Control, Surveillance, Territorial Reinforcement and Maintenance

Part B – Design Briefs

Part B of the Urban Design Manual is intended to provide design guidance for specific types of land uses as well as for specific sites within the city. The Design Briefs may provide guidance for the implementation of specific Official Plan policies, and contain detailed information about the City’s expectations for development. This portion of the document focuses on the following areas:

- Drive-Through Facilities
- Mixed Use Corridors
- Downtown Design Districts
- Suburban Development and Neighbourhood Mixed Use Centres

All of the urban design guideline sections identified in Part A of the Manual may ultimately apply to the design and development of the southwest urban area (study area). There are several Design Briefs that may also apply to the study area (or potentially the work conducted through the Community Master Plan exercise may recommend any context-specific supplements to the Design Manual). The primary existing Design Brief that provides direction for the design of the study area is the “Suburban Development and Neighbourhood Mixed Use Centres”.
Connectivity: to provide multiple route options for all modes of travel.

Transit Supportive: to design and build neighbourhoods that provide greater opportunity for transit usage.

Safety: to promote design practices that contributes to neighbourhood safety.

Balance: to promote neighbourhood design quality through a balanced approach with economic considerations.

Liveability: to promote design solutions that contributes to sustainable practices, the celebration of arts and culture, healthy and complete communities.

Design Brief for Suburban Development and Neighbourhood Mixed Use Centres

The Design Brief was created to:

- Promote walkable neighbourhoods that contribute to complete communities;
- Help promote, or implement, specific city initiatives such as the Pedestrian Charter and the Healthy Communities Plan;
- Respond to city initiated surveys that identify the need for more active park spaces, access to jobs and shops and attractive streets;
- Implement existing official plan policies that promote excellence in community design as a way of maintaining pleasant, attractive and functional neighbourhoods;
- Better integrate urban design and neighbourhood design principles into the development approvals process; and to
- Promote visioning and collaboration early in the development process.

The Design Brief is based on nine primary design objectives which establish the principles of design for all development approvals and provide a framework with which to prioritize the City’s design guidelines. The Primary design Objectives include:

- Walkability: to create walkable neighbourhoods that are well connected and fully accessible to major destinations and surrounding neighbourhoods.
- Variety: to build neighbourhoods that provide a range of housing types, park and open spaces and neighbourhood focal points.
- Placemaking: to create streetscape quality, and contribute to neighbourhood character and sense of place.
- Conservation: to conserve, protect and integrate existing natural and cultural heritage resources.

Alder Creek Watershed Study & Upper Strasburg Creek Subwatershed Plan Update Final Report (January 2008)

The Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update was prepared by the Grand River Conservation Authority (GRCA) in collaboration with others such as the Region, and the City of Kitchener. The intent was “to develop an understanding of issues related to sustainable development and the balancing of interests regarding resource use.” The two watershed areas are adjacent to one other, meeting within the Southwest Kitchener Community Master Plan study area, and have significant recognized interrelationships between groundwater systems and surface water systems.

Objectives

A number of objectives for the Alder Creek Watershed Study and the Upper Strasburg Creek Subwatershed Plan Update have been compiled. These objectives are to:
• Provide BMP recommendations that will address groundwater and surface water management from a water quality and water quantity perspective

• Provide recommendations that will address aquatic systems protection from a water quality and water quantity perspective

• Provide land use management recommendations that will protect vulnerable groundwater areas and well head protection areas

• Provide guidance on management of natural heritage components in the watershed

• Specific to Alder Creek - Identify opportunities for improving the water quality in Alder Lake

**Summary of Recommendations**

Based on the conclusions and information presenting in The Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update, it is recommended that:*

**To Protect, Restore, and Enhance the Natural Heritage System**

“1. Broad tracts of habitat should be protected as core areas, satellite areas, and linkages, connected through the central axis along the Alder Creek corridor... (Section 7.19)”

“3. The buffer widths recommended in this report should be considered to protect the natural heritage system, restore successional land, reduce the effects of adjacent land uses, provide adjunct habitat to forest and wetland species... (Section 7.19)”

“4. Existing drainage channels and hedgerows should be used to provide linkages through the landscape, where feasible. The creation of riparian buffers along these functional linkages is recommended to provide ample habitat for animal and plant dispersal, and to protect particularly sensitive watercourses and aquatic species. (Sections 7.12.3 and 7.12.4)”

“5. Core areas containing wetland species that require habitat in addition to that supplied by the wetland should be connected through appropriate corridors to upland forest habitat... (Section 7.12.4)”

“6. Core areas not connected with interior forest or wetland corridors should be connected with linkages 125 metres wide composed of appropriate habitat...” (Section 7.12.4)

“7. Satellite areas should be connected using intermittent drainage courses with buffers of at least 15 metres on either side, where feasible, as this is the minimum buffer effective... (Section 7.12.4)”

“9. Natural Area[s]... in the Alder Creek watershed by building on existing hedgerows and providing passage under road crossings when opportunities arise through future road widening or upgrades (i.e. Trussler Road... (Section 7.12.4)”

“10. To mitigate fragmentation and improve linkages, corridors and forest interior, natural areas... should be linked through the chain of wetlands comprising S2b and establishment of 30 m buffers, incorporating and naturalizing current farmland and building on hedgerows, to the greatest extent feasible. (Section 7.12.4)”

“12. Forest configuration should be improved through the restoration or naturalization of gap areas to improve the resilience of natural... (Section 7.13.9)”

“14. Natural areas within the City Urban Area should be connected through a north-south...
“In addition to the recommendations for future development noted above, the following recommendations shall also apply to development within the City Urban Area of these watersheds:”*

**Gravel Pits**

“43. Development of the gravel pit areas must include features that do not result in extensive grading, filling, or development of impervious features and that address the sensitivity of recharging water within wellhead capture zones. (Section 10.5.1)”

“45. Maintaining the key recharge areas within the gravel pits is critical for the water balance and should be used as the key areas for stormwater infiltration in future developments. (Section 10.5.5)”

“46. Development within the gravel pits and hummocky topography areas should implement a green corridor approach to development that links key recharge areas through a conveyance system that pretreats stormwater prior to infiltration and disperses the recharge function across the area. (Section 10.5.5)”

“47. It is recommended that operators of existing pits consider in their current operation and rehabilitation plans their proximity to the wells, the form and function they are now providing for recharge, that no water balance for the supply wells was performed prior to the development of the gravel pits, and the need to ensure site plans are up to date relative to the final land use. (Section 10.5.5)”

“48. If the licensed pit changes the location of the current recharge patterns, the location of the primary stormwater ponds and green corridors may have to change accordingly. (Section 10.5.5)”

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**For Future Development**

“15. A 30 metre buffer is recommended around all features found within core areas... (Section 7.11)”

“16. Any development or site alteration within 120 metres of features within a core area (for example, PSW) requires the completion of a scoped EIS. (Section 7.11)”

“17. Any development or site alteration within 30 metres of the defined satellite areas and wetlands requires the completion of a scoped EIS. (Section 7.11)”

“19. Future land use planning decisions adjacent to aggregate pits should consider rehabilitation plans and the potential to create features that compliment rehabilitated condition and strive to increase the net natural habitat. (Section 7.14.3)”

“20. In accordance with Sections 7.14, 7.15, and 7.16 of this report, any development or site alteration adjacent to the natural areas (as defined above) should address... mitigation measures.”

Recommendations under Future Development are also made for the following components:

- Stormwater Quantity,
- Stormwater Quality,
- Water Balance/Infiltration,
- Land Use Restrictions, and
- Grading Activities.

**For Future Development within the City Urban Area**
Landowner development applications image placeholder
Overview & Background

Community Master Plan/Land Use Option Evaluation Report

Southwest Kitchener Urban Area Studies

Recommendations under Future Development within the City Urban Area are also made for the following components:

- General Watershed Management,
- Alder Lake,
- Watershed Stewardship and Education, and
- Monitoring.

* Please note, not all recommendations made in The Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update are listed in this report and numbering of recommendations may not be consecutive.

Landowner Development Applications

At the time of the preparation of this study document numerous development applications have been submitted on behalf of land owners within the study area. The development proposals and any technical supporting studies will be utilized in the analysis and preparation of the Southwest Kitchener Community Master Plan. The location and type of development applications are illustrated on the attached figure.

Recommendations under Future Development within the City Urban Area are also made for the following components:

- Stormwater Management,
- Reasonable Use Concept,
- Hummocky Topography, and
- Environmental Impact Studies.

Creation, Expansion, or Rehabilitation of Aggregate Operations

“53. Pit development and rehabilitation plans should ensure that natural areas adjacent to gravel extraction are well-buffered and that linkages bypass active gravel extraction areas, where feasible. (Section 7.13.3)”

“54. Rehabilitation plans should:

a. Address the need for protecting and enhancing the Natural Heritage System within the watershed, including ensuring appropriate linkages between core areas... (Section 7.13.3)

b. Consider opportunities to increase the net area of natural habitats...

c. Consider the surrounding land use when developing rehabilitation plans including the potential to create features that compliment adjacent natural areas... (Section 7.13.3)

d. Ensure that final land use is appropriate for maintaining the recharge function of the pit and reflects the intrinsic susceptibility of the soils. (Section 10.5.5)”

Recommendations under Creation, Expansion, or Rehabilitation of Aggregate Operations are also made for the following components:
1.3 Physical Context

1.3.1 Natural Environment System

*Plan B Natural Heritage*

The following report provides an overview description of the existing environmental conditions and constraints within the Southwest Kitchener Community Master Plan study area. The analysis is based on a review of existing background documents/mapping and spring 2010 field reconnaissance of accessible properties.

The key documents and information reviewed as part of the environmental analysis included the following:

1. Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update (CH2M Hill and North-South Environmental Inc. 2008);
2. Upper Strasburg Creek Class Environmental Assessment (CH2M Hill 2008);
3. GRCA GIS Database Layers and ortho-imagery;
4. Region of Waterloo Official Plan (2009);
5. Various Environmental Impact Studies (EIS), Environmental Implementation Reports (EIR) and land utilization studies prepared by individual landowners over a 20 year period, including:
   - Trillium Community Environmental Implementation Report (Ecoplans Ltd. 2007);
   - Trillium Community Environmental Implementation Report – Addendum (Ecoplans Ltd. 2009);
   - Scoped EIS, General Vegetation Overview and Detailed Vegetation Plan, Proposed Williamsburg South Development (Howes-Jones & Associates Inc. 2008);
   - Schlegel Lands Williamsburg South Subdivision Environmental Impact Study (Natural Resource Solutions Inc. 2008);
Community Master Plan/Land Use Option Evaluation Report

Overview & Background

Southwest Kitchener Urban Area Studies

- Williamsburg Cemetery Environmental Impact Study (Natural Resource Solutions Inc. 2009);
- Environmental Overview Assessment, Trussler South Plains Land Utilization - Justification Study (Ecoplans Ltd. 1990).

In addition to the above background documents, field reconnaissance was conducted on several properties within the study area as part of a separate study to confirm the presence/absence of a Threatened Species protected under the Endangered Species Act (2007). The results of this study are provided in Appendix A.

A site walk with representatives of the various landowners was also conducted on May 4th, 2010.

The Alder Creek Watershed Study and the Upper Strasburg Creek Subwatershed Plan (CH2M Hill and North-South Environmental 2008) provide a comprehensive overview of existing environmental conditions within the study area, as well as an environmental protection/enhancement framework (Natural Heritage System), upon which the Community Master Plan will ultimately be based. The intent of this Natural Environment Background Report is to provide a concise summary of the key findings and recommendations of this document and other background documents, as it relates to future urban land use within the study area. Additional details can be found within the Watershed Study and Subwatershed Plan documents. Further site specific detail can be found in the EIS and EIR documents prepared by the respective landowners within the study area.

Existing Conditions Overview

The study area is mainly comprised of agricultural land and active aggregate extraction sites (sand and gravel pits) located in the northwest sector. Natural environment features consist of fragmented, isolated farm woodlots associated with rolling/hummocky topography, small wetlands (open water marshes, shrub thicket swamps), and field border hedgerows. The uppermost reach of Upper Strasburg Creek traverses the extreme northeast corner of the study area. Remnant woodlots also flank the study area to the south and west. The Huron Natural Area, located to the east of Fischer-Hallman Road is a large, intact natural area comprised of deciduous forest, wetlands and conifer plantations associated with rolling, hummocky topography. The wetlands are associated with the headwaters of Upper Strasburg Creek and are designated as part of the Upper Strasburg Creek Provincially Significant Wetland (PSW) Complex. The Huron Natural Area contains a variety of habitats which support a diverse, rich assemblage of plants, birds, mammals, reptiles, amphibians and insects.

Physiography, Topography and Soils

The study area is located within the Waterloo Moraine physiographic region of Southern Ontario (Chapman and Putnam 1984, Karrow 1993), which is characterized by rolling; hummocky topography associated with glacial outwash and ice contact sand and gravel deposits. The soils within the study area are mainly comprised of well drained sand and gravel, with clay/silt till and sandy to silty till deposits. Organic muck soils occur in the low lying hollows, in association with wetland plant communities. Aggregate extraction sites occur in the northwest sector of the study area in association with a large concentration of sand and gravel deposits. The well drained characteristics of the soils within the study area are important for recharging the groundwater system, which sustains stream baseflow/temperature, wetland hydrology and the deeper Mannheim aquifer, a source of drinking water for the City of Kitchener and Waterloo Region. The infiltration characteristics in the northwest sector of the study area have been identified as part of a Wellhead Protection Area and groundwater Recharge Area in the Region of Waterloo Official Plan (2009).
Existing Conditions
The study area is located in the upper headwater reaches of the Alder Creek and Upper Strasburg Creek watersheds. With the exception of the uppermost reaches of Upper Strasburg Creek, there are no watercourses within the study area. The study area and the lands to the south and west, largely function as a groundwater recharge area for the headwater tributaries of both Alder Creek and Upper Strasburg Creek, and local wetlands. The location of the watershed boundaries and headwater tributaries are shown on Figure 1.

**Groundwater Regime**

As noted above, a large portion of the study area is located within a Wellhead Protection Area. The location of the Wellhead Protection Area, municipal water supply wells, and the groundwater Recharge Area is mapped on Figure 2. Key Recharge Areas (i.e. closed drainage depressions) within the study area, as identified in the Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan (i.e. Area 2 lands), are also shown on Figure 2.

The protection of groundwater quality and quantity, as well as the overall pattern and volume of recharge and discharge, is of paramount importance in terms of meeting the Region of Waterloo’s water supply demands, as well as sustaining natural heritage features within the study area (i.e. Upper Strasburg Creek, Alder Creek, wetlands).

**Vegetation Overview**

The study area contains a series of deciduous woodlots ranging in size from approximately 4.0 to 15.0 ha in area. The woodlots are partially connected by narrow, field border hedgerows and isolated habitat patches forming a landscape connection between the Huron Natural Area and Upper Strasburg Creek to the east of Fischer-Hallman Road, and the headwaters of Alder Creek to the west of Trussler Road, and south of Huron Road. Corridor/linkage enhancements (including criteria) within the study area and external linkage connections to natural areas beyond the limits of the study area have been identified in the Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update.

The woodlots within the study area are associated with rolling hummocky topography and are dominated by Sugar Maple with frequent to occasional American Beech, Black Cherry, White Ash, Red Maple, Bitternut Hickory, Basswood, Red Oak and White Pine. Low lying wetland fringe areas and wetland hummocks are comprised of Yellow Birch, Green Ash, Black Ash, Red Maple and Freeman’s Maple. The woodlots have experienced a long history of logging and are uneven-aged in character with trees ranging in size from 20 cm to 45 cm in diameter at breast height (dbh) with scattered individuals in excess of 60 cm dbh and 30 m in height. Understorey regeneration is variable ranging from sparse to well developed, and is mainly comprised of seedlings/saplings of shade tolerant Sugar/Red Maple in association with White Ash, American Beech, and shrubs such as chokecherry and elderberry.

The woodlots support a fairly intact and rich groundcover layer comprised of spring ephemerals, sedges, ferns and herbaceous species. Invasive weedy plant species, such as Garlic Mustard, Urban Avens and Dames Rocket, occur in the more disturbed and open sections of the woodlots.

Shrub thicket swamp and open water marsh communities have established in some of the closed depressions (hollows) that occur in association within the rolling topography of the woodlots. These wetland features are sustained by a combination of overland flow (spring runoff) and seasonally high groundwater conditions. The wetlands are characterized by the presence of deep organic soils and standing water of variable depth and duration. The hydro-period within these wetlands varies in response to seasonal/annual variation in precipitation and water table levels.
The thicket swamp communities are comprised of red-osier dogwood, shrub willow, winterberry, buttonbush in association with reed canary grass, sedges, and cattail. Yellow Birch, Red Maple, Freeman’s Maple, Green Ash and Black Ash occur as occasional associates around the perimeter of the wetlands and on raised hummocks.

The marsh wetland communities are mainly comprised of patches of open water with reed canary grass, cattail, bulrush, sedges and occasional red-osier dogwood and shrub willow. The study area also contains some small dug ponds and poorly drained depressions within agricultural fields that support wetland communities (open water marsh, marsh, thicket swamp).

Buttonbush dominated thicket swamps are considered a Provincially Significant vegetation community and constitute Significant Wildlife Habitat under the Provincial Policy.
Statement (PPS). One such community was observed in the northwest section of the study area, adjacent to an active sand and gravel pit.

Rare plant species have been reported from the study area, in association with wetland communities, as part of the Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update (2008).

Cultural vegetation communities within the study area consist of old field meadow, hedgerows and shelterbelt plantings associated with existing and abandoned farmsteads. The hedgerows are comprised of a mixture of Sugar Maple, Red Oak, Basswood, White Ash, Apple/Pear, Serviceberry, Black Cherry, Hawthorn, Buckthorn and Brambles. Conifer shelterbelt plantings are mainly comprised of Norway and White Spruce. Cultural old field meadow habitats occur along the fringes of the active sand and gravel pits and on fallow fields. These communities are mainly comprised of perennial forage grasses and herbaceous groundcovers such as goldenrod and aster.

Anecdote – During a site walk of the Trussler-Doehn Woodlot located along the southwest edge of the study area, one of the landowners, Mr. Stuart Trussler, indicated that when the land was first cleared in the early 1840’s, the subject woodlot was described as a “pine bush”.

Wildlife

The woodlots and wetlands within the study area provide habitat for a variety of birds, mammals, reptiles, amphibians and insects. The size and shape of some of the woodlots is conducive to providing habitat for area-sensitive and forest-interior bird species such as Pileated Woodpecker, Red-bellied Woodpecker, Scarlett Tanager, Veery, Ovenbird, Wood Thrush, American Redstart and Brown Thrasher. The distribution of woodlots and hedgerows across the landscape provides opportunities for species dispersal between habitat patches, including connections to the larger natural areas associated with Upper Strasburg Creek and Alder Creek to the east and west, respectively.

Wetlands within the study area provide habitat for a variety of amphibians and waterfowl. The thicket swamp and marsh communities associated with the woodlot north of the Williamsburg Cemetery (i.e. Cook Property) provide habitat for Spotted Salamander and the polyploid of the Jefferson Salamander complex. Jefferson Salamander is a Threatened Species protected under the Endangered Species Act (2007), and is also considered to be regionally rare. The Ontario Ministry of Natural Resources (OMNR) consider the wetland on the Cook Property as a confirmed breeding pond for the Jefferson Salamander dominated complex.

As part of the Southwest Kitchener Community Master Plan study, a separate study is being completed to document the presence/absence of Jefferson Salamander within and adjacent to the study area. The results of this study will be provided under separate cover and will be used to establish a Potential Regulated Habitat Map for review by the OMNR, which will define where development can and cannot occur within the study area. The current regulations for this species require that all potential breeding ponds within 1 km of a confirmed breeding pond are considered regulated (protected) habitat. A 300 m buffer is applied to confirmed breeding ponds of Jefferson Salamander and its polyploid to protect summer and over-wintering habitat (i.e. deciduous forest). The majority (i.e. 95%) of individuals of this species typically confine their habitat use to within 300 m of a known breeding pond (i.e. within deciduous forest habitat).

The known range of Jefferson Salamander coincides with deciduous forests on the Niagara Escarpment, the Oak Ridges Moraine, the Waterloo kame moraines and the Moffat Moraine, that support suitable breeding pools/ponds. Suitable breeding habitat for this species are isolated, woodland pools/
ponds that have overhead tree cover, suitable egg attachment sites within the water, presence of amphibians (as an indicator of appropriate hydro-period) and no predators such as fish. The rolling, hummocky terrain associated with moraines often produces habitat conditions which are conducive for this species. Summer foraging habitat is mainly associated with deciduous forest that surrounds the breeding pools (i.e. leaf litter layer, fallen, decaying logs, crevices). Jefferson Salamander overwinters below the frost line, often within the burrows of other animals.

*Fisheries*

With the exception of the uppermost reach of Upper Strasburg Creek, which traverses the northeast corner of the study area, the study area does not contain any watercourses. Both Upper Strasburg and Alder Creek support warmwater baitfish species (upper watershed reaches) and cold water species, such as Brook Trout. The lower reaches of Alder Creek support populations of Brook, Brown and Rainbow Trout. Additional information on the fisheries characteristics of these watercourses can be found in the Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update ((CH2M Hill and North-South Environmental Inc. 2008).

Given that the study area is located within the headwaters of both Upper Strasburg and Alder Creek, maintaining the quantity, quality and pattern of groundwater discharge to these watercourses will be an integral component of the stormwater and groundwater management approaches for the study area.

The headwater reaches of the Upper Strasburg Creek within the study area exhibit intermittent flow characteristics. The stream channel is associated with dense growth of reed canary grass and scattered clumps of shrub willow and red-osier dogwood. The channel is associated with a GRCA regulated floodplain. Baseflow in Strasburg Creek is sustained by groundwater discharge from a shallow, perched aquifer. An isolated population of Brook Trout exists downstream of the on-line ponds north of Huron Road (CH2M Hill and North-South Environmental Inc. 2008, CH2M Hill 2008). The isolation of the Brook Trout population is likely due to the intermittent flow and channel characteristics upstream of
Fischer-Hallman Road and the warming effect of the downstream on-line ponds. Management of the upstream reaches of Upper Strasburg Creek should incorporate appropriate measures to sustain the downstream population of coldwater and coolwater fish species.

**Environmental Constraints and Policy Areas**

The key environmental constraints identified within the study area, as part of the Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update (2008) include the deciduous woodlots, wetlands and the hedgerow connections. The wetlands associated with the Williamsburg Cemetery and the adjacent lands to the north are designated as part of the Upper Strasburg Provincially Significant Wetland Complex. Other wetlands in the study area have been evaluated but are not considered to be PSW’s. All of the wetlands within the study area are regulated by the GRCA.

The mosaic of woodlots and wetlands located to the north and south of the Williamsburg Cemetery has been evaluated and identified as a Core Environmental Feature (i.e. Williamsburg Woods Environmentally Sensitive Policy Area) in the Region of Waterloo Official Plan (2009). The Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update (2008) identifies a linkage enhancement opportunity between the core environmental feature and the Huron Natural Area to the east of Fischer-Hallman Road. An additional linkage opportunity is identified to the west connecting the woodlot parcels that occur to the south of active sand and gravel pits. The linkage enhancement opportunity coincides with field border hedgerows, small/isolated wetlands, and cultural old field meadow associated with the side slopes and berms of the sand and gravel pits. Combined, these corridor enhancement opportunities would link habitat patches within the study area with the large natural areas to the west (Alder Creek headwaters) and the east (Upper Strasburg Creek Headwaters and Huron Natural Area). The Watershed Study recommends that to the greatest extent feasible, core areas should be connected with linkages 125 m wide. A 30 m linkage width is recommended for connecting satellite areas within the landscape (i.e. through inter-linked woodlot/wetland buffers, naturalized farmland, and retention of hedgerows and drainage courses). The key connections within the study area include:

- Linking the Williamsburg Cemetery Core Environmental Feature to the Huron Natural Area, east of Fischer-Hallman Road;
- Linking the Williamsburg Cemetery Core Environmental Feature to the woodlots and wetlands to the northwest by incorporating hedgerow connections, 30 m woodlot/wetland buffers and naturalization of existing farmland and disturbed/cultural features (i.e. side slopes of sand and gravel pits); and,
- Provide a north-south connection between the core environmental features in the study area to the natural areas south of Huron Road, within the Alder Creek Watershed.

The corridor and linkage enhancement opportunities are mapped in the Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update (2008) and are shown on Figure 3.

**Natural Heritage System, Linkages and Buffers**

Based on the above overview of the natural environment conditions and constraints, the recommended natural heritage system for the Southwest Kitchener Community Master Plan study area is shown in Figure 3. The recommended “environmental framework” for the preparation of land use concepts for the study area consists of the following key features:

- Vulnerable groundwater recharge areas
- Upper Strasburg Creek PSW
• Upper Strasburg Creek

• Remnant Woodlots – Core Environmental Feature designation, Others

• GRCA Regulated Wetlands (Evaluated and Unevaluated)

• Buffers (30 m)

• Linkage connections – hedgerows, cultural features, restored habitat

The recommended NHS, including linkage enhancement opportunities and buffers (30 m), is largely based on the recommendations contained within the Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update (2008). The application of a 30 m buffer is intended to: i) protect woodlot/wetland features and functions, including potential habitat for Jefferson Salamander, polyploid, ii) increase the resiliency of the NHS to negative impacts associated with future urban growth, iii) provide additional restored habitat (ecotone) adjacent to core areas, and iv) enhance the ecological features/functions of the NHS. The ultimate goal of the recommended NHS is to achieve long-term environmental sustainability in an urban context.

Regional Official Plan Policy 7.C.10, as well as the Greenlands Network Implementation Guideline provides additional guidance with respect to buffer delineation. Linkages are addressed in Regional Official Plan policies 7.E.6 and 7.E.7 and the Greenlands Network Implementation Guideline.

Additional mitigation and management measures to protect and enhance the recommended NHS include:

• Naturalization of 30 m buffers and linkage connections (passive regeneration – natural succession, naturalized plantings with native species indicative of the landscape setting);

• Maintain existing surface water flow regimes to ponds and wetlands by retaining pre-development drainage catchments to the extent feasible;

• Implementation of Low Impact Development (LID) stormwater management measures to maintain and enhance the pre-development hydrogeological regime (i.e. groundwater quality, quantity and flow pattern). Examples of LID measures include, Bio-Retention swales and greenways (treatment train approach), Green Roofs, Permeable Pavers, Rain Barrels and Cisterns, Soil Amendment (to re-instate pre-development infiltration and chemical properties) and Tree Box Filters. The primary objective of LID measures is to collect, detain, polish and filter post-development runoff uniformly across the study area to maintain or enhance the sites pre-development hydrologic functions and inter-connections with natural heritage features/functions (e.g. wetlands, watercourses, and groundwater regime), as well as the Municipal drinking water aquifer (Mannheim Wellhead). The benefits of LID measures include, among others, improvements to surface water quality and groundwater regime, reduced demands on municipal water supply, reduced urban heat island effect, improved air quality, habitat creation, and better quality of life;

• Implementation of Enhanced (former Level 1) stormwater management controls for Upper Strasburg Creek;

• Invasive plant species control in woodlots;

• Integrated forest management plan to promote woodlot health, maintain/enhance ecological functions and provide economic returns that can be applied to environmental management and stewardship programs;

• Minimize or avoid road crossings of existing natural linkages and restored linkage connections;
Figure 1 - Sanitary Drainage Plan
1.3.2 Functional Servicing  
SCS Consulting Group Inc.

The following provides a summary of the background servicing information related to the lands within the Southwest Kitchener Urban Area. Specifically, information has been compiled related to existing conditions and infrastructure, as well as preliminary opportunities and constraints relating to sanitary servicing, water distribution, storm drainage, stormwater management, and utilities.

Sanitary Servicing

Based on the “South Strasburg Gravity Trunk Sanitary Sewer Schedule ‘B’ Class Environmental Assessment – Final Report”, prepared by Stantec Consulting Ltd. (September 2008), the majority of the study area (approximately 361.4 ha) is planned to drain to the Middle Strasburg Trunk Sanitary Sewer. The Middle Strasburg Trunk Sanitary Sewer has been designed to accommodate a sanitary flow rate of approximately 335 l/s from the study area (270 l/s to future extension to the north and 65 l/s through the Huron Village Subdivision). Land use and population density assumptions for the design of the Middle Strasburg Trunk Sanitary Sewer are provided in the Sanitary Drainage Areas Plan and Sanitary Design Sheet (Stantec Consulting Ltd., 2008) provided in Attachment A, Appendix A 4.2.

These assumptions were prepared prior to any known land use west of Fischer-Hallman road.

As illustrated in Figure 1, the existing Middle Strasburg Trunk Sanitary Sewer currently connects to the Strasburg Trunk Sanitary Sewer at Strasburg Road and extends north to the north limit of the existing Huron Village Subdivision. The future extension of the Middle Strasburg Trunk Sanitary Sewer from the Huron Village Subdivision to Bleams Road is identified in the City of Kitchener’s Development Charges Background Study and subject to the City’s Capital Budget process.
Figure 2- Water Servicing Plan
An existing temporary pumping station located on the south side of Bleams Road currently services approximately 250 residential lots, north of Bleams Road, within the Laurentian West Community. Flows to this pumping station are currently directed north to the Borden Trunk Sanitary Sewer. Upon completion of the Middle Strasburg Trunk Sanitary Sewer extension to Bleams Road, the temporary pumping station will be decommissioned and the flows rerouted to the Middle Strasburg Trunk Sanitary Sewer.

The remainder of the study area (approximately 18.3 ha east of Fischer-Hallman Road and south of Huron Road, as well as 22.6 ha in the south west corner of the study area), is planned to drain to a future extension of the South Strasburg Trunk Sanitary Sewer.

As illustrated in Figure 5.0 (Preliminary Preferred Trunk Sanitary Sewer Alignment) in Attachment A, Appendix A 4.2, the 900 mm diameter Strasburg Trunk Sanitary Sewer currently terminates in the Strasburg Road right-of-way, approximately 100 m west of the Main Branch of Strasburg Creek. As identified in the South Strasburg Gravity Trunk Sanitary Sewer Schedule ‘B’ Class Environmental Assessment, the sewer will be extended west to service future development, including the 40.9 ha of the study area. (Refer to the Sanitary Drainage Areas Plan (Figure 6.0) and Sanitary Design Sheet (Stantec Consulting Ltd., 2008) provided in Attachment A, Appendix A 4.2.

Waterloo Region initiated a study in 2004 to update the previous Wastewater Treatment Master Plan (WWTMP) completed in 1995. The WWTMP was updated in August 2007 and provides an overall plan for the upgrade and expansion of facilities to ensure adequate wastewater treatment service capacity for the Region’s wastewater treatment plants until 2041.

The WWTMP identified that the SW Kitchener study area lands are included in the ultimate (to 2041) wastewater service area (WWSA) tributary to the Kitchener WWTP. Treated effluent from the facility is discharged to the Grand River.

The Kitchener WWTP has a rated capacity of 122,600 m³/d (122.6 Million Litres per Day (MLD)). The existing flows treated in 2004 were 69,900 m³/d (69.9 MLD), while the committed flows in 2005 were 82,100 m³/d and the future 2041 flows are estimated to be 122,800 m³/d (122.8 MLD).

A phased approach for upgrades to the Kitchener WWTP was recommended including:

- Phase 1: implementing the Biosolids Master Plan recommendations, including digester upgrades, dewatering, and decommissioning of the biosolids lagoons, in 2007-2011;

- Phase 2: construction of a third process train with capacity of 72 MLD in 2010-2015 (designed to allow future expansion), including an upgrade or replacement of the existing outfall or a new optimized outfall. Completion of this phase will meet the projected 2016 flows;

- Phase 3: upgrade to existing Train 2 to provide 50 MLD capacity. Completion of this phase from 2015-2019 will provide sufficient capacity to 2031;

- Phase 4: expansion of Train 3 of 18 MLD to increase the total plant capacity to 140 MLD. At the projected growth and present wastewater generation rates, construction of this phase may be anticipated from 2031-2035 and will provide sufficient capacity to projected 2041 flows.

The WWTMP recommended that although not identified as a preferred alternative from a long-term servicing perspective, Water Conservation and Inflow/Infiltration reduction are two measures that should be employed in advance of the need to expand an existing facility, or implement new wastewater infrastructure to reduce their need and/or delay their timing from a short-term servicing perspective.
Further, the WWTMP recommended that these programs should be implemented in advance of, or in conjunction with, any proposed infrastructure expansion or new works.

**Water Distribution**

As illustrated in Figure 2, there are existing Regional 450 mm diameter trunk watermains located on Bleams Road and on Fischer-Hallman Road. An existing 1200 mm diameter transmission watermain is also located on Bleams Road. On Huron Road, an existing 300 mm diameter watermain terminates at a stub approximately 250 m west of Fischer-Hallman Road.

Outside of the study area, there are also existing local municipal watermains on the local streets within the Huron Village and Laurentian West subdivisions located east and north of the study area, respectively.
The majority of the study area is located within the Kitchener Pressure Zone 5, with the exception of a small area east of Fischer-Hallman Road along the north and south sides of Bleams Road which is located within the Kitchener Pressure Zone 4.

The “Tri-City Water Distribution Master Plan” (AECOM, May 2009) identified two potential problem areas within the study area and possible solutions.

A potential low pressure problem was identified at the northwest corner of the study area. The potential low pressure problem could be mitigated by rezoning the area to be part of the new Kitchener Pressure Zone 6, west of Kitchener Pressure Zone 5. The Region of Waterloo has indicated that the new Kitchener Pressure Zone 6 is anticipated to be operational by June 2010.

A potential high pressure problem was identified at the intersection of Fischer-Hallman Road and Bleams Road. The Tri-City Water Distribution Master Plan noted that the high pressure problem could be resolved by rezoning this area to be part of Kitchener Pressure Zone 4. Alternatively, the Region of Waterloo has indicated that once the new Kitchener Pressure Zone 6 is operational, the pressures within Kitchener Pressure Zone 5 will be reduced, which may resolve the high pressures issues in this area. Once Kitchener Pressure Zone 6 is operational, the Region of Waterloo intends to re-evaluate Kitchener Pressure Zone 5.

The Region has indicated that minor modifications to the boundaries between Zones 4 and 5 may be required in future, based on the results of on-going updates to the system and the creation of new pressure zones.

The Region has indicated that a minimum 300 mm diameter watermain will be required through the Study Area, parallel to Fischer-Hallman Road. This parallel watermain will provide looping to improve the distribution system to meet future demands and provide an alternate pathway for water supply for south end of Kitchener Pressure Zone 5 in the event of a watermain break on the Fischer Hallman transmission watermain. The Region has included funding in the 2009 Capital Program to assist with the installation of the parallel watermain.

Modelling the water distribution system within the study area should be completed at the next level of study to confirm internal trunk watermain sizing and demand requirements.

**Storm Drainage and Stormwater Management**

As illustrated in Figure 3, the study area is located within the Alder Creek and Upper Strasburg Creek Watersheds. Approximately 53.9 ha lies within the Alder Creek watershed, while approximately 381.8 ha lies within the Upper Strasburg Creek subwatershed. The Alder Creek Watershed is tributary to the Nith River and the Strasburg Creek Watershed is tributary to Schneider Creek, which is tributary to the Grand River.

As reported in the “Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan Update”, prepared by CH2MHILL (January, 2008), herein referred to as the “Subwatershed Study”, the study area lands are characterized as hummocky terrain supporting depression storage that currently provides significant infiltration to groundwater that, in turn, supports local wetland features. This hummock terrain also results in very little to no runoff from a number of catchment areas.

The Subwatershed Study also noted that there are several existing aggregate extraction areas in the north portion of the study area that currently contribute significant levels of recharge to the groundwater system and municipal supply wells. For this reason, how the gravel pits are graded and serviced must be carefully considered in the context of the Subwatershed Study recommendations.
The stormwater management for the study area will be designed in accordance with the Subwatershed Study.

Maintenance of infiltration rates and the protection of groundwater quality is a primary concern in the Upper Strasburg subwatershed. Therefore, in areas that provide groundwater recharge, the water balance must be maintained and water quality of the groundwater system protected. Pre-development water balance targets are provided in the Subwatershed Study. To protect groundwater quality, the stormwater management system will be designed to provide pre-treatment of stormwater, where possible, prior to infiltration.

Where possible, best management practices (BMPs) should be used to enhance water quality, including:

- roof leader disconnection
- increase pervious areas
- control of road de-icers, fertilizers and pesticides
- reduced lot grading
- grassed swales
- wet ponds
- constructed wetlands
- infiltration trenches
- infiltration basins
- filter strips
- sand filters
- bioretention systems
- wet swales

The Subwatershed Study recommends that Areas 1, 2, 3 and 4 (as shown on Figure 10-1 of the Subwatershed Study – see Attachment B, Appendix A 4.2) each develop a comprehensive stormwater management plan to be developed concurrently with a Municipal Plan Amendment and either a new Community Plan, an amendment to an existing Community
Plan or a Master Plan / joint subdivision application, and should involve significant participation by affected landowners. We note that the study area is within Areas 2, 3 and 4.

While each of the four areas are required to meet the individual requirements set out in the Subwatershed Study, an emergency overflow route from Area 2 through Area 3 to Strasburg Creek is required as a contingency measure.

The Subwatershed Study recommendations include the following criteria for future development:

- Enhanced Level Quality Control in accordance with the MOE Stormwater Planning and Design Manual guidelines (March 2003) for the Upper Strasburg Creek Subwatershed. Mitigation of thermal impacts resulting from end-of-pipe SWM facilities is also required to protect the coldwater system.

- Normal Level Quality Control in accordance with the MOE Stormwater Planning and Design Manual guidelines (March 2003) for the upper reaches of the Alder Creek Watershed. It is noted that the upper reaches of the Alder Creek Watershed (i.e. upstream of Alder Lake) consist of primarily warmwater fisheries.

- Erosion control through the attenuation of the extended detention volume to accommodate a 25 mm storm event.

- A fluvial geomorphology assessment of the impact to Strasburg Creek will be required in support of any proposal to by-pass infiltration measures during winter months.

- Control of post-development peak flows to pre-development rates for all storms up to and including the 100 year storm event for the Alder Creek Watershed.

- Control post-development peak flows to pre-development rates for all storms up to and including the Regional Storm Event (Hurricane Hazel) for the Upper Strasburg Creek Subwatershed.

The Regional Storm floodline associated with the Upper Strasburg Creek traverses the north east portion of the study area on either side of Fischer-Hallman Road. The floodline limits are illustrated on Figure 3.

The existing culvert at Fischer-Hallman Road has limited capacity and has the potential to create significant backwater conditions upstream of the culvert during major rain events. A Class Environmental Assessment (EA) was completed by CH2MHILL in January 2008, titled the “Upper Strasburg Creek Culvert Class Environmental Assessment”, to address this existing issue. The existing Regional storm flood elevation upstream of Fischer-Hallman Road has been calculated to be 335.9 m, as reported in the Environmental Assessment. The preferred solution proposes culvert modifications to Fischer-Hallman Road that will reduce the flood elevation to below 335.0 metres, while maintaining existing stream flow rates and frequencies to pre-development levels to protect the sensitive downstream environment. The EA recommends that the culvert replacement must be constructed prior to development upstream of Fischer-Hallman Road, south of Bleams Road. It further recommends that the installation of the culvert be undertaken at the same time as the extension of the Middle Strasburg Trunk Sanitary Sewer is constructed at Fischer-Hallman Road to minimize disturbance to Strasburg Creek.

Another Class EA, titled the “Strasburg Creek Flood Control Class Environmental Assessment”, is currently underway by the City of Kitchener and Stantec Consulting Ltd. to determine a comprehensive flood control solution for the lands upstream of Huron Road. If the Flood Control EA proposes changes to the Fischer-Hallman Road culvert and/or water quantity controls for the Regional flood event...
Figure 1 - City of Kitchener Southwest Urban Areas Study

Figure 2 - Regional Road Network
1.3.3 Transportation System

Poulos and Chung Limited

The information obtained from the Region of Waterloo and the City of Kitchener is presented in the following sections. Where appropriate the existing information has been extrapolated and analyzed to summarize existing roadway conditions. The transportation, traffic and transit analysis steps envisioned as part of the planning process for the Southwest Urban Area are then identified.

A. Existing Conditions

A1. Planning Area

Figure 1 illustrates the location of the planning area.

The planning area is approximately 430ha (1,075 acres) in size. It is irregular in dimension and is primarily fronting Bleams Road an east-west arterial road and Fischer-Hallman Road in the vicinity of the Hydro Corridor.

Utilities

Hydro

There is an existing hydro line within a Hydro One Networks Inc. easement that runs diagonally across the north east portion of the study area.

Hydro services in the study are provided by Kitchener-Wilmot Hydro. Kitchener-Wilmot Hydro has confirmed that there are existing 3-phase circuits along Bleams Road, Fischer-Hallman Road and Huron Road through and adjacent to the study area. All existing hydro lines in this area are aboveground.

Natural Gas

There is an existing 12” high pressure Union Gas pipeline running in a north-south alignment through the study area from Bleams Road to Huron Road approximately 400 m west of Fisher-Hallman Road.

Kitchener Utilities has existing plant located within the Bleams Road and Fischer-Hallman Road rights-of-way.

Cable Television

Rogers Cable Systems has existing infrastructure within the Bleams Road and Fischer-Hallman Road rights-of-way.

Bell Canada

Bell Canada has existing infrastructure within the Bleams Road and Fischer-Hallman Road rights-of-way.

in the study area, this new solution would supersede the previous applicable recommendations of the 2008 EA and the Subwatershed Study.

We note that the Regional Storm floodline of a small tributary to the Upper Strasburg Creek encroaches into the study area lands located east of Fischer-Hallman Road in the vicinity of the Hydro Corridor.

Utilities

Hydro

There is an existing hydro line within a Hydro One Networks Inc. easement that runs diagonally across the north east portion of the study area.

Hydro services in the study are provided by Kitchener-Wilmot Hydro. Kitchener-Wilmot Hydro has confirmed that there are existing 3-phase circuits along Bleams Road, Fischer-Hallman Road and Huron Road through and adjacent to the study area. All existing hydro lines in this area are aboveground.

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Cable Television

Rogers Cable Systems has existing infrastructure within the Bleams Road and Fischer-Hallman Road rights-of-way.

Bell Canada

Bell Canada has existing infrastructure within the Bleams Road and Fischer-Hallman Road rights-of-way.
Figure 3- Existing Lane Configurations

Legend
- Traffic Signal
- Roundabout
- Stop Sign

Not to Scale
Figure 4. Transit System
Figure 5- Existing Traffic AM & PM Peak Hour Volumes
Figure 6- Existing Levels of Service AM & PM Peak Hour

Legend
B (12) 0.18: Levels of Service (Delays in Seconds) Volume over Capacity ratio
1.02 → : Critical movement with V/C => 0.85

AM: A (10) 0.12
PM: B (13) 0.39

AM: D (53) 0.88
PM: D (44) 0.96

AM: B (11) 0.48
PM: B (11) 0.52

AM: B (15) 0.64
PM: C (20) 0.76

AM: v/c between 0.46 to 0.55
PM: v/c between 0.63 to 0.76

AM: v/c between 0.44 to 0.53
PM: v/c between 0.57 to 0.70
Figure 7 - Traffic Zones

Figure 8 - Population 2005
Arterial roads under the jurisdiction of the Region of Waterloo which directly front or provide direct access to the planning area include:

- Regional Road 70 (Trussler Road) located on the western boundary of the planning area;
- Regional Road 58 (Fischer Hallman Road) which bisects the eastern portion of the planning area. Fischer Hallman Road has an interchange with Highway 7/8;
- Regional Road 56 (Bleams Road) located along the northern boundary of the planning area;

Figure 3 illustrates the operational characteristics of the primary road network. Illustrated are the existing intersection lane configurations and traffic control devices including stop signs, and traffic signals. The posted speed limit on each road is identified. Traffic Circles (roundabouts) are provided at the intersections of Seabrook Drive and Fischer Hallman Road and Huron Road and Fischer Hallman Road.

A3. Existing Transit Network

Figure 4 presents the existing transit route structure in the immediate vicinity of the planning area. The transit service is operated by Grand River Transit (effectively a Region of Waterloo service) and directly serves the Cities of Kitchener, Waterloo and Cambridge. At present no transit service has been initiated on the planning area boundary roads.

A4. Existing Traffic Conditions

Figure 5 presents the existing traffic flows on the primary boundary roads during the typical weekday a.m. and p.m. peak hours. The existing intersection turning movements were obtained from available traffic studies completed by Paradigm Transportation Solutions Ltd. in 2007 and 2009 and Read and Read Voorhees & Associates Ltd. in 2009. These traffic impact studies were prepared for the RBJ Schlegel Limited and Mattamy Trillium Community respectively whose development lands are within the planning area.

Figure 6 summarizes the analysis of each of the primary road intersections. The “Synchro” Software program was used to analyze each intersection. The critical outputs included the overall intersection level of service, vehicle delay in seconds and the volume over capacity ratio. All intersections with the exception of the Bleams Road and Fischer Hallman Road intersection appear to provide sufficient operating capacity to satisfactorily serve existing vehicle demands. The intersection of Bleams Road and Fischer Hallman Road appears to be experiencing high enough vehicle demands which result in the intersection approaching or exceeded available practical capacity during the typical weekday roadway peak hours.

B. Forecasts

B1. Forecast Population and Employment

The Region of Waterloo provided key information to assist in the transportation analysis for the planning area. Figure 7 shows the traffic zones (from the Region of Waterloo transportation model) for the planning area and the Cities of Kitchener – Waterloo. The traffic zones contained within the planning area include 241, 242, 246 and 495;

Figure 8 presents the existing 2005 population within each of the identified traffic zones;

Figure 9 presents the existing 2005 employment within each of the identified traffic zones.
Figure 9 - Employment

Figure 10 - 2031 Total AM Assignment

Figure 11 - 2031 SW Zone AM Assignment
Overview & Background

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B3. Future Road Network

Figure 12 identifies the planned short and long term arterial road improvements in the immediate vicinity of the planning area. The currently identified road improvements and additions include:

- The “Draft” Regional Municipality of Waterloo’s Regional Transportation Master Plan Summary report dated April 2010 indicates that in the next 5 to 10 years Fischer Hallman Road from Ottawa Street to Plains Road will be widened;

- In the 10 to 20 year time period a widening of Bleams Road from Fischer Hallman Road to Strasburg Road, and;

- A new road extension of Fischer Hallman Road to connect with Cedar Creek Road and Highway 401.

All of the identified new road improvements and additions will be incorporated into the transportation analysis for the planning area.

B5. Future Transit Structure

Figures 13 and 14 illustrate the potential primary transit route structure currently being planned for the planning area and the Kitchener – Waterloo area.

Table 1 shows the existing and forecast population and employment for the planning area. The planned numbers are shown for years 2006, 2016, 2021 and 2031.

B2. Forecast Traffic Flows

The Region of Waterloo transportation model has provided forecast traffic flows on the bounding primary roads of the planning area for horizon year 2031. These forecast traffic flows represent vehicle flow demands arising from all planned growth in the Region including the growth contained in the planning study area traffic zones presented in Table 1.

Figure 10 presents the 2031 total forecast traffic flow during the roadway a.m. peak hour;

Figure 11 also presents the 2031 total forecast traffic flows during the roadway a.m. peak hour but now separately identifies the traffic flow which has an origin and destination from the traffic zones within the planning area. (This detail permits us through further analysis to remove the forecast traffic currently generated by the planned population and employment numbers within the planning area. When this vehicle flow is removed only the forecast background traffic demand arising from all other planned growth will remain. When the study team forms the new community plan(s) the new travel demands will be generated and added back onto the roadway network).

Table 1: Planning Area Existing and Forecast Population and Employment

<table>
<thead>
<tr>
<th>Traffic Zone</th>
<th>Population</th>
<th>Employment</th>
</tr>
</thead>
<tbody>
<tr>
<td>241</td>
<td>44</td>
<td>44</td>
</tr>
<tr>
<td>242</td>
<td>29</td>
<td>29</td>
</tr>
<tr>
<td>246</td>
<td>732</td>
<td>3803</td>
</tr>
<tr>
<td>495</td>
<td>10</td>
<td>10</td>
</tr>
</tbody>
</table>
Figure 12- Proposed Road Improvements

Expected Improvement
5-10 years

Expected Improvement
10-20 years

Legend:
- Widening
- New Extension

Proposed Road Improvements

Figure 13- Potential Future Transit Service

To Highland Hills Transit Terminal & Waterloo

To Forest Glen Transit Terminal & RT Station

To Pioneer / Homer Watson

- Future Transit Node
- Future Transit Stop
- 5 minute walk distance
- Neighbourhood Routes
- Base Routes
- High Frequency Route

Countryside Line
Figure 14- Potential Rapid Transit System

Figure 15- City of Kitchener Existing Profile
Figure 16- Bleams Road Existing Profile
The transit master plan prioritizes the staging transit services. Below is a summary the planned transit improvements include:

A higher order transit service with high frequency bus service on Fischer-Hallman Road. This express type of service will connect the University of Waterloo, RIM Columbia Campus, Sunrise Centre, and provide a direct connection to the Forest Glen Plaza Transit Terminal;

The Region of Waterloo “Rapid Transit Study” is ongoing. The preferred location for the light rail transit (LRT) and bus rapid transit (BRT) service lines is shown in Figure 14.

These transit plans will be used to provide a reference and base condition for the planning area. The planning process for the planning area will recognize this transit plan and recommend a sustainable transportation plan focused on securing maximum accessibility connectivity to the transit plan.

C. Planning Area Transportation Analysis Steps

Poulos & Chung Limited will confirm the following analysis steps with the City of Kitchener:

It is anticipated that the project team may formulate alternative concept plans for the planning area. Poulos & Chung Limited will provide input and also provide a comparison and evaluation process to assist in selecting the preferred plan.

The following critical analysis steps will be completed for the preferred planning area land use plan.

C1. Critical Analysis Steps

Internal Roadway Network Plan – The internal roadway network, its operating characteristics including the formation of intersections with the boundary arterial roads will be based upon standard geometric design features and traffic engineering operating principles. This includes;

Intersection formation and location and internal road layout in conformity with the;

- The Transportation Association of Canadian (TAC) Geometric Design Standards Manual for Urban Roads, and;
- Ontario Geometric Standards for Ontario Highways.

Application of the standard vehicle decision making criteria to confirm planning area road intersections with the bounding arterial roads. The centerline profile of the regional roads had been plotted and shown in Figures 15 to 19. The location assessment will be based upon:

- The height of Driver’s eyes is 1.05 meters;
- The object height is 1.30 meters
- Safe sight Distances will be 120 meters, 180 meters and 220 meters for 50km, 60km, 70km and 80km per hour, respectively.

In keeping with Regional and Municipal intersection treatments traffic circles and roundabouts will be investigated as a preferred method for the control and operation of intersections.

Planning Area Travel Demand Forecasts – Demand estimates will be generated for both the automobile and transit modes of transportation for the planning area. The analysis process will be based upon input parameters confirmed by the City of Kitchener and the Region of Waterloo. The analysis steps include;

- Estimation of the number of vehicle trips generated by all the land use types identified using the ITE.
Figure 17- Fischer Hallman Road Existing Profile
Figure 18 - Huron Road Existing Profile
Overview & Background

Community Master Plan/Land Use Option Evaluation Report

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- Transit trip generated within the plans will also be estimated. Transit route within the plan will be assessed to be compatible to any proposed transit route in the area.

- Based upon the estimated vehicular and transit volumes, road classification, number of lane, intersection configuration, control types, roundabout will be determined and reviewed with the authorities.

The Synchro software program will be used to determine the levels of service at the boundary road intersections and internal collector/collector intersections. Appropriate road configuration, traffic signal controls will be confirmed.

- Modifications to the road network to accommodate the development traffic in an efficient manner will be recommended and comparison to the preliminary concept plans will be developed in a matrix format from a safe transportation, traffic and transit operation as well as other mode of transportation like cycling and walking.

- The modified plans will be circulated to the team and committee for review and leads to a preferred concept plan for further analysis.

Planning Area Impact Assessment - The planning area traffic flow demand will be added to the forecast background traffic in horizon year 2031. In summary, the land use plan will be reviewed in detail:

- The intersection spacing and safe turn distance will be verified;

- The plan will be divided into in traffic zones for trip estimation and trip assignment purposes. Trip Reduction due to live/work, transit, transportation demand management will be taken into consideration;

- Trips generated by each traffic zones will be manually assigned through all the boundary road intersections and all the major collector/collector road intersections within the plan.

(Institute of Transportation Engineers) Trip Generation Manual 8th Edition. Critical parameters affecting vehicle generation will be discussed with the authorities including:

- Identification of an acceptable transit modal split to estimate transit trips generated and reduction in automobile trip making;

- Opportunity to adjust automobile trip making based upon live / work land uses and other mixed use development types with an ability to reduce dependency on the automobile for travel;

- Vehicle pass-by reduction factor for retail – commercial uses;

- Potential to consider further vehicle trip making reductions based upon travel demand measures such as bicycling, walking and car-pooling;

- The development traffic will be distributed and assigned to the boundary road across the screen lines developed for the assessment. The distribution will based upon the Region’s Forecast Model 2031.

Planning Area Impact Assessment - The planning area traffic flow demand will be added to the forecast background traffic in horizon year 2031. In summary, the land use plan will be reviewed in detail:

- The intersection spacing and safe turn distance will be verified;

- The plan will be divided into in traffic zones for trip estimation and trip assignment purposes. Trip Reduction due to live/work, transit, transportation demand management will be taken into consideration;

- Trips generated by each traffic zones will be manually assigned through all the boundary road intersections and all the major collector/collector road intersections within the plan.

Following selection of a preferred concept plan, a transportation network study will be completed in accordance with the project's terms of reference.
1.3.4 Cultural Heritage

Nancy Tausky

Mandate

The Heritage Planner for the City of Kitchener specified the following as necessary components of the report on potential cultural heritage resources in connection with the Community Master Plan. The first phase is to comprise a general survey of the study area, including immediately adjacent lands and the lands related to the broader Transportation Network Study Area; a closer look at properties within the study area judged to possess heritage potential; a study and summary of existing background documents related to heritage properties within the study area; a description of those properties possessing heritage potential; an assessment of each potentially significant property, the assessment advising whether the property merits listing on the Municipal Heritage Register, designation under the Ontario Heritage Act, or conservation under the conditions defined in the Provincial Policy Statement. It is also understood that some consideration may be given to potential Scenic Heritage Roads in the area. A second phase will involve participation “in the development and investigation of the various land use options, including the evaluation of compliance with provincial, regional and municipal cultural heritage policies as well as the evaluation of impacts to the cultural heritage resources.” It will also examine and assess adjacent properties that may be affected by development plans within the study area and the examination and assessment of properties associated with anticipated transportation options.

Progress

The extensive compilation of background materials provided by the Heritage Planner has been reviewed, as have relevant regulatory and planning documents. Two general surveys of the study area and the surrounding area have been undertaken. Valuable access to some properties was provided during the team tour on May 4, 2010. Additional arrangements with property owners have since resulted in the closer examination of most properties within and immediately adjacent to the study area. Exceptions are the property at 2091 Bleams Road, which is scheduled to be viewed with the owner during the week of June 7, and the properties at 1198 Fischer-Hallman...
Community Master Plan/Land Use Option Evaluation Report

Overview & Background

Heritage Landscapes, a discussion document drafted by the Regional Municipality in 2005 includes farmsteads, scenic roads, agricultural areas, and historic settlements among examples of CHLs.

Assessment criteria for the designation of historic structures are set out in Ontario Regulation 9/06, made under the Ontario Heritage Act, and they are reflected in the Statements of Significance used by the City of Kitchener to determine a building's fitness for listing on the Heritage Register. The Regional Municipality of Waterloo has also drafted Cultural Landscape Criteria. All of these criteria implicitly follow the model of Regulation 9/06 in finding a building or landscape significant because of design of physical features, historical associations, and/or contextual value.

Road and 1664 Huron Road. Decisions recorded here regarding the first two properties, both of which are within the study area, are based on research, records of the properties from the files of the Heritage Planner, roadside viewing of the properties, and conversations with the owners; there is necessarily the possibility, though slight, that these decisions may be altered on a closer viewing of these sites.

Our study of the area included not only the assessment of individual properties, but also background research into the general history of the lands comprising the study area and the village of Williamsburg as well as a consideration of cultural landscapes and of Scenic-Heritage Roads.

Regulatory and Evaluative Criteria

The necessity of conserving significant heritage resources is acknowledged in provincial and municipal documents. Section 2.6.1 of the Provincial Policy Statement requires that “Significant built heritage resources and significant cultural heritage landscapes shall be conserved.” Section 5.3 of the City of Kitchener Official Plan contains policies that “serve to provide the framework to ensure the conservation of those heritage resources which reflect and contribute to the identity and character of the City of Kitchener.” The Official Plan of the Regional Municipality confirms its commitment to “the conservation of its cultural heritage” (section 3.G).

The terms associated with cultural heritage are highly inclusive. The PPS defines “built heritage resources” as “significant buildings, structures, monuments, installations or remains associated with architectural, cultural, social, political, economic or military history and identified as being important to the community.” A “cultural heritage landscape” is described as “a defined geographical area of heritage significance which has been modified by human activities and is valued by a community. It involves a grouping(s) of individual heritage features . . . which together form a significant type of heritage form.” Cultural Heritage Landscapes, a discussion document drafted by the Regional Municipality in 2005 includes farmsteads, scenic roads, agricultural areas, and historic settlements among examples of CHLs.

Three of the five heritage structures within the study area -- the houses at 1291 Fischer-Hallman Road, 1940 Fischer-Hallman Road, and 1684 Huron Road -- are clearly valuable for both their architectural distinction and for their association with prominent local land owners. The Williamsburg School House at 1385 Bleams Road is important, among other reasons, as a building that played a significant role in the growth of the Williamsburg Community. The house at 2091 Bleams Road is significant for its modes of construction, both in its log and plank components. It is worth mentioning in this context that, especially in relation to many of the buildings immediately adjacent to the study area, that several of the structures in this area are deemed important because they exhibit particularly localized features. One dominant characteristic of the region is an economy of use: the area is rich in log houses because the log structures initially built by pioneers were incorporated in later dwellings rather than discarded, and several houses (e.g., the houses at 1198 Fischer-Hallman Road and at 1805 Huron Road) are composites of other buildings or parts of buildings moved to the site over time. The concrete block houses in the neighbourhood, such as that at 1434 Trussler Road, were reputedly made on site using local materials; one distinctive characteristic
of early homes in the neighbourhood was the circular window just under the eaves in one-and-one-half-storey houses. The unusual cornice treatment of the house at 1940 Fischer-Hallman Road echoes similar treatments found in other nearby buildings. Such features lend a distinctive quality to the architecture of the area that complements and at times supersedes their importance as exemplars of style.

The City of Kitchener has also established criteria for identifying Scenic-Heritage Roads, pertaining to their “structural, topographic and visual features,” their surrounding vegetation or proximity to a “significant environmental area,” their relevance as a “wildlife corridor,” and the “abutting built environment and cultural landscape” (Official Plan, 8.3.3).

The significant heritage sites here identified as lying within the study area all contain buildings worthy of on their own, but all are also linked with heritage landscape components that tie them to the broader culture of their historical settings.

The Historical Setting of the Study Area

The study area lies within the tracts of land purchased respectively by the German Company in 1803 and David Histand in 1804. While the German Company land, comprising the southern and northwestern segments of the study area, was drawn by various Mennonite contributors to the Company, few actually established residences in the area: the land was still mainly vacant in 1831. One of the earliest and most prominent settlers in the area was the Mennonite farmer and mill owner Abram Clemens, who owned the property on the southwest corner of Bleams and Fischer-Hallman Roads, built the barn at 1291 Fischer-Hallman Road in 1834 and the Italianate house in 1887, and donated the land for the Williamsburg School. For the most part, however, the area did not become populated until the late 1840s, when it attracted settlers from Germany rather than Pennsylvania, most of whom were Roman Catholic. Among these settlers were many with names, such as Henhoeffer, that are still prominent in the area.

The centre of this community was the village of Williamsburg, clustered around what is now the corner of Bleams and Fischer-Hallman Roads. Founded in 1846 by Anton Wilhelm and Philip Fischer, the village boasted a number of businesses by the 1860s: a steam and water saw mill, a school (with an average attendance of 60 pupils), a carpenter, a shoemaker, a mason, two coopers, a wagon-maker, a tailor, two sawyers, a blacksmith, a shoemaker, a turner, two carpenters, and, of course, farmer Clemens. The schoolhouse is still extant, as is the Clemens farm, purchased in 1890 by Anthony Henhoeffer, in whose family it has remained. The blacksmith’s stone shop and his five-bay Georgian house were both secretly demolished in 1989, while the Kitchener LACAC and the Regional Municipality of Waterloo were working to try to have the buildings moved.

Significant Sites within the Study Area:

Nine sites of potential heritage significance were initially identified within the study area. Four of these sites have been eliminated from the list, for various reasons. The house at 1643 Bleams Road was formerly removed from the Inventory of the Kitchener LACAC with an assurance given to the owners that the property would not be reinstated. The house at 1571 Fisher-Hallman Road was recently the subject of a Heritage Impact Assessment in which a preliminary recommendation in favour of was reversed on the basis of a Structural Engineer’s report; the City of Kitchener has agreed to demolition, on condition that the building be adequately recorded and its materials salvaged. The property at 1104, which cannot be seen from the road, proves to be of too late a date to possess significant heritage value. Although the house at 1198 Fisher-Hallman Road has the attraction of representing something of old
Williamsburg, two aspects of the house argued against an assessment that would have demanded conservation. The house has undergone numerous alterations, inside and out: even the front façade has been altered to the extent that the original front door no longer exists. Like many area homes it is a compilation of parts brought to the site at different times, but even the main, older part of the building has its origins elsewhere. Thus its links with nineteenth-century Williamsburg are somewhat nebulous.

Five significant sites, described below, remain within the study area, and, as mentioned above, each includes a landscape component. The numbers preceding each address coordinate with the numbers on the attendant map.

1. 2091 Bleams Road

The property at 2091 Bleams Road contains both a house and a barn. The present owner is in the process of restoring the house, a log house with wood additions clad in vertical planks. The process of restoration has involved removing several layers of other cladding and some unwanted additions. The log component of the house shows conscientious workmanship in its use of squared logs and in its means of joining the logs. There are also unusual features in the ways in which the other parts of the house are constructed. Like the house, the barn appears to date from the second half of the nineteenth century.

Although preliminary conclusions still need to be verified by a site visit, the house and barn appear to constitute a significant cultural heritage landscape in that, jointly, they represent interesting aspects of pioneer construction and constitute a relatively authentic early farmstead, though it should be noted that some parts of the early farmstead, including a blacksmith forge and a lime kiln, have disappeared. Thus they add to the network of sites that constitute a reminder of the area’s past. Their siting also gives them landmark potential within the area: located at the highest point along Bleams Road, the barn and silo are visible from some distance in each direction and emphasizes the boundary between the urbanized views to the east and the more rural lands to the west. They appear to merit listing in the Municipal Heritage Register.

2. 1385 Bleams Road

The Williamsburg School House (S.S. #7 in Waterloo Township) was constructed in 1864, on land donated by Abram and Veronica Clemens. A rectangular rubble stone building with a shallow gable roof and fine proportions, the building was enlarged with two later additions: a brick addition to the school on the east side of the building, and a stone addition in the ell providing an entrance to the building after it was converted to a house. The original school building is still largely visible and intact. It is significant both as an example of vernacular school architecture and as the last remaining among the publicly accessible buildings in Williamsburg. It is designated under the Ontario Heritage Act.

It is important that the building be protected from future development by a substantial buffer. This is especially important in relation to the proposed high density development to the east; ideally, the high rise buildings proposed along Fischer-Hallman Road just south of the Bleams Road intersection should not cast shadows on the school house. It is also strongly desirable that the site lines between the school and the Clemens/Henhoeffer farmhouse be retained.

3. 1291 Fischer-Hallman Road

The fine buff brick Italianate house at 1291 Fischer-Hallman Road is the centerpiece of a substantial farmyard dating back, in part, to the early nineteenth century. Built by Abram Clemens in 1887, it was sold to Anthony Henhoeffer in 1890 as a result of Clemens’s bankruptcy. It has remained in the Henhoeffer family, though it is scheduled
for incorporation in a subdivision planned by RBJ Schlegel Holdings Limited. The house is listed in the Municipal Heritage Register and merits designation under the Ontario Heritage Act.

The subdivision plans call for the retention of the house and its adaptation to use as a community centre within the estate. Plans also incorporate the retention of the long lane (typical of the area) leading from the road to the substantially set back house and also for the retention of the view lines between the house, the old school house, and the adjoining south border of Bleams Road.

The site lines between the school and the farmhouse define a significant heritage cultural landscape between the two sites. This landscape, and the implied link between the two sites, is important in recalling several aspects of the historic character of Williamsburg: Abrams’ gift of the school house land, the importance of the Abrams and Henhoeffer families in the community, the link between the public and private aspects of community life, and the rolling contours that typify the agricultural lands of the area. The Heritage Impact Assessment by Carson Woods Architects Limited viewed the two buildings as comprising a “heritage precinct”: the development plans retain the site lines between the two structures by using the land between them for storm water management, a plan which alters the use of the intervening land but will probably retain most of its contours.

4. 1940 Fischer-Hallman Road

The house at 1940 Fischer-Hallman Road was reputedly built for John Wallace in 1870, on property that had been in his family for some time. Christened "Thornhill by Wallace, the house is characterized by interesting architectural details and a fine sense of space and proportion, seen in both its exterior composition and its interior layout. Constructed of thick fieldstone walls, the house features robust Italianate moldings inside and the chamfered posts of the back porch are also consistent with the Italianate style. Instead of the rounded moldings and ornate brackets characteristically found on an Italianate cornice, however, the frieze here is surmounted by dentils and the eaves appear to be supported by a row of tightly spaced modillions. Similar Classical Revival details adorn the cornices of the house at 271 Reidel Drive; this unusual and attractive cornice design appears to be the work of a particular local builder. The relatively steep roof and the T-shaped farmhouse plan represent other vernacular features. The house is listed in the Municipal Heritage Register and merits designation under the Ontario Heritage Act.

When Thornhill was built, Fischer-Hallman Road extended north of Bleams Road and south of Plains Road. The Tremaine Map of 1861 shows the Wallace property extending some distance east and west of Plains Road, with the house situated just to the east of the road. A lane of trees leading towards the east side of the house from near the present intersection of Plains Road and Fischer-Hallman Road probably outlines the original lane; the more refined stonework on the south and east sides of the hose indicate what were intended as its more public sides. This laneway should be kept as part of the grounds surrounding the house; a substantial buffer between the house and development to the north and east is also essential to create a suitable milieu for the historic architecture. Most challenging, perhaps, will be the creation of a sufficient and fitting barrier between the house and a widened Fischer-Hallman Road. The house already sits uncomfortably close to the road extended through its one-time farmstead; ideally any widening of Fischer-Hallman Road will be oriented towards its west side.

5. 1683 Huron Road

Probably built by Robert Orr after he purchased the property in 1881, the one-and-one-half-storey buff brick farmhouse at 1683 Huron Road is a good late-nineteenth-century example of a farmhouse form
popular throughout the province: it is three bays in width, with a gable roof and a wall gable over the centre door, with a kitchen tail at the rear. In this case, a woodshed sits behind the kitchen wing. This traditional plan is given an Italianate cast with the arches over the sidelights and transom; the deep panels and round-headed arches of the front door; and the robust, rounded moldings of interior skirting boards and casings. The house is listed in the Municipal Heritage Register, and it merits designation under the Ontario Heritage Act.

This report concurs with the preferred option given by Robinson Heritage Consulting in the Heritage Impact Study of this site produced for Mattamy Homes: the house should remain in situ and that the treed laneway leading to the house be preserved, along with a setback from the dripline. This report also recommends that the extensive space between the house and Huron Road remain open to allow a visual link between the road and the house. Huron Road is identified in the City of Kitchener Official Plan as a Scenic-Heritage Road, and, as one of several historic buildings along the road, the house at 1683 Huron Road contributes to its historic and scenic character.

Scenic-Heritage Roads

Both Huron Road between Trussler and Fischer Hallman Roads and Trussler Road between Bleams Road and New Dundee Road are identified in the City of Kitchener Official Plan as Scenic-Heritage Roads. As mentioned above, this designation generally applies to their “structural, topographic and visual features,” their surrounding vegetation or proximity to a “significant environmental area,” their relevance as a “wildlife corridor,” and the “abutting built environment and cultural landscape” (Official Plan, 8.3.3), and it is expected that relevant features along the roads be preserved. In keeping with this policy the Official Plan dictates that “prior to any road realignment, widening or physical changes to the right of way [regarding Trussler Road], a corridor management plan be developed by the Regional Municipality of Waterloo in consultation with the City of Kitchener” (Section 8.3.2.6}
The Official Plan to some extent exempts Huron Road from certain conditions pertaining to Scenic-Heritage Roads, noting that its designation “is based purely on historic grounds.” The designation is therefore not seen as precluding “widening of the road, changes to the surface treatment, and other changes,” though it recommends that “every effort shall be made to maintain the exiting road profile . . . in recognition of the historic significance of the road” (Section 8.3.3.9.viii).

Opportunities and Constraints

Opportunities

• To preserve significant heritage resources

• To create a web of physical references that serve to confirm regional identity by recalling the area’s distinctive past.

• To further develop the memory of Williamsburg in part through the display at a relevant site of some interpretive materials.

• To contribute to several of the “primary design objectives listed in the City of Kitchener’s “Suburban Development & Mixed Use Neighbourhood Centres Design Brief”: variety, placemaking, conservation, and liveability.

• To retain the scenic characteristics of identified Scenic-Heritage Roads

Constraints

• Space allocation within the context of planned residential, commercial, and road development.

• The need for substantial buffering between recognized historic sites and adjacent development.

• The need to protect the relevant characteristics of Scenic-Heritage Roads.

1.3.5 Archaeological Assessment

Golder Associates Ltd.

Executive summary

An archaeological background study was conducted by Golder Associates Ltd. on behalf of The Planning Partnership, as part of the preparation of the Southwest Kitchener Urban Area Study. The study area consists of approximately 430 hectares located in the southwest portion of the city along Fischer-Hallman Road, mostly between Bleams Road to the north and Huron Road to the south. The west and southerly boundary is the City’s Urban Area according to the Regional Official Plan. This assessment was undertaken to meet the objectives of the Archaeological Background Study required in the terms of reference for the City of Kitchener Southwest Urban Area Study and the Regional Municipality of Waterloo Archaeological Facilities Master Plan.

The objectives of the archaeological background study were to compile all available information about the known and potential archaeological heritage resources within the study area and to provide specific direction for the protection, management and/or recovery of these resources, consistent with the requirements of the Regional Municipality of Waterloo Archaeological Facilities Master Plan and the guidelines of the Ministry of Tourism and Culture (Government of Ontario 1993, 2009). This background archaeological study does not preclude the requirement for detailed Stage 1 assessment work to be completed for individual development applications or environmental assessments.

The assessment resulted in the following recommendations being made for consideration by the Corporation of the Regional Municipality of Waterloo and the Ministry of Tourism and Culture:
LEGEND

STUDY AREA

REFERENCE

DRAWING BASED ON TOPOGRAPHICAL MAPS STRATFORD 40 P/7 EDITION 8 & CAMBRIDGE 40 P/8 EDITION 9

NOTES

THIS DRAWING IS SCHEMATIC ONLY AND IS TO BE READ IN CONJUNCTION WITH ACCOMPANYING TEXT. ALL LOCATIONS ARE APPROXIMATE.
As per the Regional Municipality of Waterloo Archaeological Facilities Master Plan (Archaeology Division, R.M. Waterloo 1989a) and the Ministry of Culture Draft Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2009), any development application that in all or part impinges on an area predetermined by the Regional Municipality of Waterloo or a licensed archaeologist to have moderate to high archaeological potential, or known archaeological sites, will require an archaeological assessment.

A number of archaeological sites have previously been identified within the study area limits and must be subject to additional archaeological assessment prior to any ground disturbance. Moreover, it is recommended that a licensed archaeologist be present to monitor any ground works close to Bleams Road in order to identify any remaining sections of the historic corduroy road, especially in low lying areas where the chance of preservation is greater. The historic community of Williamsburg and other important early settler resources are located within the study area limits, which increases the likelihood that historic Euro-Canadian archaeological will be identified during development.

It is conceivable that the Strasburg Creek watershed is the location of a prehistoric Neutral site cluster, of which the Strasburg Creek, Fischer-Hallman and Cornfield sites are the closest examples. Wider studies of the region could help identify the relationship to other village sequences and the overall chronology of the prehistoric Neutral of the Strasburg Creek area. Additional research is warranted to more fully understand the association, if any, of the Van Ordt-Duerrnstein burials to the Strasburg Creek, Fischer-Hallman, Cornfield, Moyer and Coleman sites; the association of these Strasburg Creek sites to the Lower Grand River cluster of prehistoric Neutral sites; and, if any other late Ontario Iroquoian prehistoric Neutral sites are located within the Strasburg Creek water shed.

**Purpose**

The objective of the archaeological background study was to compile all available information about the known and potential archaeological heritage resources within the study area and to provide specific direction for the protection, management and/or recovery of these resources, consistent with the requirements of the Regional Municipality of Waterloo Archaeological Facilities Master Plan (Archaeology Division, R.M. Waterloo 1989) and the guidelines of the Ministry of Tourism and Culture (Government of Ontario 1993, 2009). As a specific Built Heritage and Cultural Landscape study is being conducted by Tausky Consulting for this project, this report will concentrate on existing historic archaeological sites and the potential for archaeological sites without including an examination of the built heritage and cultural landscape components.

**Study Methods**

In compliance with the provincial regulations and standards set out in the “Archaeological Assessment Technical Guidelines” (Government of Ontario 1993), the Archaeological Overview/Background Study included:

- a visual evaluation of the study area;
- a review of the land use history, including pertinent historic maps and archival records;
- an examination of the National Site Registration Database to determine the presence of known archaeological sites in and around the study area.
- a review of all previous licence reports regarding archaeological assessment conducted within the study area
- a review of the Regional Municipality of Waterloo Archaeological Facilities Master Plan, including the assessed property and sites database.
In addition, background research was conducted at the Ministry of Tourism and Culture Office in Toronto, the University of Western Ontario Serge A. Sauer Map Library, the Ministry of Natural Resource’s Crown Land Survey Records Office and the corporate archives of Golder.

Background Research

The Natural Environment

The study area consists of rolling topography and is situated within the “Waterloo Hills” physiographic region (Chapman and Putnam 1984:136-137).

The Waterloo hills region occupies about 300 square miles or 192,000 acres, lying chiefly in the Regional Municipality of Waterloo. The surface is composed of sandy hills, some of them being ridges of sandy till while others are kames or kame moraines, with outwash sands occupying the intervening hollows. Adjoining the hilly region is an extensive area of alluvial terraces of the Grand River spillway system which, although more nearly horizontal, contains similar but more uniform sandy and gravelly materials.

Chapman and Putnam 1984:136

The topography of the study area is gently rolling, composed of sandy hills, some of them being ridges of sand till while others are kames or kame moraines, with outwash sands occupying the intervening hollows. The soils of the study area are comprised of well drained loams, sandy loams and some gravel, all of which drain well and would have been ideal for pre-contact Aboriginal agricultural practices. The original forest consisted of “splendid pines and hardwoods such as sugar maple, beech, wild cherry and red oak” (Chapman & Putnam 1984:136). Over the years the forest cover has been depleted and less than 10% of the original forest remains. The closest source of potable water is Strasburg Creek which transects the northeast corner of the study area (Figure 1).

Previously Known Archaeological Research & Surveys

Previous archaeological assessments and research surveys have demonstrated that the southwest portion of the City of Kitchener was frequently occupied by Aboriginal peoples.
At present there are 21 registered archaeological resources and numerous non-registered sites and findspots of archaeological material within the limits of the study area. Table 1 summarizes the nature of these sites.

Information concerning specific site locations is protected by provincial policy, and is not fully subject to the Freedom of Information Act. The release of such information in the past has led to looting or various forms of illegally conducted site destruction. Confidentiality extends to all media capable of conveying location, including maps, drawings, or textual descriptions of a site location. The Ontario Ministry of Tourism and Culture will provide information concerning site location to the party or an agent of the party holding title to a property, or to a licensed archaeologist with relevant cultural resource management interests.

**Pre-contact Aboriginal Sites**

Nine of the registered archaeological sites located within the study area limits of the Southwest Kitchener Urban Area were located in 1989 by Mayer, Poulton and Associates Inc. (MPA 1989). Four of these sites were findspots (AiHc-104, AiHc-110, AiHc-111 and AiHc-121) and four were lithic scatters (AiHc-105, AiHc-106, AiHc-107 and AiHc-109) each producing non-diagnostic pre-contact Aboriginal cultural material. For the remaining pre-contact Aboriginal site a cultural time period could be determined. Site AiHc-108 consists of an Early Woodland campsite, occupied at some time between 1,000 – 400 B.C..

Artifacts recovered during the Stage 2 assessment included 26 pieces of chipping detritus, one Kettle Point chert drill and one Meadowood side-notched projectile point. Meadowood points are the best known and most easily recognized bifacial form of the Early Woodland period in southwestern Ontario. They are often found within mortuary caches and are widely distributed on small camp and quarry sites throughout southwestern Ontario.

The study conducted by MPA concluded that sites AiHc-108 and AiHc-107 would require a Stage 3 site specific assessment involving the controlled collection and mapping of all surface artifacts and the hand excavation of a series of one metre test units in the areas of greatest surface artifact concentrations (1989). For site AiHc-106 it was recommended that additional Stage 3 work should include the controlled collection and mapping of all surface artifacts, with hand excavation conducted only if the results of the surface collection warrant additional assessment (MPA 1989).

The goal of a Stage 3 assessment is to accurately determine the spatial extent of the archaeological sites, to more completely evaluate their cultural heritage value or interest and where necessary to make recommendations for conducting Stage 4 strategies to mitigate development impacts (Government of Ontario 2009). It is recommended that AiHc-107 and AiHc-108 be subject to Stage 3 archaeological assessment prior to any development activities in the area.

Seven more pre-contact Aboriginal sites of an undetermined cultural time period were located within the study area limits, none of which require any additional assessment. AiHc-23 is a small campsite that was first identified by Robert Pihl for the London Museum of Archaeology (LMA) in 1982. Only a small amount of cultural material was noted and the study conducted by MPA in 1989 included an attempt to relocate this site, however, they were not successful in identifying any cultural material (MPA 1989).

AiHc-57, the ‘Off Corridor’ site, was identified in 1986 by Mayer, Pihl, Poulton and Associates Inc. (MPP) as part of a Master Water Supply Study conducted for the Regional Municipality of Waterloo (1986). One piece of chipped stone debitage was recovered at the site (MPP 1986).

AiHd-93, the ‘Tarbox’ site, AiHd-94, the ‘Nutria’ site and AiHd-95, the ‘Sacalait’ site were located by
Each of these sites are characterized by a small amount of lithic artifacts, one end scraper from the Tarbox site, one mid-section of a notched or stemmed projectile point from the Nutria site and a scatter of three flakes for the Sacalait site (ASI, 1992).

AiHc-363 and AiHc-364 were identified by Archaeologix Inc. in 2007 they each produced lithic material and both sites were subject to Stages 1, 2 and 3 archaeological assessments. Due to the limited cultural heritage value or interest of both AiHc-363 and AiHc-364 Stage 4 mitigation was not recommended.

Site AiHc-389 is a Late Woodland campsite identified by Archaeological Research Associates Ltd. (ARA) in 2006. The

Table 1.
Registered Archaeological Sites within the Study Area Limits (Taken from the National Database of Archaeological Resources)

<table>
<thead>
<tr>
<th>Site #</th>
<th>Site Name</th>
<th>Site Type</th>
<th>Cultural Affiliation</th>
<th>Researcher</th>
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<tr>
<td>AiHc-364</td>
<td>Location 5</td>
<td>lithic scatter</td>
<td>undetermined Aboriginal</td>
<td>Archaeologix Inc., 2007</td>
</tr>
</tbody>
</table>
site consists of ten positive test pits that produced over 35 artifacts including many lithic fragments, Late Woodland ceramic sherds and one dog tooth. The site is located adjacent to the Huron Natural Area and is considered to be an extension of site AiHc-255, the Strasburg Creek site which is a Late Woodland, prehistoric Neutral village. Due to the high cultural heritage value of AiHc-389 additional archaeological assessment is recommended for this site.

Not all significant archaeological sites within the study area have been registered in the national archaeology site database. ARA conducted a Stage 1-3 archaeological assessment for 1531 Bleams Road (2008a). This assessment resulted in the identification of one archaeological site that was judged to be significant enough to warrant Stage 3 excavations (ARA 2008a). The Stage 3 assessment resulted in the identification of post moulds extending 55 metres east-west and 37 metres north, and while the one metre units did not produce over ten artifacts per unit the cultural heritage value or interest was judged to be high and additional Stage 4 mitigation is recommended in advance of development (ARA 2008a). This archaeological resource must be mitigated prior to any ground disturbance activities in the vicinity.

For the property at 1291 Fischer-Hallman Road, also assessed by ARA, 16 findspots were identified and recommended for additional Stage 3 assessment to better evaluate their cultural heritage value or interest (ARA 2008b). Each of the 16 findspots must be subject to Stage 3 archaeological assessment prior to any development activities in the area.

An important factor noted by previous researchers is that, for the Late Woodland Ontario Iroquois sites in particular, often the paucity of artifacts discovered on the surface or in the one metre square units excavated do not give a good indication of the number of subsurface cultural features at the site or the cultural material contained therein. This should be kept in mind during any assessments conducted in the future as part of the Southwest Kitchener Community Master Plan Study as important archaeological resources may not produce a significant amount of cultural material during the early stages of assessment. Special care should be taken for any areas in close proximity to Strasburg Creek.

19th Century Euro-Canadian Sites

In addition to the pre-contact Aboriginal archaeological sites four early Euro-Canadian resources have been identified within the study area limits, three homesteads and one corduroy road. AiHc-55 ‘Williamsburg 1’, AiHc-56 ‘Williamsburg 2’ and AiHd-92 ‘Gehl’ were all thought to be 19th century domestic occupation sites. The Williamsburg 1 site (AiHc-55) was determined to have a structure approximately 7.6 metres by 4.2 metres that could date from between circa 1850-1875 (Archaeology Division, R.M. Waterloo, 1989b). The report states that the artifacts recovered indicate:

- presence of individuals who were literate (slate pencils);
- that deer hunting was conducted in the fall;
- that domestic animals were used for food; that the structure was supported by interior posts, had a slate shingle roof, windows and some brickwork (either a hearth, interior or exterior walls);
- that domestic activities were conducted at the site (indicated by the presence of tableware) and that storage of some material was maintained in a metal bucket and barrel reinforced with meal bands.

Archaeology Division, R.M. Waterloo 1989b:24

The Williamsburg 2 site was subject to topsoil stripping and shovel shined to determine any areas of cultural relevance (Archaeology Division, R.M. Waterloo, 1989b). All of the cultural material recovered was dated to the mid to late 20th century showing that this site was more modern than originally thought (Archaeology Division, R.M. Waterloo, 1989b).
AiHd-92, the Gehl site, was located by ASI in 1991. It was found to consist of a small assemblage of historic Euro-Canadian artifacts representing a mid-to-late 19th or 20th century farmstead. The farmstead was obviously occupied well into the twentieth century, as evidenced by the hydro-electric service and a stone lined well with iron pipes and a concrete cap inscribed with the date “Nov. 6, 1992” (ASI 1992). Due to the late date of occupation AiHd-92 was determined to have a low cultural heritage value or interest and no further assessment was recommended.

Site AiHc-92 consists of remnants of the historic corduroy road located beneath Bleams Road. During the course of the study 12 logs of the corduroy road were exposed and the following observations were made:

a) Refuse attributed to preparation of the logs for the corduroy road (i.e. brush) was used as a base for the road;

b) Log width ranged from 0.45 to 1.55 metres;

c) Logs were sometimes split and both sections of the tree were used for the road;

d) Road width measured 6.2 metres;

e) Tree species used were probably cedar;

f) Tools such as an adze were employed in the felling of the trees;

g) At least one section of the road exhibited a support system with additional perpendicular logs located beneath the corduroy road;

h) Preservation condition of the road was exceptionally good overall;
i) Early roads appear to have been built in a straight line rather than circumventing low wet areas such as the one on Bleams Road;

j) The Bleams Road corduroy section was built of one single layer of logs; and

k) Probable depth of earth covering the corduroy road was approximately 8 centimetres.

Archaeology Division, R. M. Waterloo 1989b:21

Williamsburg 1 (AiHc-55), Williamsburg 2 (AiHc-56) and the Corduroy Road (AiHc-92) were all fully reported on and the site areas were destroyed in the course of the construction of the Mannheim Artificial Recharge System.

Figure 2 illustrates areas within the Southwest Kitchener Urban Area that have been subject to archaeological assessment, providing the name of the company who conducted each assessment and illustrations showing whether or not the property has been cleared of any archaeological concerns. One exception is the study area assessed by MPP in 1987 as the figures illustrating the areas assessed were not included in the copy of the report provided to the author from the Ministry of Tourism and Culture's files.

Summary of Occupations

The following summary of the prehistory of the southwest Kitchener area has been adapted from the Regional Municipality of Waterloo Archaeological Facilities Master Plan (Archaeology Division, R.M. Waterloo 1989a: 13-23) and The Archaeology of Southern Ontario to A.D. 1650 (Ellis & Ferris 1990). Table 2 provides a general outline of the culture history of the southwest Kitchener area. Given the wide chronological range of sites found within or close to the study area (see section 3.2), any of the time periods discussed here could be potentially documented within the Southwest Kitchener Urban Area Study itself.

Table 2.
Cultural Chronology for the Southwest Kitchener Area

<table>
<thead>
<tr>
<th>Period</th>
<th>Characteristics</th>
<th>Time</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Early Paleo-Indian</td>
<td>Fluted Projectiles</td>
<td>9000 - 8400 B.C.</td>
<td>spruce parkland/caribou hunters</td>
</tr>
<tr>
<td>Late Paleo-Indian</td>
<td>Hi-Lo Projectiles</td>
<td>8400 - 8000 B.C.</td>
<td>smaller but more numerous sites</td>
</tr>
<tr>
<td>Early Archaic</td>
<td>Kirk and Bifurcate Base Points</td>
<td>8000 - 6000 B.C.</td>
<td>slow population growth</td>
</tr>
<tr>
<td>Middle Archaic</td>
<td>Brewerton-like points</td>
<td>6000 - 2500 B.C.</td>
<td>environment similar to present</td>
</tr>
<tr>
<td>Late Archaic</td>
<td>Lamoka (narrow points)</td>
<td>2000 - 1800 B.C.</td>
<td>increasing site size</td>
</tr>
<tr>
<td></td>
<td>Broadpoints</td>
<td>1800 - 1500 B.C.</td>
<td>large chipped lithic tools</td>
</tr>
<tr>
<td></td>
<td>Small Points</td>
<td>1500 - 1100 B.C.</td>
<td>introduction of bow hunting</td>
</tr>
<tr>
<td>Terminal Archaic</td>
<td>Hind Points</td>
<td>1100 - 950 B.C.</td>
<td>emergence of true cemeteries</td>
</tr>
<tr>
<td>Early Woodland</td>
<td>Meadowood Points</td>
<td>950 - 400 B.C.</td>
<td>introduction of pottery</td>
</tr>
<tr>
<td>Middle Woodland</td>
<td>Dentate/Pseudo-Scallop Pottery</td>
<td>400 B.C. - A.D.500</td>
<td>increased sedentism</td>
</tr>
<tr>
<td></td>
<td>Princess Point</td>
<td>A.D. 550 - 900</td>
<td>introduction of corn</td>
</tr>
<tr>
<td>Late Woodland</td>
<td>Early Ontario Iroquoian</td>
<td>A.D. 900 - 1300</td>
<td>emergence of agricultural villages</td>
</tr>
<tr>
<td></td>
<td>Middle Ontario Iroquoian</td>
<td>A.D. 1300 - 1400</td>
<td>long longhouses (100m +)</td>
</tr>
<tr>
<td></td>
<td>Late Ontario Iroquoian</td>
<td>A.D. 1400 - 1650</td>
<td>tribal warfare and displacement</td>
</tr>
<tr>
<td>Contact Aboriginal</td>
<td>Various Algonkian Groups</td>
<td>A.D. 1700 - 1875</td>
<td>early written records and treaties</td>
</tr>
<tr>
<td>Historic</td>
<td>Euro-Canadian</td>
<td>A.D. 1796 - present</td>
<td>European settlement</td>
</tr>
</tbody>
</table>
Paleo-Indian Period

The first human occupation of the Kitchener area begins just after the end of the Wisconsin Glacial period. Although there was a complex series of ice retreats and advances which played a large role in shaping the local Kitchener topography, southwestern Ontario was finally ice free by 12,500 years ago.

The first human settlement can be traced back 11,000 years, when this area was settled by Native groups that had been living south of the Great Lakes. These early Native inhabitants have been called “Paleo-Indians,” which literally means old or ancient Indians.

Our current understanding of Early Paleo-Indian settlement patterns suggest that small bands, consisting of probably no more than 25-35 individuals, followed a pattern of seasonal mobility extending over large territories. One of the most thoroughly studied of these groups followed a seasonal round that extended from as far south as Chatham to the Horseshoe Valley north of Barrie. Early Paleo-Indian sites tend to be located in elevated locations on well-drained loamy soils. Many of the known sites were located on former beach ridges associated with Lake Algonquin, the post-glacial lake occupying the Lake Huron/Georgian Bay basin. There are a few extremely large Early Paleo-Indian sites, such as one located close to Parkhill, Ontario, which covered as much as six hectares. It appears that these sites were formed when the same general locations were occupied for short periods of time over the course of many years. Given their placement in locations conducive to the interception of migratory mammals such as caribou, it has been suggested that they may represent communal hunting camps. There are also smaller Early Paleo-Indian camps scattered throughout the interior of Southwestern Ontario, usually situated adjacent to wetlands. The most recent research suggests that population densities were very low during the Early Paleo-Indian period, with all of Southwestern Ontario being occupied by perhaps only 100-200 people. Because this is the case, Early Paleo-Indian sites are exceedingly rare. Site AiHe-88 is one of the very few Paleo-Indian sites that have been discovered in the Kitchener area, located just east of the study area within the Huron Business Park on Bleams Road (ASI 1989).
While the Late Paleo-Indian period (8500-7500 B.C.) is more recent, it has been less well researched, and is consequently more poorly understood. By this time the environment of Southwestern Ontario was coming to be dominated by closed coniferous forests with some minor deciduous elements. It seems that many of the large game species that had been hunted in the early part of the Paleo-Indian period had either moved further north, or as in the case of the mastodons and mammoths, become extinct.

Like the early Paleo-Indians, late Paleo-Indian peoples covered large territories as they moved about in response to seasonal resource fluctuations. On a province wide basis Late Paleo-Indian projectile points are far more common than Early Paleo-Indian materials, suggesting a relative increase in population. However, within the limits of Kitchener, Late Paleo-Indian sites are still very rare. The 1989 Archaeological Facilities Master Plan lists only one possible Paleo-Indian or Archaic period site. The end of the Paleo-Indian period was heralded by numerous technological and cultural innovations which may be best explained in relation to the dynamic nature of the post-glacial environment and region-wide population increases.

Archaic Period

During the Early Archaic period (8000-6000 B.C.), the jack and red pine forests that characterized the Late Paleo-Indian environment were replaced by forests dominated by white pine with some associated deciduous elements. One of the more notable changes in the Early Archaic period is the appearance of side and corner-notched projectile points.

Other significant innovations include the introduction of ground stone tools such as celts and axes, suggesting the beginnings of a simple woodworking industry. The presence of these often large and not easily portable tools suggests there may have been some reduction in the degree of seasonal movement, although it is still suspected that population densities were quite low, and band territories large.

During the Middle Archaic period (6000-2500 B.C.) the trend to more diversified toolkits continued, as the presence of netsinkers suggest that fishing was becoming an important aspect of the subsistence economy. It was also at this time that “bannerstones” were first manufactured. Bannerstones are carefully crafted ground stone devices that served as a counterbalance for “atlatl” or spear-throwers. Another characteristic of the Middle Archaic is an increased reliance on local, often poor quality chert resources for the manufacturing of projectile points. It seems that during earlier periods, when groups occupied large territories, it was possible for them to visit a primary outcrop of high quality chert at least once during their seasonal round. However, during the Middle Archaic, groups inhabited smaller territories that often did not encompass a source of high quality raw material. In these instances lower quality materials which had been deposited by the glaciers in the local till and river gravels were utilized.

This reduction in territory size was probably the result of gradual region-wide population growth which led to the infilling of the landscape. This process forced a reorganization of Native subsistence practices, as more people had to be supported from the resources of a smaller area. During the later part of Middle Archaic, technological innovations such as fish weirs have been documented as well as stone tools especially designed for the preparation of wild plant foods. It is also during the later part of the Middle Archaic period that long distance trade routes began to develop, spanning the northeastern part of the continent. In particular, native copper tools manufactured from a source located northwest of Lake Superior were being widely traded. By 3500 B.C. the local environment had stabilized in a near modern form.

During the Late Archaic (2500-900 B.C.) the trend towards decreased territory size and a broadening subsistence base continued. Late Archaic sites are far more numerous than either Early or Middle Archaic sites, and it seems that the local population
had definitely expanded. It is during the Late Archaic that the first true cemeteries appear. Before this time individuals were interred close to the location where they died. During the Late Archaic, if an individual died while his or her group happened to be at some distance from their group cemetery, the bones would be kept until they could be placed in the cemetery. Consequently, it is not unusual to find disarticulated skeletons, or even skeletons lacking minor elements such as fingers, toes or ribs, in Late Archaic burial pits.

The appearance of cemeteries during the Late Archaic has been interpreted as a response to increased population densities and competition between local groups for access to resources. It is argued that cemeteries would have provided strong symbolic claims over a local territory and its resources. These cemeteries are often located on heights of well-drained sandy/gravel soils adjacent to major watercourses such as the Grand River. The current study area has both the appropriate soils and proximity to watercourses for Late Archaic cemetery sites.

This suggestion of increased territoriality is also consistent with the regionalized variation present in Late Archaic projectile point styles. It was during the Late Archaic that distinct local styles of projectile points appear. Also during the Late Archaic the trade networks which had been established during the Middle Archaic continued to flourish.

Native copper from Northern Ontario and marine shell artifacts from as far away as the Mid-Atlantic coast are frequently encountered as grave goods. Other artifacts such as polished stone pipes and banded slate gorgets also appear on Late Archaic sites. One of the more unusual and interesting of the Late Archaic artifacts is the “birdstone”. Birdstones are small, bird-like effigies usually manufactured from green banded slate.

**Woodland Period**

The Early Woodland period (900-200 B.C.) is distinguished from the Late Archaic period primarily by the addition of ceramic technology. While the introduction of pottery provides a useful demarcation point for archaeologists, it may have made less difference in the lives of the Early Woodland
peoples. The first pots were very crudely constructed, thick walled, and friable. It has been suggested that they were used in the processing of nut oils by boiling crushed nut fragments in water and skimming off the oil. These vessels were not easily portable, and individual pots must not have enjoyed a long use life. There have also been numerous Early Woodland sites located at which no pottery was found, suggesting that these poorly constructed, undecorated vessels had yet to assume a central position in the day-to-day lives of Early Woodland peoples.

Other than the introduction of this rather limited ceramic technology, the life-ways of Early Woodland peoples show a great deal of continuity with the preceding Late Archaic period. For instance, birdstones continue to be manufactured, although the Early Woodland varieties have “pop-eyes” which protrude from the sides of their heads. Likewise, the thin, well-made projectile points which were produced during the terminal part of the Archaic period continue in use. However, the Early Woodland variants were side-notched rather than corner-notched, giving them a slightly altered and distinctive appearance. The trade networks which were established in the Middle and Late Archaic also continued to function, although there does not appear to have been as much traffic in marine shell during the Early Woodland period.

In terms of settlement and subsistence patterns, the Middle Woodland (200 B.C.-900 A.D.) provides a major point of departure from the Archaic and Early Woodland periods. While Middle Woodland peoples still relied on hunting and gathering to meet their subsistence requirements, fish were becoming an even more important part of the diet. In addition, Middle Woodland peoples relied much more extensively on ceramic technology. Middle Woodland vessels are often garishly decorated with hastily impressed designs covering the entire exterior surface and upper portion of the vessel interior. Consequently, even very small fragments of Middle Woodland vessels are easily identifiable.

It is also at the beginning of the Middle Woodland period that rich, densely occupied sites appear on the valley floor of major rivers. While the Grand River floodplain had been utilized by earlier peoples, Middle Woodland sites are significantly different in that the same location was occupied off and on for as long as several hundred years. Because this is the case, rich deposits of artifacts often accumulated.

Unlike earlier seasonally utilized locations, these Middle Woodland sites appear to have functioned as base camps, occupied off and on over the course of the year. There are also numerous small upland Middle Woodland sites, many of which can be interpreted as special purpose camps from which localized resource patches were exploited.

This shift towards a greater degree of sedentism continues the trend witnessed from at least Middle Archaic times, and provides a prelude to the developments that follow during the Late Woodland period.

The Late Woodland period began with a shift in settlement and subsistence patterns involving an increasing reliance on corn horticulture. Corn may have been introduced into Southwestern Ontario from the American Midwest as early as 600 A.D. However, it did not become a dietary staple until at least three to four hundred years later.

Ontario Iroquois Tradition

The first agricultural villages in southwestern Ontario date to the 10th century A.D. Unlike the riverine base camps of the Middle Woodland period, these sites are located in the uplands, on well-drained sandy soils. Categorized as “Early Ontario Iroquoian” (900-1300 A.D.), many archaeologists believe that it is possible to trace a direct line from the Iroquoian groups which inhabited southwestern Ontario at the time of first European contact, to these early villagers.

Village sites dating between 900 and 1300 A.D., share many attributes with the historically reported
Iroquoian sites, including the presence of longhouses and sometimes palisades. However, these early longhouses were actually not all that large, averaging only 12.4 metres in length. It is also quite common to find the outlines of overlapping house structures, suggesting that these villages were occupied long enough to necessitate re-building. The Jesuits reported that the Huron moved their villages once every 10-15 years, when the nearby soils had been depleted by farming and conveniently collected firewood grew scarce. It seems likely that Early Ontario Iroquoians occupied their villages for considerably longer, as they relied less heavily on corn than did later groups, and their villages were much smaller, placing less demand on nearby resources.

Judging by the presence of carbonized corn kernels and cob fragments recovered from sub-floor storage pits, agriculture was becoming a vital part of the Early Ontario Iroquoian economy. However, it had not reached the level of importance it would in the Middle and Late Ontario Iroquoian periods. There is ample evidence to suggest that more traditional resources continued to be exploited, and comprised a large part of the subsistence economy. Seasonally occupied special purpose sites relating to deer procurement, nut collection, and fishing activities, have all been identified. While beans are known to have been cultivated later in the Late Woodland period, they have yet to be identified on Early Ontario Iroquoian sites.

The Middle Ontario Iroquoian period (1300-1400 A.D.) witnessed several interesting developments in terms of settlement patterns and artifact assemblages. Changes in ceramic styles have been carefully documented, allowing the placement of sites in the first or second half of this 100-year period. Moreover, villages, which averaged approximately 0.6 hectares in extent during the Early Ontario Iroquoian period, now consistently range between one and two hectares.

House lengths also change dramatically, more than doubling to an average of 30 metres, while houses of up to 45 metres have been documented. This radical increase in longhouse length has been variously interpreted. The simplest possibility is that increased house length is the result of a gradual, natural increase in population. However, this does not account for the sudden shift in longhouse lengths around 1300 A.D.
Other possible explanations involve changes in economic and socio-political organization. One suggestion is that during the Middle Ontario Iroquoian period small villages were amalgamating to form larger communities for mutual defence. If this was the case, the more successful military leaders may have been able to absorb some of the smaller family groups into their households, thereby requiring longer structures. This hypothesis draws support from the fact that some sites had up to seven rows of palisades, indicating at least an occasional need for strong defensive measures. There are, however, other Middle Ontario Iroquoian villages which had no palisades present. Another researcher has suggested that the longest houses may be associated with families that were more successful in trade and other forms of economic activity. More research is required to evaluate these competing interpretations.

The lay-out of houses within villages also changes dramatically by 1300 A.D. During the Early Ontario Iroquoian period villages were haphazardly planned at best, with houses oriented in various directions. During the Middle Ontario Iroquoian period villages are organized into two or more discrete groups of tightly spaced, parallel aligned, longhouses. It has been suggested that this change in village organization may indicate the initial development of the clans which were a characteristic of the historically known Iroquoian peoples. The Moyer site is a Middle Ontario Iroquoian village located close to the current study area that has been subject to archaeological investigation (Wagner et al 1974). The Moyer site consists of at least 10 longhouses surrounded by two rows of palisades; analysis of ceramic artifacts suggests that the Moyer site is likely a late Middleport or early prehistoric Neutral village (Wagner et al 1974).

Initially at least, the Late Ontario Iroquoian period (1400-1650 A.D.) continues many of the trends which have been documented for the proceeding century. For instance, between 1400 and 1450 A.D. house lengths continue to grow, reaching an average length of 62 metres. One longhouse excavated on a site southwest of Kitchener stretched an incredible 123 metres. After 1450 A.D., house lengths begin to decrease, with houses dating between 1500-1580 A.D. averaging only 30 metres in length. Why house lengths decrease after 1450 A.D. is poorly understood, although it is believed that the even shorter houses witnessed on historic period sites can be at least partially attributed to the population reductions associated with the introduction of European diseases such as smallpox.

Village size also continues to expand throughout the Late Ontario Iroquoian period, with many of the larger villages showing signs of periodic expansions. The Late Middle Ontario Iroquoian period and the first century of the Late Ontario Iroquoian period was a time of village amalgamation. One large village situated just north of Toronto has been shown to have expanded on no fewer than five occasions. These large villages were often heavily defended with numerous rows of wooden palisades, suggesting that defence may have been one of the rationales for smaller groups banding together.

The Kitchener area was densely occupied by the Late Ontario Iroquoians until approximately 1525 A.D. After 1525 A.D. these communities moved further east to the Hamilton area. During the late 1600’s and early 1700’s, the French explorers and missionaries reported a large population of Iroquoian peoples clustered around the western end of Lake Ontario. They called these people the “Neutral”, because they were not involved in the ongoing wars between the Huron and the League Iroquois located in upper New York State. It has been satisfactorily demonstrated that the Late Ontario Iroquoian communities which were located in the Kitchener area were ancestral to at least some of the Neutral Nation groups. For this reason the Late Ontario Iroquoian groups which occupied southwestern Ontario prior to the arrival of the French are often identified as “Prehistoric Neutral”.
The Neutral were a nation or confederacy of tribes, comparable to the Huron or New York Iroquois, geographically distributed into somewhat isolated site clusters. In some instances, specifically for late 16th and early 17th century sites, known village sequences have been determined within these site clusters, which indicates the number of possible Neutral communities or groups and their geographic distribution. One such cluster is located along the Lower Grand River, studied by W.R. Fitzgerald (1990:257-259). Each of the Neutral site clusters, and the sequence of village occupations within each cluster, occur in a restricted area – a physiographic region such as a water shed, which was likely culturally perceived as a tribal or common group territory (Ellis & Ferris 1990). Distance between contemporaneous sites of adjacent clusters suggests that each group understood these distinctions and that there was a distinct domain for each.

A cluster of three Late Woodland sites have been identified just outside the current study area to the east, the Strasburg Creek site (AiHc-255), the Fischer-Hallman site (AiHc-256) and the Cornfield site (AiHc-257). The Strasburg Creek site is an Early Prehistoric Neutral village located immediately adjacent to the bank of Strasburg Creek. Factors such as house length, orientation and stratigraphic superposition suggest that the site does not represent a single, short term village occupation (ARA 2002). The Fischer-Hallman and Cornfield sites each consisted of a single longhouse and are understood to be shorter termed occupation sites (ARA 2002). There is a suggestion that there might be an association between the sites as the two longhouses are oriented similarly and are only 230 metres apart, and the cultural material analysis shows they were likely from the same time period (ARA 2002). While the small amount of cultural material recovered from the Fischer-Hallman and Cornfield sites makes detailed comparisons difficult it was noted that the artifact assemblages between the two sites and the Strasburg Creek site are similar and indicate that they are prehistoric Neutral sites (ARA 2002). It is most likely the three sites are related in some fashion, possibly that the Fischer-Hallman and Cornfield sites are satellites of the Strasburg Creek site which was the area of main, year-round occupation (ARA 2002). ARA supposes that given the early placement of Strasburg Creek in the prehistoric Neutral sequence it is unlikely that the Fischer-Hallman or
Cornfield sites were occupied earlier although there is the possibility they were occupied at the same time (2002).

The Coleman site, which is another prehistoric Neutral site in the area, was studied by Robert MacDonald in 1986. The Coleman site is considered to have been occupied after the Strasburg Creek site and is notable for having one of the longest longhouses recorded in Ontario (MacDonald 1986, ARA 2002).

Less than one kilometre away from the Strasburg Creek sites is the location of the Van Ordt-Duerrnstein burial site. The Van Ordt-Duerrnstein site is classified as a late Woodland possible village and/or cemetery associated with the Neutral or Middleport peoples. Additional research is warranted to more fully understand the association, if any, of the Van Ordt-Duerrnstein burials to the Strasburg Creek, Fischer-Hallman, Cornfield, Moyer and Coleman sites; the association of these Strasburg Creek sites to the Lower Grand River cluster of prehistoric Neutral sites; and, if any other late Ontario Iroquoian prehistoric Neutral sites are located within the Strasburg Creek water shed.

The identification of additional prehistoric Neutral sites in the area may happen as a result of archaeological assessments conducted as part of the Southwest Kitchener Urban Area development. The identification of additional sites could allow us to better understand the chronology and cultures of the Middleport and prehistoric Neutral people’s occupations in southwest Kitchener.

**Euro-Canadian**

The study area is situated within the geographic Township of Waterloo in Waterloo County on properties that have been occupied by settlers of European descent since the late 18th century. The study area encompasses part of Lots 133, 134, 143, 153-158 of the German Company Tract Small Lots; the southern half of Histands Tract; a small part of the north half of Histands Tract; and, a small part of Bechtel’s Tract to the east along Fischer-Hallman Road.

This area first enters the historic record as part of the Haldimand Tract Treaty between the Mohawk and the Crown. The Haldimand Tract:

...is a parcel or tract of land given to the Six Nations Indians, by Governor Haldimand October 25th, 1784, ... and conveyed by Grant the 14th of January, 1793. ... This Grant was composed of the following Townships: Dunn, Sherbrooke, Moulton, Canborough, North and South Cayuga, Oneida and Seneca in Haldimand County; Tuscarora, Ondaga, Brantford and South Dumfries in Brant County; North Dumfries, Waterloo and Woolwich in Waterloo County; Pilkington and Nichol in Wellington County; and is described as a parcel or tract of land six miles on each side of the Ouse or Grand River from its mouth toward its source, to be bounded by the tract of land deeded December the 7th, 1792 by the Mississauga Chiefs and people to the Crown. This part was set aside as a suitable retreat for the Six Nation Indians who had shown attachment and Fidelity to the British Government during the troublous times 1759 to 1783 and was granted to the Chiefs, Warriors, Women and People of the Six nations and their heirs forever.

Morris 1943: 19-21

While it is difficult to exactly delineate treaty boundaries today, Figure 3 provides an approximate illustration of the location of the study area within the outline of the limits of the Haldimand Tract. The British intended that this tract of land would be retained by the Six Nations people as a perpetual reserve, while the Six Nations leader Joseph Brant insisted on the right to sell some of the land, as had been their practice in the American colonies to the south (Bloomfield 2006).
In November of 1796, on behalf of the Six Nations, Joseph Brant sold Block 2 which is present day Waterloo Township, to Richard Beasley and his partners James Wilson and Jean-Baptiste Rousseaux (Bloomfield 2006). Official Crown endorsement of Brant’s legal ability to sell the land was delayed, and when it was finally given in 1798 a new limitation had been placed preventing any deeds from being issued until full payment of the block had been received (Bloomfield 2006). This essentially suspended the settlement of Block 2 until the German Company purchase. 1803 saw Joseph Brant petition the Crown “complaining that the Indians had not received the funds for the land they sold to Beasley...noting that the government had made it too difficult for Beasley to sell the land before discharging the mortgage” (Bloomfield 2006:21). The German Company Purchase, which began in November 1803, was the sale of a bulk of Block 2 land by Beasley to a group of Pennsylvania Mennonites. This was the first example of a large block of Six Nations land to be purchased with official Crown blessing and it solved the issue of Beasley’s mortgage and land title security for the pioneers. Two thirds of Waterloo Township was bought by the German Company, referred to as the German Company Tracts.

From 1800 to 1850 Waterloo Township experienced rapid population growth in which mainly Mennonite pioneers from Pennsylvania, later joined by settlers from various other places and backgrounds, established numerous communities and succeeded in clearing the land to create prosperous farms. The first phase of pioneers to settle in Waterloo Township between 1800-1804 came from several Pennsylvania counties, the majority from Lancaster and Montgomery with a few
from Franklin, Bucks, Chester and York counties (Bloomfield 2006).

Some German Company families began to arrive in 1804 before the title was entirely cleared, but by 1805 the German Company Tracts were sold and with land titles now secure caravans of Mennonite settlers made the trek to Ontario. Members of the Erb family, from Warwick Township in Lancaster County Pennsylvania, took more than two-fifths of the land which amounted to 26,250 acres (Bloomfield 2006). In 1805 David Histand of Chester County Pennsylvania bought 306 acres from Beasley and 420 acres from Joseph Bechtel to create Histands Tract (Bloomfield 2006). Bechtel's have a long history in Waterloo Township, with Jacob Bechtel first arriving in Upper Canada in 1799 in the company of a group of Mennonites from Bucks County Pennsylvania (Hayes 1997). He spent several months scouting Block 2 and when returned to Pennsylvania told the Betzner and Schorg families of his finds (Hayes 1997).

In 1816 Block 2 was officially named Waterloo Township and soon German speaking Roman Catholics, German Lutherans, English, Irish and Scottish settlers began migrating to Waterloo Township. Waterloo Township's population grew rapidly as shown in Table 3, taken from Bloomfield 2006.

<table>
<thead>
<tr>
<th>Year</th>
<th>Population</th>
</tr>
</thead>
<tbody>
<tr>
<td>1835</td>
<td>2,791</td>
</tr>
<tr>
<td>1846</td>
<td>4,424</td>
</tr>
<tr>
<td>1848</td>
<td>6,750</td>
</tr>
<tr>
<td>1851</td>
<td>8,878</td>
</tr>
</tbody>
</table>

The historic community of Williamsburg was located at the cross road of Fischer-Hallman Road and Bleams Road and would have been within the limits of the current study area. Williamsburg began as an early Roman Catholic settlement founded in 1846 by Anton Wilhelm, after whom it is named, and Philip Fischer (Bloomfield 2006). By the latter half of the 19th century the hamlet of Williamsburg was occupied by almost equal numbers of German speaking Lutherans and Roman Catholics (Bloomfield 2006).

In addition to the farming families of Waterloo Township a distinct class of day labourers developed during the 1830-1850's. Labourers often developed craft skills and survived by setting up shop and growing their own food on their small lots of land, which were often clustered at cross roads. The Williamsburg community is a good example of one such cluster. In 1861 Williamsburg boasted two coopers, two tailors, two carpenters, a blacksmith, a shoemaker, a turner, and a millwright and sawyer who worked the mill on Abraham Clemens property (Bloomfield 2006). The Williamsburg school house (SS7) was a log structure which opened in 1842, and was replaced by a stone structure in 1865 and closed in 1966 (Bloomfield 2006). Not much remains to be seen of the hamlet of Williamsburg, however, archaeological material associated with it will certainly be present in any undisturbed areas below the surface.

Tremaine’s 1861 map of the Township of Waterloo is provided as Figure 4. This map lists landowners and illustrates structures within the study area limits. The largest single landowner of the current study area in 1861 is Abraham D. Clemens who owned the south half of Histands Tract. It is on his property that the saw mill on Strasburg Creek is located.

Tremaine’s map illustrates the location of the saw mill which is on Strasburg Creek close to Fischer-Hallman Road (Figure 4). To the west of his property, along Bleams Road, German Company Tract Small Lot 140 was owned by Henry Woods, 141 and 142 were owned by Margaret Gehl, 133 by George Becker and another and 134 by Thomas Woods and others whose names are illegible.
While Tremaine’s map provides lists of each landowner the 1881 map taken from the Illustrated Historic Atlas of Waterloo County only lists atlas subscribers and few names are listed, with the exception of A.S. Clemens, J.C. Woods and Henry Becker (Figure 5). The 1881 map shows the location of the Williamsburg school house (SS7), the location of the small lots which made up the community, and the boundary of Hatchands Tract within the study area limits (Figure 5). Five structures are illustrated within the current study area, Henry Beckers residence on Lot 142, J. C. Woods on Lot 140, two on Abraham Clemens lot, one which is likely the saw mill, and one on C.K. Hage(?)orn’s property across Fischer-Hallman Road from the Clemens land (Figure 5).

George Tremaine’s 1861 map of the Township of Waterloo and the 1881 Illustrated Historic Atlas of Waterloo County both show the four main roads that bound the study area already constructed and in use, although Fischer-Hallman Road did not extend as far south as it now does (Figures 4 & 5). Bleams Road was an especially early route as it linked the Wilmot Township Road to Bleams Mills (later German Mills) and was an important early thoroughfare. Remains of the early Bleams corduroy road were uncovered during previous archaeological assessments within the study area and there is a possibility of uncovering more sections of this historic road during development.

The Grand Trunk Railway runs east-west approximately five kilometres north of the study area. This single track line was established in 1856 and runs from Toronto through Berlin to Point Edward (Andreae 1997). In addition, the Preston & Berlin Line, which runs from Berlin to Preston through Doon, was built in 1857 and
LEGEND

STUDY AREA

REFERENCE
DRAWING BASED ON A PORTION OF THE H. PARSELL & CO.
1881 ILLUSTRATED HISTORICAL ATLAS OF WATERLOO
COUNTY

NOTES
THIS DRAWING IS SCHEMATIC ONLY AND IS TO BE READ
IN CONJUNCTION WITH ACCOMPANYING TEXT.
ALL LOCATIONS ARE APPROXIMATE.
from Doon there was a small extension of the Preston & Berlin Line that ran from Doon to Galt, however, it was abandoned before 1865 (Andreae 1997).

A particular feature of interest that would have been ideal for Euro-Canadian settlement is Strasburg Creek. Strasburg Creek flows from just north of the historic community of Williamsburg through the study area towards the community of New Aberdeen to join Schneider Creek at Oregon above Doon. Water-powered mills were used both for grinding grain and sawing wood and it comes as no surprise that most of the historic communities within Waterloo Township are situated in close proximity to a water course, be it the Grand River or one of the smaller creeks. Bloomfield notes that until 1807 the nearest grist mill was at Dundas, which was a significant distance away over poor roads; by 1817 there were three water-powered mills in Waterloo Township and by 1825 there were ten (2006:71). Tremaine’s 1861 map of Waterloo Township shows a saw mill illustrated on Strasburg Creek on Abraham Clemens property just south of Williamsburg and within the limits of the current study area (Figure 4).

Results

Pre-Contact Aboriginal Archaeological Site Potential

Archaeological potential is established by determining the likelihood that archaeological resources may be present on a subject property. Golder applied archaeological potential criteria commonly used by the Ministry of Culture (Government of Ontario 1993, 2009) to determine areas of archaeological potential within the study area. These variables include: distance to various types of water sources, soil texture and drainage, glacial geomorphology, and the general topographic variability of the area.
Distance to modern or ancient water sources is generally accepted as the most important determinant of past human settlement patterns and, considered alone, may result in a determination of archaeological potential. However, any combination of two or more other criteria, such as well-drained soils, or topographic variability, may also indicate archaeological potential. In addition, the Ministry of Tourism and Culture also views the presence of previously registered archaeological resources as a prime indicator of archaeological potential.

In archaeological potential modeling, a distance to water criterion of 300 metres is generally employed for primary water courses, including lakeshores, rivers and large creeks, while a criterion of 200 metres is applied to secondary water sources, including swamps and small creeks. The close proximity of Strasburg Creek and Alder Creek increases the archaeological potential for the Southwest Kitchener Urban Area.

Soil texture can be an important determinant of past settlement, usually in combination with other factors such as topography. The soil of the study area is comprised of well-drained loams, sandy loams and some gravel which have been determined to have been suitable for pre-contact Aboriginal agricultural practices. The rolling topography of the study area is another factor contributing to the archaeological potential of the area.

In addition to the abovementioned factors, the presence of numerous registered and non-registered archaeological sites within the study area also contributes to the archaeological potential as it demonstrates the extensive use of this area by pre-contact Aboriginal peoples. When the above-noted archaeological potential criteria are applied to the study area, the archaeological potential for pre-contact Aboriginal sites was deemed to be high.

The entire study area has been determined to have a high potential for archaeological resources and any areas that have not previously been subject to assessment will require an archaeological assessment conducted by an archaeologist licensed by the province of Ontario prior to any ground disturbance activities. Figure 6 illustrates areas that retain high archaeological potential and will require assessment prior to development.

**Euro-Canadian Archaeological Site Potential**

The criteria used by the Ontario Ministry of Culture to determine potential for historic archaeological sites include the presence of: 1) areas of initial, non-Aboriginal settlement; 2) particular, resource-specific features that would have attracted past subsistence or extractive uses; 3) early historic transportation routes; and 4) properties designated under the Ontario Heritage Act (Government of Ontario 1997:14). A comprehensive examination of the built heritage resources within the study area is being done by Nancy Tausky as a separate part of this urban area study. For this reason the scope of this report deals with existing historic archaeological sites and the potential for archaeological sites rather than another examination of the built heritage and cultural landscape components.

The Euro-Canadian settlement of Waterloo Township began right at the start of the 19th century with the purchase by Richard Beasley of Block 2 of the Haldimand Tract from the Six Nations people in 1796. Tremaine’s map shows that the current study area was well settled by 1861, with homesteads, numerous landowners, a saw mill and the hamlet of Williamsburg all within its limits. The community of Williamsburg was established in 1846 and before its decline had many resident craftsmen and shops as well as a local school house. The four roads that bound the study area were also built and in use by 1861. Moreover, the Grand Trunk Railway and the Preston Berlin Line are in close proximity to the study area. Strasburg Creek also adds to the potential for Euro-Canadian archaeological sites, as watercourses such as this can be considered a particular, resource-specific feature. Finally, there are numerous registered archaeological sites in the area,
with three homesteads and one section of historic corduroy road previously identified within the study area limits.

Due to the factors noted above the potential for Euro-Canadian archaeological sites within the Southwest Kitchener Area Plan is judged to be high. Figure 6 illustrates areas that retain high archaeological potential and will require assessment prior to development.

The entire study area has been determined to have a high potential for archaeological resources and any areas that have not previously been subject to assessment will require an archaeological assessment conducted by an archaeologist licensed by the province of Ontario prior to any ground disturbance activities.

**Summary and Recommendations**

As per the Regional Municipality of Waterloo Archaeological Facilities Master Plan (Archaeology Division, R.M. Waterloo 1989a) and the Ministry of Culture Draft Standards and Guidelines for Consultant Archaeologists (Government of Ontario 2009), any development application that in all or part impinges on an area predetermined by the Regional Municipality of Waterloo or a licensed archaeologist to have moderate to high archaeological potential, or known archaeological sites, will require an archaeological assessment.

In addition to the requirement that all areas within the Southwest Kitchener Urban Area be subject to archaeological assessment, some specific recommendations are as follows. The Ministry of Tourism and Culture’s registered site database does not show that the Stage 3 work was completed for sites AiHc-107 and AiHc-108, located in 1989 by Mayer, Poulton and Associates Inc., the 16 findspots at 1291 Fischer-Hallman Road and site AiHc-389, located by Archaeological Research Associates. A Stage 3 site specific archaeological assessment must be conducted at each of these sites prior to any development activities in the area. Furthermore, Findspot 1 at 1531 Bleams Road has been judged to have a high cultural heritage value or interest and Stage 4 mitigation is required. Special care should be taken during any construction along Bleams Road. It is recommended that a licensed archaeologist be present to monitor any ground works in that area in order to identify any remaining sections of the historic corduroy.
1.3.6 Commercial & Institutional Opportunities & Constraints

Urbanmetrics

The City of Kitchener has initiated a Community Master Plan for its last remaining greenfield area slated for urban development. The area is comprised of 430 hectares and is located in the southwest portion of Kitchener along Fischer Hallman from Bleams Road to the north and Huron Road to the south. The area is currently divided into several parcels that is envisioned to be transformed into a walkable, transit-supportive, diverse and complete community, as per the principles of the Provincial Growth Plan and the City’s Official Plan.

Based on our analysis of proposed development applications; neighbourhood concept plans; the Regional Official Policies Plan and new Regional Official Plan (2009); the Regional Transportation Master Plan; retail market studies undertaken in support of local developments; and our understanding of the area and retail development market trends, urbanMetrics has identified a number of opportunities and constraints for commercial and institutional development in the area. They are as follows:

Opportunities

The study area presents a unique set of opportunities for the City of Kitchener to maximize on and create unique, enjoyable, transit-supportive and walkable experience, in terms of future commercial and institutional uses. These include:

- Fischer Hallman Corridor (potential for mixed-use commercial);
- Transit/Pedestrian Supportive Commercial Format;
- Proposed Node at Fischer Hallman Road and Huron Road;
- City of Kitchener District Recreation Centre;

road, especially in low lying spots where the chance of preservation is greater. The historic community of Williamsburg and other important early settler resources are located within the study area limits, which increases the likelihood that historic Euro-Canadian archaeological will be identified during development.

It is conceivable that the Strasburg Creek watershed is the location of a prehistoric Neutral site cluster of villages, of which the Strasburg Creek, Fischer-Hallman and Cornfield sites are the closest examples. Wider studies of the region could help identify the relationship to other village sequences and the overall chronology of the prehistoric Neutral of the Strasburg Creek watershed. Additional research is warranted to more fully understand the association, if any, of the Van Ordt-Duerrnstein burials to the Strasburg Creek, Fischer-Hallman, Cornfield, Moyer and Coleman sites; the association of these Strasburg Creek sites to the Lower Grand River cluster of prehistoric Neutral sites; and, if any other late Ontario Iroquoian prehistoric Neutral sites are located within the Strasburg Creek water shed.

The entire study area has been determined to have a high potential for archaeological resources and any areas that have not previously been subject to assessment will require an archaeological assessment conducted by an archaeologist licensed by the province of Ontario prior to any ground disturbance activities.

The objective of the archaeological background study was to compile all available information about the known and potential archaeological heritage resources within the study area and to provide specific direction for the protection, management and/or recovery of these resources, consistent with the requirements of the Regional Municipality of Waterloo Archaeological Facilities Master Plan (Archaeology Division, R.M. Waterloo 1989) and the guidelines of the Ministry of Tourism and Culture (Government of Ontario 1993, 2009).
• Site Location and Surrounding Market Area; and
• Sustainable Commercial Development

*Fischer Hallman Corridor (potential for mixed-use commercial)*

Fischer Hallman Road provides the SW Kitchener Community Master Plan area with the opportunity to create a unique commercial development pattern along its spine. Retail formats are largely dictated by location, potential draw and existing surrounding land uses. Proposed plans of subdivisions and the proposed commercial development present an opportunity for a mixed use approach along Fischer Hallman, with a focus on a node at Huron Road that would represent a community focal point for the surrounding developing neighbourhoods.

Node retailing can be expanded to include more pedestrian-focused “main street” retailing to the north along the Fischer Hallman spine. Live-work units, high quality urban design, mixed residential/commercial uses and recreation trails/bicycle lanes are encouraged to introduce humanizing elements into this important corridor.

The interplay between these uses creates an exciting and active place for the community to gather. Developing an appropriate mix in a new community can present a number of challenges for both developers and municipalities. Challenges can include differing absorption rates for retail and residential uses and stigmas associated with noise levels along main streets or above different street level uses, such as restaurants or bars. However, creative and thoughtful solutions have been applied in other jurisdictions to overcome these challenges.

Proper transitioning or buffering, both vertically and horizontally, can help to significantly mitigate noise and privacy concerns in mixed-use developments. Higher density residential units used as a buffer between busy main streets, side street crossings and surrounding lower density residential areas has been successful in many other developments and is becoming almost standard practice. A similar format could be applied along Fischer Hallman, Bleams and Huron Roads, where they intersect with various side streets. Offices developed between at-grade commercial and residential units can act as a vertical buffer allowing residents additional levels
visual amenities will enhance the pedestrian environment for casual and recreational walkers, parents with strollers, wheelchairs and mobility scooters. Bicycle lanes and recreational trails provide linkages to commercial areas for non-motorized traffic.

While power centres and big box retailers appeal to basic consumer needs, as they have traditionally been designed, they score very poorly in terms of urban form, transit supportiveness, walkability and integration with surrounding communities. Generally speaking retail on its own is not heavily influenced by transit, although it can represent an important element of successful mixed use areas. Vibrant retail destinations help to support high density residential and office development around major transit terminals. One of the most successful transit-oriented developments in Canada is Burnaby’s Metrotown Centre, which includes three adjacent shopping centres together with offices and residential towers connected to the Vancouver SkyTrain system.

Proposed Node at Fischer Hallman Road and Huron Road

In 2007, GSP Group on behalf of their clients Becker Estates proposed a new mixed-use community at the southeast corner of the intersection of Fischer Hallman Road and Huron Road. A component of the proposed plan includes a commercial block at the intersection, and mid to high residential densities as one moves south along Fischer Hallman Road. At the northwest corner, another developer has proposed another commercial development.

These developments present an opportunity to develop a nodal site at this intersection, pending market demand, which will be determined as part of the next phase of our work. Nodes often blend together both public and private elements, together with a mix of retail, office institutional and residential land uses. Through a co-operative development approach, they can be both profitable.
for the developers and provide a wide range of public benefits, such as high quality design, public open spaces, a pedestrian environment and strong ties to the public transit network.

Nodes, not only offer municipalities the chance to accommodate retail developments in a more sustainable format, but have also essentially been codified as provincial policy through Places to Grow. Waterloo Town Square is an example of a planned town centre, recognized by the Urban Land Institute in 2009, for best practice in development.

City of Kitchener District Recreation Centre

Lands immediately at the southwest quadrant of Fischer Hallman and Huron are being planned by the City of Kitchener for a District Recreation Centre. From a retail perspective, the size, location and draw of the District Centre are advantageous as it will attract people to the area who would otherwise not have a reason to travel there. It will represent an anchor for the area and will attract more active travel patterns (e.g. cycling, walking, jogging). Parking may be available at the recreation centre to allow for walking trips to shops located along the Fischer Hallman spine.

Site Location and Surrounding Market Area

The new community is well positioned to host a unique retail experience for residents and passer-bys. As the study area is the last remaining greenfield area left for urban development, it stands to gain as a “Gateway” into the city. Its location along a regional road and connectivity to both Provincial Highway 401 and Conestoga Expressway provides ease of access to and from the site from neighbouring communities to the west such as Mannheim and to the south such as New Dundee, and beyond regional boundaries. As a gateway, the City of Kitchener should expect potential developers to be more creative and push the design envelope.

Commercial activities in the Study Area will benefit both from growth from within as well as growth from the developing neighbourhoods which surround it. As a result, depending on the nature of future commercial development in southwest Kitchener, the study area may be able to accommodate a greater amount of space and specialized merchandise that could not be supported by the local market alone.
Sustainable Commercial Development

With continued world-wide political and social pressures to adopt more environmentally sustainable building and operating practices, a number of retailers have implemented green practices. The Centre for the Study of Commercial Activity (CSCA) released a report in 2009 highlighting leading retailers from around the world, some of which are located in Canada. Some examples of green retailers in Canada include the Home Depot, Mountain Equipment Co-Op and Walmart.

From the outset, these retailers created an environmental strategy and plan, an environmental management structure and appointed staff with environmental responsibilities in both their head offices as well as in their retail stores. Sustainable strategies, policies and principles were integrated into existing operations and the management structure and reviewed/evaluated typically every two to three years. Tracking of energy usage, waste produced and diverted, CO2 emissions, transportation and water usage is also incorporated. The intent is to develop goals for reduction and track progress from the established benchmarks. Not only is adopting sustainable practices socially responsible, it provides retailers with the opportunity to reduce operating costs and increase their competitive edge.

Mountain Equipment Co-op in Toronto provides incentives and benefits to employees who commute to work either by cycling, walking, running or taking public transit. The 42,000 square foot store was built using 55% recycled materials and was outfitted with a roof garden planted with indigenous meadow plants, flowers, and grasses that require infrequent watering. The plants offset CO2 generation, and the soil helps insulate the building to reduce heating requirements. Water consumption is reduced through low-flow, pressure-assisted toilets and faucets. Planters on the second story terrace contain hardy shrubs, and are watered with an efficient subsurface drip system. Planting of street trees increases urban green areas and captures water to reduce demand on urban infrastructures. In addition their products are designed and manufactured using sustainable practices.

Incorporating green retailing to the Fischer Hallman Corridor reinforces the local community’s desire, identified in the Kitchener Growth Management Strategy, to strengthen environmental initiatives and echoes the Kitchener Official Plan vision of a safe and healthy urban environment, and ultimately reducing the demand on municipal infrastructure.

Constraints/Challenges

A number of constraints within the study area have also been identified, that need to be recognized and addressed. They include:

- Williamsburg Cemetery;
- Lack of development to the west;
- Mineral aggregate operation/extraction (Quarry);
- Seniors-oriented community; and
- Retail competition

Williamsburg Cemetery

Located midblock along the spine of the Fischer Hallman Corridor is the Williamsburg Cemetery which bisects the north and south portions of the community. Similarly in Toronto, the Mount Pleasant Cemetery, once located on the outskirts of Toronto, saw rapid population growth and today is located in the centre of the city. The cemetery itself spans across three major north/south arterial blocks and is well integrated into the residential community with Mount Pleasant Road running through its core. It has become a well used by walkers, joggers and visitors interested in Toronto’s history and connects to a number of local recreational trails. However, the cemetery does split the neighbourhood and commercial corridors along Yonge Street, Mount Pleasant and Bayview Avenues in two, resulting in a
duplication of services, including schools and neighbourhood commercial to ensure access to services on both sides of the community.

Despite the challenge of the physical barrier the Williamsburg Cemetery may pose on the development of a cohesive, continual development area, it does present a niche opportunity for public open space for passive and active recreation, and may encourage more pedestrian and cycling activity in the area.

*Lack of urban development to the west and south*

To the west of the site, with the introduction of the ROPs Protected Countryside policy, there may be no new development permitted. This area encompasses a broad band of environmental features and agricultural land proposed to be permanently protected from urban development. As a result, retail inflow from the west will be stunted.

The area to the south of the study, identified as designated Prime Agricultural, will also limit market attraction from the south.

*Mineral Aggregate Operation/Extraction (Quarry)*

The northwestern portion of the subject site is currently a gravel pit. There exists an undefined timeline for site remediation. However, this does provide an opportunity for long-term planning with increased height and densities to maximize the use of the site. There is long-term potential for residential uses, but market support for commercial uses from the development of these lands will be limited for an undefined number of years.

*Seniors oriented community*

The GSP Group/RBJ Schlegel Holdings identified in their Master Plan for the Williamsburg South community that it has been planned and designed primarily as an adult-oriented neighbourhood that would provide residents with the opportunity to “age in place” within the neighbourhood. Trends in spending habits by age category reveal that senior citizens typically spend less and shop less frequently than other age brackets – based on the fact that this age group is generally on a fixed income and without dependents. However, other
commercial opportunities may be present in the way of health, wellness, cultural and recreation oriented facilities. As a result of an older community profile, school yields would also be lower. Further demographic analysis is required to determine the warranted number of school sites within the study area.

Retail competition

Sunrise Shopping Centre

Located at 1400 Ottawa Street South (Fischer Hallman and Conestoga Parkway) this Power Centre is comprised of 50 acres and a gross leasable area (GLA) of 500,000 sq.ft. with a total of 38 stores. It’s primary anchor tenants include Walmart at 130,000 sq.ft., Canadian Tire and Home Depot, at 85,000 sq.ft respectively, as well as Shoppers Drug Mart. Additional tenants include a variety of general retail, apparel, food store retail and services. This centre will limit market draw to the site from the north.

Fairview Park

Located at Fairway Road 2960 Kingsway Drive (Highway 8E., Fairway Road S., & Kingsway Drive) this Regional Centre has a GLA of approximately 745,000 sq.ft. and a total 130 stores. Fairview’s anchor tenants include Sears at approximately 191,200 sq. ft.; The Bay at 184,700 sq.ft; and Walmart at 125,700 sq.ft. This location hosts a multitude of apparel, general merchandise, home, furniture and home decor, non-retail and service tenants. This is the largest enclosed mall in the region and will limit market draw from the east.

Sportsworld Crossing

Located at Highway 8 and Sportsworld Drive, near Highway 401, this 200,000+ sq.ft retail/office centre is part of a master-planned lifestyle development that will expand to include a hotel, ice rink and greenspaces with road crossing extensions to link to the adjacent Gateway Power Centre. It is home to such tenants as Nike, Reebok/Rockport, and Paderno Kitchen Ware. Sportsworld will limit also limit market draw from the east.

Summary

The subject area represents the last major greenfield site for urban development in Kitchener. It is planned to be a walkable, transit-supportive, diverse and complete community, inclusive of retail/service commercial space. urbanMetrics identified a number of opportunities and constraints that may influence the format, size and location of commercial space within the SW Kitchener Community Master Plan. Our initial findings revealed six opportunities and five constraints.

The opportunities include:

• Fischer Hallman Corridor (potential for mixed-use commercial);
• Transit/Pedestrian Supportive Commercial Format;
• Potential for a node at Fischer Hallman Road and Huron Road;
• City of Kitchener District Recreation Centre;
• Site Location and Surrounding Market Area; and
• Sustainable Commercial Development

The constraints/challenges include:

• Williamsburg Cemetery;
• Lack of development to the west;
• Mineral aggregate operation/extraction (Quarry);
• Seniors-oriented community; and
• Retail competition

Despite the aforementioned limitations, opportunities for an innovative and unique retail experience are present. This can be achieved by planning for a pedestrian-focused “main street” retailing experience built in tandem with live/work units, mixed-use developments, public squares and recreation trails, implemented through the latest municipal planning
Figure 4 - Natural Heritage System; The Planning Partnership
tools and with sustainable commercial design. In doing so, the Fischer Hallman spine can support the City of Kitchener’s vision for a transit-oriented, walkable, thriving community that serves as a gateway to the city.

1.3.7 Community Design

**The Planning Partnership**

*Physical Site Analysis*

The following identified Study Area opportunities and constrains are the core elements on which the community design portion of this Study will focus.

This background physical analysis explores the entire concession leading up to Trussler Road, as well as its surrounding context. To fully understand the Study Area constraints and opportunities a site walk was conducted on May 4th, 2010 with City staff and stakeholders representatives.

**Natural Heritage System Opportunities and Constraints**

Identified as a core environmental feature in the new Region of Waterloo Official Plan (2009), within and surrounding the Williamsburg cemetery lands, an environmental cluster of two isolated woodlots, and a series of small wetlands and farm hedgerows is located (refer to figure 4). Environmental cluster 1 presents several urban design opportunities and constraints. As a primary constraint, environmental cluster 1 reduces north-south vehicular connectivity across the site. However, this environmental cluster’s strategic location also presents an invaluable community amenity opportunity by providing a natural green heart to the future community as well as an existing green link across and beyond the Study Area.

The uppermost reach of Upper Strasburg Creek traverses the extreme northeast corner of the Study Area at the corner of Fischer Hallman and Bleams Road, visually separating the corner’s developable lands from the rest of the Study Area. This physical separation presents yet another opportunity to naturally define the proposed Fischer Hallman corridor area.

The westerly side of the Study Area contains a second cluster (mostly outside the Study Area) which consists of two isolated woodlots, a system of farm hedgerows that link the woodlots and a series of small wetlands. And finally, at the edge of the study area, next to Trussler Road, an isolated portion of a larger woodlot is located on the east side of Trussler Road.

The lands west of Fischer Hallman Road are largely undeveloped except for several farm houses or large lot single detached dwellings, a municipal cemetery and a series of existing operational gravel extraction zones.

To the east of Fischer Hallman road all developable land parcels are clearly defined by the Huron Natural Heritage System which provides for views, vistas and linkage opportunities to the existing natural context.

The Natural Heritage System straddles twice across Fischer Hallman Road creating three distinctive corridor segments (refer to ‘Character Areas’ section for the corridor’s identified opportunities).

These lands contain several large vacant lots as well as single detached dwellings and a private club.

The Community Master Plan exercise will draw from the comprehensive environmental protection/enhancement framework and recommendations contained within the Alder Creek Watershed Study and the Upper Strasburg Creek Subwatershed Plan.

**Topography**

The Study Area is characteristic of a rolling hills topography, which presents unique servicing challenges and opportunities. The principal design objective will be to introduce a sustainable community street and block pattern that minimizes cut and fill...
Figure 5 - Character Areas; The Planning Partnership
Overview & Background

The Study Area’s characteristically well drained soil presents ground water recharge opportunities and challenges within the site. Further analyses of the appropriate water harvesting and release into the ground will be needed to ensure that the rate and quality of groundwater infiltration meets the standards prescribed by the Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan.

The modified terrain of the aggregate extraction zone presents sustainable community design opportunities to minimize the need of cut and fill and preserve and enhance the ground water system recharge as mandated by the Alder Creek Watershed Study and Upper Strasburg Creek Subwatershed Plan.

Views and Vistas

The combination of a rolling topography and Natural Heritage System provides for numerous interesting views and vistas throughout the Study Area. Every urban design opportunity to capitalize and enhance upon, not only the driving, but the walking and cycling experience of the site will be explored during the course of this Community Master Plan exercise.

Noteworthy of mention is the unobstructed view of the City of Kitchener from Bleams Road looking east.

Character Areas

Our initial urban design analysis clearly identified two character areas: The Fischer Hallman Road mixed use corridor, and the Environmental Core Cluster 1: the ‘heart’ of the community (refer to Figure 5).

As previously mentioned, the Fischer Hallman Road mixed use corridor is bisected by the Natural Heritage System in two instances, naturally defining tree development “pockets”:

1. The northern gateway zone located at the intersection of Fischer Hallman and Bleams Roads. This area is envisioned to become the crossroads gateway point that links the existing Williamsburg mixed use retail area immediately to the north with the proposed southern portion of the corridor;

2. The mixed use corridor clearly defined by the Huron Natural Heritage System to the north and south; and,

3. The southern gateway which is envisioned as a key community amenity node.

Environmental Core Cluster 1 presents the opportunity for a community wide green centre that provides for many of the passive recreational need of the local community while linking it to the broader community through a network of trails.

Two easements, a hydro corridor and a gas line, transverse the northern east section of the Study Area, west of Fischer Hallman Road. Both easements are identified as important open space system links throughout the Study Area. Their integration to the design of the community will be an integral element of this exercise.

Transportation Network

Fischer Hallman Road as envisioned by the Region will be a main traffic and higher order transit road. As such, Fischer Hallman Road presents the typical constraints and opportunities that higher order transit roads are challenged with. This study will look at the careful balance between the road’s function as a main traffic and transit carrier and its community wide role as a vibrant pedestrian friendly spine. Elements that will be considered to achieve a fully pedestrian and transit supporting corridor include the analysis of appropriate land uses, access points and on-street parking amongst many others.
Figure 6 - Neighbourhood Scale; The Planning Partnership
Connections to existing roads will be preserved such as Donnenwerth Drive, Commonwealth and Helena Feasby Streets to the north across Bleams Road and Seabrook Drive across Fischer Hallman Road.

Cultural Heritage

The identified built heritage resources at 1385 Bleams Road, 2091 Bleams Road, 1291 Fischer-Hallman Road, 1940 Fischer-Hallman Road, and 1683 Huron Road should be conserved, along with the adjoining cultural heritage landscapes recommended in this report. Of particular significance is the open space allowing visual links between the Williamsburg School House at 1385 Bleams Road and the former Abrams/Henhoeffer farmhouse at 1291 Fischer-Hallman Road, which maintains the historic connection between the two properties and allows opportunities for some interpretation of historic Williamsburg. The scenic and historic dimensions of the identified scenic-heritage roads bordering the study area, Huron Road and Trussler Road, must also be considered.

Neighbourhood Scale

A preliminary pedestrian/walkability analysis of the Study Area (demonstrated by 5 minute walking circles of 400 metres diameter) shows the potential for five distinctive inner neighbourhoods. Each future neighbourhood will be constituted of clearly identifiable centres and edges linked through a local road and trail system.

800m diameter ‘catchment area’ circles at both, the northern and southern gateway points illustrate the local community impact of the proposed mixed use corridor (refer to Figure 6).

Community Edges-transitions

The Study Area’s transition to its surrounding context will be carefully analyzed as each edge condition has a set of specific characteristics and function.