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1 Introduction



1.1 Purpose of this Study

The Soper Hills Secondary Plan Study Area ("Study Area") is a 193 hectare area on the east side of Bowmanville in the Municipality of Clarington. It is generally bound by Highway 2 to the south, Lambs Road to the west, the Canadian Pacific Railway to the north and Providence Road and its unopened road allowance to the east as shown in **Figure 1**.

Map C of the Clarington Official Plan identifies this area as requiring the preparation of a Secondary Plan.

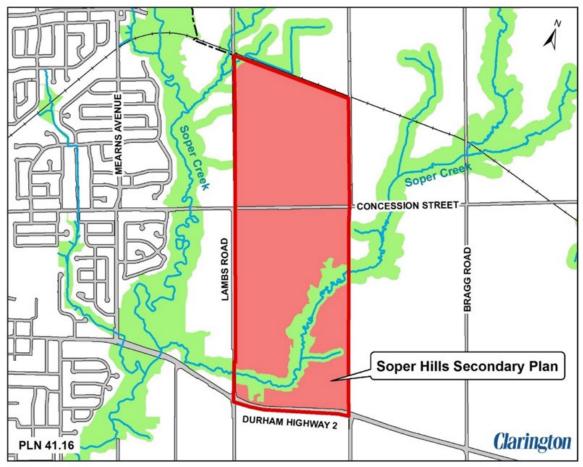


Figure 1: Soper Hills Secondary Plan Area

Source: Municipality of Clarington

1.2 Purpose of this Report and Study Area Boundary

The purpose of this Report is to describe three alternative land use plan concepts (the "Land Use Alternatives") for the Study Area. This Report builds on the work done in Phase 1 of the Soper Hills Secondary Plan Study. For further locational context and background analysis, including policy review, please refer to the Phase 1 reports produced as part of this Study.

In terms of the contents of this Report, Chapter 2 presents the Vision and Principles for the Soper Hills Secondary Plan.

Chapter 3 presents the draft Land Use Alternatives.

Chapter 4 presents the draft evaluation criteria that will be used to evaluate the Land Use Alternatives.

Chapter 5 describes the next steps in the study.

1.3 What has been done to date?

Phase 1 of the Soper Hills Study included background reports on the following topics:

- Community Engagement;
- Urban Design and Sustainability Principles;
- Functional Servicing;
- Transportation;
- A Landscape Analysis;
- Agricultural Impact Evaluation;
- Archeology; and
- Cultural Heritage Resource Assessment.

The findings from these reports led to the development of an opportunities and constraints analysis. A Background Analysis and Summary Report summarized the eight background reports and included the opportunities and constraints analysis.

Phase 1 also included a Public Information Centre that is summarized in a separate Consultation Summary Report – Public Open House #1. All of these undertakings informed the development of the Land Use Alternatives and the evaluation criteria discussed in this Report.



2 Vision and Principles



2.1 The Vision for the Soper Hills Secondary Plan

Informed by the background work and public input in Phase 1, a vision statement was developed to summarize how the Secondary Plan area should be planned and designed.

The following is the Vision for the Soper Hills Secondary Plan:

"To develop a community that reflects and enriches the history and character of both the Municipality of Clarington and the Study Area; to create a sense of place for residents and visitors; and to design a sustainable built form that protects the natural environment, promotes alternative modes of transportation and supports a healthy lifestyle for current and future generations."

The draft vision statement helped to facilitate the development of the Land Use Alternatives and will guide the development of the Secondary Plan policies in later phases of this Study.

2.2 Principles for the Soper Hills Secondary Plan

The following outlines the principles developed for the Soper Hills Secondary Plan. These principles were developed based on the work conducted in Phase 1 including public input. These principles are used to frame the criteria found in Section 4 of this Report that will be used to evaluate the Land Use Alternatives found in Section 3 of this Report.

Principle 1: Provide for the efficient use of land with the creation of a compact, complete, connected and walkable community.

Principle 2: Reduce dependence on personal vehicles and prioritize active transportation modes of travel by creating a network that encourages walking and cycling and improve overall health for the residents and community

Principle 3: Protect, enhance and value significant natural features within and adjacent to Environmental Protection Areas (EPA).

Principle 4: Design parks and open spaces that are highly visible, accessible and usable.

Principle 5: Provide for adequate servicing (water and wastewater) to new developments



Principle 6: Respect cultural heritage through conservation and appropriate incorporation into the community.



3 Land Use Alternatives

3.1 Development of the Land Use Alternatives

Three Land Use Alternatives were developed based on the work done in Phase 1, which included input from public and stakeholder engagement, background review, consideration of provincial, regional and Clarington Official Plan policies, and a review of Clarington's green initiatives, including the Clarington Green Community Strategy, Priority Green: Green Development Framework and Implementation Plan and the Municipality of Clarington Green Development Standards as illustrated in **Figure 2**. The Land Use Alternatives are prepared for discussion purposes and to help inform the development of an emerging land use plan.



Figure 2: Considerations in the Development of the Land Use Alternatives



3.2 Baseline Assumptions

The baseline assumptions explained in this section were considered in the development of the Land Use Alternatives, which are described in the later portion of Section 3 of this report, as well as in the evaluation criteria described in Section 4.

A number of policy requirements of the Clarington Official Plan and Durham Regional Official Plan were not included in the evaluation criteria because they are baseline assumptions that are applied equally across all three Land Use Alternatives. These policy requirements are addressed in all Land Use Alternatives in order to ensure conformity.

Designated Greenfield Area Density

All Land Use Alternatives provide for a minimum gross density of 50 residents and jobs per hectare as required by Clarington Official Plan policy 23.3.9.a), with very similar overall densities provided in each of the land use designations.

Corridors

All three Land Use Alternatives reflect the delineation of Regional and Local Corridors in the Clarington Official Plan. Within the Secondary Plan area, Highway 2 is a Regional Corridor and the following are Local Corridors:

- Lambs Road from Highway 2 to the railway;
- Concession Road; and
- The extension of Providence Road between Highway 2 and Concession Road.

Regional and Local Corridors are to provide for residential and mixed-use development with a wide array of uses in order to achieve higher densities and transit-oriented development. They are also to provide for other uses that are complementary to the intended functions of the Corridor (policy 10.6.2).

The Corridors are approximately 100 metres deep on either side of the road allowance in each of the Land Use Alternatives (policy 10.6.5).

Land Use and Compatibility

As per the Clarington Official Plan, the Secondary Plan is planned to be a primarily residential community. As such, the land uses that will be depicted on the Land Use Alternatives are assumed to be compatible with one another and compatibility is not included in the evaluation. Secondary Plan policy however should address transitions in height and density between different residential built forms.

Roads

Existing roads Highway 2, Lambs Road, Concession Street and Providence Road (including its extension south from Concession Street to Highway 2), are classified as arterial roads in the Clarington Official Plan and are shown in the three Land Use Alternatives. New collector roads are illustrated in different configurations in the Land Use Alternatives. Select local feeder roads have also been identified conceptually to illustrate connectivity within and to the lands abutting the Study Area.



The Transportation policies of the Clarington Official Plan place an emphasis on "complete streets" described as "the roadways and adjacent public areas that are designed to accommodate users of all ages and abilities including pedestrians, cyclists, transit users and motorists". The development of complete streets in Secondary Plan areas shall be context based, designed to allow access to transit, contain short blocks and streets, be accessible and be designed for not only the car, but pedestrians and cyclists as well (policy 19.6.4). Collector roads are also to be designed in accordance with the road classification criteria in Appendix C, Table C-2 (policy 19.6.21). While the overall network is included in the evaluation, the detailed design of the specific roads is not.

The Clarington Official Plan requires that local roads be designed based on a modified grid system and in accordance with the road classification criteria in Appendix C, Table C-2. Local roads are not shown except for a few local roads that provide access to the neighbourhoods for illustrative purposes. As a result, measures regarding local roads, block and street patterns will be addressed through policy and not through the evaluation.

Municipal Council has required that private roads not be provided in low density residential blocks. Since local roads will not be delineated on the Land Use Alternatives, this matter will be addressed in policy and not as part of the evaluation.

Environmental Protection Areas

The Environmental Protection Areas (EPA), primarily made up of the natural features and their associated buffers, are the same in the three Land Use Alternatives and are based on work conducted as part of the Soper Creek Subwatershed Study. The Subwatershed Study identified natural areas that merit protection from development and which create a natural heritage system. In total, 18 hectares of the Secondary Plan are within Environment Protection Areas, though these areas will be subject to further refinement as the Subwatershed Study progresses. No development, with the exception of trails, will occur in the EPA in the three Land Use Alternatives.

Servicing

All Land Use Alternatives will be serviced to provide sufficient water operating pressures and fire flows, as well as sufficient sanitary network to accommodate future development. Such elements are not evaluated in the criteria. The Land Use Alternatives will, however be evaluated on how alternative servicing networks reduce impacts to the EPA.

Trails

An Urban Trail system is shown on Map K of the Clarington Official Plan and includes a trail generally following the existing stream corridor within the Secondary Plan Area. More detailed matters such as location of trail heads, signage, wayfinding, education on trail use and littering and implications for private landholdings will not be addressed in the evaluation but rather addressed through policies in the Secondary Plan.



Stormwater Management

All Land Use Alternatives will include stormwater management techniques and LID features. Stormwater management for all Land Use Alternatives will:

- Consider flood control to reduce the impact of new developments on peak flows and ensure post-development flows are less than or equal to pre-development flows;
- Improve water quality based on existing water quality conditions and ability to provide enhanced water quality as per the MECP requirements;
- Match pre-development annual infiltration volume in all stormwater catchments through infiltration-based Low Impact Development Practices located on private property and municipal property;
- Maintain existing fluvial geomorphic regime or improve erosion conditions within Soper Creek and associated tributaries; and
- Use LIDS to cool runoff as appropriate for a coolwater receiver.

Based on drainage patterns, the optimal location for stormwater management ponds have been conceptually identified. These conceptual locations are shown in similar locations in all three Land Use Alternatives. In terms of the land areas calculations provided with each alternative, stormwater management ponds are assumed to account for approximately 10% of the developable area (non-EPA lands).

Cultural Heritage Resources

As shown in all three Land Use Alternatives, there are four potential cultural heritage resources including three along Lambs Road and one near Highway 2.

Section 8.1.1 of the Clarington Official Plan outline's the municipality's goal to promote a culture of conservation that supports cultural achievements, fosters civic pride and sense of place, strengthens the local economy, and enhances the quality of life for Clarington residents. New development is to support the conservation of cultural heritage resources, consider incorporation of buildings into new developments, and consider the interests of Indigenous communities in conserving cultural heritage and archaeological resources (policy 8.3.1). These principles would apply equally across the three Land Use Alternatives and thus can be further supported through policies in the Secondary Plan.

Agriculture

No criteria nor measures were developed to address agricultural impacts as the recommendations outlined in the Soper Hills Background Summary Report stated that agricultural impacts should be considered in the draft plan of subdivision stage.



3.3 Land Use Categories

The land uses comprising the three Land Use Alternatives are based on the designations in the Clarington Official Plan and sub-categories created based on the densities, housing forms and built form set out in Tables 4-2 and 4-3.

Low Density

The majority of the Secondary Plan is comprised of the Low Density designation in all three Land Use Alternatives, planned for semi-detached dwellings and detached dwellings, one to three storeys in height. The minimum density for these areas is 13 net units per hectare (uph) and the assumed density is 27 net uph.

The Official Plan permits limited townhouses within the interior of neighbourhoods, and up to 20% of the Low Density is to include townhouses. To reflect that permission, all three options illustrate the potential locations for townhouses within an additional land use category: the Low Density -Townhouse. Across the three Land Use Alternatives, the Low Density-Townhouse represents approximately 10-12% of the low density area. The minimum density for these areas is 40 net uph and the assumed density is 50 net uph.

Regional Corridor

In the Land Use Alternatives, the Regional Corridor is comprised of two land use categories to reflect the built form mix in Table 4-3:

- High Density/ Mixed Use Regional Corridor, consisting of mixed use buildings and apartments, including development of 7-12 storeys in height with a minimum density of 85 net uph and assumed density of 120 net uph; and
- Medium Density Regional Corridor, consisting of mixed use buildings and apartments, including development of 5-6 storeys in height with a minimum density of 85 net uph and assumed density of 85 net uph;

The permitted built forms follow the Official Plan permissions. The High Density/Mixed Use Regional Corridor comprises approximately 28% of the total Regional Corridor in all three Land Use Alternatives.

Local Corridor

Along Local Corridors, non-residential uses are only permitted in mixed use buildings and are not to exceed 1,500 square metres per site (policy 10.6.7). Development in Corridors shall be at least two storeys in height per policy 10.3.5.

The Local Corridors are also comprised of two land use categories:

- Medium Density Local Corridor Mid Rise, which will permit development of 5-6 storeys (mixed use and apartments) with a minimum density of 40 uph and assumed density of 60 net uph; and
- Medium Density Local Corridor Low Rise which will permit development of 2-4 storeys (mixed use buildings, apartments, townhouses) with a minimum density of 40 uph and an assumed density of 50 net uph.



The permitted built forms follow the Official Plan permissions. The Medium Density Local Corridor - Mid Rise is planned to occupy approximately 20% of the Corridor in line with table 4-3 of the Clarington Official Plan.

Neighbourhood Centre

A Neighbourhood Centre is proposed in each Land Use Alternative. It is intended to provide a central location for retail and service uses meeting local residents daily needs, and permits mix use development. This location provides the opportunity for residents to walk or bike to the node for daily needs and helps to create a more sustainable plan. A maximum of 5,000 square metres of gross leasable floorspace is permitted. All three Land Use Alternatives include a Neighbourhood Centre of 3 hectares in different locations, each which is to accommodate mixed uses, including a maximum of 5,000 sq.m. of retail.

Table 1 summarises the information provided above, by land use.

Table 1: Summary of land use categories

	Height	Min. Density (uph)	Assumed Density (uph)	Built Forms	Proportion
High Density/Mixed Use Regional Corridor	7-12	85	120	Mixed use buildings, apartments	Approximately 10-12% of Regional Corridor
Medium Density Regional Corridor	5-6	85	85	Mixed use buildings, apartments	
Medium Density Local Corridor- Mid Rise	5-6	40	60	Mixed use buildings, apartments,	Approximately 20% of Local Corridor
Medium Density Local Corridor- Low Rise	2-4	40	50	Mixed use buildings, apartments, townhouses	
Low Density- Town House	1-3	40	50	Townhouses	Approximately 10-12% of overall Low Density
Low Density	1-3	13	27	Semi-detached dwellings, detached dwellings	
Neighbourhood Centre				Retail and service uses, including mixed use	



Schools

As part of the background work in Phase 1, the team identified, through discussion with the Simcoe County District School Board, on behalf of the Kawartha Pine Ridge District School Board, and the Peterborough Victoria Northumberland Clarington Catholic District School Board, the need for a total of 3 elementary school sites. Each school site is approximately 2.43 ha.

Parks

The Community Park is planned to be 6 hectares. Community parks are designed to serve the recreational needs of several neighbourhoods, providing outdoor and indoor recreational facilities, non-programmed open space and linkages to the Regional and Municipal trail system.

Neighbourhood parks are to serve the basic active and low intensity recreational needs of the surrounding residents. Neighbourhood parks are to be of a size between 1.5 to 3 hectares depending on the area served and the activities to be provided. In the Land Use Alternatives, neighbourhood parks are planned to be approximately 3 hectares in size.

Parkettes are intended to augment the recreation, leisure and amenity needs of a neighbourhood but will not contain sports fields. They are to be between 0.5 ha and 1 ha in size. They are required wherever the Municipality deems it necessary to augment or adjust the park requirements of any neighbourhood (policy 18.3.7). In the Land Use Alternatives, parkettes are planned to be approximately 0.5 hectares in size.

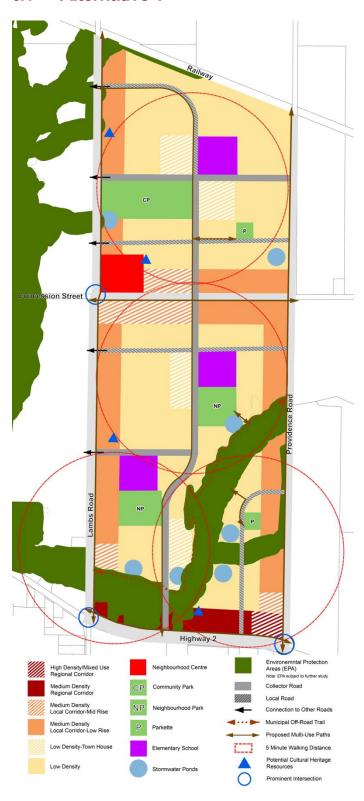
The Land Use Alternatives provide the same overall quantum of park land to be developed as a community park, neighbourhood parks or parkettes totaling 12 hectares, while the location and breakdown of park types differs by Land Use Alternative, as described further under each Land Use Alternative.

The quantum of Neighbourhood Parks and Parkettes in each of the three Land Use Alternatives totals 6 hectares, which is close to the ratio of 0.8 hectares of non-Community Parks per 1,000 residents required in policy 18.3.3 in the Clarington Official Plan. Further parkland may be added in the preferred plan per further analysis by the Municipality of Clarington on parkland dedication and the recreation needs of the Study Area.

Park design requirements such as maximizing exposure to a public street, minimizing back lotting onto public parks, and enhancing the public realm are matters that will be addressed through the secondary plan policies and will not be addressed through the evaluation as there is not sufficient detail on the Land Use Alternatives to evaluate these matters.



3.4 Alternative 1



Alternative 1 is designed with a north-south focus, with key components of activity and density centrally located along the central north-south collector road.





Regional Corridor

In Alternative 1, the High Density Mixed Use Regional Corridor land use is located at Highway 2 and Providence Road. The Medium Density Regional Corridor land use is located along the remainder of Highway 2.





Local Corridor

The Medium Density Local Corridor - Mid-Rise is concentrated primarily along Concession Street near the neighbourhood centre, with two small clusters at the southern ends of Lambs Road and Providence Road, in proximity to the Regional Corridor.



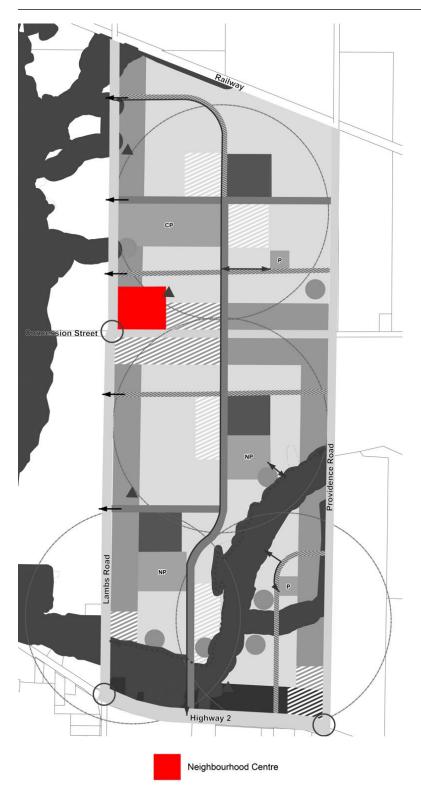


Low Density

Outside of the Corridors, the balance of the lands not planned for parks or schools are Low Density.

Townhouses are proposed to be in three pockets along the collector road that runs northsouth through the middle of the Study Area.





Neighbourhood Centre

The neighbourhood centre is located at the northeastern intersection of Concession Street opposite an area designated High Density Mixed Use on the Jury Lands (OPA 121).





Schools

Alternative 1 shows three elementary schools located on the proposed collector roads. Two schools are located to the west of the north-south collector road while the other elementary school is located along the southernmost east-west collector road, abutting the Local Corridor.





Parks and Open Space

A community park is located to the north of Concession Street, to the south of the proposed collector road and opposite the Municipal Wide Park in the Jury Lands (OPA 121). Two neighbourhood parks are located adjacent to the two southern most elementary schools. Additionally, there are two small parkettes located where additional parkland will improve walkability in the southeast section of the Study Area and in the northeast.

Walkability

Each 400m neighbourhood includes access to parks and an elementary school within a 5-minute walking distance with the exception of the southeastern node, which has a parkette but no school.



Transportation and Active Transportation



Collector Roads

There is a collector road that runs north-south through the middle of the Study Area, which connects south all the way to Highway 2. There are additionally collector roads that run east-west, though only the northern of the two, connects Lambs Road to Providence Street.

Local Roads

A few local roads are shown to illustrate connectivity within the Study Area and to adjacent areas for illustrative purposes.





Trails

There are several on-road trails between parks, roads and the Environmental Protection Areas. There is also an off-road trail along the western side of the Environmental Protection Areas that connects Providence Street and Lambs Road.



Table 2 describes the land areas and projected units, population and jobs for that could arise from Alternative 1. This Alternative results in a density of 52.3 persons and jobs per hectare.

Table 2: Land Area, Units, People, Retail Floor Area and Jobs for Land Use Alternative 1

Land Use Alternative 1						
	Area (HA)	Units	People	Retail Floor	Jobs	
				Area (sq.m.)		
High Density/Mixed Use Regional	1.3	115	173	490	11	
Corridor						
Medium Density Regional Corridor	3.4	214	321			
Medium Density Local Corridor-Mid	7.9	351	526			
Rise						
Medium Density Local Corridor-Low	29.4	1,088	2,643			
Rise						
Low Density-Town House	6.9	255	620			
Low Density	70	1,399	4,392			
Neighbourhood Centre	3	44	66	4,950	108	
School	7.3				30	
Parks	12					
Environmental Protection Areas	26.5					
Total	167.7	3,466	8,741	5,440	149	



3.5 Alternative 2



Alternative 2 is designed with a centrally located hub of uses, with a cluster of density and amenities, including the Neighbourhood Centre and Community Park located at the intersection of the north-south collector road and Concession Road.





Regional Corridor

In Alternative 2, the High Density/Mixed Use Regional Corridor designation is proposed at the corners of Highway 2 and Lambs Road and Highway 2 and Providence Road. The Medium Density Regional Corridor designation is located along the remainder of Highway 2.

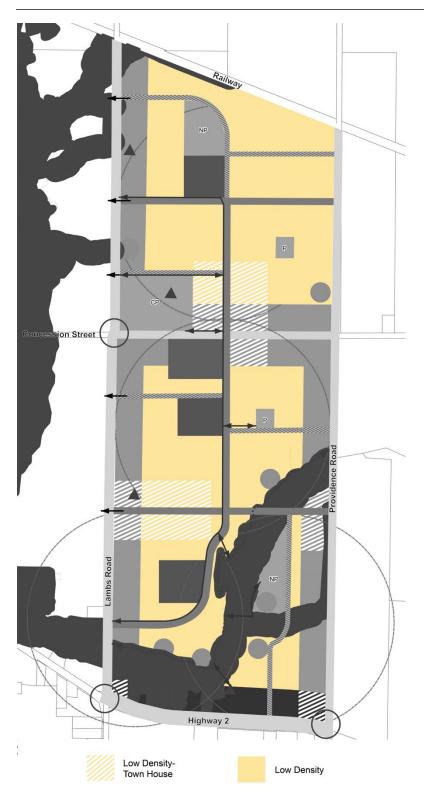




Local Corridor

The Medium Density Local Corridor - Mid Rise is located centrally at the intersection of the north-south collector road and Concession Street. The Mid Rise land use is also located along the southerly east-west collector road at the intersection of Lambs Road and Providence Road. The balance of the Local Corridor is Medium Density Local Corridor - Low Rise.





Low Density

The Low Density –
Townhouses are proposed in two locations: 1) near the intersection of Concession Street and the north-south collector road and 2) along southerly east-west collector road.





Neighbourhood Centre

The neighbourhood centre is located at the southwestern intersection of Concession Street and the proposed north-south collector road. It provides a central location to both the northern and southern quadrants of the Secondary Plan.





Schools

Alternative 2 shows three elementary schools located on the west side of the proposed north-south collector roads. Only one of which is located adjacent to a neighbourhood park.





Parks and Open Space

The community park is located at the corner of Concession Street and Lambs Road as shown in the Clarington Official Plan. Two neighbourhood parks are proposed; one in the southeast enclave east of the stream adjacent to the **Environmental Protection** Area and another paired with a school in the northern end of the Study Area. There are also two parkettes on the western portion of the Study Area to enhance walkability to parkland.

Walkability

Each 400m neighbourhood includes access to parks and an elementary school within a 5-minute walking distance, except in the southeastern quadrant of the Study Area, where there is no school.



Transportation and Active Transportation



Collector Roads

There is a collector road that runs north-south in the middle of the Study Area which then curves connecting, to the north and south sides of Lambs Road. There are additionally two other collector roads that run east-west at the north and south sides of the Study Area, connecting Lambs Road to Providence Road.

Local Roads

A few local roads are shown to illustrate connectivity within the Study Area and to adjacent areas for illustrative purposes.





Trails

There is also an off-road trail along the Environmental Protection Areas that connects Provence and Lambs Road and several onroad trails that connect to parks.



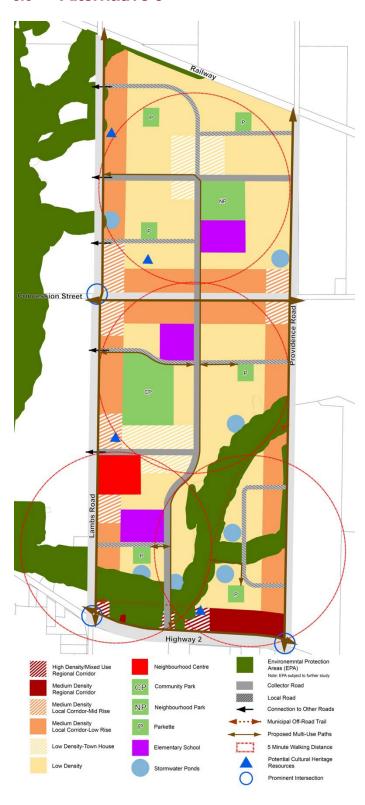
Table 3 describes the land areas and projected units, population and jobs that could arise from Alternative 2. This Alternative results in a density of 52.4 persons and jobs per hectare.

Table 3: Land Area, Units, People, Retail Floor Area and Jobs for Land Use Alternative 2

Land Use Alternative 2						
	Area (HA)	Units	People	Retail	Jobs	
				Floor Area		
				(sq.m.)		
High Density/Mixed Use Regional	1.3	115	173	490	11	
Corridor						
Medium Density Regional Corridor	3.4	214	321			
Medium Density Local Corridor-Mid	7.4	329	493			
Rise						
Medium Density Local Corridor-Low	27.9	1,032	2,508			
Rise						
Low Density-Town House	9.1	337	818			
Low Density	69.8	1,395	4,379			
Neighbourhood Centre	3	44	66	4,950	108	
School	7.3				30	
Parks	12					
Environmental Protection Areas	26.5					
Total	167.7	3,466	8,758	5,440	149	

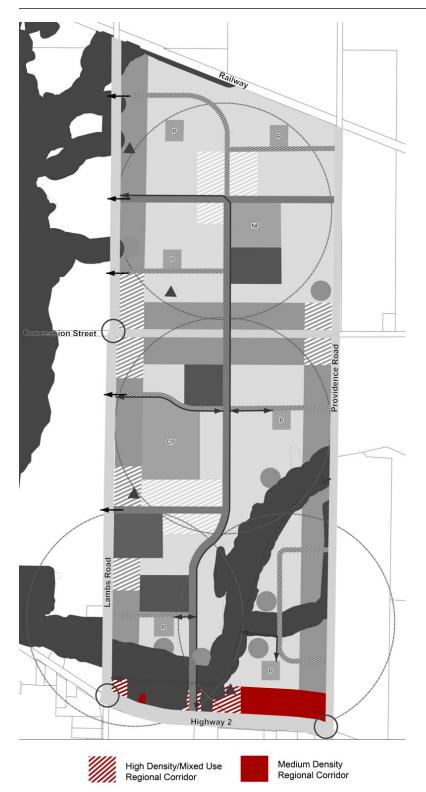


3.6 Alternative 3



Alternative 3 has a southern focus, with the hub of community uses, including the neighbourhood centre, denser uses and Community Park, located in the southwestern quadrant of the site, at Lambs Road and an east-west collector.





Regional Corridor

The High Density/Mixed Use Regional Corridor designation is proposed on the western half of the corridor adjacent to the Environmental Protection Area, with the remainder of the Regional Corridor proposed for Medium Density Local Corridor – Mid Rise.

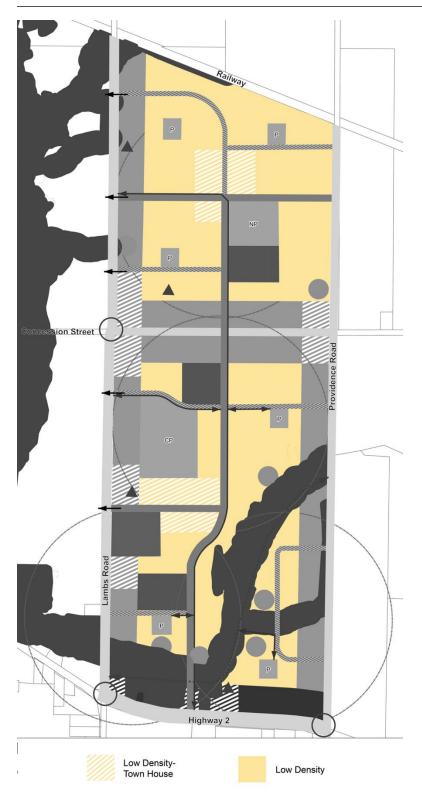




Local Corridor

The Medium Density Local
Corridor - Mid Rise is located
at the corners of Concession
Street and Lambs Road and
Concession Street and
Providence Road, as well as
along Lambs Road, around
the Neighbourhood Centre.
The remainder of the Local
Corridor is proposed for
Medium Density Local
Corridor - Low Rise.





Low Density

The Low Density - Town
House is located at the
southerly east-west collector
road adjacent to the
Neighbourhood Centre
creating a node of higher
density residential. A second
area is located along the
northernly east-west collector
opposite the Neighbourhood
Park.





Neighbourhood Centre

The neighbourhood centre is proposed at the corner of Lambs Road and the southernmost east-west collector road.





Schools

Alternative 3 shows three elementary schools located along the north-south collector road. There is one school located at the south end at the corner of a local finder road that intersects with Lambs Road, another is located south of Concession Street and the third is located adjacent to the Neighbourhood Park north of Concession Street.





Parks and Open Space

The community park is located in the southern quadrant of the Secondary Plan and is located on a knoll to maintain the views offered by that unique feature. One neighbourhood park is proposed adjacent to the northernmost elementary school. Six parkettes are proposed, spread out across the Study Area, centrally located within residential areas.

Walkability

Each 400m neighbourhood includes access to parks and an elementary school within a 5-minute walking distance, except in the southeastern portion of the Study Area, where there is no school.



Transportation and Active Transportation



Collector Roads

There is a collector road that runs north-south through the middle of the Study Area, connecting to Highway 2 and a collector road that runs east-west between Lambs Road and Providence Road, north of Concession Street. The other collector road runs from the middle collector Road to Lambs Road, in the southern portion of the Study Area.

Local Roads

A few local roads are shown to illustrate connectivity within the Study Area and to adjacent areas for illustrative purposes.





Trails

There is an off-road trail that runs along the eastern side of the Environmental Protection Areas, as well as on road trails that connect to parks.



Table 4 describes the land areas and projected units, population and jobs that could arise from Alternative 3. This Alternative results in a density of 52.8 persons and jobs per hectare.

Table 4: Land Area, Units, People, Retail Floor Area and Jobs for Land Use Alternative 3

Land Use Alternative 3					
	Area	Units	People	Retail	Jobs
	(HA)			Floor Area	
				(sq.m.)	
High Density/Mixed Use Regional	1.3	115	173	490	11
Corridor					
Medium Density Regional Corridor	3.4	214	321		
Medium Density Local Corridor-Mid	8.3	369	553		
Rise					
Medium Density Local Corridor-Low	31.2	1,154	2,805		
Rise					
Low Density-Town House	8.6	318	773		
Low Density	66.1	1,321	4,147		
Neighbourhood Centre	3	44	66	4,950	108
School	7.3				30
Parks	12	_			
Environmental Protection Areas	26.5				
Total	167.7	3,535	8,838	5,440	149



4 Evaluation Criteria and Measures



The purpose of the evaluation criteria and measures is to guide the evaluation of three Land Use Alternatives that will be prepared for the Soper Hills Secondary Plan Study Area. The criteria and measures reflect the findings of the background reports, requirements of official plan policies and consideration of guidelines and best practices. The criteria and measures will be used to determine what elements of each Land Use Alternative are preferred and should be included in the emerging land use plan and Secondary Plan.

The evaluation criteria are organized under key themes and related principles. Themes include: Built Environment, Transportation and Mobility, Natural Environment and Protection Areas, Parks and Open Space, Sustainable Servicing and Stormwater Management Infrastructure, Cultural Heritage and Archaeology.

In the next step in this Study, an evaluation matrix will be prepared that summarizes the evaluation of the three Land Use Alternatives against the criteria and measures. It will describe the detailed analysis and the rationale for which elements to include in the emerging plan. The matrix will communicate which element of each Land Use Alternative best achieves the measures through the following symbology:

- Least Preferred
- Moderately Preferred
- Most Preferred

The emerging land use plan will not necessarily be one of the three Land Use Alternatives, but rather a combination of the most preferred elements of each of the three and could include additional elements considered through the engagement process.

4.1 Criteria and Measures

Theme - Built Environment

Principle: Provide for the efficient use of land with the creation of a compact, complete, connected and walkable community.

Criteria: Provide higher density housing within the Corridors to support existing and future transit and encourage active transportation.



Measure: Do the Regional Corridor land use designations permit higher density housing to support transit and active transportation?

Measure: What is the proportion of potential residential units within 400 metres (5 - minute) walking distance of a Regional Corridor?

Measure: Do the Local Corridor land use designations permit a higher density mix use form to support future transit and active transportation?

Measure: What is the proportion of potential residential units within 400 metres (5 - minute) walking distance of a Local Corridor?

Measure: Is the Neighbourhood Centre located along a Regional or Local Corridor?

Criteria: Create a compact, walkable community.

Measure: What is the proportion of potential residential units within 400 metres walking distance of a park?

Measure: What is the proportion of potential residential units within 400 metres walking distance of a school?

Measure: What is the proportion of potential residential units within 400 metres walking distance of a Neighbourhood Centre?

Measure: Do all neighbourhoods have access to a trail (Clarington Official Plan 18.4.1)?

Criteria: Provide for a variety of housing types and arrangements such as townhouses, singles and semis, and multi-unit dwellings.

Measure: Does the Land Use Alternative provide the ability to include a mix of land uses and housing types (Clarington Official Plan 5.2.2)?

Criteria: Foster a sense of place.

Measure: Does the Land Use Alternative optimize existing topographic features in its distribution of land use designations to create views unique to the Study Area?

Measure: Do the prominent intersections identified in the Official Plan at Highway 2 and Lamb Road and Highway 2 and Providence Road permit land uses that support the design of a community focal point through massing and building height that emphasize the significance of an intersection? (Clarington Official Plan 5.4.10)



Criteria: Land use mix is supportive for people of all ages and incomes.

Measure: Does the Land Use Alternative provide a broad range of housing types to meet the evolving housing needs for people of all ages, abilities and income groups (Clarington Official Plan 6.1.1, 6.3.1)?

Measure: Does the proposed housing mix provide opportunities to provide 1.5 hectares of affordable housing options, especially along Corridors (Clarington Official Plan 6.3.2)?

Measure: What proportion of the Study Area's multi-unit housing forms are located along Corridors (Clarington Official Plan 6.3.2)?

Theme – Transportation and Mobility

Principle: Reduce dependence on personal vehicles and prioritize active transportation modes of travel by creating a network that encourages walking and cycling and improve overall health for the residents and community

Criteria: Provide sufficient capacity and connectivity for all travel modes - vehicular, future transit, active transportation.

Measure: Does the proposed collector road network provide sufficient network capacity?

Measure: Does the proposed collector road network provide the opportunity for an efficient transit system through the secondary plan area?

Measure: Can the proposed collector road network create an active transportation spine for the community connecting all parts of the secondary plan area including the residential enclaves (Clarington Official Plan 19.5.4)?

Measure: Do trails connect to parks and schools?

Criteria: Minimize impact of the Road network on the Environmental Protection Areas (EPA).

Measure: Does the proposed collector road network limit crossings over watercourses and through the EPA (as measured by the number of stream crossings and length of roads within the EPA).

Measure: Are the EPA crossings located to minimize impact to the EPA, such as at the least sensitive areas?

Criteria: Ability to create a network of Collector Roads serving transportation and active transportation needs.



Measure: Do the proposed collector roads meet the minimum intersection spacing requirements (Clarington Official Plan Table C-2)?

Measure: Does the network of collector roads maximize connections to arterial roads? Measure: Does the collector road network maximize the potential for an integrated active transportation network?

Theme – Natural Environment and Environmental Protection Areas

Principle: Protect, enhance and value significant natural features within and adjacent to Environmental Protection Areas (EPA).

Criteria: Provide trail connections outside areas prone to flooding or significant natural features and that connect to other planned or existing trails

Measure: Do the location of proposed trail locations link parkland to the EPA? Measure: Does the location of a proposed trail avoid or have minimal impact on significant natural heritage features and natural hazards (Clarington Official Plan 14 3.4)?

Measure: Does the Land Use Alternative provide the ability to connect new trails to existing and planned trails in the Municipality's trail plans (Clarington Official Plan 18.4.2)?

Criteria: Provide compatible land uses adjacent to the EPA.

Measure: Are complementary and compatible land uses such as parks located adjacent to the EPA (Clarington Official Plan 3.2.2, 18.3.6)?

Measure: Does the adjacent land use protect and enhance the EPA?

Theme - Parks and Open Space

Principle: Design parks and open spaces that are highly visible, accessible and usable.

Criteria: Meet park provision requirements for Soper Hills.

Measure: Are parks and parkettes sized and distributed within the new community to be able to act as community gathering spaces?

Measure: Are Neighbourhood Parks or Parkettes located as central as possible to the areas which they serve (18.3.6.b)?

Measure: Is the Community Park centrally located to residents (18.3.6)?



Criteria: Establish a sense of place by enhancing views, including landmark buildings, gateway features and public art, and providing opportunities for community gathering.

Measure: Is there an ability to create or enhance important views to natural features (23.3.9.i)?

Theme – Sustainable Servicing and Stormwater Management Infrastructure

Principle: Provide for adequate servicing (water and wastewater) to new development's

Criteria: Minimize impact of trunk services on the Environmental Protection Areas (EPA)

Measure: Does the proposed development pattern limit crossings of watercourses and through the EPA (number of stream crossings and length of services in EPA)?

Measure: Are the service crossings located to minimize impact to the EPA, such as at the least sensitive areas?

Criteria: Ability for new development to be efficiently serviced for stormwater management

Measure: Does the proposed development pattern limit the number of new stormwater management facilities?

Theme – Cultural Heritage and Archaeology

Principle: Respect cultural heritage through conservation and appropriate incorporation into the community.

Criteria: Conserve cultural heritage resources in proximity to the Soper Hills Study Area.

Measure: Can a compatible interface be provided to cultural heritage resources within the study area?

Measure: Can the cultural heritage resources be integrated into the new development?

Measure: Do the proposed land uses appropriately consider and respect the cultural heritage asset on the Jury Lands to the west of the subject site?



5 Next Steps



A public information centre will be held present the Land Use Alternatives and evaluation criteria detailed in this Report and gather public input. Using the public's comments and the criteria and measures, the three Land Use Alternatives will then be subject to a technical evaluation to determine an emerging land use plan which could be a hybrid of the three Land Use Alternatives.

Another public information centre will be held to present the emerging land use plan and gather further public input.



