SINCOE STREET NORTH Land Use, Urban Design and Transportation Study



PREPARED BY GHK International (Canada) Ltd. Markson Borooah Architects Inc. TSH Warme Engineering and Biological Services

April 2006 City of Oshawa Region of Durham



Simcoe Street North Land Use, Urban Design and Transportation Study DRAFT Final Report

April 2006

GHK International (Canada) Ltd. • Markson Borooah Architects Inc. • TSH • Warme Engineering and Biological Services

ACKNOWLEDGEMENTS

The Simcoe Street North Land Use, Urban Design and Transportation Study was prepared in collaboration with members of the public, landowners, representatives from Durham College/University of Ontario Institute of Technology and various agencies. We wish to thank all those who participated in the process.

Steering Committee

Bruce Hunt Evan Rodgers Susan McGregor Steve Mayhew Craig Kelly Patrick Lee Jeff Brooks

Study Team:

GHK Canada: John Gladki, Kelly Skeith Markson Borooah Architects: Ronji Borooah, Gaston Soucy, Jane Kuang

TSH: Doug Robertson, Michael Thompson

Warme Engineering & Biological Services: Rudi Warme

TABLE OF CONTENTS

PART I: CONTEXT AND OPTIONS

1.0	INTRODUCTION	3
	1.1 Purpose of the Study	4
	1.2 Study Process	5
	1.3 Public Consultation	7
2.0	POLICY CONTEXT	10
	Provincial Policy Statement	10
	Proposed Provincial Growth Plan	10
	Durham Regional Official Plan	10
	Region of Durham Transportation Master Plan	11
	Region of Durham Arterial Corridor Guidelines	13
	Durham Region Cycling Plan	13
	City of Oshawa Official Plan	14
	Secondary Plan for the Samac Community	14
	City of Oshawa Zoning By-Law 60-94	16
	Airport Registered Zoning	16
3.0	STUDY CONTEXT: EXISTING CONDITIONS	17
	3.1 Existing Land Uses	17

	•••
3.2 Built Form and Streetscape	18
3.3 Transportation	18

3.4 Servicing	23			
3.4.1 Sanitary Servicing	23			
3.4.2 Stormwater	23			
3.5 Natural Areas and Environmental Conditions	24			
3.6 Heritage Inventory	24			
3.7 Surrounding Area	25			
3.7.1 Durham College and UOIT	25			
3.7.2 Windfields Community	25			
4.0 OPTIONS				
4.1 Land Use and Urban Design Options				
4.1.1 Assessment of Land Use and Urban Design Options	30			
4.2 Transportation Options				
4.2.1 Right-of-Way Width	32			
4.2.2 Turn Lane Access	36			
4.2.3 Traffic Control and Local Street Alignments	38			

4.2.4 Transportation Assessment

PART II: RECOMMENDED PLAN AND IMPLEMENTATION

5.0 RECOMMENDED LAND USE PLAN	47	9.0 IMPLEMENTATION	69
5.1 Land Use Designations	48	9.1 Amendments to the Oshawa Official Plan	69
5.2 Land Use Distribution	50	9.2 Amendments to the Samac Community Secondary Plan	70
5.3 Planning Rationale	50	9.3 Zoning By-law	71
		9.4 Zoning Approach	73
	57	9.4.1 RC - A	73
6.0 RECOMMENDED URBAN DESIGN CONCEPT		9.4.2 RC - B	75
		9.4.3 RC - C	77
		9.4.4 R6-E/OSH(1)	79
7.0 RECOMMENDED TRANSPORTATION PLAN	59	9.4.5 Other zones	80
7.1 Right-of-Way (ROW) Width	59		
7.2 Turn Lane and Access	62	10.0 ADDITIONAL STUDY RECOMMENDATIONS	81
7.3 Traffic Control and Local Street Alignment	65	10.0 ADDITIONAL STUDT RECOMMENDATIONS	
8.0 RECOMMENDED SERVICING PLAN	66	11.0 CONCLUSION	83
8.1 Sanitary Sewer	66		
8.2 Municipal Water Supply	66	APPENDIX A:	
8.3 Stormwater Management	66	ESTIMATES OF POPULATION AND COMMERCIAL AREA	85

PART I: CONTEXT AND OPTIONS



Figure 1. Study Area.







Study area

Simcoe St. N., south end of Looking north at Selleck Ln. the study area

1.0 INTRODUCTION

The City of Oshawa and Region of Durham have partnered together to prepare a land use and urban design planning framework and transportation plan along Simcoe St. N., between Conlin Rd. and Oshawa Creek. The intent is to guide development and design decisions in conjunction with a strategy to address future transportation needs.

Simcoe St. N. is the main north-south connection from Oshawa's downtown to residential communities in the north, a future Main Central Area and potential future interchange with Highway 407. It also serves as a major commuter route to Durham College and the new University of Ontario Institute of Technology (UOIT) campus, and as a main road to Port Perry and beyond. The portion of Simcoe Street which is the subject of this study is located approximately 5 km from Oshawa's downtown and includes a portion of Camp Samac on the east side. The study area does not include the Simcoe St. N. frontage of the main Durham College campus, since these lands are being developed in accordance with a recently approved master plan.

Simcoe St. N. is under the jurisdiction of the Region of Durham. Within the study area, Simcoe St. N. has four lanes and it is identified as a Type 'B' Arterial Road and a Major Transit Corridor within the Region's Official Plan and Transportation Master Plan.

An interim control by-law for the study area is in effect until July 2006.

1.1 Purpose of the Study

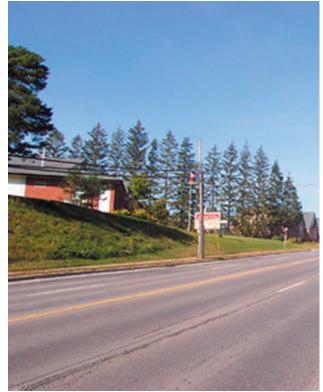
The existing policy framework for development along the study corridor is the Secondary Plan for the Samac Community (Samac Secondary Plan), prepared in 1987. At that time, Conlin Rd. represented the northern boundary of the City's Major Urban Area. Over the years, Simcoe St. N. has undergone a number of transformations:

- Residential subdivision development has occurred both on the east and west sides of Simcoe St. N., and south of the Durham College/UOIT campus;
- The Windfields Community is being developed with the first phase of approximately 700 homes under construction just north of the study boundary;
- The City's Major Urban Area boundary has been extended northward to the future Highway 407;
- Durham College has undergone expansion and UOIT has been established; and
- UOIT has acquired lands north of Conlin Rd., on the west side of Simcoe St. N.

These initiatives have resulted in a heightened level of interest for development and pressure for land assembly along this section of Simcoe St. N. Additionally, the rapid growth of the post-secondary institutions has caused increased pressure for off-campus student housing and associated services, which has resulted in some conflicts between students and residents in the surrounding communities.

In early 2005, GHK International (Canada) Ltd., in association with Markson Borooah Architects, TSH and Warmé Engineering and Biological Services were retained by the City Oshawa and Region of Durham to prepare a land use and urban design planning framework to guide development and design decisions along with a strategy to address future transportation needs along Simcoe St. N., between Conlin Rd. and Oshawa Creek. The Simcoe St. N. Study final report includes:

- Summary of objectives and study process (Chapter 1)
- Policy context (Chapter 2)
- Review of existing conditions (Chapter 3)
- Options for land use and transportation (Chapter 4)
- Land use plan (Chapter 5)
- Overview of design concept (Chapter 6)
- Transportation strategy (Chapter 7)
- Overview of servicing recommendations (Chapter 8)
- Direction for implementation (Chapter 9)
- Additional study recommendations (Chapter 10)
- Conclusions (11)



Looking north along the study corridor with the Shrine Club on the west side

Four reports have been submitted under separate cover:

- Urban Design Guidelines
- Stormwater Management Report
- Student Accommodation Review
- Public Consultation Process



1.2 Study Process

The process for the preparation of the Simcoe Street North Corridor Land Use, Urban Design and Transportation Study consisted of meetings with Steering Committee members, consultation with the public and stakeholders, a Background Report and Options Report.

- Steering Committee meetings were conducted at key points during the study process: at project start-up, prior to the first public open house and meeting, to develop an approach to land use, and to review preliminary alternative options.
- Consultation with the landowners, stakeholders and the general public consisted of: interviews with landowners, interviews with representatives of Durham College/UOIT and Central Lake Ontario Conservation Authority (CLOCA), a design charrette, three public open houses and a small group meeting. Numerous phone calls, emails and written submissions were also received and assessed. Study Objectives were based on input from the public and existing policy. They were discussed during the first open house/ public meeting and the design charrette. All presentations at the public consultation meetings were available for viewing on the City's website.
- A Background Report¹ was prepared and made available on the City's website. This report provided a full review of existing conditions in the study area (land use, streetscape conditions, transportation, servicing and stormwater) and conditions in the surrounding area. The report identified the policy context, reviewed proposals for development, and analyzed opportunities and constraints. This report also included a review of natural environment components.

• An Options Report was prepared that analyzed results of the design charrette and provided options for land use, urban design and transportation. This information was presented at the June 29, 2005 public open house and at the October 11, 2005 Development Services Committee meeting.

The Simcoe St. N. Study also followed the Municipal Class Environmental Assessment (EA) process for Schedule B projects. The Class EA process applies only to the proposed road improvements, and related utilities works. Implementation of the proposed land use changes is subject to the requirements of the Planning Act.

Study Objectives

- 1. Create a mix of land uses that balance the needs of residents and owners.
- 2. Provide for transit-supportive development and encourage intensification of land uses (in accordance with Provincial policy directions).
- 3. Create a significant "gateway" to the College/UOIT and the urban area of Oshawa
- 4. Improve traffic operations.
- 5. Support transit use and operations and plan for the evolution of transit on Simcoe St. N.
- 6. Extend sanitary servicing to Conlin Rd.
- 7. Design a safe and accessible corridor.
- 8. Promote safe cycling connections.
- 9. Develop a pedestrian-friendly corridor and improve options for pedestrian crossings.
- 10. Create an attractive and welcoming streetscape.
- 11. Improve linkages to open spaces.
- 12. Enhance natural areas.
- 13. Encourage environmentally sustainable development.

1.3 Public Consultation

The Simcoe St. N. Study public consultation process was organized around the following components²:

- Notice of study commencement and letter of study introduction (March 2005)
- Interviews with stakeholders
- Open House and Public Meeting #1 (April 14, 2005)
- Planning and Design Workshop (May 25, 2005)
- Open House and Public Meeting #2 (June 29, 2005)
- Presentation to Development Services Committee (October 11, 2005)
- Meeting with study area property owners and adjacent residents on the east side of Simcoe St. N. (January 12, 2006)
- Open House and Public Meeting #3 (January 26, 2006)

Study Commencement and Interviews

In early March 2005, a notice of study commencement was distributed to all property owners in the study corridor, property owners in surrounding communities to the east and west of the Simcoe St. N. study corridor and stakeholder agencies. A notice was also placed in the *Oshawa This Week* newspaper. The notice outlined the purpose of the study and identified opportunities for public consultation. Interviews were conducted with over 30 property owners, staff, agencies and other stakeholders to identify issues and opportunities.

Open House and Public Meeting #1

The purpose of the April 14, 2005 open house/public meeting was to present an overview of existing conditions, confirm issues, constraints and opportunities identified during the research phase of the study, and review and confirm draft study objectives. A map identifying opportunities and constraints was presented at the meeting (see Figure 2).

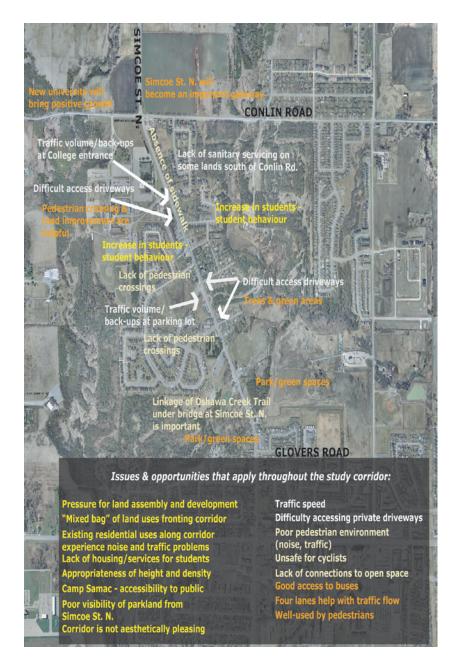
Planning and Design Workshop

A workshop conducted on May 25, 2005 was attended by over 50 participants. It was designed to explore options for future land use, urban design and transportation conditions along the corridor. The session began with a presentation to provide information to consider during the workshop including: appropriate land use, building heights, student housing, treatment of special sites, scenarios for road access, traffic speed management, parking, landscaping, connections to open space, cycling opportunities, and 'green' alternatives.

Following the presentation, participants engaged in small group work facilitated by a consultant team member. Each group worked independently on formulating land use, transportation and urban design solutions. At the conclusion of the small group work, members reported back to all participants on the key decisions for each of the three topic areas.

Open House and Public Meeting #2

A second open house/public meeting was held on June 29, 2005 to present the options for land use, urban design and transportation as well as to identify and discuss the preliminary preferred option. Over 100 people attended the meeting. Following the meeting, the study team received substantial feedback on the preliminary preferred option including over 40 submissions and a petition.





Planning and design workshop



Break out sessions during the workshop

Comments from interviews with the public and city staff



Figure 2. Opportunities and constraints map

Presentation to Development Services Committee

The same options for land use, urban design and transportation were presented to the Development Services Committee on October 11, 2005. A staff report regarding the options was received for information by Council.

Meeting with Property Owners

As a result of the feedback received on the proposed land use plan and the changes proposed for the east side of Simcoe St. N., north of Camp Samac, a meeting was held on January 12, 2006 for property owners along the corridor in this area and abutting landowners directly affected. Meeting topics were based on feedback and included proposed heights, mix of land uses, densities and building form and their potential impacts to adjacent neighbours. A computer-generated model was prepared to illustrate how issues could be mitigated based on design guidelines. The meeting was attended by more than 60 people.

Open House and Public Meeting #3

In response to feedback from the meeting with property owners, revisions to setbacks, building heights and other development criteria were prepared and the Recommended Land Use Plan (RLUP) and associated guidelines for development were presented at an open house and public meeting on January 26, 2006. More than 85 people were in attendance. Following the meeting, five comment sheets were received and a number of phone calls were fielded by the study team.

Footnotes

2 For more details of the public consultation process and results, refer to the report, Public Consultation Process for Simcoe St. N. Land Use, Urban Design and Transportation Study, 2006.

¹ Simcoe St. N. Land Use, Urban Design and Transportation Study: Background and Analysis Report, June 14, 2005.

2.0 POLICY CONTEXT

Land use is guided by a number of Provincial, Regional and local plans.

Provincial Policy Statement (PPS)

The PPS establishes the policy foundation for regulating the development and use of land in Ontario. Key directions for community design include wisely managing change to promote efficient development and land use patterns. Managing land use is based on accommodating an appropriate range and mix of uses, intensification and redevelopment of land, efficient use of infrastructure and services that protects the diversity of natural connections, and providing housing forms that promote densities which use land, resources and infrastructure efficiently. The land use pattern, density and mix of land uses should be promoted that minimize the length and number of vehicle trips and support development of public transit.

Proposed Provincial Growth Plan for the Greater Golden Horseshoe (Proposed Growth Plan)

Established under the Places to Grow Act (Bill 136), the objectives of the Proposed Growth Plan¹ are to effectively manage growth and develop stronger communities. Integral to the Proposed Growth Plan is the emphasis on compact urban form and optimizing the use of existing land supply to better utilize existing infrastructure.

Growth management is guided by directing a significant portion of new growth to the built-up areas of the community through intensification and reducing automobile dependence through the development of mixed use, transit-supportive, pedestrian-friendly urban environments.

Urban growth centres are identified as focal areas for investment, to support major transit infrastructure and to serve as high density major employment centres. Oshawa's downtown is identified as an *urban* *growth centre* and efforts are underway to revitalize the downtown in accordance with this objective.

Intensification corridors are identified as lands along major roads, arterials or higher order transit corridors within the built boundary that have potential to provide a focus for higher density mixed-use development consistent with planned transit service levels. They will generally be planned to accommodate local services including commercial, recreational, cultural and entertainment uses as well as locations for large offices and commercial development.

Durham Regional Official Plan (DROP)

Approved by the Province in 1993, the Durham Regional Official Plan (DROP) guides the general policies and land use designations for the Region until 2021. The Region is undertaking a review of the DROP and amendments have been proposed. The proposed DROP amendments utilize a "Centres" and "Corridors" approach to urban development in the Region. These Centres and Corridors will act as focal points for development. The proposed DROP policies pertaining to the Simcoe St. N. Study corridor include the following

- Simcoe St. N. is identified as a Regional Corridor. Regional Corridors are key connections between Centres. Corridors are to be developed in accordance with the promotion of transit through high quality urban design, mix of land uses and compact form.
- Simcoe St. N. is identified as a Transit Spine (see Figure 3).
- The importance of a Provincial freeway system is recognized, including the extension of Highway 407 to Highway 35/115.
- Simcoe St. N. is identified as a Type 'B' Arterial Road.
- Previously recognized Regional Nodes in Urban Areas are removed. This includes the Durham College/UOIT "Regional Node".

According to the proposed amendments to the DROP, Transit Spines are to facilitate inter-regional and inter-municipal service along arterial roads, and intersect with local transit services. Development adjacent to Transit Spines shall provide for the following:

- High density and mixed uses;
- Buildings oriented towards the street, to reduce walking distances to transit facilities;
- Facilities which support non-auto modes including: drop off facilities, bus bays, bus loops, bus shelters, walkways, trails and other pedestrian and cycling facilities; and
- Limited surface parking and the potential redevelopment of existing surface parking.

According to the proposed amendments to the DROP, a Type 'B' Arterial Road is characterized by the following qualities:

- Traffic movement is a major consideration;
- Predominantly serves inter- and intra-municipal trips
- Incremental/progressive access control;
- Permit private access generally located a minimum of 80 metres apart in Urban Areas;
- Promote higher densities with shared or combined access
- Typical daily traffic volume is 5,000-40,000 AADT;
- Uninterrupted flow except at traffic control signals;
- Travel speed is 60 km/h urban, 80 km/h rural;
- Generally no restrictions on goods movement;
- Connects with freeways, arterials and collectors;
- May serve as regional transit spines;
- Cycling provisions to be determined subsequent to the completion of the Regional Cycling Plan Study;
- Sidewalk on both sides for pedestrians; and
- Parking is prohibited or peak hour restrictions.

Region of Durham - Transportation Master Plan

In December 2003, the Region approved a Transportation Master Plan (TMP) as a strategic planning document designed to identify the policies, programs and infrastructure improvements required to address Durham's transportation needs for the next 20 years and beyond. The TMP identifies a Transit Priority Network which comprises several elements including Major Transit Corridors. Simcoe St. N. is identified as a Major Transit Corridor.

Major Transit Corridors:

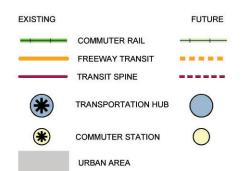
- Facilitate inter-regional and inter-municipal transit service;
- Intersect with Minor Transit Corridors and local transit services;
- Link to Transportation Centres (e.g. potential Highway 407/ Simcoe Street interchange);
- Link to commuter and inter-city passenger rail stations (e.g. Oshawa GO Rail Station);
- Connect to the Central Areas designated in the Regional Official Plan (e.g. potential Highway 407/Simcoe Street interchange);
- Have transit supportive land uses along the corridor;
- Will be considered for reserved transit lanes first, assuming service levels necessitate priority treatment.

The approved 2005 Capital Road Program proposes construction of the road to allow for rehabilitation and widening in the year 2007 at a total construction cost of \$1,000 K. More recently the draft proposed 2006 Capital Road Program has identified proposed reconstruction of Simcoe St. N. for the year 2008. This year (2008) was seen as a more realistic time frame for construction given the status of the Environmental Assessment study, the recommendations of this report and the existing committed projects scheduled for 2007. The proposed road construction cost has been more recently estimated at a cost of \$ 3,400 K.

Simcoe Street North Land Use, Urban Design & Transportation Study

The Region's TMP identifies Simcoe St. N. from Conlin Rd. to Winchester Rd. as a widening project from two to five lanes between 2008 and 2012. This will address the projected capacity deficiency in the Oshawa North-South sub-area resulting from growth in north Oshawa and the development of the Durham College/UOIT. This widening supports the provision of higher-order transit service on Simcoe Street to connect to the potential future Highway 407 transitway and will accommodate vehicle access to the future Highway 407.





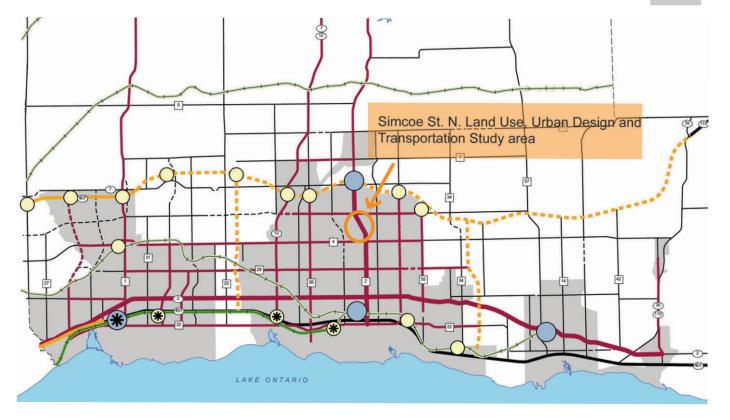


Figure 3. Proposed DROP amendment Schedule 'C' - Map C3 Transit Priority Network depicting study area as a Regional Transit Spine

Region of Durham Arterial Corridor Guidelines

Through the Transportation Master Plan process, the Region identified a need to improve the balance between the traffic/utility corridor functions of arterial roads and the local communities and land uses through which they pass by improving integration of transportation planning and design with land use planning and urban design. To address this need, the Region initiated a study to develop guidelines for the planning, design and construction of arterial road corridors. As stated in the introduction to the draft study report, the intent of the Arterial Corridor Guidelines is to :

"...assist in promoting a balance between mobility and liveability in the planning, design and construction of features within and abutting the public road allowance. These guidelines represent a toolbox of potential strategies and common reference points to be applied in the process of the planning and design of arterial road corridors by the Region of Durham, the various municipalities, the public and other interested parties. The guidelines are intended to supplement, not replace, existing transportation guidelines and design standards – broadening the conditions and issues that are considered in the design of arterial roads."

Development of the Arterial Corridor Guidelines was initiated in 2004, and is now nearing completion. The recommended guidelines were formally circulated for comment in November 2005, and Regional Council is expected to consider them in early 2006.

The Simcoe Street North Land Use, Urban Design and Transportation Study represents a practical application of the integrated planning and design approach endorsed in the Recommended Arterial Corridor Guidelines. Specific strategies and examples provided in the recommended guidelines were considered in the development of the improvements to Simcoe St. N. that are proposed as part of this study.

Durham Region Cycling Plan

Development of a comprehensive, Region-wide Cycling Plan was recommended in the Durham Region Transportation Master Plan. The intent of the plan is to provide guidance for the Region and local municipalities on how best to develop and implement a network of bike routes, lanes and paths, while improving and better coordinating efforts to promote cycling in Durham for commuting and recreation. A study to develop the plan was initiated in early 2005, and the draft Durham Region Cycling Plan network was presented to the public for comment in March 2006. Public comments are to be addressed in a draft final report, which will also be made available for public review. The final Cycling Plan will then be presented to Regional Council for endorsement.

The draft Durham Region Cycling Plan network shows the proposed routes for four different types of cycling facilities: on-road bike lanes, signed on-road routes, on-road routes with paved shoulders and offroad multi-use trails. No cycling facilities are currently proposed on Simcoe Street in the study area. A multi-use trail is proposed along the Oshawa Creek valley, crossing Simcoe Street at the south end of the study area and connecting to Durham College/UOIT.

City of Oshawa Official Plan

The City of Oshawa Official Plan (OP) was approved by the Province in 1987. The OP establishes four land use designations within the study corridor: *Institutional, Planned Commercial Strip, Residential* and *Open Space and Recreation*. To the north of the study area is the Windfields *Main Central Area*, located at the intersection of Winchester Rd. and Simcoe St. N. A *Sub-Central Area* is located to the southeast of the study area, at Taunton Rd. and Ritson Rd. The City's OP recognizes Simcoe St. N. as a Type B arterial road.

The Official Plan identifies lands associated with the Oshawa Creek Valley as an Environmentally Sensitive Area and Hazard Lands. In addition, most of the study area is identified as a Groundwater Recharge Area. City projections indicate that land use designations are provided to accommodate a population of approximately 210,000 persons and 110,000 jobs south of future Highway 407 by 2021.

Secondary Plan for the Samac Community

The Samac Secondary Plan, approved in 1987, guides the development of lands located within the Simcoe St. N. study corridor and surrounding area. During the preparation of this Plan, Conlin Rd. was generally the northern limit of the City's Major Urban Area.

Land use designations identified within the study corridor along the east side include *Open Space and Recreation, Low-Density Residential* (up to 30 units per hectare/12 units per acre) and *Planned Commercial Strip* at the corner of Simcoe St. N. and Conlin Rd. which permits commercial uses that, by nature of their function, require the direct access or exposure afforded by frontage on an arterial street. In addition, limited office, retail and personal service uses may be permitted. See Figure 4. On the west side, the northern half of the corridor is dominated by a *Planned Commercial Strip* designation. The remaining designations on the west side are more varied: *Community Uses* (pertaining to the existing Shrine Club), *Medium Density I Residential*(30-60 units per hectare/12-24 units per acre), *High Density I Residential* (86-150 units per hectare/34-60 units per acre), and *Open Space and Recreation*.

Simcoe Street North Land Use, Urban Design & Transportation Study

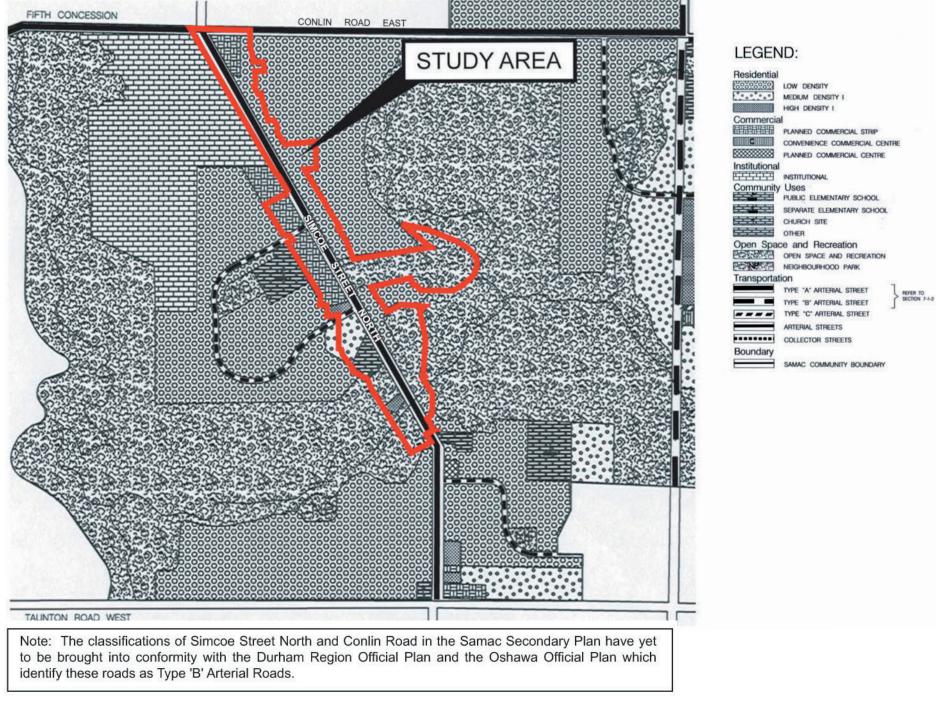


Figure 4. Land use designations in the Samac Secondary Plan within the study area

City of Oshawa Zoning By-Law 60-94

The City of Oshawa Zoning By-law 60-94 was approved by Council in 1994 with subsequent amendments (latest consolidation in July 2004). The study corridor is divided into 10 zones:

- R1-C (Residential)
- R1-C/SSC-B (Residential and Automobile Service Station Zone)
- R4-A/R6-A (Residential)
- R6-A. D95 (Residential)
- R6-C/ CC-B (Residential & Convenience Commercial Zone)
- PSC-A (Planned Strip Commercial)
- PSC-A/ SSC-A (Planned Strip Commercial & Automobile Service Station Zone)
- OSH (1) (Hazard Lands Open space special condition)
- OSU (Urban Open Space)
- CIN (Community Institutional)

Airport Registered Zoning

In 1985, Transport Canada imposed building height restrictions on the title of various properties in Oshawa. This zoning is intended to protect runway approach areas to the Oshawa Airport and overrides local zoning regulations.

The majority of the study corridor falls within the "Outer Surface" elevation of the Airport zoning regulation and permits a maximum building height of 180m above sea level. Despite the height restriction, the regulations permit a building or structure to have a minimum height of 9 metres. Currently, the highest point in the study corridor is 159m and is located approximately at the midpoint between Taylorwood Rd. and Conlin Rd. E. This permits development at that location to a maximum height of 21 metres without exceeding the airport zoning regulations for this area.

The southern portion of the corridor falls within the "Transitional Surface" Slope of 1:7 and encompasses properties at 1574, 1568, 1563 and a portion of 1600 Simcoe St. N. The area directly adjacent to Oshawa Creek falls within the "Approach Surface" of 1:50².

The Airport zoning regulations do not present constraints to development under current City of Oshawa regulations, nor do they present constraints to multi-storey development that may be appropriate for the corridor in the future.

Footnotes

¹ Places to Grow: Proposed Growth Plan for the Greater Golden Horseshoe. November 2005. Province of Ontario, Ministry of Public Infrastructure and Renewal.

² Regulations Respecting Zoning at Oshawa Airport, 1984-1562.

3.0 STUDY CONTEXT: EXISTING CONDITIONS

The study area is located in the northern portion of the City of Oshawa, which has recently experienced rapid growth and development. Land uses within the study corridor represent a combination of residential uses that have existed since the 1950s, limited commercial and retail uses along with the recently expanded Durham College and the new UOIT. Surrounded by relatively recent residential subdivisions, including the Windfields residential community to the north presently under construction, and the Oshawa Creek, Simcoe St. N. is currently poised to experience significant growth and development¹.

3.1 Existing Land Uses

The east side of Simcoe St. N. is generally represented by residential uses along with limited commercial sites and an entrance to Camp Samac located between Eastwood Ave. N. and Selleck Ln. The Oshawa Creek Family Golf Range and miniature golf course are located along the east side, near Oshawa Creek.

A mixture of commercial, residential, institutional and community uses border the west side of the corridor. The Durham College and UOIT campus and residences are located at the northern end of the corridor, with a satellite surface parking lot located just south of the northern leg of Niagara Dr. The Shrine Club is located at the southern end along with newly constructed condominium townhouse units.

The Oshawa Creek and open space lands border the southern end of the corridor. The City of Oshawa has recently acquired the former Cedar Valley Conservation Area from the Central Lake Ontario Conservation Authority (CLOCA) along the Oshawa Creek Valley west of Simcoe St. N. and is preparing a Master Plan for this site.



House on east side of Simcoe St. N.



Oshawa Creek Family Golf Range and miniature golf course.



Shrine Club



Used cars sales establishment on the west side

There are 74 properties comprising approximately 26 hectares (64 acres) along the study corridor.

In addition to the commercial and open space uses, the corridor contains predominantly low density residential uses with limited medium density residential uses, mainly on the west side. Single detached dwellings were largely constructed in the 1940s and 50s on large lots and include a mix of owner occupied and rental units.

3.2 Built Form and Streetscape

Simcoe St. N. is characterized by one to two storey single-detached buildings on relatively large lots with varying setbacks from the road. The majority of existing properties are accessed by private driveways fronting onto Simcoe St. N. The east side of the road is primarily residential with the majority of properties having a front yard lawn that contributes to the limited greenspaces along the boulevards adjacent to the road. There are clusters of auto uses located on the west side of Simcoe St. N. with parking in front of buildings which contribute to the 'harder' edge on the west side of the road.



Driveway access directly onto Simcoe St. N.



Gas station located on the west side of Simcoe Street





About 100 metres south of Conlin Rd. E. is a hydro corridor which crosses Simcoe St. N. along an easement over public and private lands

A view of the corridor looking north from the entrance to Camp Samac

Streetscape treatment is minimal. Sidewalks are located on both sides of the corridor, up to Taylorwood Rd., where the sidewalk continues only on the west side to Conlin Rd. W.

On the east side of Simcoe St. N., the City of Oshawa has proposed extending the sidewalk northerly to Conlin Rd. E. Sidewalks are separated generally from the travel lanes by a 1.5 metres grassed boulevard. Illumination poles and overhead utilities are also located in the grassed boulevard, along front property lines. Utility poles are located approximately 2 metres from the curb.

On the west side of Simcoe St. N., from Conlin Rd. W. to the northern leg of Niagara Dr., illumination poles and utility poles are located in the boulevard and overhead utilities located along front property lines. From the north leg of Niagara Dr. to Oshawa Creek, illumination poles and utility poles are generally located together, along front property lines.

3.3 Transportation

Simcoe Street (Regional Road 2) is a Type 'B' arterial road from Highway 401 northerly to Howden Rd. (approximately 6 km north of the study area) and is a Type 'A' arterial road north of Howden Road. It is a primary link in the Region's arterial road network and a major corridor for existing and planned transit services. Simcoe Street is a major route for commuters moving between the northern and southern municipalities within Durham and is the primary route for travel between Oshawa and Port Perry.

Some key physical and operational features of Simcoe St. N. in the study area are summarized below:

Key Physical and Operational Features

- Simcoe St. N. has an urban cross section (curb and gutter on both sides) with four through traffic lanes. South of Carswell Ave., the 13.4 m pavement width accommodates four 3.35 m lanes. North of Carswell Ave., the pavement widens to approximately 18 m to accommodate an additional 3.35 m lane, for left turns at Commencement Dr., Founders Gate, and Conlin Rd. E., as well as a 1.2 m concrete median (raised near intersections and flush in between).
- The existing right-of-way (ROW) width is approximately 26m although variations exist throughout the corridor. North of Taylorwood Rd., it extends to between 31m and 39m due to a substantial widening on the west side, while ROW widenings of approximately 3m have been obtained from six out of 18 lots along the east side. South of Taylorwood Rd., the minimum existing ROW width is approximately 23 m at a total of five lots near Eastwood Ave. and Selleck Ln.

- As shown in Figure 5, eight local and collector streets • currently intersect with Simcoe St. N. in the study area. Traffic signals are in operation at Conlin Rd. E. and Commencement Dr., while all other side streets are stopsign controlled. In response to a request from the City of Oshawa, Durham Region has committed to the future signalization of the Simcoe St./Niagara Dr. (south)/Selleck Ln. intersection.
- The posted speed limit on Simcoe St. N. is currently 60 • km/hour in the study area. Current Durham Region design standards indicate a design speed of 80 km/h, however in recognition of the desire for a lower future operating speed, Durham Region has agreed to use a design speed of 70 km/ h for the study area.
- Collision statistics show that the study area is comparable • to other similar road sections in Durham Region. There is a high proportion of rear-end collisions, likely related to the number of side streets and driveways along the corridor. There are currently approximately 50 driveways along the corridor.
- The estimated 2004 annual average daily traffic (AADT) • ranged from 14,500 vehicles south of Conlin Rd. E. to 22,500 vehicles at the south end of the study area. Estimates of the 2021 AADT in the study area range from 33,500 to 39,750 vehicles.
- The only significant existing traffic operations problem • is that left turns onto Simcoe St. N. at the unsignalized intersections experience high delays due to a lack of twoway gaps in the through traffic on Simcoe St. N.

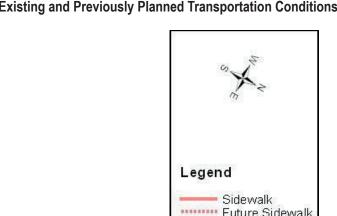
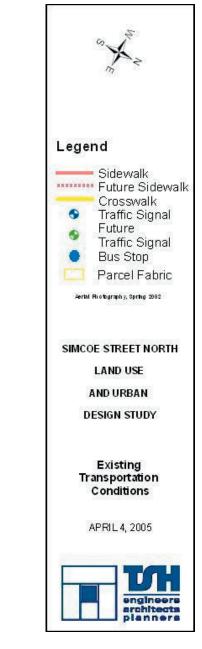
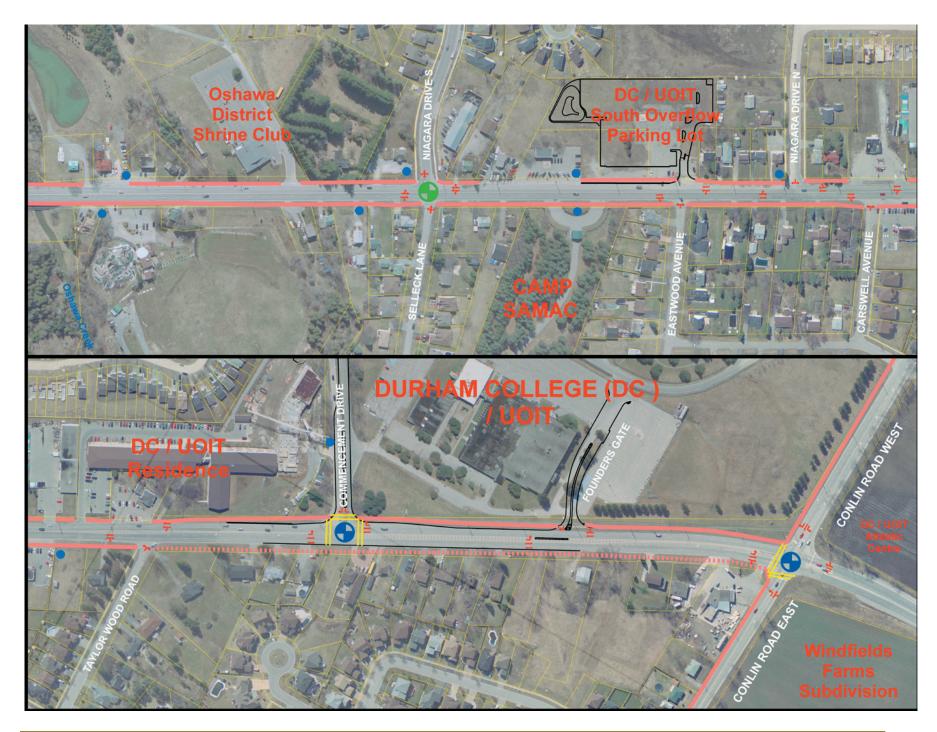


Figure 5. Existing and Previously Planned Transportation Conditions





- Traffic operations analysis using projected 2021 turning movement volumes shows that there will be continued good operations along Simcoe St. N. through the study area and increased delays for traffic making unsignalized left turns to and from Simcoe St. N.
- Addition of the traffic signal at the Niagara Dr./Selleck Ln. intersection will improve access for residents on the west side of Simcoe St. N.; residents on the east side (except Selleck Ln.) will continue to experience high delays when turning left due to high traffic volumes.
- The existing level of transit service on Simcoe St. N. within the study area is among the highest in the Region, due primarily to the need to serve the Durham College/UOIT campus. A total of five bus routes, operated by Durham Region Transit (DRT) currently traverse the study area and stop on the campus. The DRT Simcoe Street service (Route #1) is one of the most heavily used routes in the Region of Durham. GO Transit also provides bus service to the Durham College/UOIT campus, with 10 buses per day per direction connecting with York University via the Highway 7/407 corridor.
- Turning movement counts completed on March 31, 2005 at each study area intersection showed a generally low level of pedestrian activity over the eight-hour count period. The highest pedestrian volumes crossing Simcoe St. N. were found to be at the two signalized intersections (Conlin Rd. and Commencement Dr.). The highest levels of north-south pedestrian traffic were found to be associated with Durham College/UOIT and circulation between the residential

neighbourhoods south of the campus and points to the south of the study area.

• There are no existing cycling facilities in the study area. The City of Oshawa Cycling Network Study (1999) proposed a network of new and improved cycling facilities throughout the City. The proposed network included an on-road route from the Durham College campus along Sheridan Street and Niagara Drive, then crossing Simcoe Street at Selleck Lane to connect with a trail through Camp Samac via an off-road multi-use pathway along the east boulevard. The proposed network also included the multiuse trail along the Oshawa Creek valley that is part of the current draft Durham Region Cycling Plan.

3.4 Servicing

3.4.1 Sanitary Servicing

All properties north of Eastwood Ave. on the east side of Simcoe St. N. currently operate on septic systems. The remaining properties that abut Simcoe St. N. have full sanitary services or have the ability to connect to full services. There is also an existing sanitary sewer along Conlin Rd., built to serve the adjacent Windfields Residential Community. The Durham College/UOIT lands are presently serviced with municipal sanitary sewers separate from the Simcoe St. N. corridor.

The existing sanitary sewers on Simcoe St. N. from Eastwood Ave. southerly to the Simcoe St. N. Sewage Pumping Station have some surplus capacity for new development. New sanitary sewers will be required on Simcoe St. N. between Eastwood Ave. and Conlin Rd. to provide service to the abutting lands. The lot in the southeast quadrant of the Simcoe St. N./Conlin Rd. intersection could be connected to the Conlin Rd. sewer; any proposed connection to this sewer would be subject to the review and approval of the Region of Durham.

3.4.2 Water Servicing

The existing 300 millimetre diameter water main within the study corridor has adequate capacity to support new commercial or higher density residential development on abutting lands.

3.4.3 Stormwater

The major system (overland) flow is divided into two parts: areas draining to the north through the Durham College/UOIT property and areas draining to the south to Oshawa Creek. The minor system (storm sewer) flow splits drainage areas into two systems: one draining to the north, to the Conlin Rd. W. storm sewer system; and one draining to the south, which outlets directly to Oshawa Creek.

Based on the available engineering drawings, there is currently a bottleneck in the Simcoe St. N. storm sewer system between Eastwood Ave. and Selleck Ln., where the slope of the storm sewer pipe is less than required to maintain adequate flow. In addition, in the vicinity of Selleck Ln., a 975 mm diameter storm sewer pipe is connected to a 675 mm storm sewer pipe. Analysis of the existing storm sewer system shows that it does not have enough capacity to meet current City of Oshawa or Region of Durham design standards with existing flows. Modifications to the storm sewer system would therefore be required to deal with any increases in stormwater flow resulting from intensification of development in the study area.

Additional details are provided in the Simcoe Street Corridor Study Stormwater Management Report, provided under separate cover.

3.5 Natural Areas and Environmental Conditions

A preliminary review of environmental conditions has been completed, based on field work conducted in May 2005². The Oshawa Creek East Branch watercourse crossing is considered the most sensitive and significant zone within the study area. The creek channel itself is contained within a shallow but well defined valley, well vegetated with an assortment of tree species. The Camp Samac frontage has been disturbed through time. Interior lands contain mature conifer plantation with an understorey that is essentially devoid of vegetation due to the closed canopy and mat of needles. The rear of the property enters the Oshawa Creek valley and vegetation becomes more natural, although extensive disturbance due to camping uses is evident. The camp entrance is developed as a vehicular access to the property with a gatehouse and landscape hedge along Simcoe St. N.

3.6 Heritage Inventory

While there are no designated heritage properties within the study area, the following sites are recognized by Heritage Oshawa as having some historical interest:

- A former farmhouse located at 1805 Simcoe St. N. is currently classified as "C" and has little potential for designation:
- Camp Samac is classified on the "A" list and has excellent potential for designation because of its historical, architectural and contextual significance; and

In the summer of 2005, the following properties were added to the Heritage Oshawa Inventory: 1563, 1569, 1600, 1610, 1620, 1621, 1655 Simcoe St. N., but have not been classified³.



Downstream (west) view of bridge over Oshawa Creek



Stormwater management pond on northwest overbank



Camp Samac main entrance. Mature conifer plantation in background



Lack of vegetation beneath conifer canopy near Simcoe St. entrance

3.7 Surrounding Area

3.7.1 Durham College and UOIT

Durham College and the UOIT lands are located on the west side of Simcoe St. N.. The college/university lands are divided into north and south campuses, separated by Conlin Rd. W. Frontage along Simcoe St. N. at the southwest corner of Conlin Rd. W. currently consists mainly of a surface parking lot and contains two of the three main entrances to the campus. Student residences are located south of Commencement Dr. and adjacent to Simcoe St. N. in three-storey block apartment buildings.

3.7.2 Windfields Community

The Windfields Part II Plan guides development for the lands north of Conlin Rd. to Winchester Rd on both sides of Simcoe St. N. A plan of subdivision for 704 single detached units is currently under construction at the northeast corner of Simcoe St. N. and Conlin Rd.

A landscaped feature at the northeast corner of Conlin Rd. E. and Simcoe St. N. as well as fencing and features referencing the historical relationship to the Windfields Farm horse breeding operation are identified as part of the plan. A 3.0 metre multi-use trail and a 19 metre wide landscaped berm on the east side of Simcoe St. N. are also planned. The Oshawa Creek Trail is proposed to extend from Conlin Rd. E. to Britannia Rd., a distance of approximately 0.76 kilometre through this phase of development. There has been an emphasis on a high quality streetscape design as part of the development concept.

Footnotes

 ¹ For a complete review of existing conditions, refer to the Simcoe St. N. Land Use, Urban Design and Transportation Study: Background and Analysis Report, June 14, 2005.
 ² For a full review of environmental conditions, refer to the Background Report.
 ³ Email, Rose Mary Mason, Chair, Heritage Oshawa, July 21, 2005.

4.0 OPTIONS

Three options for the long term development of Simcoe St. N. were prepared following the design workshop with members of the public and stakeholders. Each of the options comprises a land use alternative and an urban design concept. Transportation options are detailed separately and include options for right-of-way, turn lane, access and traffic control. It should be noted that there is a wide spectrum of different land use, transportation and urban design options that could be assembled for the corridor. The resulting three alternatives were selected as viable alternatives because they best reflect the diverse and, at times, conflicting priorities from stakeholders, the City and Region.

It is important to emphasize that the options would be realized incrementally over time and that the full build-out under any one of these options will take place over at least a 10 to 20 year time horizon, depending on factors such as market take up, interest rates, business cycles, demographic change, and the pace of change at Durham College/UOIT.

The land use and urban design options reflect a progression in intensification of land use from minimal change in Option 1 to predominantly mixed use in Option 3. Following the assessment of each of the options, the preliminary preferred option was identified and discussed at the June 29, 2005 open house.

4.1 Land Use and Urban Design Options *Option 1*

Option 1 results from minimal intervention in planning and design, and closely reflects current zoning with some changes. The result is a land use pattern that resembles other strip commercial and residential areas in Oshawa with low rise commercial and residential buildings fronting onto surface parking areas.

Key features of Option 1 are:

- Planned Commercial Strip uses predominate on the west side.
- A mixed use area is proposed for the Conlin/Simcoe intersection.
- East side of Simcoe St. N. has pockets of strip commercial and low density residential areas located across from the campus, reflecting existing uses.
- Office conversions would be permitted in low-density residential areas fronting onto Simcoe St. N.
- Little change in land uses south of Selleck Ln./Niagara Dr. intersection.
- Camp Samac lands will remain as private open space lands.
- Majority of redevelopment supports car-oriented development.
- Planned Commercial Strip land uses will likely dictate that parking lots dominate the frontage onto Simcoe St. N. and commercial buildings be located at the back of the lot.
- Existing driveway access onto Simcoe St. N. would remain.
- The draft-approved reverse lot frontage residential subdivision located south of the Conlin/Simcoe intersection on the east side would remain.

Option 2

This option stresses more of a mixed use character than Option 1, but with a bias towards residential uses. It also anticipates higher buildings to create a more environmentally sustainable and transit supportive development pattern than Option 1. Key features of Option 2 are:

- The Residential Mixed Use Area would provide opportunities for the following:
 - Housing uses in completely residential buildings;
 - Housing with commercial uses in the same building; or
 - Housing and commercial uses in separate buildings on the same lot.
- At the Conlin/Simcoe intersection, development could be any of the above as well as stand alone commercial buildings to recognize the greater commercial potential of this site.
- West side provides more opportunity for 'mixed use' redevelopment because of the proximity to the campus and greater lot depth.
- Medium density development combined with park space along Simcoe St. N. frontage of Camp Samac lands. Directly adjacent is the extension of park space combined with low density residential. This reflects the opportunity to develop part of the Camp Samac lands should a public road be introduced across the site in the future.
- High density residential node proposed for golf driving range lands (south of Selleck Ln.). Location maximizes views and access to open space in nearby Oshawa Creek lands.
- Medium density residential option is extended on west side to include Shrine Club (community uses to remain as well).
- Office and retail conversions would be permitted in lowdensity residential areas fronting onto Simcoe St. N.

• New development would be oriented toward the Simcoe St. N. frontage with parking located at the side or rear of buildings wherever possible.

Option 3

This option represents the most intensive possibilities for redevelopment, although in this option no development is anticipated on the Camp Samac lands. Like Option 2 the focus is on mixed use development but at slightly higher densities and heights. Key features of Option 3 are:

- Extensive 'mixed use' land use designation will provide for widespread opportunity for a range of uses that respond in a flexible way to the diverse needs of residents, potential businesses and students.
- Allow for commercial node at Conlin Rd./Simcoe St. N. intersection.
- High density residential node is extended just south of Shrine Club.
- Like Option 2, a high density residential node is shown on the golf driving range lands (south of Selleck Ln.).
- Medium density residential designation extended on west side to include Shrine Club (community uses to remain as well).
- Camp Samac frontage remains as open space.
- 'Green' enhancements are supported by allowing an area for street tree planting throughout the corridor to connect the street with the existing natural areas in the south and to Camp Samac.
- Consolidation of lots reduces number of driveway access points to Simcoe St. N. Parking is situated to the side or rear of buildings and access is provided by laneways.

- Low Density Residential

- Medium Density Residential

Open Space and Recreation

- Mixed Use Area I (all other mixed use areas)

THE

NORWI

5 466

1884 -

GLOVERS RD.

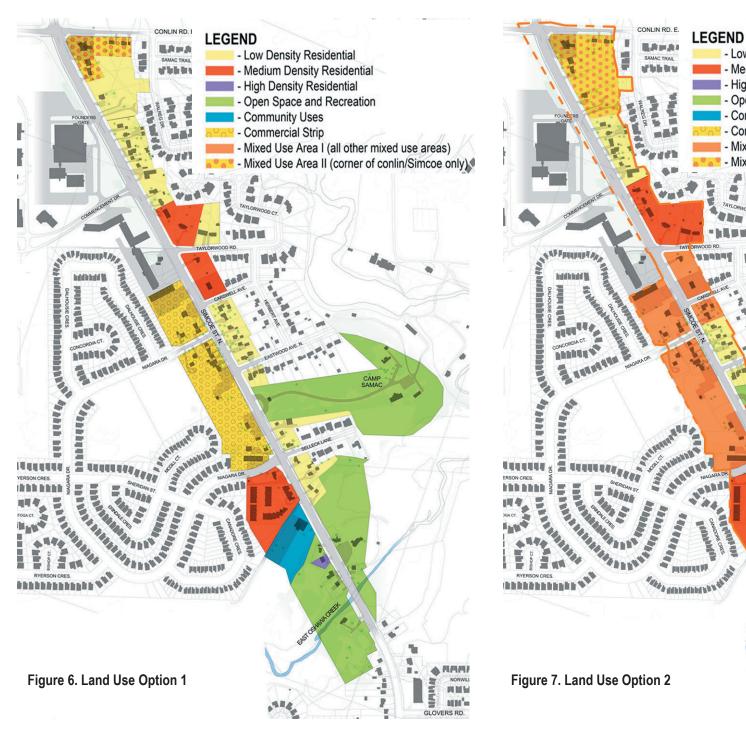
T

- Mixed Use Area II (corner of conlin/Simcoe only)

High Density Residential

Community Uses

- Commercial Strip



114



4.1.1 Assessment of Land Use and Urban Design Options

Land Use Option 1 Advantages

• Reflects where the market has been in the past and represents a pattern of development that is familiar and dominant in Oshawa.

Land Use Option 1 Disadvantages

- Does not respond to the policy direction to address environmental sustainability and transit supportiveness in land use decisions.
- As compared to the study objectives described earlier, this option has a number of limitations including:
 - o not transit supportive
 - does not create significant gateway to north end of corridor
 - o would not increase pedestrian safety and amenity
 - \circ not conducive for cycling
 - results in environmentally unsustainable type of development e.g. increase in paved surface parking may create problems for stormwater run off.
- Not responsive to development pressures and leads to ad hoc development.
- Commercial strip land uses will likely dictate that parking lots dominate the frontage onto Simcoe St. N. with commercial buildings located at the back of the lot. Although alternative designs may be possible with low rise buildings fronting onto Simcoe and surface parking at the rear.
- Majority of redevelopment would support car-oriented development.

Land Use Option 2 Advantages

- Begins to create a mix of land uses by allowing for a mix of residential, commercial and office uses and offers support for student housing options along the corridor.
- Provides an opportunity for a gateway feature at Conlin/ Simcoe intersection.
- Begins to provide for transit-supportive density opportunities

Land Use Option 2 Disadvantages

- Pockets of existing low density (single detached dwellings) areas may influence surrounding development.
- Streetscape conditions (i.e. buildings oriented toward street) provide some nodes of pedestrian amenity but these nodes would again be mixed with the existing low density nature and deeper setbacks of existing development.
- Improved streetscape conditions may marginally increase safety for pedestrians but without pedestrian crossing opportunities through the central segment of the corridor, improvements will be limited.
- Possibility of development along the Camp Samac frontage will be dependent on providing an alternative access to Simcoe St. N. for Camp Samac. Should this stretch be redeveloped, it would reduce the appearance of greenspace along this stretch of the Simoce St. N. corridor.

Land Use Option 3 Advantages

- 'Mixed use' land use designation combined with the central segment pedestrian crossing opportunity provides a safer and more accessible corridor for pedestrians and cyclists.
- Reinforces pedestrian-oriented commercial development on both sides of the street and provides for a greater range of housing opportunities.
- Higher density at the Conlin/Simcoe intersection provides a strong gateway opportunity by signalling that commuters are entering a more 'urban' part of the City.
- Erecting medians and street tree plantings along the corridor would extend the evolving public realm adjacent to the Windfields community development north of Conlin.
- Medium-density throughout the northern and central segments of the corridor would provide opportunities for transit-supportive densities and would create an attractive, intimate and welcoming streetscape framed by three to four storey buildings.
- 'Green' enhancements would be achieved through street tree planting initiatives along the corridor by providing connections from the street to the existing natural areas in the south along the Creek and on the street frontage to Camp Samac.
- Transportation operations would be improved as driveways are eliminated and access points are consolidated.
- Best implements the study objectives and the policy direction from the Province, Region and City.

Land Use Option 3 Disadvantages

- Represents a departure from recent pattern of development along arterial roads and may meet with market resistance.
- Will take a long time to realize and result in incremental

developments.

• Resistance to intensification is likely to occur from residents on the east side of Simcoe St. N.

4.2 Transportation

4.2.1 Right-of-Way Width

The Durham Region Official Plan identifies the right-of-way (ROW) width for a Type 'B' arterial road as ranging from 30 metres to 36 metres. The Region's draft "Arterial Corridor Guidelines" have identified examples of desirable standard ROW widths of 30 metres, 33 metres and 36 metres for a Type B arterial road. The ROW width options assessed in this study are as follows:

- 26 metres
- 30 metres
- 33 metres

A 36 metre option was considered but regarded as not feasible due to extensive property impacts. This option would require replacement of most utility poles at significant cost to accommodate additional road and streetscape improvements.

The roadway cross section concepts illustrated below have been developed to minimize requirements for relocation of utility poles in the study area. As a result, the roadway width is not sufficient to accommodate on-road bike lanes. Facilities to accommodate cyclists have been provided in the boulevards as an option for those cyclists who are not comfortable riding in mixed traffic.

In the 26 m ROW, the boulevard width is not sufficient to accommodate both a bike path and a sidewalk, so a single, 2.5 m wide, hard-surfaced multi-use pathway is provided in each boulevard. The pathway could be marked with a dividing line to encourage separation of pedestrian and cyclist traffic, but this separation is not enforceable, and the width is not sufficient to accommodate high volumes of pedestrians and cyclists.

With the 30 m and 33 m ROW options, there is space for a separate 1.5 m wide one-way bike path and 2.0 m sidewalk in each boulevard. This configuration can accommodate much higher pedestrian and

cyclist volumes than the multi-use path. The 33 m ROW option provides sufficient width to allow relocation of the utility poles away from the edge of the roadway in the future. If this relocation occurs, a 1.5 m bike lane would be provided on each side of the roadway, instead of the boulevard bike lanes shown in the following conceptual cross-sections. On-street bike lanes are preferred to boulevard bike lanes because of a reduced risk of conflicts/collisions between cyclists and turning vehicles at side streets and driveways, as well as improved compliance with one-way bike lane operations.

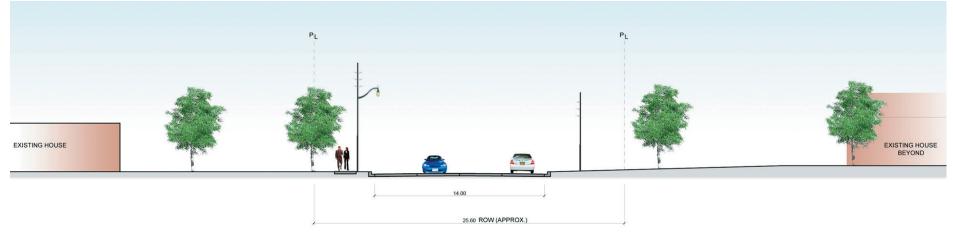


Figure 9. Existing Right-of-Way (approximately 25.6 metres)

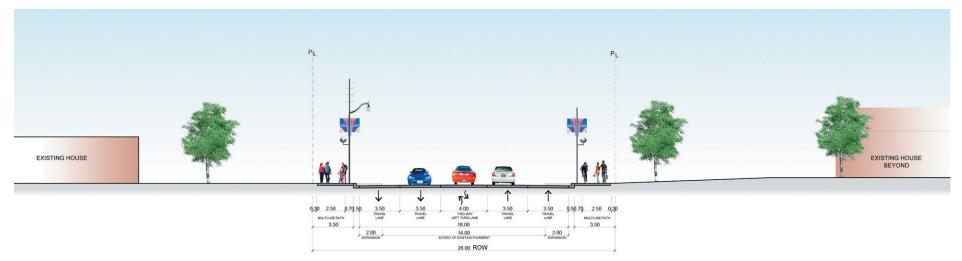


Figure 10. 26 metre Right-of-Way

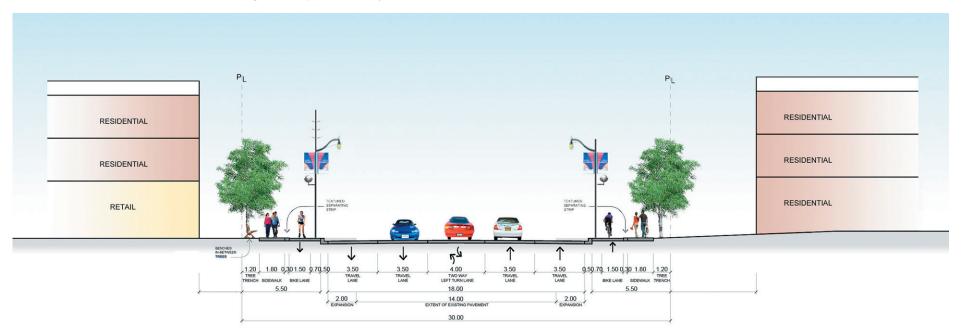


Figure 11. 30 metre Right-of-Way

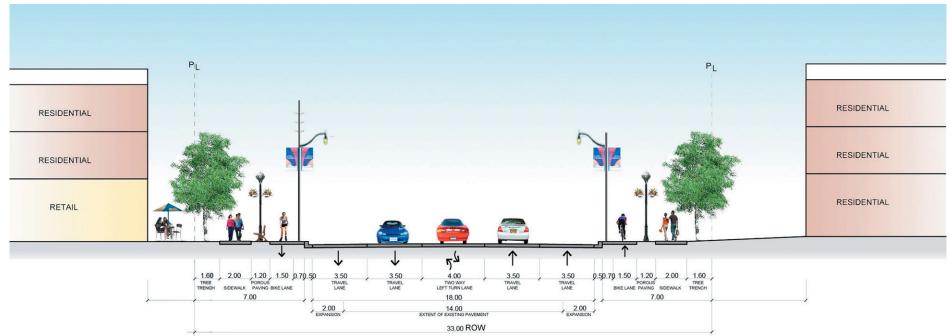


Figure 12. 33 metre Right-of-Way (two-way left turn lane)

Note: Lighting and banners shown in the cross sections are conceptual only.

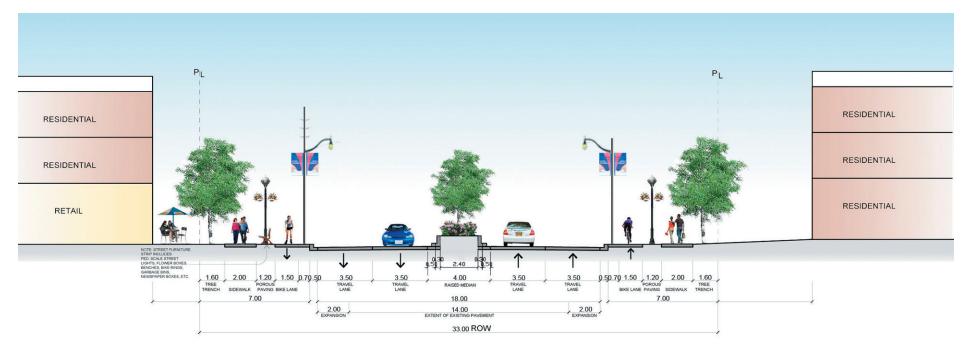


Figure 13. 33 metre Right-of-Way (with landscaped median)

4.2.2 Turn Lane Access

Under existing conditions, there are five unsignalized side street intersections and numerous private driveways, all with direct, all-movements access to Simcoe St. N. within the study area. To address the issues with intersection/entrance related collisions and left turn delays the following objectives for access management were identified:

- Reduce the overall number of access points to Simcoe St. N.;
- Minimize impacts of remaining access points on traffic operations;
- Improve the safety of intersection/driveway operations; and
- Maintain reasonable access to properties along Simcoe St. N. and in the adjacent residential neighbourhoods.

Land use changes will drive the consolidation of existing accesses and provide opportunities for alternative access, for example, through the use of interconnected laneways. There are also options for reducing the number of all-movements unsignalized side street intersections by providing links to signalized intersections. An example of this would be a connection between Eastwood Ave. and Selleck Ln. across the Camp Samac lands to provide access to all existing development east of the study area through a traffic signal at either Selleck Ln. or Eastwood Ave. Such a connection would allow some of the existing side streets along the east side of Simcoe St. N. to be restricted to right-in/right-out movements.

The following three alternatives for access management improvements were considered:

- Continuous two-way left turn lane;
- Raised median throughout entire study area; and
- Intermittent left turn lanes (at major intersections/entrances) with raised medians in between.

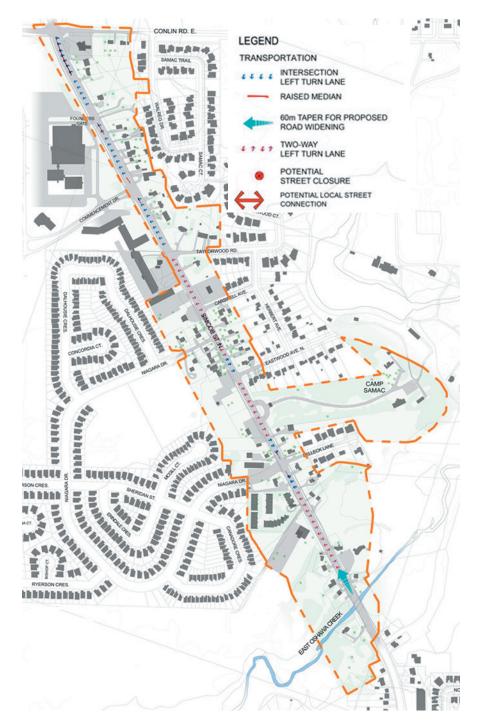


Figure 14. Continuous two-way turn lane

Simcoe Street North Land Use, Urban Design & Transportation Study



Figure 15. Continuous raised median



Figure 16. Intermittent turn lanes/raised median

4.2.3 Traffic Control and Local Street Alignments

Left turns in and out of the existing residential areas east and west of Simcoe St. N. are currently subject to significant delays during peak periods. Delays to side-street turning movements are expected to increase with increasing through volumes on Simcoe St. N.

Marked pedestrian crossings are provided only at signalized intersections (Conlin Rd. and Commencement Dr.). Crossing at unsignalized locations is potentially hazardous, and will become increasingly difficult with higher future traffic volumes. Introducing a two-way left turn lane in the short term, to address access issues, will increase the crossing distance and make pedestrian crossings more difficult. At the same time, demand for pedestrian crossings of Simcoe St. N. is expected to increase as redevelopment occurs and as the Durham College/UOIT campus expands.

Three options for traffic control and local street alignments were developed to address these issues:

Option 1

- New traffic signal at the Niagara Dr. south/Selleck Ln. intersection; and
- No new or realigned local streets.

Option 2

- New traffic signal the Niagara Dr. south/Selleck Ln. intersection;
- North leg of Niagara Dr. realigned to meet Eastwood Ave. at Simcoe St. N. to allow for a potential future access enhancement; and
- Potential new local street connection between Eastwood Ave. and Selleck Ln. (across Camp Samac lands).

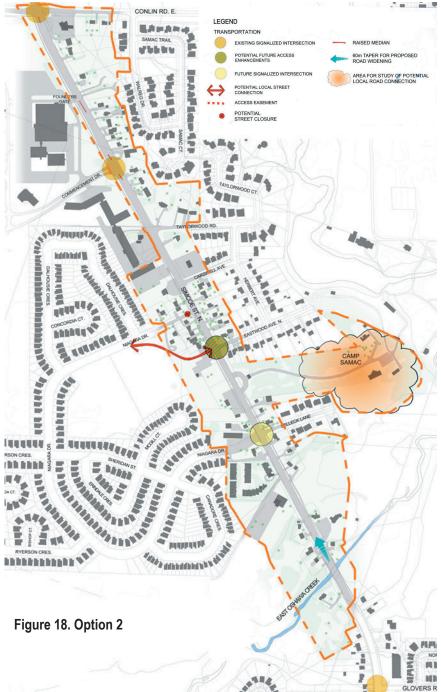
Option 3

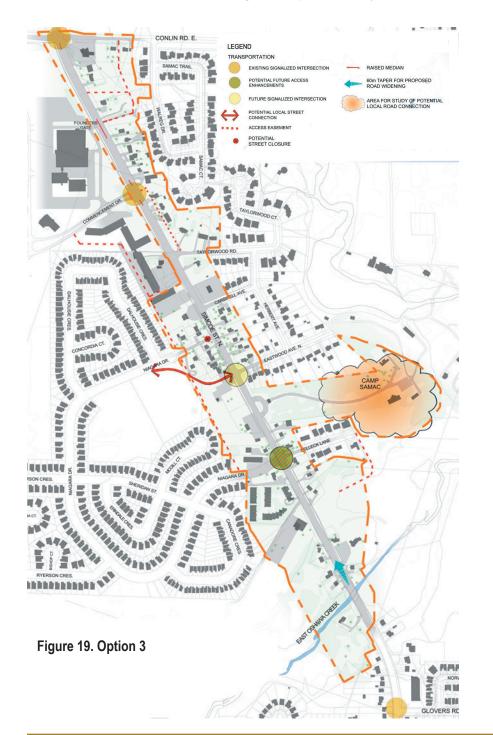
- North leg of Niagara Dr. realigned to meet Eastwood Ave. at Simcoe St. N., with new traffic signal at Eastwood Ave./ Niagara Dr. north;
- No signalized intersection at south leg of Niagara Dr./ Selleck Ln.; opportunity for potential future access enhancement; and
- Potential new local street connection between Eastwood Ave. and Selleck Ln. (across Camp Samac lands).

The Region of Durham has ruled out any option that would include traffic signals at both ends of Niagara Dr. because their minimum desirable traffic signal spacing would not be maintained. Failing to maintain the desirable minimum traffic signal spacing would increase delays to through traffic on Simcoe St. N. The delay impacts to the high through traffic volumes on Simcoe St. N. cannot be justified given the low side street traffic volumes that would benefit from the installation of a second new traffic signal in the study area. Other issues such as poor Levels of Service, safety issues and traffic operational concerns would also be generated within the corridor as a result of inadequate signal spacing distance.









4.2.4 Transportation Assessment

Right-of-Way Width Assessment

26m Advantages

- Current condition in southern portion of study area
- Minimal impacts on property
- Can be accommodated without moving most utility poles

26m Disadvantages

- Below the desirable ROW range for a Type B arterial
- Can accommodate road widening for shared two-way left turn lane, but requires reduced lane and/or sidewalk widths to accommodate left turn lane with raised island at intersections
- Cannot accommodate both sidewalk and separate off-street bicycle path
- Severely restricts options for streetscaping and utility locations

30m Advantages

- Minor property requirements from most lots throughout the study area
- Allows for limited streetscaping opportunities and options for utility placement
- Can be accommodated without moving most utility poles.

30m Disadvantages

- Lower limit of ROW range for Type B arterial, as per the DROP
- Can accommodate road widening for two-way left turn lane, but requires reduced lane width or reduced width for streetscaping near intersections to accommodate left turn lane with raised island

• Cannot accommodate on-street cycling lane but can accommodate separate sidewalk and (one-way) bicycle path on each side, with minimal separation strip

33m Advantages

- Middle of ROW range for Type B arterial, as per the DROP.
- Can accommodate road widening for two-way left turn lane with minor variations in streetscaping near intersections to accommodate left turn lane with raised island
- Can accommodate separate sidewalk and (one-way) bicycle path on each side with significant separation strip for streetscape elements
- Allows good streetscaping opportunities and options for utility placement
- Can be accommodated without moving most utility poles

33m Disadvantages

• Moderate property requirements from most lots through the study area

Turn Lane/Access Assessment

Continuous 2-way left turn lane – Advantages

- Unrestricted access to abutting properties (except near major intersections).
- Traffic operations and safety on Simcoe St. N. improved by removing left turning vehicles from through lanes.

Continuous 2-way left turn lane – Disadvantages

- Minor improvement to side street and driveway operations due to ability to make two-stage left turns out.
- Does not provide median streetscaping opportunities.
- May encourage higher operating speeds due to wide paved cross section, particularly during off-peak periods.
- Increases length of unprotected pedestrian crossings of Simcoe St. N.

Raised median throughout entire study area: Advantages

- Raised median prevents left turns throughout the study area, except at signalized intersections.
- Maximizes median streetscape opportunities which can help to control operating speeds.
- Minimizes traffic operations and safety impacts of turning traffic.

Raised median throughout entire study area: Disadvantages

- Restricts left turns into and out of all abutting properties and side streets that do not have access to a signalized intersection.
- Potential for U-turns at median openings and increased traffic circulation on adjacent local streets.

Intermittent left turn lanes with raised medians: Advantages

- Left turn lanes provided at signalized intersections and other major access points only; raised median prevents left-in/left-out turns at other locations.
- Significant improvement to Simcoe St. N. traffic operations and safety, as left turns are restricted and accommodated out of through lanes.
- Provides some opportunities for median streetscaping, which can help control operating speeds.

Intermittent left turn lanes with raised medians: Disadvantages

- Restricts access to abutting properties that do not have access to a signalized intersection or major side street/ driveway.
- No improvements in operations at unsignalized side streets and driveways where left turns permitted.
- Potential for U-turns at median openings and increased traffic circulation on adjacent local streets.

Traffic Control Assessment and Local Street Alignment Assessment

Option 1 (Niagara Dr./Selleck Ln. traffic signal) Advantages

- Protected pedestrian crossing of Simcoe St. N. approximately mid-way between existing signals at Commencement Dr. and Glovers Rd.
- Signalized access for the residential area on the west side of Simcoe St. N. and for residents on Selleck Ln.
- Potential for signalized access to Camp Samac via internal road connection to Selleck Ln.

Disadvantages

- Signalized access to residential areas north of Camp Samac would require public road connection across camp lands
- No protected pedestrian crossing opportunity in central section of study area
- · No consolidation of side streets

Option 2 (Niagara Dr./Selleck Ln. traffic signal, with realignment of north leg of Niagara Dr./Eastwood Ave. for potential future access enhancement)

Advantages

- Protected pedestrian crossing of Simcoe St. N. approximately mid-way between existing signals at Commencement Dr. and Glovers Rd.
- Signalized access for the residential area on the west side of Simcoe St. N. and for residents on Selleck Ln.
- Opportunity for future pedestrian crossing and/or access enhancement at Eastwood Ave./realigned Niagara Dr. north.
- Potential for signalized access to Camp Samac via internal road connection to Selleck Ln.

Disadvantages

• Cost implications for realignment of the north leg of Niagara Dr. with Eastwood Ave., with no immediate

benefits for traffic control/access and pedestrian crossing

- Signalized access to residential areas north of Camp Samac would require public road connection across camp lands
- May take longer to implement due to land acquisition for realignment

Option 3 (Realignment of north leg of Niagara Dr./Eastwood Dr. with new traffic signal)

Advantages

- Signalized access to residential area west of Simcoe St. N. and the residential area north of the Camp Samac entrance
- · Protected pedestrian crossing central to study area.
- Opportunity for future pedestrian crossing and/or access enhancement at Selleck Ln./Niagara Dr. south
- Potential for signalized access to Camp Samac via internal road connection to Eastwood Ave.

Disadvantages

- Cost implications for realignment of the north leg of Niagara Dr. with Eastwood Ave.
- Signalized access to Selleck Ln. and adjacent lands would require public road across Camp Samac lands
- May take longer to implement due to land acquisition for realignment

5.0 RECOMMENDED LAND USE PLAN

The Recommended Land Use Plan reflects a new approach to planning and development in north Oshawa that encompasses the study objectives developed in Phase 1 of this study, the Provincial direction and Regional policy encouraging development in nodes and along corridors.

Key elements of the Recommended Land Use Plan include the following:

- Creation of a "village-like" atmosphere with a mix of land uses;
- Street-related commercial uses;
- Buildings aligned along the street;
- Parking at the rear/side of buildings;
- Opportunities for landscaping and streetscape enhancement to create a pleasant pedestrian environment.;
- Vehicle access to Simcoe St. N. minimized and consolidated by providing access from local streets and through easements and rear laneways over time;
- Mixed-use buildings;
- Minimum building heights to discourage one- storey buildings; and
- Development incentives to encourage consolidation of land parcels where appropriate in order to create viable parcels for redevelopment and rationalize access in and out of sites, particularly near the intersection of Conlin Rd. E. and Simcoe St. N.

The Recommended Land Use Plan represents a long term, cohesive framework for development of the corridor which would replace an uncoordinated ad hoc approach to redevelopment. The timing

PART 2: RECOMMENDED PLAN & IMPLEMENTATION

of development will depend on a number of factors including shifting market conditions, demand for housing and growth of Durham College/UOIT. Implementation of the Recommended Land Use Plan will occur incrementally over time but in the context of creating a harmonious relationship between buildings and the street.

5.1 Land Use Designations

There are three new land use designations proposed for the study area as identified on the Recommended Land Use Plan:

- Low-Rise Residential Mixed Use
- Residential Mixed Use
- Mixed Use

The remaining land use designations applicable to the study area are identified in the Samac Secondary Plan as follows:

- Low Density Residential
- Medium Density I Residential
- High Density I Residential
- Open Space and Recreation

The intent of the three new land use designations is to provide the opportunity for a range of commercial and office uses to serve the community's residents and to accommodate medium to higher density residential uses in support of Provincial policy direction on intensification and the Regional transit spine along Simcoe St. N. In each of the 'mixed use' designations, lots may contain mixed use buildings, exclusively residential buildings or limited office and/or commercial buildings based on development criteria identified in the Urban Design Guidelines and zoning by-law.



Figure 20. Recommended Land Use Plan

Low-Rise Residential Mixed Use

The Low-Rise Residential Mixed Use designation is intended to apply to lots fronting onto the east side of Simcoe St. N., from the Founder's Gate area south to the south side of Selleck Ln. The designation provides for ground-oriented, multiple unit residential uses, office uses and limited commercial uses. Conversions of existing singledetached units to office uses and personal services will be permitted in the interim. Shallow lot depths in this area require adequate buffering to adjacent residential uses and lot consolidation will likely be necessary with access points from streets flanking Simcoe St. N.



Residential Mixed Use

The Residential Mixed Use designation is proposed to apply to the west side of Simcoe St. N., from the northern study boundary to the north side of the south leg of Niagara Dr. This area will build on the existing Planned Commercial Strip land use designation, and is intended to support a broad range of multiple-unit residential and commercial uses along with office uses. Buildings aligned along the street with grade-related commercial or office uses will provide pedestrian amenity and add vitality to the street. Larger and deeper lots in this area provide the opportunity to consolidate and manage traffic access, and therefore may support a broad range of commercial uses.

Mixed Use

The Mixed Use designation applies to the lands in the vicinity of the Simcoe St. N./Conlin Rd. E. intersection. This area is viewed as an important gateway area due to its location at the intersection of two Type B arterial roads and its proximity to the Durham College/UOIT lands. This area is intended to support a mix of medium to high-density residential uses, office and commercial uses with buildings oriented along both streets and access to the sites consolidated as far away from the intersection as possible.











Precedent images that illustrate the envisioned character for the various mixed use areas.

5.2 Land Use Distribution

The table below provides the breakdown of land uses for the existing distribution as indicated in the Samac Secondary Plan and for the proposed land uses as illustrated in the Recommended Land Use Plan. Associated estimates of population, residential units and commercial floor area calculations are provided in Appendix A.

		NET	
LAND USE	TYPE	HECTARES	%
Low density residential	Existing	7.9	30%
	Proposed	1.5	6%
Medium density residential	Existing	1.6	5%
	Proposed	2.6	10%
High density residential	Existing	0.47	2%
	Proposed	1.4	6%
Planned commercial strip or			
related uses	Existing	5.4	18%
Low rise residential mixed use	Proposed	5.2	21%
Residential mixed use	Proposed	4.2	16%
Mixed use	Proposed	1.6	6%
Open space/recreation	Existing	9.1	41%
	Proposed	9.1	35%
Community uses	Existing	1.1	0
Total area		25.6	

5.3 Planning Rationale

The new land use designations represent an intensification of potential development opportunities. The Recommended Land Use Plan is consistent with the Provincial Policy Statement, the Proposed Provincial Growth Plan, the Regional direction for transit-supportive development and general planning principles for managing growth and development along arterial roads. The changes to land use and development within the study area are also appropriate and supportable for a number of reasons including the following:

1. Reducing urban sprawl is important to improving environmental quality.

Fundamental to land use planning across the Province and especially in communities located in the Greater Golden Horseshoe (GGH) which is the fastest growing metropolitan area in Canada, is minimizing the amount of unsustainable development in the form of sprawling single-use (residential) subdivisions that require heavy reliance on the car to connect to jobs and services.

In response to this situation, cities and regions have adopted a "Smart Growth" approach to ameliorate the negative impacts of urban sprawl. Key components of a smart growth approach include the following:

- Higher densities (particularly along transit corridors)
- A wide range of choice of building types
- A closer mix of employment and residential uses, and
- A greater share of development in nodes and on already urbanised lands and key suburban nodes¹.

The Recommended Land Use Plan is consistent with this approach to redevelopment as it will provide for a broader range of housing within the study corridor in a more compact development form, supported by a mix of commercial, office and institutional uses.

2. Appropriate densities will support transit use and development.

Essential to "growing smarter" is the need to reduce reliance on the private automobile and recognize the relationship between urban form and travel choice. To realize a shift in travel behaviour, for example, moving from the car to public transit, cycling and walking, will require changes to existing land use patterns.

A key concept is to ensure that development occurs in a more compact form both in greenfield development as well as existing built up areas². Higher density land use patterns tend to be associated with lower automobile use and higher transit use³. Moreover, high-quality transit can only be provided cost effectively where there are transitsupportive densities. Therefore, it holds that in order to implement competitive, quality public transit, higher densities must be achieved in areas that are targeted for transit.

The medium to high densities recommended in the Recommended Land Use Plan are supportive of Simcoe St. N. as a Regional Transit Spine in the DROP.

The intensification of development is consistent with the DROP policies and proposed amendments as follows:

- 1.1.1 b) over time, the density of new urban development will continue to increase.
- 4.2.3 Intensification is encouraged within existing Urban Areas. Further, as an overall target, the Region, in conjunction with the area municipalities, will plan to accommodate approximately 20% of all new population growth through intensification.

- 4.3.3 (proposed 4.3.2) Regional Council shall support opportunities to increase the supply of housing in Urban Areas through intensification, taking into account the adequacy of municipal services and the physical potential of the housing stock. Housing intensification shall include, but not be limited to, the following:
 - a) the conversion of single detached dwellings into multiple residential units;
 - b) the conversion of industrial or commercial buildings, or portions thereof, into residential units;
 - c) the creation of new residential units on vacant or underdeveloped lands through infilling in Urban Areas; and
 - d) the creation of residential units above commercial uses, with preference being given to development located adjacent to arterial roads and/or in close proximity to transit routes.
- 10.3.3 (proposed 8B.2.3) In the consideration of development applications in Living Areas, regard shall be had for the following:
 - a) the intent of this Plan to achieve a compact urban form, including intensive residential, office, retail and service and mixed uses along arterial roads and in conjunction with present and potential transit facilities.
- 10.3.4 (proposed 8B.2.4) In the preparation of area municipal official plans, Councils of the area municipalities shall ensure the inclusion of:
 - c) various housing in terms of density, range, tenure, and affordability within Living Areas in accordance with Section 4;
 - d) designations and criteria for the intensification of various land uses.

The intensification of development is also consistent with the Region of Durham Transportation Master Plan (TMP):

• 3.2.2 Land Use Management: By intensifying densities and increasing mixed-use development along designated corridors and within specified nodes, Transportation Demand Management (TDM)-supportive land use plans can make alternatives to the automobile, especially transit, more attractive and viable.

Concentrating employment, especially office and service jobs, in locations supported by high quality transit service help to promote ridership. Placing higher density residential developments near potential transit stops creates common destinations for transit riders. By intensifying densities and increasing mixed-use development along designated corridors and within specified nodes, TDM-supportive land use plans can make alternatives to the automobile, especially transit, more attractive and viable.

 Summary of Recommended Actions for the TMP include:
 Investigate opportunities and, where feasible and subject to budget approval, lead initiatives to encourage intensification and more mixed use development, and to create incentives for redevelopment and infilling adjacent to transit priority facilities (...). The intensification of development and support for transit use are consistent with the City of Oshawa's Official Plan as follows:

- 3.3.2 The City shall encourage increased public transit usage and the transit supportive design of developments.The City shall also support measures designed to increase ridership within the context of providing an efficient public transit service.
- 6.4.3 The City shall encourage residential intensification as a sustainable option that endeavours to address the issue of affordable housing, make better use of existing municipal services and facilities, and create more compact, energyefficient urban form.
- 6.4.4 The City shall zone to permit residential infill housing, residential redevelopment, non-residential conversion, accessory apartments and lodging houses, in selected areas of the City. Determining the location of appropriate residential intensification includes the consideration of a number of criteria outlined in section 6.4.4 of the Official Plan.
- 2.2.7.3 The scale, bulk and design of mixed commercialresidential developments shall be encouraged to be compatible and in harmony with adjacent residential areas. In addition, such developments shall be designed so as to provide adequate separation distance from adjacent residential developments of significantly lesser scale in order to minimize any deleterious effects related to noise, traffic and overshadowing.

• Table 2 outlines the residential density classifications. The recommended land use designations in the Recommended Land Use Plan are consistent with the locational criteria identified for Medium Density I Residential, Medium Density II Residential and High Density I Residential due to the location of these areas along an arterial road.

3. Providing for a mix of land uses will reduce automobile-oriented errand trips and create activity.

A mix of land uses plays an important part in redeveloping Simcoe St. N. into a vibrant community that provides variety, choice and activity, encourages more efficient use of land and infrastructure and may reduce travel demand.

Provincial policy identifies the need to mix land uses to provide opportunities for people to live, work and play without having to travel great distances. Clustering different types of land uses such as places to live, work, shop and recreate is a pattern that repeats itself at different scales i.e. at the city level, neighbourhood level and within buildings. Mixing appropriate businesses and services such as shops and restaurants adjacent to residential areas has the potential to reduce the distance that people must travel for services and allows for walking and cycling for these trips⁴.

Given that the location of the Simcoe St. N. study area lies between the Windfields Main Central Area (at Winchester Rd.) and the subcentral area (at Taunton and Ritson Rd.), the appropriate scope of commercial and office activities envisioned for the area is limited to local commercial and service needs of surrounding residents and Durham College/UOIT. The anticipated commercial and service activities for this corridor are much more limited in scope than those in Oshawa's downtown and have a distinct urban form different from commercial sites on Taunton Rd. For example, auto-related uses such as gas stations and used car sales establishments are not appropriate for the type of development envisioned for the study area. While some commercial uses may be similar to those along Taunton Rd., the relationship between urban form and land uses will ensure that pedestrian amenity is a primary objective for building design.

The Recommended Land Use Plan concentrates a mix of residential, commercial, office and institutional uses in a compact form along

the study corridor that is well-served by public transit. Moreover, the physical presence of Durham College and the UOIT signal that the Simcoe St. N. corridor is a different type of area than other parts of the City. To let redevelopment occur in an ad hoc fashion without reigning it in through density and urban design guidelines, may result in auto-oriented, strip commercial uses that do not support pedestrian amenity or a vibrant urban village.

DROP policies and proposed amendments that support a mix of land use include the following:

- 8.1.4 To provide compact, efficient and accessible Urban Areas comprised of mixed uses.
- 8.2.1 Urban Areas shall be planned and developed with regard for the principles of adaptability over time, sustainable development, harmony with nature and diversity and integration of structures and functions.
 - a) a more compact urban form which promotes transitsupportive Urban Areas and accommodates the population and employment targets in Policy 3.3.5;
 - b) a mixture of uses in appropriate locations, with particular consideration given to Centres and Corridors;
 - c) intensification, with particular regard to Policies 4.2.3, 4.3.3 and 10.3.4 d);
 - d) good urban design principles;
 - e) increased public transit usage;
 - f) linkages for pedestrians and cyclists which link communities internally and externally and to the public transit system; and
 - g) a grid system of arterial roads, and collector roads, where necessary, to provide for a transit-supportive road pattern while recognizing environmental constraints.

- 8.3.10 (proposed 8.3.12) In the preparation of area municipal official plans, Councils of the area municipalities shall ensure the inclusion of:
 - a) policies and designations to implement the intent of this Plan and the provisions of this Section, and particularly Policy 8.2.1;
 - b) a variety of mixed uses and intensification;
 - c) urban design guidelines and solutions; and
 - d) policies to promote transit-supportive development forms and patterns.
- 16.3.15 In the consideration of development applications abutting or adjacent to arterial roads and existing or potential transit spines and routes, Regional Council and Councils of the area municipalities shall have regard to:
 - a) the designation of complementary activities and uses in terms of density and intensity;
 - d) a development pattern that allows convenient walking to potential transit service.

(Note: Policy 16.3.15 is proposed to be replaced with a new Policy 11.3.31 which refers to the Councils having regard to the Region's Arterial Corridor Guidelines in the consideration of development applications abutting or adjacent to arterial roads and existing or potential transit spines and routes.)

The following proposed new policy also supports a mix of land uses along the corridor:

- 8A.1.5 Corridors shall be developed in accordance with the principles contained in Policy 8.2.1 and the following:
 - a) promoting public transit ridership through high quality urban design, mixed land uses and compact form;
 - b) maintaining and enhancing historical main streets

by integrating new forms of development with existing development;

- c) preserving and enhancing cultural heritage resources;
- d) achieving a mix of commercial, residential, employment and institutional uses.

From the Region of Durham Transportation Master Plan (TMP):

• Consideration should also be given to promoting centres and corridors as supporting land use measures for the Transit Priority Network introduced in Section 3.2.4. These areas would be characterized by mixed-use and higher density development, and parking provisions that reflect higher levels of transit service.

4. Building siting and design will improve pedestrian amenity and safety.

In the past, the urban design of roads has had a bias towards autooriented layout and uses. This is evident in the surface parking spaces fronting onto major roads combined with drive-through restaurants and service stations, resulting in a public realm that is relatively unfriendly to the pedestrian.

As redevelopment occurs along Simcoe St. N., the role of individual buildings and their relationship to the street can ensure pedestrianscaled development and improved connectivity along the corridor and with surrounding areas. This can be achieved by locating and massing new buildings to frame the edges of streets, enabling transition zones between areas of different development intensity, buffering of adjacent uses and consolidating driveways to minimize vehicular access. A range of mid-rise buildings from 5.5 - 13m, to higher buildings up to 20m in two key locations, is envisioned for the corridor. Direction for appropriate setbacks to ensure pedestrian proportion, maintain sunlight and comfortable wind conditions are incorporated into the urban design guidelines. Streetscape enhancement in the form of benches, pedestrian-scaled lighting, banners and other street furniture will enhance 'walkability' of the corridor and improve safety for pedestrian travel between key nodes such as the Durham College/UOIT campus and surrounding residential areas and larger commercial nodes along Taunton Rd.

Clear, connected pathways/sidewalks enhance the ability of a place to be safe, accessible and allow for people to move through the neighbourhood and to connect with surrounding neighbourhoods. This approach is consistent with the DROP as follows:

• 2.2.8 Urban Areas shall be developed to support a pedestrian-oriented urban environment which promotes social interaction and provides opportunities for free expression and the nourishment of culture and art.

It is also consistent with the Region of Durham Transportation Master Plan (TMP) as follows:

- 4.2.2 Safety: Minimize exposure to collisions through reduced automobile travel. The Plan's objective of increased TDM and public transportation use will reduce vehicle travel and the potential for collisions. The land use strategies aimed at creating more transit-oriented, mixeduse development will help to limit travel distances and demands, and to promote non-motorized modes of travel;
- 2.1 Transportation vision, goals and principles: Making communities more attractive and liveable, through urban design oriented towards people rather than the automobile.
- Encourage urban design and built form that supports greater use of transit, cycling and walking (Table 1 Transportation Goals and Principles, #9 under Goal D, p.11).

5. Improved Access Management along the Corridor

Access Management is a term used by transportation professionals for coordination between roadway design and land use in order to improve transportation and minimize conflict with turning movements. It is defined as, "the process that provides access to land development while simultaneously preserving the flow of traffic on the surrounding road system in terms of safety, capacity, and speed." (Access Management Website).

Access Management involves changing land use planning and roadway design practices to limit the number of driveways and intersections on arterials and highways, constructing medians to control turning movements, encouraging clustered development, creating more pedestrian-oriented street designs, and improving connectivity. The Recommended Land Use Plan recommends the consolidation of driveways along the corridor to enhance traffic flow and improve safety for pedestrians and cyclists. Combined with the form of development discussed in the preceding paragraph and appropriate land uses, it will contribute to a land use pattern that is better suited to walking, cycling and public transit.

This approach is consistent with the DROP policy and proposed amendment as follows:

- 10.3.3 (proposed 8B.2.3) In the consideration of development applications in Living Areas, regard shall be had for the following:
 - the use of good urban design principles including, but not limited to, the following:
 - the consolidation of special purpose commercial uses into nodes, with particular emphasis on common internal traffic circulation and restricted access to arterial roads by means of service or collector roads, wherever possible;
 - the attenuation of noise through measures other than fences, such as innovative designs, berms and the orientation of higher density developments; and
 - the orientation and design of buildings to maximize the exposure to direct sunlight.

Footnotes

¹ Blais, Pamela. 2003. <u>Smart Development for Smart Growth</u>. (Issue Paper 6, Neptis Foundaton Smart Growth Issue Paper series). ² Province of Ontario. 2005. Planning for Growth: Understanding the Draft Growth Plan.

Ministry of Public Infrastructure and Renewal.

³ Pembina Institute. 2003. Smart Growth in Ontario: The Promise vs. Provincial Performance. p5.

⁴ Victoria Transport Policy Institute. Online <u>Transportation Demand Management</u> <u>Encyclopedia.</u>

6.0 RECOMMENDED URBAN DESIGN CONCEPT

The Recommended Urban Design Concept shown on Figure 21 is a conceptual illustration of how the lands within the study corridor could be designed over the long term. The Design Concept depicts one out of a number of ways in which the study corridor lands may develop based on the direction in the Recommended Land Use Plan. Key principles in the Urban Design Concept are summarized below and are detailed in the Urban Design Guidelines which is a separate companion report.

- Aligning buildings along the street and providing entrances to buildings from the street wherever appropriate and possible;
- Maintaining a consistent maximum setback for buildings to create a consistent street edge;
- Providing a 3 metre landscaped buffer from adjacent residential zones and a 9 metre setback from adjacent residential zones;
- Locating parking, loading, garbage collection and other car oriented facilities at the rear or side of buildings with appropriate landscaped buffering and other treatments to shield adjacent uses and pedestrians from these activities;
- Providing a consistent approach to street tree planting;
- Providing pedestrian-scale lighting and appropriate street furniture including garbage receptacles at key locations;
- Encouraging unity in approach and scale but diversity in architecture styles for buildings;
- Consolidating vehicular access at intersections as much as possible and encouraging easements across properties to be secured through site plan control;



Figure 21. Proposed Southwest Bird's Eye View

- Keeping vehicular access near the Conlin Rd. E. and Simcoe St. N. intersection as far away as possible from the intersection;
- Providing a signature building and/or significant gateway element at the south east corner of Conlin and Simcoe St. N.; and
- Improving linkages to adjacent open space, particularly to the Oshawa Creek Valley lands, including the possibility of trail extensions under the Simcoe Street bridge.



Figure 22. Perspective of long-term development along Simcoe. St. N.

7.0 RECOMMENDED TRANSPORTATION PLAN

The intent of the Recommended Transportation Plan is to improve safety, accessibility and operations as part of the long-term vision for the Simcoe St. N. study corridor.

The long term transportation plan will consist of a 33 metre right-of way (ROW), an intermittent left turn lane combined with a raised median and the implementation of a new traffic signal at Eastwood Ave./realigned Niagara Dr. north, subject to confirmation of the realigned Niagara Dr. prior to construction. Recommendations for the Transportation Plan include the following:

7.1 Right-of-Way (ROW) Width

A 26 m ROW is recommended for the short-term condition, which requires minimal property acquisition prior to construction, but can accommodate road widening for a shared two-way left turn lane, if required and a 2.5 m wide multi-use path for pedestrians and cyclists. As the lands adjacent to Simcoe St. N. redevelop, there is the opportunity to expand the 26 m ROW through dedications. In the long term, a 33 m ROW is recommended for the section of the study area south of Taylorwood Rd. which permits the road widening without relocation of utility poles. This would reflect the current 31-39m ROW condition north of Taylorwood Rd. Both the short and long term ROWs are shown in the diagrams on the next page.

In the long term, the 33 metre ROW will accommodate the following:

- 18 metre pavement width;
- widening of boulevard to allow for a separation of cycling from pedestrians; this will provide a safer pedestrian environment while accommodating a cycling lane on both

sides of the street;

- 2.0 metre concrete sidewalk;
- 1.2 metre porous paving strip to separate cyclists from pedestrians. This area provides space for pedestrian-scaled lighting poles, benches, trash receptacles and other street furniture to improve the pedestrian conditions of the street;
- Continuous 1.6 metre tree trench located next to the property line which locates trees farther away from the salt spray of winter road conditions to enhance survival rates; and
- Utility poles will be left in place.

Cycling will be provided for in a separate 1.5 metre path on each boulevard, separated from the pedestrian sidewalk with a porous paving area that includes benches and streetlighting. If in the future, it becomes feasible to relocate the utility poles, cycling may be accommodated on-street in a separate cycling lane.

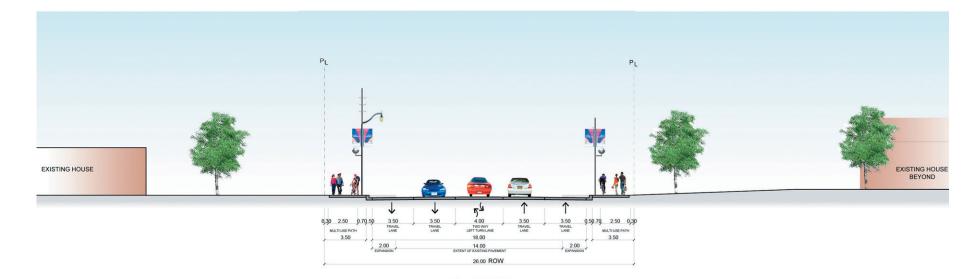


Figure 23. Short Term ROW Option

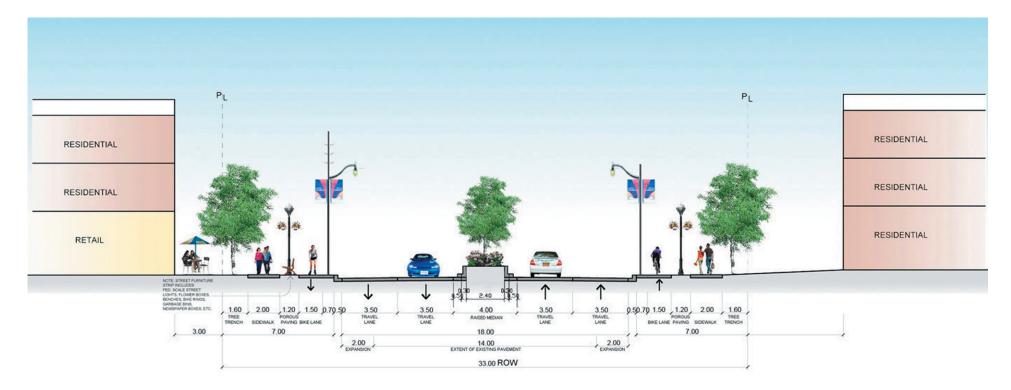


Figure 24. Long Term ROW Option

7.2 Turn Lane and Access

The implementation of a continuous two-way left turn lane throughout the study area is recommended in the short term. This will address the existing operations and safety issues within the existing land use context. As adjacent land redevelops, there will be opportunities to consolidate access, coupled with an increasing desire to improve the streetscape and control operating speeds. Raised medians should be introduced to restrict access to right-in/right-out, except at major access points.

Access Management Plan

Short term and long term Access Management Plans were developed to illustrate the desirable locations and types of access for new developments in the study area. The plans show three levels of access:

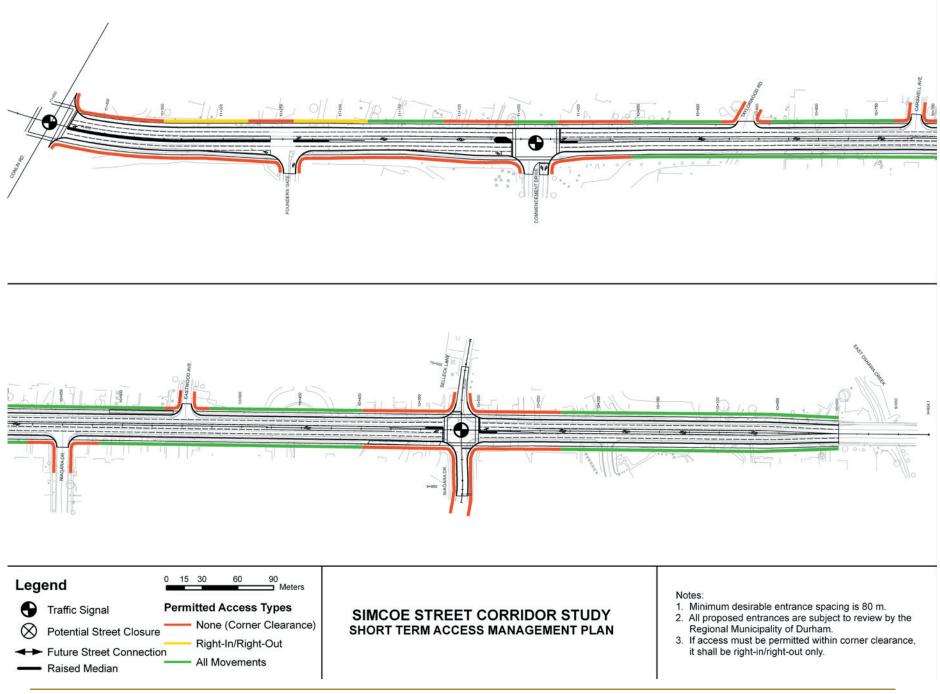
- All movements;
- Right-in and right-out movements only, generally enforced with a raised median; and
- No access, or corner clearance, near intersections.

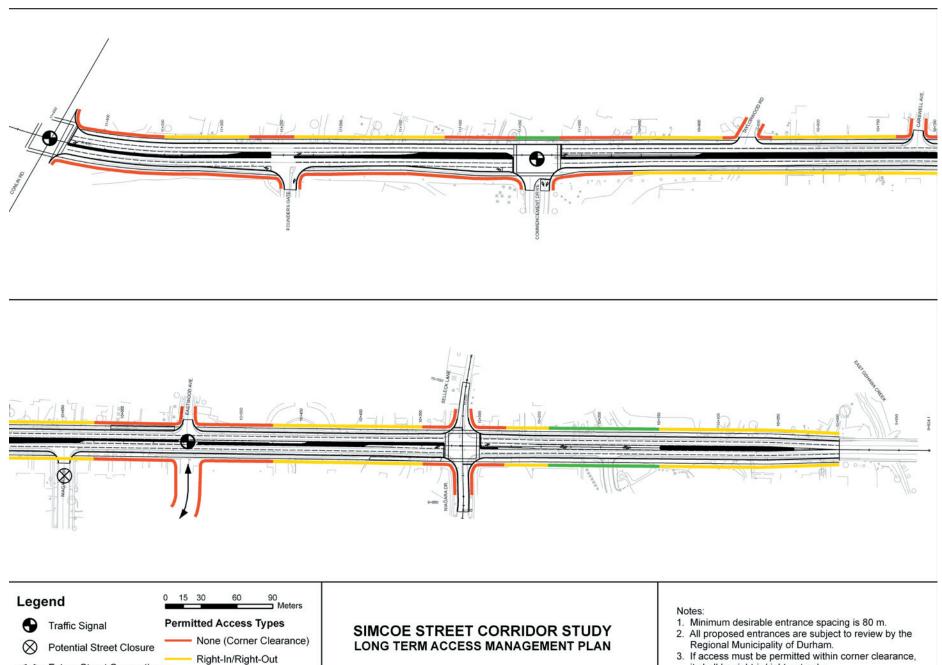
The corner clearances are intended to avoid safety problems related to overlapping turning movements where entrances are near intersections. The extent of these areas was determined on the basis of Regional standards and guidelines from the Transportation Association of Canada (TAC) Geometric Design Guide for Canadian Roads.

In the short term Access Management Plan, all movements access is provided through most of the study area, with left turns accommodated in the recommended two-way left turn lane. In the long term Access Management Plan, most of the two-way left turn lane is replaced by raised median, restricting access to right-in/right-out movements only. Exceptions occur at three intersections, and in a short section south of Selleck Lane, where alternative access to adjacent side streets is not expected to be available. Transition from the short term to the long term condition is expected to be gradual, occurring as adjacent lands redevelop.

In all cases, the desirable minimum spacing for new entrances along Simcoe Street is 80 m, consistent with the standard for a Type B arterial road in the Region of Durham Official Plan. All proposed accesses will be subject to review and approval by the Region of Durham. The Region's review will consider the availability of suitable alternative access arrangements before permitting new access to Simcoe Street. For example, new access to Simcoe Street will generally not be provided where alternative access is available via a side street or where shared access with an adjacent development can be established.

Where reasonable access to a development cannot be accommodated within the Access Management Plans, the Region may have to permit access within a corner clearance area, or allow all movements where right-in/right-out would be preferred. In these cases, approval will be subject to the condition that the access may be restricted or removed in future, if development of adjacent lands and/or road network changes provide a reasonable alternative means of access.





it shall be right-in/right-out only.

All Movements

← Future Street Connection

Raised Median

7.3 Traffic Control and Local Street Alignment

Locating the new traffic signal at Eastwood Ave. would become feasible if the north leg of Niagara Dr. is realigned to intersect Simcoe St. N. opposite Eastwood Ave. (Option 3, in section 4.3.3 of this Report). This location has the following advantages over an alternative location at Selleck Ln.:

- Directly serves a much larger proportion of the residential area east of Simcoe St. N.;
- Provides a protected pedestrian crossing in the central part of the study area, consistent with the type and intensity of land use planned under the recommended land use/urban design option; and
- Minimizes the potential for northbound vehicles to have to stop on the grade south of Selleck Ln.

If the Niagara Dr. realignment can be confirmed in time for the Region's planned 2008 road construction date, the new traffic signal should be installed at the Niagara Dr. north/Eastwood Ave. intersection. If the realignment cannot be confirmed, the new traffic signal will be installed at the Niagara Dr. south/Selleck Ln. intersection, as originally planned by the Region.

City staff have estimated that the City cost for the realignment of Niagara Dr. to meet Eastwood Ave., including land acquisition and road construction costs, is approximately \$1.3 to \$1.4 million.

8.0 RECOMMENDED SERVICING PLAN

8.1 Sanitary Sewer

Extension of the existing sanitary sewer system to serve the properties along the east side of Simcoe St. north of Eastwood Ave. will be carried out at the same time as the planned road improvements along Simcoe St. N., currently scheduled for 2008. The new sewer line will be installed under the roadway, centred under one of the northbound traffic lanes, to reduce the lengths of service connections to the properties along the east side of Simcoe St. A minimum spacing of 2.5 metres will be maintained from the existing water main under the east boulevard.

Existing properties along Simcoe St. N. north of Eastwood Ave. will not be required to connect to the new sanitary sewer, except in cases where a specific public health/safety issue has been identified by the Region. As redevelopment of these properties occurs, connection of the new buildings to the sanitary sewer would be required as a condition of development approval.

8.2 Municipal Water Supply

As noted in section 2.4, the existing water main, located under the east boulevard of Simcoe St. N. has sufficient capacity to support redevelopment consistent with the proposed land use plan.

8.3 Stormwater Management

A detailed stormwater management analysis of the study area has been completed and is documented in the Simcoe Street Corridor Stormwater Management Report, provided under separate cover. The analysis assessed existing conditions in the study area (see Section 3.4.3), identified increases in peak flows that are expected to occur with the proposed development in the study area and recommended measures to deal with the projected flows. The major recommendations are as follows:

- No major changes are required to the storm sewer system in the north drainage area, which connects to the Conlin Rd.
 W. storm sewer, but the existing oil/grit separator located at the outfall to Oshawa Creek, will have to be expanded to ensure appropriate water quality with the increased flows.
- An existing stormwater management pond on the Durham College/UOIT campus has sufficient capacity to handle increased overland flow from the north drainage area, limiting discharge to Oshawa Creek to the appropriate level. Discussion between the City of Oshawa and Durham College/UOIT is required for the City to get permission to use the pond for this purpose. Some modifications to the existing on-campus drainage facilities will be required to handle the increased flows.
- The bottleneck in the storm sewer between Eastwood Ave. and Selleck Ln. should be eliminated to ensure adequate drainage. This can be accomplished by increasing the slope of this section of the storm sewer pipe.
- An existing stormwater management pond located west of Simcoe Street at the south end of the study area can be used to address stormwater quality for the south drainage area.

A preliminary assessment indicates that this pond is large enough to accommodate the increased flows, but further work is required to confirm this and to define modifications necessary to handle the increased flows. Storm sewer system modifications will be required to divert part of the flow from the existing Oshawa Creek outfall to the pond.

 A separate foundation drain collector (FDC) is recommended on Simcoe St. N. throughout the study area to accept the foundation drain discharges from the abutting properties. Any existing foundation drain connections to the sanitary sewer are to be removed. Providing a separate FDC eliminates the possibility of basement flooding due to sanitary or storm sewer backups into the foundation drains. It also reduces the volume of water that must be handled by the storm or sanitary sewer system, reducing capacity requirements for moving and treating the water.

9.0 IMPLEMENTATION

Implementation of the Recommended Land Use Plan and Urban Design Concept will require amendments to the City's Official Plan, the Secondary Plan for the Samac Community (Samac Secondary Plan) and Zoning By-law No. 60-94. Below are recommended actions toward realizing these changes.

9.1 Amendments to the City of Oshawa Official Plan

Site specific policies will need to be introduced into Section 2.0 Land Use Policies of the Oshawa Official Plan to reflect the range of recommended residential and commercial uses, as outlined below:

The following amendments to the Oshawa Official Plan are recommended:

For Section 2.1.4 Site Specific Policies for Central Areas

For the area located at the southeast corner of Simcoe St. N. and Conlin Rd. E. the following shall apply:

- The site shall be redesignated as a Local Central Area in accordance with the policies in section 2.1.2 of the Oshawa Official Plan, relevant policies in the Samac Secondary Plan and the Simcoe St. N. Urban Design Guidelines.
- Development or redevelopment of lands within this Local Central Area shall be subject to the preparation of a comprehensive site plan which indicates the layout of buildings, parking, landscaped areas and access points, such that development on individual properties may be integrated with adjacent properties in accordance with provisions in the Samac Secondary Plan.
- Commercial and residential uses shall be limited to those identified in section 9.4.3 of this report.
- Notwithstanding the provisions of section 2.1.2.3, a retail impact study will not be required for this Local Central Area.

For Section 2.2.9 Site Specific Policies for Commercial

- The Planned Commercial Strip on the west side of Simcoe St. N. between the northern study area boundary south to the south leg of Niagara Dr., will be developed in accordance with relevant policies in the Samac Secondary Plan and the Simcoe St. N. Urban Design Guidelines.
- Notwithstanding the provisions of section 2.2.5.2, commercial and residential development will be limited to the permitted uses identified in section 9.4.2 of this report.

For Section 2.3.7 Site Specific Policies for Residential

- Residential and limited commercial development on the east side of Simcoe St. N. from the hydro corridor south to the Camp Samac and from the southern boundary of Camp Samac to 1645 Simcoe St. N., will develop in accordance with section 9.4.1 of this report, relevant policies in the Samac Secondary Plan and the Simcoe St. N. Urban Design Guidelines.
- Residential and commercial development on the west side of Simcoe St. N. located from the south leg of Niagara Dr. south to the southern study area boundary, will develop in accordance with section 9.4.5 of this report.

Amendments to Schedule 'A' Land Use Plan include the following:

• Delete the Planned Commercial Strip designation and add a Local Central Area at the southeast corner of Simcoe St. N. and Conlin Rd.

9.2 Amendments to the Samac Secondary Plan

A new section will need to be introduced into the Samac Secondary Plan to incorporate the proposed '*mixed use*' designations: *Low-Rise Residential Mixed Use, Residential Mixed Use and Mixed Use.* The new section should provide an indication of the type of development and vision for these three new areas as described in the body of this report.

East Side of Simcoe St. N.

Lands along the east side of Simcoe St. N. are primarily designated *Low Density Residential* with the exception of the *Planned Commercial Strip* node at the Conlin/Simcoe intersection. Many of the existing one to two storey single detached buildings that dominate the frontage onto Simcoe St. N. were constructed in the late 1940s to 1960s with a small number of properties having undergone major renovation. Other than the *Planned Commercial Strip* at the Conlin corner, there are limited commercial uses on the east side. The property on the north side of Carswell/Simoe is currently operated as a used car sales lot and is designated as *Low Density Residential*. A portion of the *Open Space and Recreation* lands in the south is currently operated as the Oshawa Creek Family Golf centre. The remaining *Open Space and Recreation* lands on the east side are located in Camp Samac and are operated by the Boy Scouts.

Proposed Changes for the East Side

It is recommended that the Samac Secondary Plan be amended as follows:

- Redesignate *Planned Commercial Strip* and immediately adjacent *Low Density Residential* designated lands to the new *Mixed Use* designation for lands directly south of Conlin Rd. E. to the southern boundary of the hydro corridor.
- Redesignate Low Density Residential to Low-Rise

Residential Mixed Use from the hydro corridor south to Camp Samac and from the south boundary of Camp Samac lands to 1645 Simcoe St. N.

- Lands excepted from this designation that are to remain as *Low Density Residential* are the portion of the hydro corridor fronting onto Walreg Dr. and 8 and 12 Taylorwood Rd.
- Maintain the existing *Open Space and Recreation* designation of Camp Samac.
- Redesignate a portion of the *Open Space and Recreation* lands to *High Density I Residential* that are located outside the floodplain line fronting Simcoe St. N. and between the south boundary of 1645 Simcoe St. N. and Oshawa Creek.
- Maintain the existing *Open Space and Recreation* designation of lands surrounding the golf centre and south to the Creek.

West Side of Simcoe St. N.

The Samac Secondary Plan identifies *Planned Commercial Strip* land uses for the west side from the northern boundary of the study corridor south to the south leg of Niagara Dr. with the exception of the corner property at Niagara Dr. Existing commercial operations on these lands include a gas station, a number of auto dealers and auto-related operations, wholesaler, chiropractic office, surface parking lot operated by Durham College/UOIT in addition to single detached homes.

Existing land use designations are more varied south of Niagara Dr. (south entrance), with less of a focus on commercial uses. Two nodes of *High Density I Residential* exist – one located on Niagara Dr. (south) and the second node further south surrounded by open space lands. Redevelopment of lands directly south of Niagara Dr. is underway with 28 townhomes recently completed. A site plan application was previously submitted for an 18-unit condominium

that falls within the *Medium Density I Residential* designation. The Shrine Club is located south of the townhouse development and is designated as *Community Uses*. A commercial auto-related operation exists just north of the Oshawa Creek, located on *Open Space and Recreation* lands. The remaining lands south of the Shrine Club are *Open Space and Recreation*.

Proposed Changes for the West Side

It is recommended that the Samac Secondary Plan be amended to:

- Redesignate *Planned Commercial Strip* lands to *Residential Mixed Use* from the northern study area boundary to the north side of the south leg of Niagara Dr.
- Retain the *Medium Density Residential I* designation for lands directly south of Niagara Dr.
- Retain the current *Community Uses* designation for the Shrine Club lands but add *Medium Density Residential I* uses.
- Extend the existing *High Density Residential I* designation at 1610 Simcoe St. N. northward to include 1620 Simcoe St. N.
- Retain the existing *Open Space and Recreation* designation for lands adjacent to Oshawa Creek.

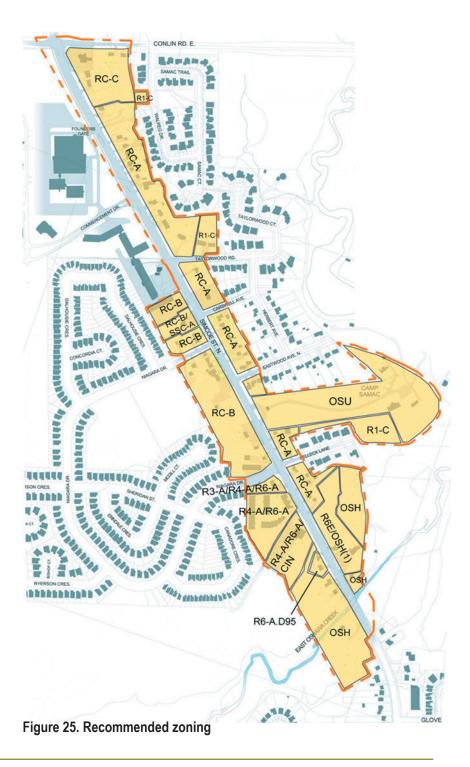
9.3 Amendments to the Zoning By-law

Creating a regulatory framework for the 'mixed use' zones requires some modifications to existing zones in Zoning By-law 60-94. Proposed zoning is identified in Figure 25.

Recommended amendments to Zoning By-law 60-94 include the following:

- Establish three new 'Residential-Commercial' zones to implement the mixed use land use designations:
 - **RC-A**-applies to lands with a "Low-Rise Residential Mixed Use" land use designation;
 - **RC-B** applies to lands with a "Residential Mixed Use" land use designation (existing gas station uses on lands located at 1818 Simcoe St. N. will continue to be permitted); and
 - **RC-C** applies to lands with a "Mixed Use" land use designation.
- Establish a new zone variation for the R6 residential zone to facilitate appropriate development adjacent to the open space lands on the east side:
 - **R6-E/OSH(1)** applies to lands currently zoned *Open Space Hazard* outside the flood plain and operated by the golf driving range on the east side of Simcoe St. N.
- Maintain the Open Space Hazard (OSH) zone for the remaining portions of land on the east side and retain the Open Space Urban (OSU) and the R1-C zone for Camp Samac.
- Establish a zone variation for the property at 17 Niagara Dr.
 R3-A/R4-A/R6-A.
- Extend the R4-A/R6-A zone to include the Shrine Club lands. In addition to the uses permitted in these zones, the property at 1626 Simcoe St. N. will include Community Institutional (CIN) zone uses.

- Retain the R6-A.D95 zoning for 1610 Simcoe St. N. and rezone the property at 1620 to R6-A.D95 to reflect adjacent uses.
- Maintain the Open Space Hazard (OSH) zone for the remaining portions of land on the west side.



9.4 Zoning Approach

Key elements of the zoning approach for the three new mixed use zones include the following components.

- Permitted uses in the new mixed use zones will allow for a greater range of residential housing forms (i.e. street townhouses, block townhouses, low-rise apartment buildings).
- Drive-throughs, gas stations, night clubs and bars will be prohibited.
- Maximum building heights are adjusted (for RC-A and RC-C only) to accommodate intensification and ground floor commercial uses. Maximum building height for properties in RC-B remain as they currently exist for PSC-A.
- Development criteria are established through zoning and urban design guidelines to ensure appropriate setbacks and buffering from adjacent residential areas.
- Location of garbage, loading and parking will be addressed through site plan approval to ensure appropriate location and buffering from adjacent residential uses.
- Office/personal service establishment conversions are permitted in existing buildings.
- Lot consolidation is encouraged to reduce driveway access from Simcoe St. N.
- Lots may contain mixed use buildings, stand alone residential or stand alone commercial buildings in certain locations.

Detailed explanation for permitted uses, development criteria and rationale for each new proposed zone is provided in subsequent sections.

9.4.1 RC - A

The RC-A zone encompasses a large portion of the east side of the Simoce St. N. study corridor. Development in the RC-A zone will permit a mix of *Medium Density I Residential* and certain commercial/ office uses. Conversions of existing buildings to office or commercial uses will be permitted.

Permitted uses

(a) Existing single detached dwelling as of the date of the passage of the Zoning By-law Amendment; second suite in a building existing as of the date of passage of the Zoning By-law Amendment; and office, personal service establishment and flat in a building existing as of the date of passage of the Zoning By-law Amendment.

(b) Residential – apartment building; block townhouse; flat; home for the aged; nursing home; retirement home; and street townhouse; provided no unit contains more than 4 bedrooms.

(c) Commercial - day care centre; office; personal service establishment; private school; studio. A retail store shall be permitted only on a lot within 60 metres of a flanking street with access from the flanking street and provided the gross floor area of any individual retail store shall not exceed 500 square metres.

The permitted uses in (b) or (c) above, shall be located on a lot containing one of the following:

1) A mixed use building (residential and commercial) provided that for every square metre of commercial floorspace, 2 square metres of residential floorspace are provided;

2) A stand alone residential building; or

3) A stand-alone commercial building provided the lot is located

within 60 metres of a flanking street and vehicular access is provided from the flanking street.

Development Criteria

Access

- Minimum lot frontage of 50 metres on Simcoe St. N.
- Opportunities for shared driveways to accommodate the Regional standard for spacing at 80 metres for a Type B arterial road and options for easements across lots to consolidate access to Simcoe St. N. will be secured.

Height & Setbacks

- Minimum 5.5 metres building height required and buildings shall not be less than two storeys in height above grade.
- Maximum building height of 11 metres based on the following:

(a) a 9 metre setback is provided from adjacent residential zones;

(b) only a 9 metre high building is located between the 9 metre setback from adjacent residential zones and 11 metres from adjacent residential zones; and

(c) an 11 metre high building is located no closer than 11 metres from adjacent residential zones.

- Front yard depth and exterior side yard depth is a minimum of 3 metres and maximum of 5.5 metres.
- Interior sideyard setback as per Section18.2 in existing Zoning By-law 60-94.
- Landscape buffer of a minimum of 3 metres from adjacent residential zones.

Parking/Loading/Garbage

- Location of parking, loading and garbage to be prohibited in the front of buildings, fronting onto Simcoe St. N. or a flanking street. Further details to be addressed at site plan control based on Urban Design Guidelines.
- Garbage storage must be enclosed.

Density

- Maximum 60 UPH (24 UPA) (residential).
- Mixed use density is consistent with development and built form criteria.

Rationale

Promoting a strong relationship between land use and urban form will enhance the public realm, stimulate street activity and improve pedestrian safety. The *RC-A* zoning will allow for more appropriate uses fronting onto an arterial road. This designation would replace the existing 'single use' residential zone thereby potentially contributing over time, to the creation of a more vibrant urban village. A limited range of commercial/office uses is envisioned for this area with exposure to street frontage.

Currently, the number of existing driveways along the corridor has created issues for traffic movement along Simcoe St. N. Residents of these properties have raised concerns about access/egress from their properties. To address this issue, it is proposed that easements be encouraged as new development occurs thereby reducing the number of access points onto Simcoe St. N. and enhancing the pedestrian focus of the street. The proposed zone:

• Provides a mix of residential and commercial uses which is consistent with provincial and regional policy for arterial roads.

- Increases residential densities along major corridors through introduction of second suites in existing single detached dwellings and increases residential densities for redeveloped sites. This provides an opportunity for a range of housing options in the corridor rather than low-density residential areas and is in keeping with provincial direction on growth management.
- Limits the number of bedrooms to provide restrictions on the size of each dwelling unit.
- Recognizes that some properties may take longer to develop due to the number of lots. Permitted uses for existing single detached units have been extended to include conversions to office uses or personal service establishments as appropriate uses for this arterial road.
- Restricts commercial uses to office uses to reflect constraints imposed by shallower lot depths along this portion of the corridor. Retail uses (with size restriction) are permitted only near flanking streets to take advantage of access opportunities from these streets.
- Encourages lot consolidation to reduce the number of access points to Simcoe St. N.
- Establishes development criteria for heights and setbacks to adjacent residential uses that will provide for appropriate buffers with adjacent uses.
- Provides parking and loading requirements that will ensure adequate buffering from adjacent residential uses.

9.4.2 RC - B

The RC-B zone is located on the west side of Simcoe St. N., north of the south leg of Niagara Dr. Development in the RC-B zone will permit a mix of *Medium-Density II Residential* uses and a variety of commercial uses. Conversions of existing buildings to office commercial or personal service establishments will be permitted.

Permitted Uses

The residential uses permitted are the same as those in section (b) of 9.4.1 and also include a crisis care residence, a lodging house and a University Residence¹. The permitted commercial uses are identified below. These permitted uses are based on the ability to achieve performance criteria. Lots may contain mixed use buildings (residential, office and commercial) stand alone residential or stand alone commercial buildings.

- Commercial animal hospital; art gallery; brew your own operation; commercial school; commercial recreation establishment (except billiard hall); crisis care residence; day care centre; financial institution; hotel; merchandise service shop; office; printing establishment; studio; personal service establishment; private school; restaurant, retail store; provided that the GFA occupied by any individual financial institution, merchandise service shop, personal service establishment or retail store shall not exceed 1550 square metres.
- The *Automobile Service Station* (SSC) zone will continue to apply to the property at 1818 Simcoe St. N.

Development Criteria

Access

- Minimum lot frontage of 50 metres on Simcoe St. N.
- Opportunities for shared driveways to accommodate the Regional standard for spacing at 80 metres for a Type B arterial road and options for easements across lots to consolidate access to Simcoe St. N. will be secured.

Height & Setbacks

- Minimum 5.5 metre building height between grade and the top of the front facing facade along Simcoe St. N.
- Maximum building height of 13 metres.
- Minimum setback from adjacent residential zone is 9 metres.
- Front yard depth for 60 percent of the frontage and exterior side yard depth is a minimum of 3 metres and maximum of 5.5 metres.
- Interior sideyard setback as per Section 18.2 in existing Zoning By-law 60-94.
- Landscape buffer of a minimum of 3 metres from adjacent residential zones.

Parking/Loading/Garbage

- Location of parking, loading and garbage to be prohibited in the front of buildings, fronting onto Simcoe St. N.
- Further details to be addressed through site plan control based on Urban Design Guidelines.
- Garbage storage must be enclosed.

Density

- Maximum 85 UPH (34 UPA) (residential);
- Mixed use or commercial density in accordance with development and built form criteria.

The existing Planned Strip Commercial zoning on the west side of Simcoe St. N. is reflective of the type and scale of development envisioned in the proposed new RC-B zone but with buildings aligned along the street. The range of permitted commercial uses has been narrowed from the existing Planned Strip Commercial zone to reflect the local needs of current and future residents. Specifically:

- auto-related uses and outdoor storage accessory uses are not permitted given that these uses are incompatible with the vision for a pedestrian-oriented corridor;
- assembly hall, auction establishments, church, cinema, club, funeral home, tavern, taxi establishment are not permitted within the study corridor given that these uses are significant traffic generators and are incompatible with the vision for Simcoe St. N.;
- museum and theatre are not permitted within the study corridor given that these uses are significant traffic generators and more appropriately located in the downtown or in the future Main Central Area at Simcoe St. N. and Winchester Rd.

The deep lots provide an opportunity to consolidate access to Simcoe St. N. at fewer locations by creating easements over laneways. Laneways could provide access to buildings and allow for parking behind rather than fronting onto the road creating an attractive and welcoming streetscape along the street frontage. Comparatively large lots may also allow for consolidation of land that is supportive of intensified development. Grade-related commercial combined with residential uses in buildings aligned along the street are encouraged in this zone. The proposed zone provisions achieve the following:

- Minimum height limits and consistent front yard setbacks ensure a consistent rhythm to the street and facilitates pedestrian amenity.
- Maximum building heights remain the same as in the existing zoning by-law.
- Setbacks to adjacent residential are established to provide a buffer.
- Larger lot depths provide opportunity for higher densities which supports regional intensification requirements to support transit.

9.4.3 RC - C

The RC-C zone is located at the southeast corner of Simcoe St. N. and Conlin Rd. Development in an RC-C zone will permit a mix of residential and commercial/office uses in up to 20 metre high buildings, based on appropriate setbacks from adjacent uses. Residential uses will be based on the *High Density I Residential* designation that allows for low rise and medium rise apartments. The type of commercial development envisioned for the Conlin/ Simcoe intersection will be focused on the pedestrian rather than auto-related access. Associated with this site are urban design guidelines that will signal the importance of this intersection.

Permitted Uses

The uses permitted are the same as those identified for RC-B based on the ability to achieve development criteria. Lots may contain mixed use buildings (residential and office, commercial) stand alone residential or stand alone commercial buildings.

Development Criteria

Access

- If access is required from Simcoe St. N., lots must be consolidated to a minimum frontage of 80 metres.
- Lots with frontage on Conlin Rd. E. must show that access to Conlin is consolidated as far away as possible from the intersection of Simcoe St. N. and Conlin and that opportunities for providing easements across adjacent properties can be secured.

Height & Setbacks

- Minimum 5.5 metre building height between grade and the top of the front facing facade along Simcoe St. N. and Conlin Rd. E.
- Maximum building height of 20 metres except that a maximum height will be limited to 11 metres in the area between a 9 metre setback from an adjacent residential zone and a distance of 30 metres from an adjacent residential zone.
- Buildings fronting on Simcoe St. N. or Conlin Rd.E require a stepback of a minimum of 2 metres above the 4th storey of the front of the building.
- Setbacks must be a minimum of 9 metres from an adjacent residential zone and 4.5 metres from an adjacent RC-A zone.
- Front yard depth is a minimum of 3 metres and maximum of 5.5 metres along 60 percent of the frontage along Simcoe St. N. and /or Conlin Rd.E.
- Exterior side yard depth is a minimum of 3 metres and maximum of 5.5 metres.
- Interior sideyard setback as per Section 18.2 in existing Zoning By-law 60-94.
- Landscape buffer of 3 metres from adjacent residential zone.

Parking/Loading/Garbage

- Location of parking, loading and garbage to be prohibited in the front of buildings, fronting onto Simcoe St. N. or Conlin Rd E.
- Parking and loading to be located at least 6 metres from adjacent residential zones.
- Further details to be addressed through site plan control based on Urban Design Guidelines.
- Garbage storage must be enclosed.

Density

- 150 UPH (60 UPA) (residential).
- Mixed use or commercial density to conform to development and built form criteria.

Rationale

The land use changes introduce the concept of a 'gateway' function at the Conlin/Simcoe intersection by signalling to commuters that they are entering a more urban area of Oshawa. The RC-C zone recommended for this area permits a broader range of uses and higher building heights to capture the importance of this corner adjacent to the Durham College/UOIT lands and at the intersection of two arterial roads.

The following features of the RC-C zone achieve this objective:

- Permitted uses provide a scope of commercial, office and residential uses appropriate for this area but do not permit auto-related uses, taverns, nightclubs, theatres or other uses which may conflict with the study objectives or which are more suitable in Oshawa's downtown.
- Minimum building height provides for intensification along

the corridor.

- Higher building height at the Conlin/Simcoe intersection provides for a landmark type of building. Developing to maximum building height is based on achieving development criteria to control for shadow effects on adjacent residential properties.
- Range of commercial uses and increased Floor Space Index (FSI) permits broad range of commercial/office opportunities.
- Required minimum 9 metre setback from residential uses is greater than zone requirements in the current zoning bylaw and allows for suitable buffer with adjacent residential properties.
- Pedestrian-scaled development is achieved through building stepbacks above the 4th storey for facades fronting onto Simcoe St. N. and Conlin Rd. E.
- Parking and loading requirements establish a setback from adjacent residential uses.

9.4.4 R6-E/OSH(1)

Development in the R6-E zone will permit High Density I Residential uses and OSH (1) uses in existing Zoning By-law 60-94.

Permitted Uses

- Residential apartment building provided no unit contains more than 4 bedrooms; block townhouse provided no unit contains more than 4 bedrooms; home for the aged; nursing home; retirement home; provided no unit contains more than 4 bedrooms; university residence.
- OSH(1) uses.

Development Criteria

Height & Setbacks

- Minimum 5.5 metre building height required, and buildings shall not be less than two storeys in height above grade.
- Maximum building height of 20 metres.
- Minimum setback from adjacent RC-A zone and OSH(1) zone is 9 metres.
- Front yard depth for 60 percent of the frontage and exterior side yard depth is a minimum of 3 metres and maximum of 5.5 metres.
- Interior side yard setback as per Table 11.2 in existing Zoning By-law 60-94.

Parking/Loading/Garbage

- Location of parking, loading and garbage to be prohibited from the front of buildings, fronting onto Simcoe St. N. or a flanking street.
- Further details to be addressed through site plan control based on Urban Design Guidelines.

Rationale

The *Residential Mixed Use* within the golf driving range lands fronting onto Simcoe St. N., could be developed to *High Density I Residential* density to increase intensification of this land while maximizing views of the Oshawa Creek valley lands . 'Higher density', does not necessarily mean high rise buildings as increases in net density can be achieved with low rise forms such as low and medium apartment buildings. The 20 metre height is reasonable in this location given the surrounding green space lands that act as a buffer to adjacent low-rise mixed use areas.

The surrounding area adjacent to the Oshawa Creek is appropriately designated and is proposed to remain designated as *Open Space and Recreation* to ensure that access to valley lands continues to be secured.

9.4.5 Other zones

The medium density residential node currently in place south of Niagara Dr. has recently been developed pursuant to the R4-A/R6-A zoning and there is no need to change the zoning along this portion of the corridor. The zoning for the property directly north has been extended to include R3-A (street townhouses) as this may be an appropriate form of development fronting onto Niagara Dr.

- R3-A/R4-A/R6-A Expanding the R4-A/R6-A zone to include R3-A will permit street townhouses at 17 Niagara Dr., allowing for units to face onto Niagara Dr. thereby enhancing the pedestrian environment and providing that no unit contains more than 4 bedrooms.
- R4-A/R6-A/CIN The deeper lot on the Shrine Club property provides an opportunity to expand this medium density residential designation as a logical extension of land uses that already exist should the Shrine Club lands ever be redeveloped at some point in the future. The site provides for adequate space for buffering with adjacent low density residential uses. By adding community uses to the permitted uses within this zone, the continued operation of the Shrine Club would be recognized. No unit shall contain more than 4 bedrooms.
- R6-A.D95 -The proposed designation of 1620 Simcoe St. N. south of the Shrine Club to medium/high represents a logical extension of the existing *High Density I Residential* designation with residential uses already in place at 1610 Simcoe St. N. No unit shall contain more than 4 bedrooms.

• No land use change is recommended south of these properties as the existing *Open Space and Recreation* designation is considered appropriate for this area due to floodplain issues and the recent acquisition of the lands by the City from CLOCA for recreational use.

Footnotes

¹ University Residence: means a building or part of a building that is owned or operated by a university or college, that contains residential accommodation for students, employees, or persons in short-terms residence at such university or college, whether or not shared culinary facilities are provided in the building.

10.0 ADDITIONAL STUDY RECOMMENDATIONS

In addition to the land use changes recommended in section 5.0, the study team recognizes that changes in land use alone will not ameliorate the existing issues between residents living in established low density neighbourhood adjacent to the campus and the students who rent units in these neighbourhoods. Flexible land use controls can encourage developers to build along the corridor at appropriate densities to provide students with an alternative to renting single-detached houses in these neighbourhoods. However, improving relations amongst all community members will be a key component to mitigating current issues with student behaviour. This approach is recognized across municipalities who currently cope with these same issues.

Student Behaviour

The following proposals extend beyond land use issues but provide other approaches for addressing the student issues.

- The City, Durham College/UOIT, students and concerned members of the community have formed a Town and Gown Committee. Based on experience of other municipalities, ideas to consider by this committee may include:
 - Inspection programs to ensure safety of units.
 - Expanding the community development role of protective services as was done in Waterloo i.e. establishing a municipal liaison who develops programs, establishing positive relationships with College/UOIT, managing mediation and other programs and disseminating information.
 - Increase awareness in the community about by-law enforcement activities, rules and regulations, and response to infractions to municipal by-laws.
 - o Share information with affected neighbourhoods,

landlords and tenants to facilitate interactions and help to resolve issues.

- Encourage Durham College/UOIT to adopt, as at some universities, a code of conduct for off campus behaviour. Sanctions include withholding of grades. Other universities have chosen not to establish this due to issues with legally enforcing the code¹.
- Sharing information between the City and College/UOIT about possible expansion plans is a valuable way to keep doors open so that this information may be communicated to surrounding residents to keep them up to date.

Initiatives for achieving urban design and built form

- Consider ways to inspire great design through architectural competitions and urban design awards;
- Design new buildings on UOIT/Durham College lands adjacent to the corridor consistent with criteria in this study and the design guidelines. Buildings should be aligned along the Simcoe St. N. frontage, pedestrian-oriented and reflect attractive architecture to provide a harmonious relationship between the corridor and campus lands;
- Use development agreements to establish easements for off road access to properties through laneways, pathways/trail connections;
- Establish a monitoring plan to assess whether increasing densities and housing choice along the corridor is resulting in a change in surrounding low density residential neighbourhoods. Trends to be monitored could include:
 - number of new beds generated by College/UOIT;
 - full time enrolment figures;
 - changes in tax revenue generated through development;
 - o number of by-law complaints and follow up results.

Footnotes

¹ City of Waterloo: Student Accommodation Study Final Report. 2004. p48.

11.0 CONCLUSION

The recommended framework for land use and urban design and the transportation strategy represents a new approach to planning and development in north Oshawa. The study process involved a thorough consultation process with members of the public, property owners, representatives of agencies and Durham College/UOIT.

The Recommended Land Use Plan outlined in this report provides a coordinated vision for development of the corridor in the long term. Justification for residential intensification is based on Provincial direction for growth management, Regional requirements for a Transit Spine and City Official Plan policies.

Mixed use development provides flexibility for a range of residential, office and commercial uses in street-related buildings to meet the needs of local residents. Implementation of the design concept will provide a foundation for a pedestrian-oriented corridor that encourages a unity in approach and scale but diversity in architectural styles of buildings. The strategy for transportation will address projected demand of Simcoe St. N. that considers the safety of pedestrians and motorists.

Amendments to the City's Official Plan, Samac Secondary Plan and Zoning By-law 60-94 should be undertaken in accordance with section 9.0 (Implementation) of this report. Development applications within the study corridor should be reviewed in the context of this report and the Urban Design Guidelines associated with this study.

APPENDIX A

APPENDIX A: ESTIMATES OF POPULATION AND COMMERCIAL AREA

This section provides an estimate of the maximum number of residential units, residents and commercial area based on one possible set of assumptions for the recommended zoning in this study.

It is important to note that this is only one set of assumptions out of many possibilities and represents a 'best guess' at how the study corridor may be developed given the range of residential uses permitted. There are many variables that could change as development occurs, thus, significantly altering the estimates provided here. In particular, if all parking were provided on surface lots, the estimates provided here would need to be lowered.

Three scenarios were prepared:

- Scenario 1: Existing conditions
- Scenario 2: Estimates of possible development under existing zoning
- Scenario 3: Estimates of possible development under proposed zoning

Assumptions for Scenario 1: Existing conditions

• Based on built form conditions currently existing in the study corridor as of the date of this study.

Assumptions for Scenario 2: Estimate of possible development under existing zoning

Area 1 assumes:

• build out of currently draft approved plan of subdivision for single detached units.



Figure 26. Area Map for residential unit calculation, population and commercial floor space

- development of apartment units with ground floor commercial at southeast corner of Simcoe St. N. and Conlin Rd.
- existing residential units to remain along Conlin Rd. and along Simcoe St. N., south of the draft approved site plan.
- for vacant properties, the number of units is calculated by dividing total lot frontage by 13.5 metres which is the minimum frontage under current R1-C zoning.

Area 2 assumes:

- that no change will occur for lots with an existing building.
- that for vacant properties, the number of units is calculated by dividing total lot frontage by 13.5 metres which is the minimum frontage under current R1-C zoning.

Area 3 assumes:

- that no change will occur for lots with an existing building.
- that for vacant properties, the number of units is calculated by dividing total lot frontage by 13.5 metres which is the minimum frontage under current R1-C zoning.
- commercial space to allow for an approved restaurant on the golf driving range lands.

Area 4 assumes:

 four-storey apartment buildings with ground floor commercial uses, with surface parking and some possibility of underground parking over time.

Area 5 assumes:

• existing 28 townhouse units, plus additional townhouses for 17 and 21 Niagara Dr.

- Shrine Club to remain.
- that for the area south of the Shrine Club, no change will occur with the exception of the legal non-conforming uses on open space lands which will be removed.

Assumptions for Scenario 3: Estimate of the maximum possible development under proposed zoning

The proposed scenario is based on only one possible set of assumptions that reflects development between maximum built form with underground parking and what is more likely to happen with some surface parking. Parking constraints will likely influence built form and parking will be provided at grade and where possible underground. While underground parking may not currently be economically feasible, in the future it may be feasible.

Area 1 assumes:

- for the southeast corner of Simcoe St. N. and Conlin Rd., residential buildings with some ground floor commercial uses. Assumes approximately 100 square metres per residential unit. Assumes approximately 10,000 square feet per acre for commercial uses.
- townhouse units (with one-quarter ground floor space as commercial uses) for the area south of the hydro corridor south to Taylorwood Rd.
- no change will occur for 8 and 12 Taylorwood Rd.
- no development on the hydro corridor fronting onto Walreg Dr.
- if parking is provided entirely on the surface, the number of units and commercial floor space will decrease significantly.

Area 2 assumes:

- townhouse units (with one-quarter ground floor space as commercial uses).
- if parking is provided entirely on the surface, the number of units and commercial floor space will decrease significantly.

Area 3 assumes:

- single-detached units to develop on Camp Samac lands as per existing zoning (based on the extension of Selleck Lane).
- townhouse units (with one-quarter ground floor space as commercial uses).
- a 6-storey apartment building on the lands zoned R6-E/ OSH (1).
- if all parking is on the surface, the number of residential units and commercial floor space will be further reduced.

Area 4 assumes:

- four-storey apartment buildings with ground floor commercial uses. Assumes approximately 10,000 square feet per acre for commercial uses.
- if all parking is on the surface, the number of residential units and commercial floor space will be further reduced.

Area 5 assumes:

- the same assumptions for townhouse units as in Scenario #2.
- townhouse units on the Shrine Club lands.

Assumptions on Residential Projections

Assume 1.72 persons per unit for apartment units Assume 2.85 persons per unit for townhouse units Assume 3.21 persons per units for single detached units

AREA #	SITE AREA SCENARIO 1: EXISTING CONDITIONS SCENARIO 2: ESTIMATE OF DEVELOPMENT UNDER E. ZONING					E SCENARIO 3: ESTIMATE OF MAXIMUM POSSIBLE DEVELOPMENT BASED ON PROPOSED ZONING				
		# Residential Units	Estimated Population	Commercial GFA (m ²)	# Residential Units	Estimated Population	Commercial GFA (m ²)	Residential Units	Estimated Population	Commercial GFA (m ²)
Area 1	48,542	17	54	425	85	190	2055	200	430	5000
Area 2	17,081	10	32	153	10	35	150	50	150	850
Area 3	31,220	10	32	194	25	80	500	210	425	540
Area 4	41,800	8	25	1961	320	555	9200	320	550	9200
Area 5	56,998	35	95	607	60	160	270	85	245	0
	total		238	3340	500	1020	12175	865	1800	15590

Table of Projected Residential Units, Population and Commercial Floor Area

Note that numbers in Scenario 2 and 3 would be reduced if all parking is on the surface.