

Newcastle North Village Secondary Plan

Phase 1 Summary:
Preliminary Technical Analysis and Public Engagement Report

March 2022





Acknowledgements

Project Steering Committee

Durham Region

Jeff Almeida, Regional Servicing and Transportation Glyn Reedman, Transportation Design Doug Robertson, Transportation Infrastructure Valerie Hendry, Policy Planning

Garanaska Region Conservation Authority

Ken Thajer, Planning & Regulations

North Village Landowner's Group

Scott Waterhouse, Planning Manager, Candevcon Paolo Sacilotto, Project Manager, Planning, DG Group Richard Tyler, Project Manager, Engineering, DG Group Jennifer Haslett, Senior Project Manager, Land Development, Brookfield Residential David Murphy, VP, Land Development Brookfield Residential

Municipality of Clarington Project Team

Ryan Windle, Director of Planning Services Carlos Salazar, Manager of Community Planning & Design

Karen Richardson, Manager of Development Engineering Mark Jull, Planner II

Julia Pingle, Development Coordinator

Consulting Team

SvN Architects + Planners

Shonda Wang, Project Director Michael Matthys, Senior Planner Lina Al-Dajani, Senior Urban Designer Kelly Graham, Planner & Project Manager Gabriela Luna, Urban Designer

AECOM Canada Ltd

Kevin Phillips, Municipal Transportation Manager Peter Middaugh, Civil Engineering Lead

Footprint

Cindy MacCormack, Sustainability Specialist

Urbanism x Design

Harold Madi, Urban Design Advisor

Community Members

We appreciate all of the members of the community who took the time to ask questions and provide feedback on the materials presented at the Public Information Centre.

Contents

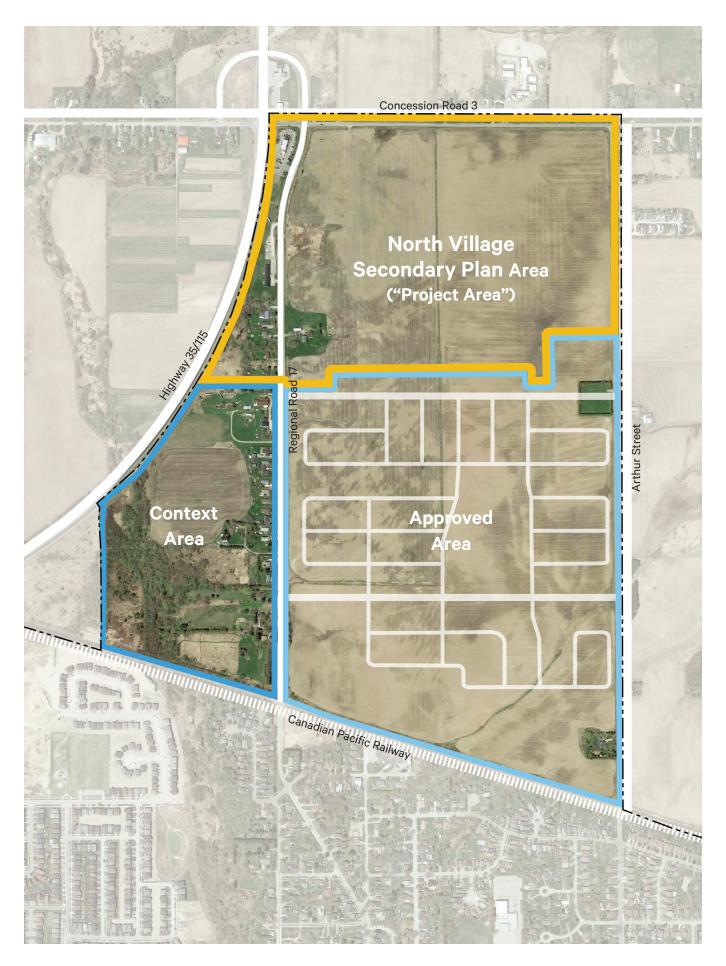
1.0	Introduction1	6.0	recnnical Background Reports26
	 1.1 Background and Intent 1.2 Purpose of this Document 1.3 Project Area 1.4 Guiding Priorities 1.5 What is a Secondary Plan? 1.6 What is an Integrated EA? 1.7 Timeline and Ways to be Involved 		 6.1 Land Use Planning Policy Review 6.2. Agricultural Impact Assessment 6.3. Stage 1 Archaeological Assessment 6.4. Cultural Heritage Screening Report 6.5. Natural Heritage Analysis 6.6. Transportation Report 6.7 Infrastructure and Servicing Existing Conditions Assessment
2.0	Phase 1 Engagement Activities8		6.8 Sustainability Background Report
	2.1 Engagement Overview2.2 Public Information Centre #12.3 Public Information Centre #2	7.0	Analysis of Challenges and Opportunities43
3.0	Draft Vision and Principles10 3.1 Guiding Principles		7.1 Challenges7.1.1 Regional Road 17 Realignment7.1.2 Limited Connections7.1.3 Interface with Surrounding Lands
4.0	Historical Context		 7.1.4 Lands and Nature of the Water Reservoir 7.2 Opportunities 7.2.1 A Complete, Age-In-Place Neighbourhood
5.0	Existing & Emerging Context14 5.1 Land Uses and Activities 5.2 Uses in the Approved Area 5.3 Infrastructure and Servicing 5.4 Natural Features 5.5 Land Ownership and Parcel Fabric 5.6 Transportation Network 5.7 Heritage Properties 5.8 Population Characteristics		 7.2.2 A Compact and Walkable Neighbourhood 7.2.3 Multi-Modal Arterials 7.2.4 Neighbourhood with Heart 7.2.5 Leverage Agricultural Heritage for Placemaking 7.2.6 Leverage Views for Placemaking 7.2.7 Green Neighbourhood Design
	5.9 Existing and Emerging Conditions - Key Takeaways	8.0	Conclusions and Next Steps67

Contents

List of Figures

Figure 1	The Project Area		
Figure 2	Clarington Context		
Figure 3	NVSP Project Timeline		
Figure 4	Newcastle Existing Land Uses		
Figure 5	Nature and Open Space System		
Figure 6	Lot Fabric in the Approved Area		
Figure 7	Circulation Network		
Figure 8	Newcastle Population Characteristics		
Figure 9	Durham Region Official Plan - Schedule A Regional Structure		
Figure 10	Clarington Official Plan - Map A4 Land Use		
Figure 11	Existing Agricultural Land Uses in the Broader Study Area		
Figure 12	Stage 1 Archaeological Assessment results and previous assessments		
Figure 13	Properties on the Clarington Heritage Register, Inventory, and Properties of Potential Heritage Interest		
Figure 14	Natural Heritage Analysis - Existing Conditions		
Figure 15	Durham Transportation Master Plan - Future Proposed Road Network Beyond 2031		
Figure 16	Durham Transportation Master Plan - Active Transportation Network		
Figure 17	Existing Storm Drainage System		
Figure 18	Regional Road 17 Realignment Option		
Figure 19	Limited Physical Connections to North Village		
Figure 20	Interface with Surrounding Lands to Address Sensitive Adjacencies		
Figure 21	Potential Relocation of the Water Reservoir		
Figure 22	Potential Improved Network to Support Walkable Neighbourhoods		
Figure 23	Potential Integrated Uses to Support a Vibrant Neighbourhood Centre		
Figure 24	Potential Agricultural Heritage as Placemaking Assets		
Figure 25	Existing Views for Potential Placemaking		

This page left intentionally blank



1.0 Introduction

North Village is envisioned as a vibrant neighbourhood that is open to all, at all stages of their life. Walkable and welcoming, it reflects the rich spirit of the Newcastle community.

(Draft Vision Statement)

1.1 Background and Intent

A secondary plan is required to facilitate the development of North Village, a new subdivision in the community of Newcastle. The Durham Official Plan and Clarington Official Plan recognize that planning for new subdivisions should be done in a holistic manner, evaluating what infrastructure is required to support the planned uses and activities, and preparing a comprehensive planning policy framework to guide development and decision-making.

The purpose of the project is to create a secondary plan and zoning by-law that will guide the development of the Secondary Plan Area ('the Project Area') (**Figure 1**) in a manner that is consistent with the Municipality's guiding priorities of sustainability, affordable housing, community engagement, and urban design.

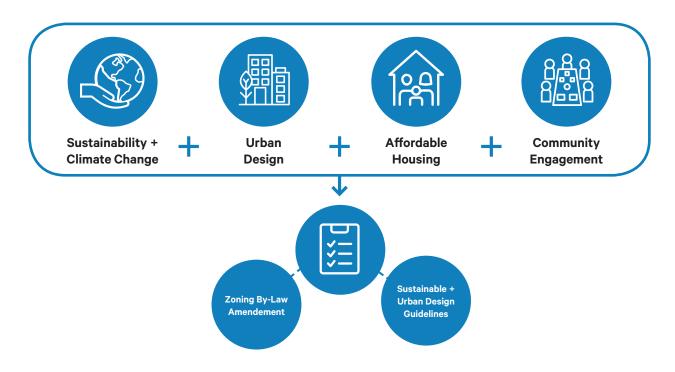
Much work and discussions with municipal and regional staff, landowners, and community residents have gone into shaping the vision for North Village. A picture of its character, sense of place, and quality of life is beginning to take shape.

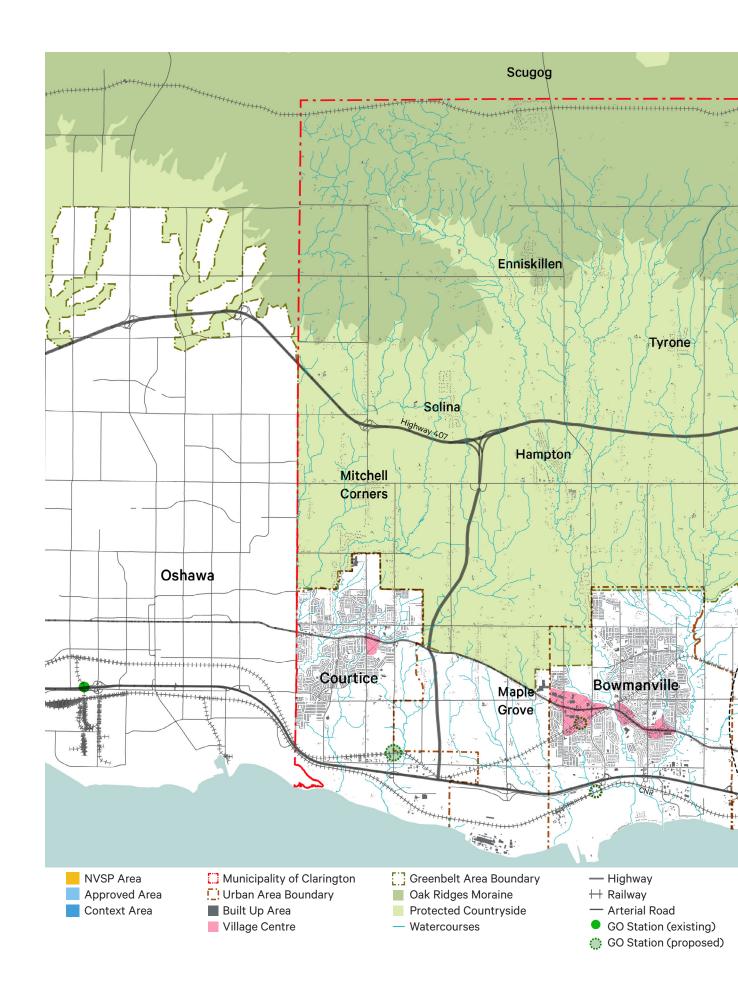
North Village is a neighbourhood that will be known for its great parks and walkable streets. A central square is the main gathering place, where seniors meet to play chess, and families check out a weekend pop-up. It is a neighbourhood that has something for everyone, with housing options for young parents, empty nesters, and retirees.

The North Village Secondary Plan ('NVSP') project sets the stage for this to become reality.

1.2 Purpose of this Document

This report provides a summary of the work completed to date by the NVSP Project Team, including the review of relevant policies and background documents, analysis of opportunities and constraints, and a draft vision and principles.





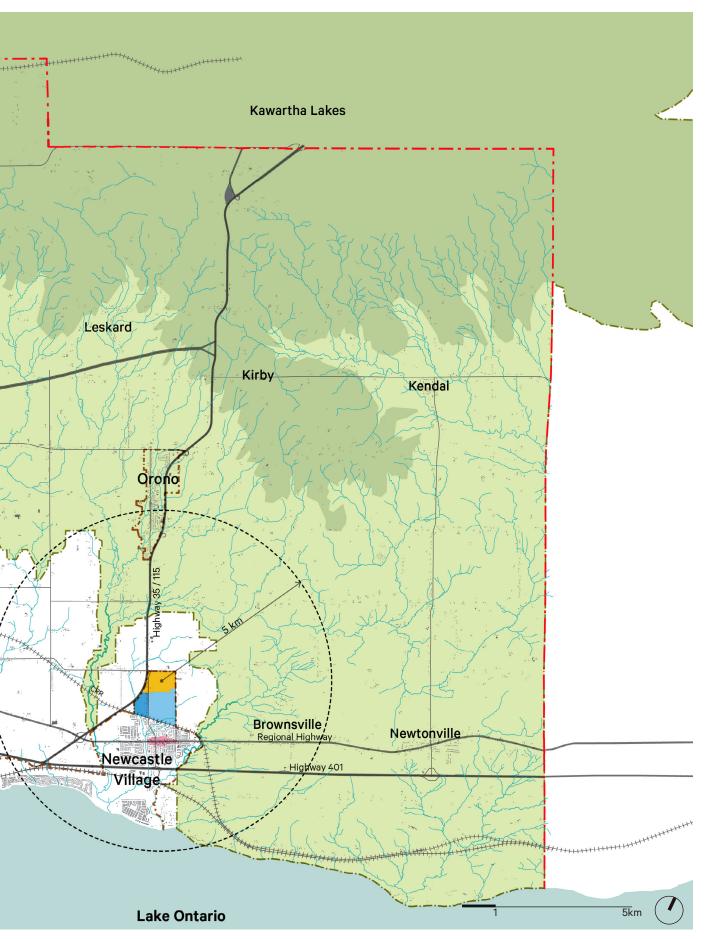


Figure 2 Clarington Context

1.3 Project Area

The Village of Newcastle is an urban settlement area centered on Durham Highway 2 (King Avenue) and Regional Road 17 (Mill Street). The Village of Newcastle is one of four urban areas that make up the Municipality of Clarington, the easternmost municipality in the Region of Durham (**Figure 2**). The Secondary Plan Area (the 'Project Area') is bounded by Concession Road 3 to the north, Arthur Street to the east, draft approved plans of subdivision to the south, and Highway 35/115 to the west.

This project will consider the relationship of the Project Area to areas immediately adjacent. The lands to the south of the Project Area include lands which have been draft approved for plans of subdivision, and are referred to as the 'Approved Area'. Lands to the south and west of Regional Road 17 ('RR17') are referred to as the 'Context Area'. These lands are not currently contemplated for development, but it is acknowledged that they may develop at some point in the future. Taken together, these three areas are referred to as the 'Study Area'.



Welcome to Newcastle sign at Highway 35/1155 off-ramp

1.4 Guiding Priorities

In addition to the principles set out in the Clarington Official Plan, the Municipality has also established four Guiding Priorities for the North Village Secondary Plan, to be addressed through the site analysis, the development of alternative land use and transportation scenarios, and the refinement of the final Secondary Plan.

URBAN DESIGN

New neighborhoods will be designed to enhance the history and character of Clarington. Excellence in urban design will consider elements like building design, complete streets, views, park connectivity, sun and shadow impacts, and active transportation, as well as the integration of green infrastructure.

AFFORDABLE HOUSING

The Clarington Official Plan encourages a minimum of 30% of all new housing built in Urban Areas to be affordable. The NVSP will include strategies for contributing to the achievement of this target.

SUSTAINABILITY AND CLIMATE CHANGE

Clarington Council adopted a sustainable, 'green lens' approach to development, known as the Priority Green Development Framework. Sustainable development principles and practices will be incorporated into every part of the NVSP, and it will include measurable targets to move towards a net zero neighbourhood that is resilient to the impacts of climate change.

COMMUNITY ENGAGEMENT

The preparation of the NVSP will be supported by a thorough public engagement strategy and include a range of public consultation initiatives in order to share, consult, deliberate and collaborate with all stakeholders.



Growth management objectives, including the minimum density target of 50 residents and jobs per hectares;



The provision of a diverse and compatible mix of land uses and housing types;



The design of a connected system of grid streets, an active transportation network, and connections to transit, community facilities, schools and parks:



Sustainable design standards for sites and buildings, including green infrastructure:



The protection and incorporation of natural heritage and hydrologically sensitive features:



Mitigation of potential land use conflicts associated with proximity to existing agricultural uses;



Opportunities to create visual interest through a varied built form, landscaping, and open space;



The location of significant public buildings on prominent sites with street frontage;



Principles of Crime Prevention Through Environmental Design (CPTED); and



Inclusive design that meets the needs of residents of a variety of ages, abilities, and income levels.

1.5 What is a Secondary Plan?

A secondary plan is a land use planning document that contains policies and maps to guide the future development or redevelopment of a particular area of the municipality, such as a neighbourhood or village centre. A secondary plan is used to locate land uses such as homes and businesses, new roads and trails, and neighbourhood amenities such as parks and schools. It also establishes key objectives for the area, including sustainable design principles and population density targets.

The objectives of the secondary planning process are outlined in Section 23.3 of the Clarington Official Plan, and are summarized on the left side of this page.

1.6 What is an Integrated EA?

The Secondary Plan is supported by an Environmental Assessment (EA) process in order to document the need and justification for new infrastructure network elements within the Secondary Plan area. New roads and stormwater management systems require an EA to be completed to the satisfaction of the Ontario Ministry of the Environment, Conservation, and Parks (MECP), before construction can proceed.

Under the Environmental Assessment Act, the Province has laid out certain steps that must be met for an EA to be deemed complete. Many of these steps, such as public engagement and evaluation of alternative designs, align with the planning process for a secondary plan. The Project Team is undertaking the EA for infrastructure in North Village as an integrated process to avoid duplication of effort and consolidate public engagement opportunities in a manner that optimizes time spent for public engagement events.

An EA monitoring report will be prepared towards the end of the project and submitted to the MECP for approval, along with all of the supporting technical studies. This will facilitate the development of the Project Area, along with all the required infrastructure.



1.7 Timeline and Ways to be Involved

This report represents the conclusion of the first of four phases (**Figure 3**). The background reports, technical analyses, and public consultation in Phase 1 will inform the creation of alternative land use plans in Phase 2. These alternative land use plans will be presented to the public for feedback, and a preferred land use plan will be selected and further refined in Phase 3. The preferred plan will form the basis of the draft secondary plan and zoning by-law in Phase 4.

The Project Team and the Municipality are looking for public input at every stage of the project. The first Public Information Centre (PIC) was held in November, 2019. Due to the Covid-19 pandemic, the project went on hold for a year. The second PIC occurred in 2021. At this event, the findings from the background technical reports and analysis of opportunities and constraints were shared with the public for input.

One final PIC will be held, likely in Spring 2022, to present the alternative land use plans. Following this, the Project Team will take all of the comments and input received to prepare a preferred land use plan in the form of a draft secondary plan and zoning by-law, which will be presented for public comment at an open house and statutory public meeting in front of Clarington Council.

All of the project information is available on a project-specific webpage on the Municipality's of Clarington's website:

www.clarington.net/northvillage

You can submit questions or comments at anytime via the project webpage or by calling the municipal Project Manager.

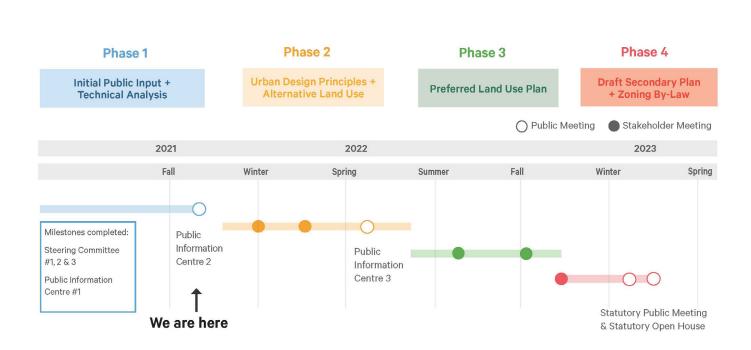


Figure 3 NVSP Project Timeline

2.0 Phase 1 Engagement Activities

2.1 Engagement Overview

Community Engagement is one of the guiding priorities of the North Village Secondary Plan, and is crucial to the creation of a plan that is appropriate for its location and context in Newcastle, and that addresses the needs of current and future residents, as well as other stakeholders.

A steering committee was formed at the outset of the project, including representatives from the Municipality of Clarington, Durham Region, the North Village landowners group, and other key agencies. The steering committee provides oversight for the project, and is a key resource for local knowledge and technical information. Three steering committee meetings were held in Phase 1. Valuable insight was provided to inform the background technical reports and the analysis of challenges and opportunities.

While there are currently only a small number of residents within the Secondary Plan Area, one objective of the secondary planning project is to knit the new neighbourhood into the fabric of the existing Newcastle community, so there is a seamless transition. There is also the opportunity to address needs identified by existing residents, such as services and amenities, in order to create a more complete Newcastle. Current residents are important stakeholders in this process.

The involvement of these stakeholders will ensure that a multitude of interests are represented and balanced within the planning framework. The engagement process takes place in three phases and is aligned with the technical work (Figure 3). Engagement activities include eight Steering Committee Meetings, four open house events (three Public Information Centres and one statutory Open House), online engagement throughout the project, and one statutory Public Meeting before Clarington Council.

2.2 Public Information Centre #1

The Public Information Centre (PIC) was held at the Newcastle Pentecostal Church on November 21, 2019. The Pentecostal Church is located in the Project Area, at 978 Durham Regional Road 17, Newcastle. The PIC was a drop-in format, with 15 display panels available for viewing. The Project Team and Clarington Staff were available to answer any questions. A total of 41 community members attended the event.

Preliminary feedback was sought using a variety of methods. Four of the display panels contained ideas related to the guiding priorities of urban design, sustainability and climate change, affordable housing, and community engagement. Participants were invited to place stickers next to ideas that they liked and add sticky notes to augment the content with their ideas. Some of the most popular ideas included:



SUSTAINABILITY & CLIMATE CHANGE

- "Landscaping with native plants" = 10
 votes
- "Reduced vehicular dependence" = 7
- "Green infrastructure" = 7 votes
- "Local food production" and "Green infrastructure" each received 6 votes.



AFFORDABLE HOUSING

- "Seniors housing" was a clear priority for participants, with 8 votes.
- "Supportive housing" and "Rental housing" each had 6 votes
- "Family housing" had 5 votes.
- Additional suggestions provided by participants included housing for young people, tiny homes, and co-op housing.



URBAN DESIGN

- "Parks and natural landscapes" = 7 votes.
- "Complete streets" and "Interactive spaces" each received 6 votes
- One additional suggestion was that community daycare or childcare space should also be a priority.



URBAN DESIGN

- "Public open house" = 7 votes
- "Project website" = 6 votes

Comments sheets were also handed out for participants who wanted to provide written feedback.

One comment sheet was returned.

Other feedback was received through one-on-one discussions between Project Team/Clarington Staff members and individual participants. Some shared other priorities for North Village, including:

- Seniors housing and amenities catering to seniors.
- Long-term care facility.
- "Starter homes" for young families.
- Daycare facility.
- Cooperative/supportive housing.
- Safe options for walking and cycling.
- Variety of trees and landscaping.
- Preserve agricultural/historical aesthetic of Newcastle.

Feedback from the PIC was reviewed by the Project Team and Municipal Staff, and was considered a key input into the identification of Challenges and Opportunities (**Section 5.0** of this report), and the creation of a Draft Vision and Guiding Principles (**Section 3.0**).

Top Rated Responses from PIC #2 - Residential Areas



Top Rated Responses from PIC #2 - Neigbourhood Centre

2.3 Public Information Centre #2

The second Public Information Centre was held in a virtual format using Zoom Webinars on November 18, 2021. The purpose of the PIC was to present the Challenges and Opportunities and draft Vision & Guiding Principles. The PIC was a presentation from the Consultant Team followed by a moderated Question and Answer period. A total of 31 people attended the event. A live poll, Q&A, and post-event survey were used to gather feedback from the public. The following emerged as key priorities for North Village:

- Retain the small-town "feel";
- Provide a great public realm that is safe and comfortable for pedestrians and cyclists, and that has destinations that people can walk to;
- Invest in high-quality landscaping, integrating native plant species, and provide opportunities for community gardening;
- Provide a variety of uses as part of the Neighbourhood Centre that complement and do not compete with King Ave; and
- Ensure that North Village is designed to be sustainable and resilient, and provide opportunities for investment in green design features on individual homes.



3.0 Draft Vision and Principles

North Village is a vibrant neighbourhood that is open to all, at all stages of their life. Walkable and welcoming, it reflects the rich spirit of the Newcastle Community.

3.1 Guiding Principles

The following principles form the core tenets of the North Village Secondary Plan. Together with the vision, these principles will guide decision-making as the Secondary Plan is prepared and implemented.



A LIVEABLE NEIGHBOURHOOD

- Provide a mix of housing options that are available to a wide range of ages, abilities, incomes, and household sizes.
- Provide an appropriate mix of uses, amenities, and services at the heart of the neighbourhood to encourage active, sociable lives and support a sense of well-being and connection.
- Provide a range of community facilities and co-locate these facilities where possible.



A CONNECTED NEIGHBOURHOOD

- Prioritize pedestrian mobility and comfort by designing a neighbourhood that is well connected internally and provides safe and walkable links to surrounding neighbourhoods.
- Design the movement network to safely and comfortably accommodate all modes of travel (pedestrians, cyclists, transit vehicles, loading and private vehicles).



A BEAUTIFUL & INVITING NEIGHBOURHOOD

- Design a variety of open spaces linked by a beautiful and functional public realm.
- Encourage a high standard of design.
- Utilize the existing topography to optimize views of the surrounding areas.



A RESILIENT NEIGHBOURHOOD

- Minimize contribution to climate change by incorporating green design principles related to energy, water, and waste at the building and neighbourhood scale.
- Where economically feasible, utilize
 materials from sustainable sources for
 construction and infrastructure projects,
 account for positive and negative life-cycle
 impacts of materials when assessing their
 contribution.
- Integrate indigenous and pollinator-friendly species into the development.
- Support resilience and future adaptability by designing homes and buildings to accommodate different uses and densities with diverse unit configurations.



○ A UNIQUE NEWCASTLE NEIGHBOURHOOD

- Foster a unique identity by celebrating the rural heritage of the area.
- Engage the Newcastle community in planning the future of North Village.



4.0 Historical Context

4.1 History of Newcastle

The Study Area is part of what was formerly known as Clarke Township, which was first settled by Europeans in 1792. Prior to that, the lands were occupied for thousands of years by Indigenous peoples. The area is the traditional and treaty territory of the Mississaugas and Chippewas of the Anishinaabeg, known today as the Williams Treaties First Nations.

The first European settlers began farming in Clarke Township by 1790, and the earliest settlement in what is now known as Newcastle began in 1833, when Stephen Crandall opened a tavern near the present day intersection of King Avenue (Highway 2) and Mill Street (RR 17). The settlement became known as Crandall's Corners. To the south, a shipping pier on Lake Ontario was established, and the community of Bond Head grew up around it. By the 1840s, Newcastle had a population of over 300 people, and by 1851 merged with Bond Head to become the Village of Newcastle, incorporated in 1856. The village population grew to about 1,200 by the end of the 19th Century.

4.2 History of the Project Area

The Study Area spans the north half of Lots 27-29, Concession II in the former Township of Clarke. Lot 27 was originally given by the Crown to the Rectory of St George in 1836 as a Clergy Reserve. It was purchased by William Allin in 1873. Allin, an immigrant from Devonshire, England, married and built a homestead on the lot. The lot remained in the Allin family until 1941.

Lot 28 was granted to Robert Baldwin in 1802. Baldwin was one of the earliest settlers of Clarke Township, arriving in 1799. Lot 28 changed ownership several times, and was finally purchased by the Allin family in 1902. The Allins used the house and property as the family farm, and would continue to do so for over 100 years. The house on the property at 879 North Street (now demolished) was construction in approximately 1870.

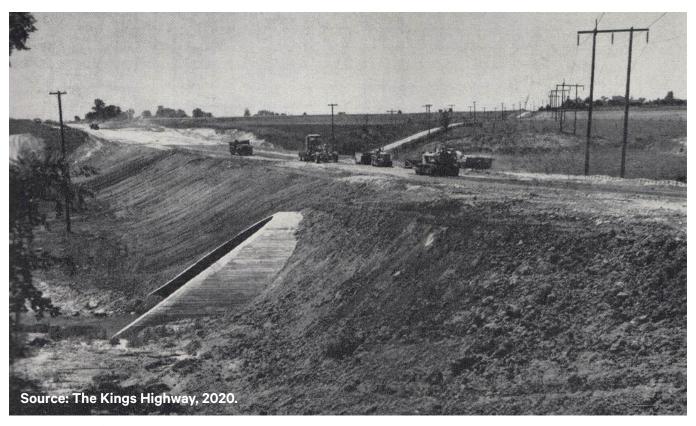
Lot 29 was also owned by Robert Baldwin for a time, until his death when it was subdivided and sold. It is believed that Henry Munro built a one-storey home on his property around 1832, this house was known on the 1861 Map of the County of Durham as "Rosedell Cottage". The building still stands today and is part of the Docville movie set, a collection of buildings that have been made to resemble a town in a western movie.

Highway 35/115 (also known as the King's Highway) was built in the 1950s to connect between Highway 401 near Newcastle and Highway 7 in Peterborough. It served as the major north-south connection between the southern lakeside communities and the Kawartha Lakes region until the opening of Highway 418 in 2019.

The entire area is typical of a rural agricultural landscape, south of the Oak Ridges Moraine, east of Toronto. The landscape contains farmers' fields and some rural lots established in the 19th Century and a larger number of rural residential lots established in the mid-20th Century.



Newcastle Train Station in 1915



Construction of the Newcastle Bypass portion of Hwy 35 & Hwy 115 at Wilmot Creek (1955)

5.0 Existing and Emerging Context

5.1 Land Uses and Activities

The Project Area is 51 hectares (127 acres) in area, and is primarily made up of greenfield lands located at the urban fringe of the Village of Newcastle. On the west side of RR 17 there are a number of homes, a church, and a fast food restaurant (McDonalds). The majority of the Project Area is currently being used for agriculture.

The surrounding context reflects the historically rural and agricultural nature of this community. To the north of the Project Area there are agricultural lands, including a former hog farm, and a designated heritage property (3554 Concession Road 3). Further north along Highway 35/115 there are a number of commercial and automotive uses, as well as The Pines Senior Public School and Clarke High School.

To the east there are more agricultural lands, and a small mobile home park with approximately 25 homes. Further east are the valley lands associated with the Graham Creek.

Immediately to the west is Provincial Highway 35/115. The lands to the southwest that make up the Context Area consist of single detached dwellings on deep lots, and include a tributary of the Foster Creek.

The lands to the south in the Approved Area are currently being prepared for the development of the approved subdivisions with approximately 1,017 residential units.

The historic village centre of Newcastle is located along Durham Highway 2 (King Avenue) approximately 1.5 kilometers to the south, and is characterized by a collection of locally-owned and operated businesses. The residential areas surrounding the village centre are low density and consist of primarily single-detached dwellings.

A map of existing land uses is included as Figure 4.

5.2 Uses in the Approved Area

The lands in the Approved Area are planned for approximately 920 low-density residential units (singles, semis and towns), a medium-density residential block (approx. 97 units), a public elementary school, and three public parks (**Figure 4**). These lands are also owned by members of the North Village Landowners Group, specifically Brookfield Residential and DG Group. Draft approval was granted by the Ontario Municipal Board in October 2012.

The draft approved subdivisions also include two stormwater management ponds within an open space buffer along the CP Rail corridor. A future water reservoir has also been identified within the Project Area.



View from northeast



View from southwest

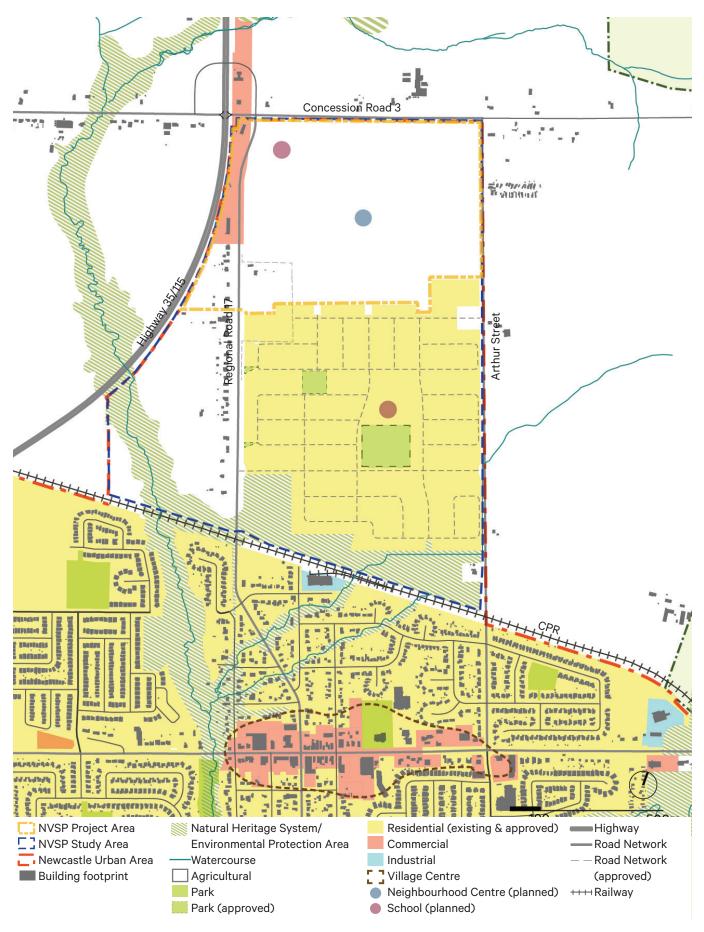


Figure 4 Newcastle Existing Land Uses

5.3 Infrastructure and Servicing

Due to its location on the urban fringe, there is no existing drinking water, sanitary, or storm infrastructure in the Project Area. There is an existing water reservoir in the northeast corner of the Approved Area, which provides drinking water for the Village of Newcastle. It has been determined that additional capacity is needed to supply water to North Village, including both the Approved Area and the Project Area. The Region of Durham is currently undertaking a separate EA for the design of a new reservoir and pumping station within the Secondary Plan Area. New watermains are planned for Arthur Street, Concession Road 3, and RR 17, as well as within the internal road network in the Approved Area.

There are no existing sanitary sewers within the Study Area. An extension to the trunk sewer on North Street is contemplated, extending to Concession Road 3, as well as new sewers within the internal road network in the Approved Area.

There are no existing storm sewers within the Study Area. Stormwater along the peripheral streets flows through uncovered roadside ditches. New sewers are planned for RR 17, as well as within the internal road network in the Approved Area. The storm sewers will outflow to the planned stormwater management ponds at the south end of the Approved Area.



Wilmot Creek

5.4 Natural Features

The project area is on the urban fringe, and within two kilometers of the Protected Countryside of the Ontario Greenbelt, which preserves the agricultural lands and natural features that support residents of the urban region known as the Greater Toronto and Hamilton Area. Land uses and activities within the Greenbelt are governed by the Greenbelt Plan (2016), a Provincial land use plan that is implemented by regional and local official plans. Recently, the Greenbelt Plan was updated to include urban river valleys, including the Wilmot Creek and Graham Creek which frame the Newcastle urban area. These urban river valleys are recognized for their important role in connecting elements of the natural heritage system and providing habitats and wildlife corridors for both terrestrial and aquatic species.

The Project Area itself is framed by the headwaters of the Foster Creek, located to the west, north and north-east of the Project Area. The tributaries collect runoff from surrounding lands and flow downstream to the west, circling the Study Area before moving south through Newcastle Village and finally joining with Wilmot Creek (**Figure 5**).

The Project Area is located within the Wilmot Creek watershed, which is within the domain of the Garanaska Region Conservation Authority ('GRCA'). It is not within an area prone to flooding, nor does it contain any significant natural features, so development would not be subject to the permitting requirements of the GRCA, A portion of the Context Area is, however, due the presence of a the Foster Creek and associated valleylands.

The high point of the Project Area is located towards the northeast of the Project Area, adjacent to Arthur Street. There is an approximate 20-25 metre change in grade to the west of the site, and reflects the character of the rolling hills in the surrounding area.

Vegetation on the site is limited to a hedgerow that runs north-south down the centre of the site. A detailed review of the natural features in the Study Area is included in the Natural Heritage Analysis prepared by AECOM.

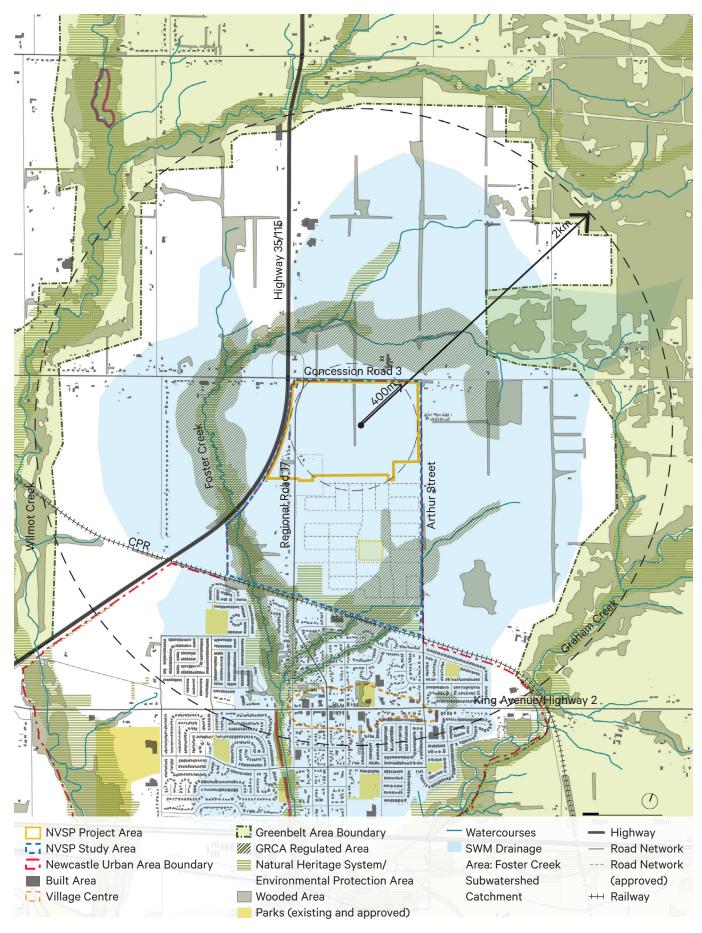


Figure 5 Nature and Open Space System

5.5 Land Ownership & Parcel Fabric

Two agricultural lots, owned by the Landowners Group, make up 85% of the Project Area. Along the west side of RR 17 there are two wide but shallow lots sandwiched between the highway and RR 17, containing a McDonalds and a church. South of the church there are nine rural residential lots, which span from RR 17 to Highway 35/115. These lots have typical frontages of 20 metres or more. This lotting pattern continues further to the south into the Context Area along the west side of RR 17.

The parcel fabric in the Approved Area consists of a variety of low density and medium density residential lots. Lots for single detached dwellings have frontages ranging from 11.6 metres to 18.0 metres. Semi-detached lots have frontages of 19.6 metres (2 units), and linked detached lots have frontages of 9.8 metres (each unit). Townhouse lots have frontage of 7.6 and 6.6 metres (See Figure 6 on page 16). One medium density residential block is also planned, although the built form has yet to be determined. The interface along the boundary between the Approved Area and the Project Area are single detached dwellings fronting along the planned east-west collector road ('Street C'), and the medium density block at the intersection of Arthur Street and Street C.

5.6 Heritage Properties

One property within the Project Area (879 North Street) was identified by the Municipality as having heritage merit. Further investigation by way of a Heritage Impact Assessment determined that the building does not meet the criteria to merit designation under Section 29 of the Ontario Heritage Act, but recommended that the heritage attributes of the property be photographed and documented prior to demolition. The Clarington Heritage Committee approved demolition of the house and barn at its meeting on January 21, 2020.

One property within the Context Area is listed on the Clarington Heritage Register. 816 North Street is a former hotel that has been maintained as part of the Docville movie set. Outside of the Study Area, there is one additional property that has been identified as a "secondary property" in the municipal heritage inventory, but is not listed on the heritage register, nor designated.

A detailed review of the built heritage conditions in the area is included in the Cultural Heritage Study prepared by AECOM.



879 North Street



816 North Street



Figure 6 Lot Fabric in the Approved Area

5.7 Transportation Network

A map of the transportation network is included as **Figure 7**. Each of the surrounding streets--RR 17, Arthur Street and Concession Road 3--currently exhibit a rural street cross section, with two lanes of traffic (one in each direction), a gravel or paved shoulder, vegetated swales and large setbacks. Clusters of vegetation form allées at driveway entrances and changes in grade over rolling hills provide interesting vantage points as one travels along these streets.

To the east, Arthur Street is a Type C Arterial Road, with a planned right-of-way width of 26 metres. To the north, Concession Road 3 is a Type B/C Arterial Road, with a planned right-of-way width of 26 metres. RR 17 is a Type B Arterial Road that runs north to south, crossing the west side of the site, and has a planned right-of-way width of 30 metres. RR 17 is currently served by Durham Region Transit route 506 which connects to Bowmanville and Orono, and runs twice per day in each direction.

The intersection of RR 17 and Concession Road 3 is currently located within 70 metres of the Highway 35/115 interchange, which necessitates its realignment (as shown in the Clarington Official Plan). This realignment is to be further studied through the North Village integrated MCEA process. A detailed review of the road network and transportation conditions in the area is included in the Transportation Needs Assessment prepared by AECOM.

The road network for the draft approved plans of subdivision consists of two east-west collector roads connecting RR 17 and Arthur Street, as well as one north-south collector road between them. There are three connection points for linking the road network in the Project Area to the approved road layout to the south, including the one north-south collector road and two other local roads.



Regional Road 17



Arthur Street



Concession Road 3

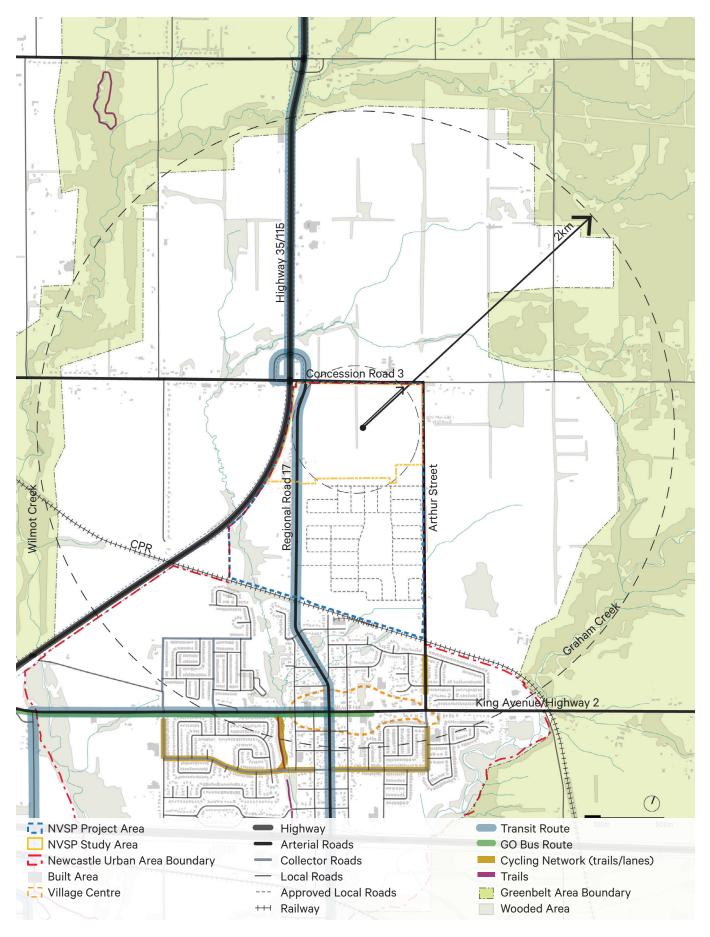


Figure 7 Circulation Network

5.8 Population Characteristics

According to the 2016 Census, the Newcastle urban centre has a population of 9,167. The median age of the population is 45.6, which is slightly higher than the Provincial median age of 41.3. There are a total of 3,647 private dwellings in Newcastle, the vast majority of which are single detached dwellings. The average household size is 2.5 people, and 39% of households have 3 or more people. Less than 10% of households in Newcastle are renters. Like many other communities in southern Ontario, housing affordability in Newcastle is a concern, with 19% of households spending 30% or more of their income on shelter costs.

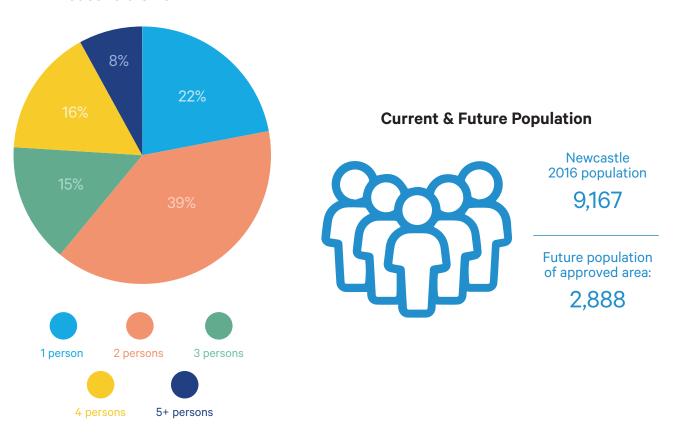
English is the language spoken at home in 98% of households in Newcastle, which is higher than Durham Region (90%), and significantly higher than the Greater Toronto and Hamilton Area (70%). The median after-tax income of households in 2015 was \$75,301, which is slightly higher than Durham Region (\$74.200) but lower than the GTHA (\$78.800). Approximately 15% of the population of Newcastle identifies as an immigrant, with more than half of all immigrants having arrived in Canada before 1981. More than half of immigrants in Newcastle are of

European origin. In contrast, 24.1% of the population of Durham Region identifies as an immigrant, with the greatest proportion of immigrants to Durham coming from countries within Asia.

The workforce participation rate in Newcastle is 60%, compared to 67.4% in the Durham Region. The unemployment rate in Newcastle is 7.6%. Of those in the workforce who commute to work, 83% drive alone in a private car. Almost half of those who commute spend 30 minutes or more traveling to work, and two thirds work outside Clarington. One quarter of Newcastle workers work outside of Durham Region.

Based on the persons per unit assumption of the Clarington Development Charge Background Study (2015), it is anticipated that the Approved Area at full build-out will be home to approximately 2,888 people. This represents approximately a 30% increase to the existing population of Newcastle.

Household Size



Age Distribution

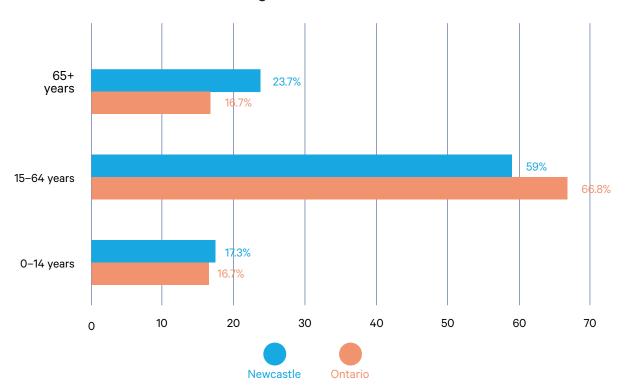


Figure 8 Newcastle Population Characteristics

5.9 Existing and Emerging **Conditions - Key Takeaways**

The review of existing and emerging conditions has resulted in a detailed understanding of the Project Area, the Approved Area, and the Context Area, and provides the foundation for further analysis as the secondary planning project moves forward.

Key takeaways from this section have been summarized below:

- The emerging land use context for North Village is quite different than what exists today. The secondary plan should look to the plans and technical studies for the Approved Area to understand how the area will evolve, and to identify opportunities for integrating the sites as one cohesive neighbourhood.
- As a greenfield area, significant infrastructure upgrades are required to facilitate the development of both the Approved Area and the Project Area. Many of these were identified through the planning approvals process for the subdivisions in the approved lands.
- In addition to the servicing and stormwater infrastructure, each of the three boundary roads will need be upgraded from their existing rural arterial cross section to provide for increased traffic flows and multi-modal transportation options.
- The majority of the Project Area is an agricultural field, but there are existing uses on the west side of RR 17. There are also existing mature trees along both sides of RR 17, which may be impacted through the future realignment of this road. It will be important to consider opportunities to preserve existing trees, and potentially replace trees to help buffer existing residential properties from the impact of a wider RR 17 with greater traffic volumes.

It is anticipated that the demographics of the future neighbourhood will be similar to those of present-day Newcastle, which is slightly older on average than the Region of Durham and Province of Ontario as a whole. However, the neighbourhood will also be attractive to young families. It is important that the secondary plan include principles of accessible design and provide amenities that cater to people across the age spectrum.



6.0 Technical Background Reports

6.1 Land Use Planning Policy Review

Prepared by SvN Architects + Planners

The planning policy context was assessed to provide an understanding of the policy priorities from the Provincial, Regional, and local level that will guide the development of the Secondary Plan.

Land use planning in Ontario is governed by a Province-led legislative and policy framework that sets broad goals and objectives that are implemented through regional and local official plans, secondary plans and zoning by-laws.

These statutory documents are supported by guidelines and staff reports that further articulate how policy goals and objectives can be successfully implemented. Taken together, these statutory and non-statutory documents serve as the framework to guide appropriate growth and change will occur.

Planning Hierarchy



The Study Area is designated Living Areas in the Durham Region Official Plan (**Figure 9**). Living Areas are predominantly for housing purposes, and should be developed in a compact built form, in a manner that supports public transit.

The Study Area is further designated Urban Residential in the Clarington Official Plan (**Figure 10**). While housing is the predominant use of lands designated Urban Residential, the Official Plan permits other uses that support and are compatible with residential uses.

WHAT DOES IT MEAN FOR NORTH VILLAGE?

The guiding priorities of the North Village Secondary Plan are consistent with policy direction at the provincial, regional and local level. The policy framework establishes some of the land use parameters for the secondary plan. The secondary plan should:

- Contribute to the achievement of the minimum greenfield density target of 50 residents and jobs per hectare measured across all greenfield areas in Durham Region (Growth Plan for the GGH);
- Incorporate a re-aligned Regional Road 17 based on the evaluation of options that meet the land use, urban design and access requirements for Regional Roads (ROP);
- Provide for a pedestrian-oriented public realm, including parks, pathways and trails (ROP);
- Achieve a mix of housing types and contribute to the achievement of the affordable housing target of 30% (MCOP);
- Feature a Neighbourhood Centre with small-scale commercial uses and a public square (MCOP); and,
- Support climate change adaptation & mitigation through sustainable design principles including compact built form, energy conservation, and stewardship (Clarington Priority Green).

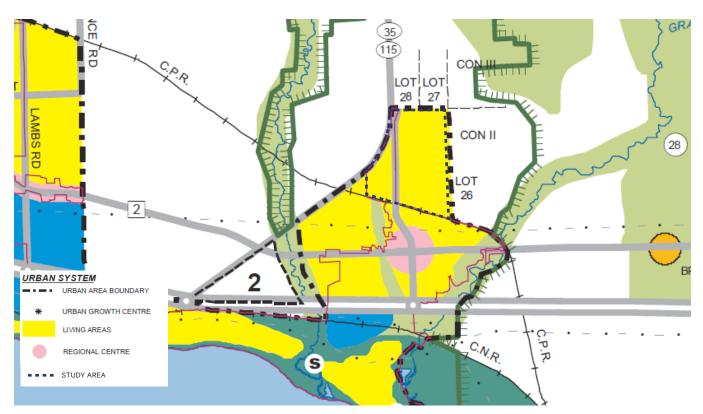


Figure 9 Durham Region Official Plan - Schedule A Regional Structure

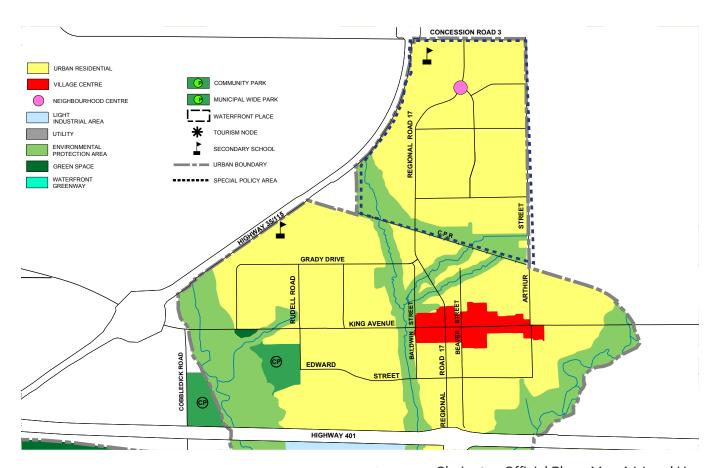


Figure 10 Clarington Official Plan - Map A4 Land Use

6.2 Agricultural Impact Assessment

Prepared by DBH Soil Services Inc.

The Agricultural Impact Assessment evaluates agricultural operations within a 1,000 metre radius (the "Broader Study Area") of the Secondary Plan Area in order to understand the characteristics of the agricultural community and assess potential impacts to agriculture resulting from development.

The Broader Study Area (**Figure 11**) contains both the developed area of Newcastle, and agricultural lands to the north, east, and west. According to DBH, these lands are significantly fragmented and include numerous small parcels with non-farm residential units. Agricultural activity includes some small areas of land used for the production of tree fruit and market gardens, as well as common field crops. There are also areas of woodlots, scrublands, idle lands and small areas of forage/pasture. There are no large-scale livestock operations.

The Project Area is within the Urban Area and is designated Urban Residential in the Clarington Official Plan. However, it abuts lands designated Prime Agricultural Areas and as such there is potential for edge impacts at the interface between the two. For instance, increased traffic along Concession Road 3 generated by the future population of North Village may hinder the movement of large farm vehicles and lead to safety concerns. Other potential risks to agriculture include noise impacts, dust (particularly during construction), light pollution, and stormwater runoff, impacting water quantity and quality. More people living nearby also increases the risk of trespassing and vandalism to agricultural operations.

Potential impacts to non-agricultural landowners, including future residents of North Village, may include odor complaints and travel delays due to slow moving farm vehicles.

In the author's opinion, these potential risks can be minimized or eliminated through a combination of good planning and public awareness, and that impacts will be limited.

WHAT DOES IT MEAN FOR NORTH VILLAGE?

The report recommends measures to avoid, mitigate or minimize potential impacts, including:

- Design of the interior road system that would direct urban traffic away from roads used by large farm vehicles, where possible;
- Upgrading the road system where it abuts agricultural areas by adding wide shoulders and no curbs to accommodate the movement of large equipment;
- Prevent drainage onto agricultural lands through site grading and plantings;
- Provide a transition in density towards the edges where the Study Area abuts Prime Agricultural lands. Incorporate setbacks and window streets to create a buffer;
- Implement local food education and awareness programs to support agriculture (particularly well suited for the orchard and market garden areas in the vicinity of North Village).



Figure 11 Existing Agricultural Land Uses in the Broader Study Area

6.3 Stage 1 Archaeological Assessment

Prepared by AECOM Canada Ltd

The objective of a Stage 1 background study is to document the archaeological and land use history and present conditions within the Study Area. The report outlines the history of human settlement in the area, from the Paleo period (9000-6000 BC) to the time of Euro-Canadian settlement.

The Study Area is located within the Iroquois Plain physiographic region of southern Ontario. This plain comprises lowland areas that were submerged by a body of water known as Lake Iroquois during the last glacial period approximately 12,000 years ago and, as a result, is characterized by the cliffs, bars, beaches and boulder pavements of its old shorelines, as well as undulating till plains. These old shorelines of Lake Iroquois are now found well inland from the present shoreline

The single most important environmental feature necessary for extended human occupation is potable water. As such, proximity to water is regarded as a useful index for the determination of potential for the presence of archaeological resources. Lake Ontario is located approximately 3 kilometers to the south. A number of small tributaries are located immediately adjacent to the study area.

AECOM's Stage 1 background study of the NVSP area has determined that the potential for the recovery of archaeological resources is high, given the proximity of the study area to known archaeological sites, registered heritage properties, early Euro-Canadian settlement, industry and transportation routes, as well as close proximity to water sources and soil drainage.

AECOM reviewed previous archaeological work completed in the area, including numerous reports completed for properties within the Study Area, and has not recommended further study for those lands. However, the report concludes that a Stage 2 Archaeological Assessment is warranted for lands within the Study Area that are to the west of RR 17 (Figure 12), in conjunction with the EA for the realignment. The Huron Wendat Nation should be engaged to monitor the Phase 2 investigations. The remainder of the Study Area has been previously assessed and no further work is required.

WHAT DOES IT MEAN FOR NORTH VILLAGE?

A substantial amount of archaeological work has already been completed for the Project Area. The next steps are as follows:

- As part of the Environmental Assessment for the realignment of Regional Road 17, a Stage 2 Archaeological Assessment is required for lands within and immediately adjacent to the road realignment.
- All other lands in the Project Area do not require further investigation, and from an archeology perspective are clear to proceed with development.

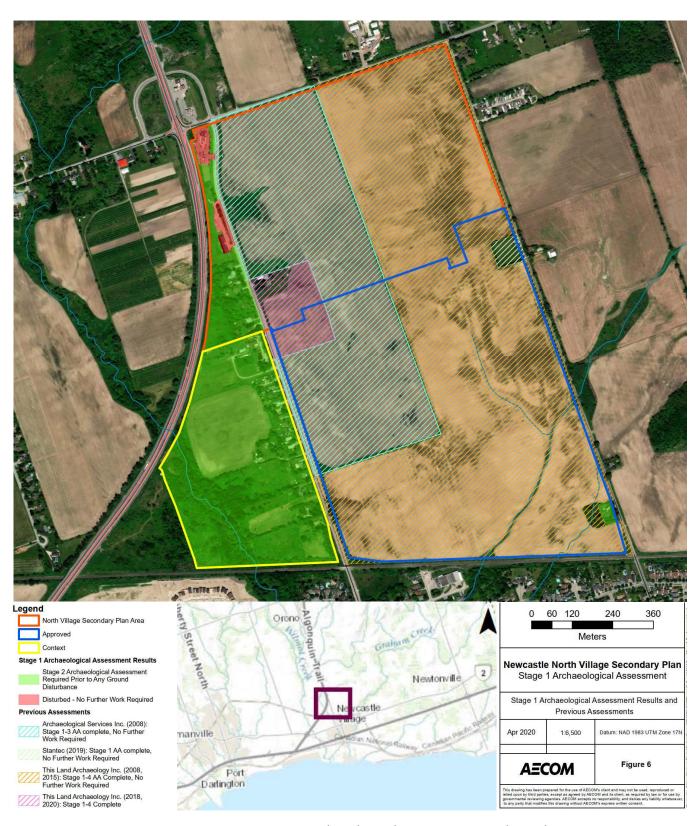


Figure 12 Stage 1 Archaeological Assessment results and previous assessments

6.4 Cultural Heritage Screening Report

Prepared by AECOM Canada Ltd.

The objective of this study is to screen the Project Area and Context Area for known and potential cultural heritage resources and cultural heritage landscapes to guide future planning. The Cultural Heritage Screening Report included an inventory of properties that have been designated under Parts IV or V of the Ontario Heritage Act, or listed on the Clarington Heritage Register. The authors reviewed previously completed work and online searchable databases for relevant historical information, and visited the Study Area to identify any additional properties with heritage potential.

Within the Project Area, there is one property on the Clarington Heritage Register. 879 North Street, on the east side of RR 17, was reviewed by AECOM through a separate Cultural Heritage Impact Assessment. The property and buildings were deemed to not be of significant cultural heritage value. The Clarington Heritage Committee supported the recommendations of the HIA, and allowed the building to be demolished, once it was fully documented.

The west side of RR 17 within the Project Area comprises mostly 1960s/70s ranch bungalows, a Pentecostal Church, and a McDonald's fast food franchise. Trees and hedgerows are approximately 30-60 years old. AECOM did not identify any properties of heritage interest among these buildings.

Immediately to the south of the Project Area, within the Context Area, is Docville, a private movie set with a western theme. located at 816 Durham Road 17. Docville is composed of a collection of outbuildings, a barn, and the main house which has been repurposed as a mock hotel.

The house, also known as Rosedell Cottage, is a heritage property on the Clarington Heritage Register. AECOM also noted that the property at 3354 Concession Road 3, directly adjacent to the Project Area is listed on the Clarington Municipal Inventory.

South of Docville, the Context Area contains a mix of 1960s/70s ranch bungalows and some 19th and early 20th century dwellings and outbuildings.

The report identified five potential heritage resources, within the Context Area. Heritage potential was determined based on the age of the buildings and the potential to meet at least one of the criteria for design/physical value, historical/ associative value, and/or contextual value under O. Reg. 9/06.

The potential heritage resources include the CPR bridge over RR 17, the properties at 582, 598, and 618 North Street, and the barn on the Docville set at 816 Regional Road 17. AECOM recommends that these properties be evaluated in a Cultural Heritage Evaluation Report to determine their significance. It is recommended that these evaluations be completed as part of the contemplated Regional Road 17 Environmental Assessment.

Outside of the Study Area, on the north side of Concession Road 3 there is one additional listed heritage building at 3554 Concession Road 3.

WHAT DOES IT MEAN FOR NORTH VILLAGE?

The Project Area is generally devoid of structures and landscape features, with the exception of one property which has been assessed and determined to not have significant heritage value.

- As part of the Environmental Assessment for the realignment of Regional Road 17, the cultural heritage significance of 582, 598, and 618 North Street, as well as 816 RR 17, should be evaluated.
- No heritage landscapes have been identified for further study.

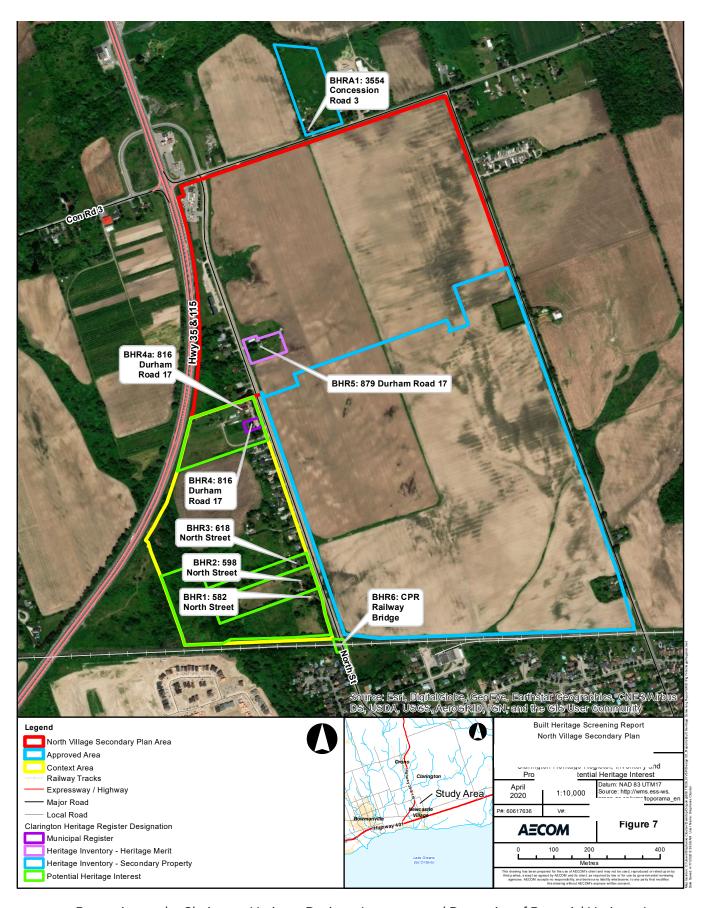


Figure 13 Properties on the Clarington Heritage Register, Inventory, and Properties of Potential Heritage Interest

6.5 Natural Heritage Analysis

Prepared by AECOM Canada Ltd

The purpose of this section is to summarize the function, structure, and characteristics of existing landscape within the Study Area, and provide a Natural Heritage Strategy for the management of natural heritage resources in the Study Area. The report also provide a Natural Heritage Strategy (NHS) which will provide a framework for environmentally-sound planning decisions and reasoned management of natural resources for the Study Area.

AECOM reviewed previously completed studies in the area and used previous findings to inform a review of aerial imagery and natural heritage mapping, and arrived at the following conclusions:

The majority of the Study Area consists of agricultural fields. The area east of RR 17 contains limited natural features except for one patch of cultural meadow and two observed hedgerows. The hedgerows were considered to be of low significance due to the abundance of undesirable species (i.e., non-natives). The cultural meadow is associated with a site that previously contained a building, which was since demolished.

There are also two unnamed intermittent watercourses in the south end of the Approved Area. However, these are not considered significant wildlife habitat. There are no Provincially-designated natural heritage features within the Study Area, and there are no locally-significant natural heritage resources or parkland.

The Context Area contains a greater variety of landscapes and natural features. The vegetation along RR17 includes a number of mature trees. which AECOM considers to be candidates for preservation. A portion of the Context Area contains a tributary of the Foster Creek, which is part of the Natural Heritage System and contains a permanent watercourse, fish habitat, contiguous natural vegetation, and forms a habitat corridor. Other parcels on the west side of RR 17 have small natural features including cultural meadows and small woodlots. AECOM recommends that these areas be further investigated to confirm their condition and significance.

WHAT DOES IT MEAN FOR NORTH VILLAGE?

- Opportunities to retain existing mature trees along RR 17 should be considered during the design of the realignment
- The cultural meadows and woodlots identified on the west side of the Context Area should be further investigated to confirm its condition and significance.

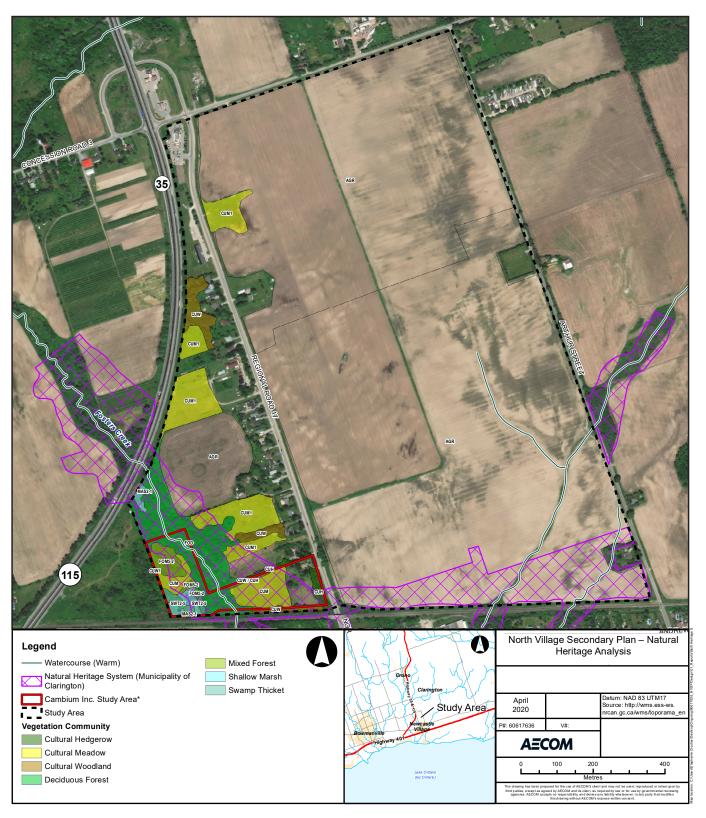


Figure 14 Natural Heritage Analysis - Existing Conditions

6.6 Transportation Report

Prepared by AECOM Canada Ltd

For Phase 1 of the project, AECOM reviewed current transportation planning policy and existing transportation system conditions within and around the Study Area. Existing and future links as well as constraints are identified in accordance with relevant policy documents, with particular consideration for active transportation opportunities. The report also provides preliminary recommendations to ensure the development of a robust and well-rounded transportation system to support the development of North Village.

AECOM identified the following potential constraints that may impact the planning of the transportation network in the area:

- Highway 35/115 may pose a constraint on residential development near the highway, potentially requiring a barrier or other noise attenuation measures:
- Acceptable intersection spacing along arterial and collector roads will be needed and may limit road network design options; and,
- Road network design should avoid or minimize impacts on the natural heritage system as well as cultural and built heritage resources, where present.

This preliminary report will form the basis for further transportation analysis through the later phases of this Project. The report will be updated as the project moves into the evaluation of alternative land use scenarios, and the selection of a preferred land use option.

WHAT DOES IT MEAN FOR NORTH VILLAGE?

The Transportation Report summarizes key opportunities for developing a transportation network to serve North Village, including potential to:

- Extend collector roads from the Approved Area to integrate and connect communities;
- Plan a street and block network layout to promote walking and cycling in lieu of car travel, and take advantage of view corridors afforded by the natural topography;
- Plan cycling facilities that reflect the utilitarian and recreational nature of cycling trips:
- Reinforce Arthur Street as a north-south corridor from Highway 2 to Concession Road 3 for cars, transit, and active transportation:
- Explore opportunities to connect to the planned regional trail network following the Foster Creek valleylands on the west side of the Study Area; and,
- Provide an active transportation connection between the Study Area and the Newcastle Carpool lot and cycling spine.



Figure 23: Durham Transpartation Master Plan - Future Proposed Road Network Beyond 2031



Figure 24: Durham Transportation Master Plan - Active Transportation Network
Figure 16 Durham Transportation Master Plan - Active Transportation Network

6.7 Infrastructure and Servicing **Existing Conditions Assessment**

Prepared by AECOM Canada Ltd.

For Phase 1 of the project, AECOM reviewed the existing conditions and identified data gaps, opportunities, and constraints for consideration in the preparation of the Phase 2 and 3 reports. The Master Servicing Report addresses the following infrastructure components of the planned development:

- Water supply for domestic and firefighting purposes;
- Sanitary servicing:
- Conceptual lot grading and storm drainage; and
- Stormwater management.

AECOM reviewed background information from the Region of Durham as well as servicing documentation for the subdivisions in the Approved Area. It should be noted that most of the necessary infrastructure improvements have been contemplated previously, as they were identified through the approvals process for the subdivisions in the Approved Area.

The report notes that drinking water for Newcastle is supplied from a reservoir located within the Study Area, adjacent to Arthur Street. The reservoir provides enough water storage for the existing population, but additional capacity is needed to support the full build-out of the Approved Area and the Secondary Plan Area. The Region of Durham is currently undertaking a separate Environmental Assessment for the design of a new reservoir and pumping station within the Secondary Plan Area. The design of the Secondary Plan will have to accommodate for this infrastructure, and new distribution watermains will be required.

There are no existing sanitary sewers within the Study Area. The report notes that new sanitary sewers are required, extending the existing trunk sewer on North Street to Concession Road 3. The Newcastle Water Pollution Control Plant will also require expansion.

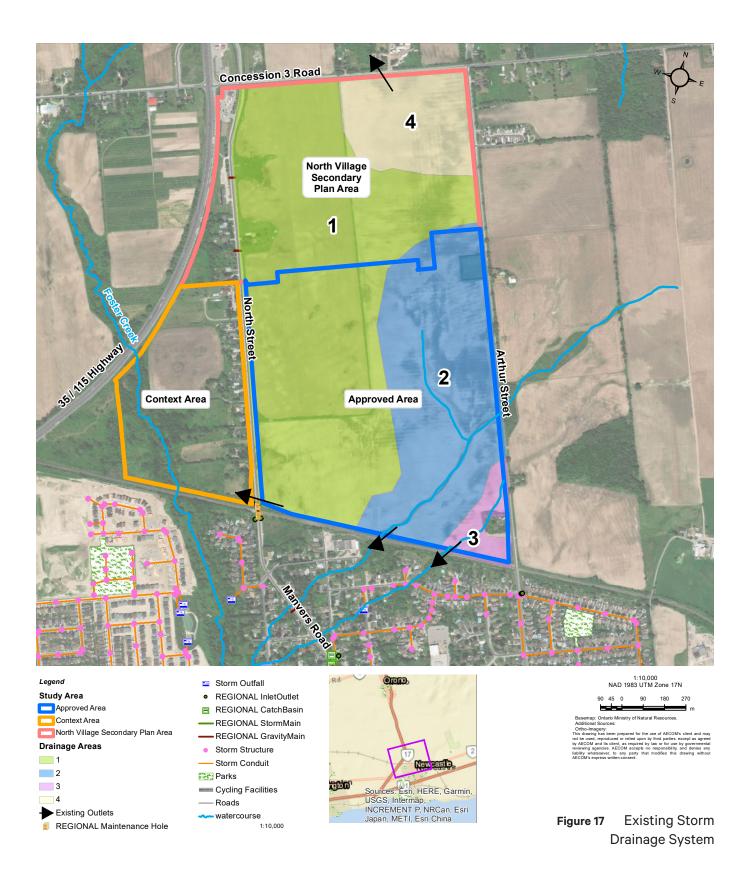
The stormwater for the Project Area and the Approved Area drains into four drainage areas (Figure 15), with the majority of the flows to be managed by the two stormwater ponds at the south end of the Approved Area. The stormwater management facilities will be designed to provide quantity control, quality control, and erosion control measures for both the approved subdivisions and the Secondary Plan Area. The report notes that drainage area 4 in the northeast corner of the Project Area drains across private property to the north of Concession Road 3. It will be necessary to manage this drainage, either through an agreement with the affected property owner, or site-based stormwater controls and Low-Impact Development (LID) features to maintain pre-development drainage conditions.

AECOM recommends that water balance and LID requirements be incorporated into the design of the Secondary Plan, according to industry standards and providing a best-effort approach as supported by the Municipality of Clarington and the Garanaska Region Conservation Authority.

WHAT DOES IT MEAN FOR NORTH VILLAGE?

As part the preparation of alternative land use scenarios for North Village, the following should be evaluated:

- Option for LID features according to best practices to complement the planned stormwater management ponds, and enhance stormwater quantity and quality control.
- Pre-development flows in drainage area 4 should be maintained so as to not impact agricultural operations to the north.
- Confirm that stormwater flows from the Project Area can be accommodated by the ponds in the Approved Area, with an estimated additional 950 residents.



6.8 Sustainability Background Report

Prepared by Footprint

A Sustainability Plan is being prepared by Footprint to accompany the North Village Secondary Plan. For Phase 1 of the project, Footprint prepared a background report outline the risks presented by climate change and the role that responsible development can play in reducing or mitigating environmental impacts and be part of the solution to the environmental challenges facing the planet.

Climate models for Clarington suggest that the climate in the future will be warmer and more humid, with more frequent and intense rain events, and less snow. There will be lower winds generally, but more frequent extreme weather with high winds and heavy rain.

For the purpose of the North Village Secondary Plan, the scope of sustainability will include the following:

- **Environmental:** with a focus on protecting, creating, and enhancing green spaces, minimizing the strain on resources and materials and reducing the impact of development on climate change.
- **Social:** a focus on developing healthy social relationships to improve the health and well-being of residents.
- Climate resilience: a focus on creating a neighbourhood that looks to the future and plans for future climate patterns.

The Sustainability Background Report reviews a range of environmental and sustainability-related policies at the federal, provincial, regional, and local levels, and summarizes the key takeaways of each document. Clarington's Green Development Program, known as "Priority Green Strategy" is reviewed in particular detail, as it has specific guidelines and criteria for evaluating new secondary plans.

WHAT DOES IT MEAN FOR NORTH VILLAGE?

A total of seven key themes emerged through Footprint's review. These should be addressed in the creation of the North Village Secondary Plan:



Climate resilience: Incorporate climate resilience features into all new development and prepare for the impacts of a changing climate.



Stormwater management:

Implement innovative stormwater management strategies such as low impact development to address flood risk associated with more intense rainstorms.



Energy: Design buildings and communities to maximize energy and water efficiency and reduce greenhouse gas emissions, and explore alternative energy systems such as renewable and district energy infrastructure.



Urban forestry: Minimize any potential risks to the natural environment associated with new development, and maximize CO² sequestration with tree plantings, including native species.



Heat island: Minimize the heat island effect by utilizing reflective hardscape and roof surfaces.



Transportation and mobility:

Incorporate active transportation elements and support transit use to reduce automobile dependence.





7.0 Analysis of Challenges & Opportunities

The Project Area is currently undeveloped, but that does not mean it is a blank canvas. The background technical analyses and the review of existing conditions led to a number of key takeaways that are important to consider as the project progresses.

These have been summarized as Challenges and Opportunities. The North Village Secondary Plan project is an opportunity to identify any hurdles that may limit the achievement of the vision for North Village.

On the other hand, the blank slate of a greenfield area represents a great opportunity to create a neighbourhood that achieves the objectives of various stakeholders including the Municipality, the landowners, and members of the Newcastle community.

Through Phase 1 the Project Team has had the opportunity to hear from community members about what they like about Newcastle and the North Village area as it is today, and what they hope it could be in the future. The Project Team has also met with the Steering Committee, which includes representatives from the landowners group, as well as key staff members at the Municipality of Clarington, the Region of Durham, and other agencies to review similar themes and ideas.

The Project Team has benefited from this engagement with key stakeholders and community members, and their familiarity with and knowledge of the site has informed the challenges and opportunities in the following pages.

7.1 Challenges

7.1.1 REGIONAL ROAD 17 RE-ALIGNMENT

Minimum 300 metre Separation from Highway 35/115

The current alignment of Regional Road 17 ('RR 17') does not meet Ministry of Transportation ('MTO') access and intersection spacing design standards due to its close proximity to the interchange with Highway 35/115, and requires re-alignment to provide 300 metres of separation. The 300 metre separation was agreed to by the Municipality, the Region of Durham and MTO, subject to additional improvements to Concession 3, and additional study through the Municipal Class Environmental Assessment process. The existing road may end in a cul-de-sac, south of Concession 3, or connect with the new street network. Through the concurrent MCEA process, the consultant team will test design options for the re-aligned RR 17, balancing MTO requirements and Region of Durham arterial road objectives, with the North Village Secondary Plan's priority of creating a walkable, sustainable neighbourhood.

Connections Between Areas East & West of Realigned RR 17

The realigned RR 17 is expected to be the primary means of access to the North Village Secondary Plan Area ('the Project Area'), both from Highway 401 and Durham Highway 2 to the south, and Highway 35/115 to the west. RR 17 is classified as a Type B arterial road according to the Region's arterial road classification, with a planned right-of-way width of 30 metres designated in the Official Plan and confirmed in the Region's Transportation Master Plan. The Region of Durham OP requires a minimum distance of 525 metres between signalized intersections on Type B arterial roads.

The current conceptual re-alignment has a total length of 565 metres between Concession 3 and Street 'A' in the Approved Area. The Region of Durham recognizes that North Village is a unique context, and that a connect across RR17 is important for connectivity, public safety, and active transportation. This will be assessed as part of the MCEA work.

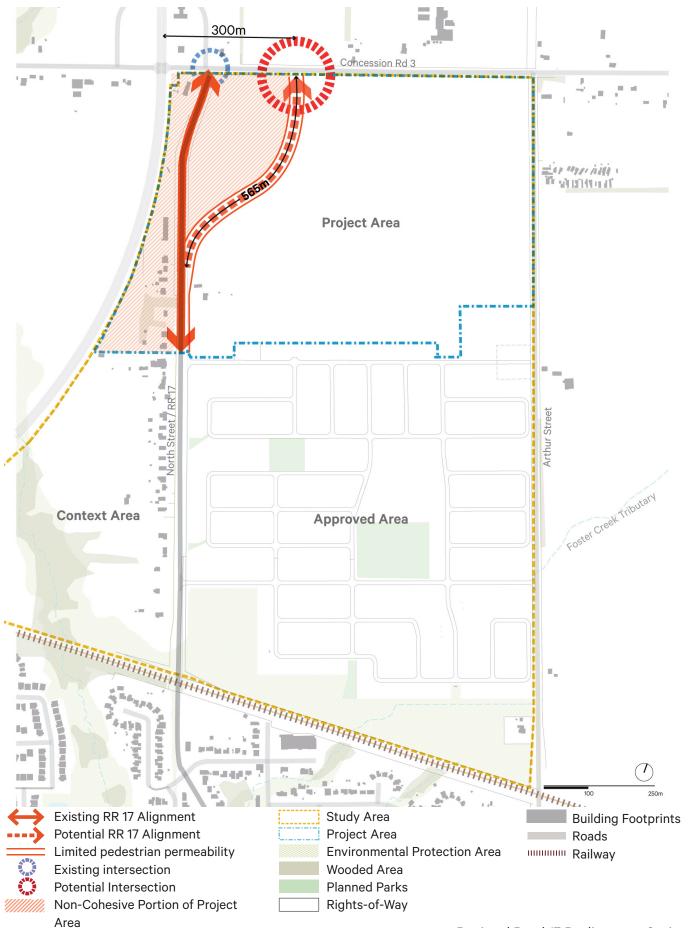


Figure 18 Regional Road 17 Realignment Option

7.1.2 LIMITED CONNECTIONS

'Appendage" to Existing Southerly Community

North Village marks the first urban expansion north of the CP rail line, which has historically defined the northern edge of Newcastle. A key challenge will be to strengthen physical connections to Newcastle. where possible, so that North Village feels connected to and part of Newcastle. It will be important to draw upon the treasured characteristics that define Newcastle in the design for North Village.

Auto-oriented Environment

The boundary streets around North Village— RR 17, Concession Road 3, and Arthur Street—are planned as higher capacity arterial roads that will accommodate large volumes of vehicles. The Region of Durham's design criteria for these roads emphasize the efficient movement of vehicular traffic and limit intersections. This reduces permeability for pedestrians or cyclists, which further encourages reliance on the private car for short trips that could be accomplished via other modes. Residents who attended the first Public Information Centre (November, 2019) noted that they enjoy walking along the periphery of the Project Area and appreciating the rural landscape that surrounds Newcastle. As part of the MCEA, RR 17 will be redesigned to include a multi-use path. Additional pedestrian and cycling routes will be provided throughout the Secondary Plan Area.

One additional implication of automobile dependence is the need to allocate space for parking. A sufficient supply will need to be provided that meets local needs without over-supplying parking and creating under-utilized spaces. Parking lots can also have an environmental cost associated with warming due to heat island effects and increased stormwater runoff resulting from the additional hardscape areas. There is an opportunity to consolidate parking to be shared between different uses, and to create "greener" parking areas that incorporate permeable paving and landscape buffers.

The existing rail overpass currently presents a pinch

point for pedestrians and cyclists traveling on RR 17. The at-grade rail crossing on Arthur Street presents its own unique challenges such as travel delays while a train passes.

Existing Transit Service

As a relatively small, rural community, the population density in Newcastle has not reached a level that is supportive of regular transit service within Newcastle, and between Newcastle and other areas. The GO Transit Park n Ride is located approximately 4 kilometres to the southwest of the Project Area and is serviced by the #90 bus providing hourly connections to the Oshawa train station. The only Durham Transit route serving the area runs one trip per direction in the morning and evening, between Bowmanville and Orono. This provides limited modal choice for North Village residents. It is expected that over the build out of North Village the increase in population will contribute to an increased demand for transit, but this may not occur for some time.

Proximity to Existing Services & Amenities

The Project Area is approximately 1.5 kilometres from the Newcastle Village Centre—the primary centre for commercial activity and entertainment in the neighbourhood. Although some residents may walk to King Avenue to meet their day-to-day shopping needs, the quality of life and convenience of North Village would be improved by some small-scale retail and services. The type, scale, and demand for these uses would be determined through a market study, currently being initiated by the Municipality.

It is important that the design of the transportation network in North Village provide for increased walkability within the neighbourhood, as well as to the surrounding context.

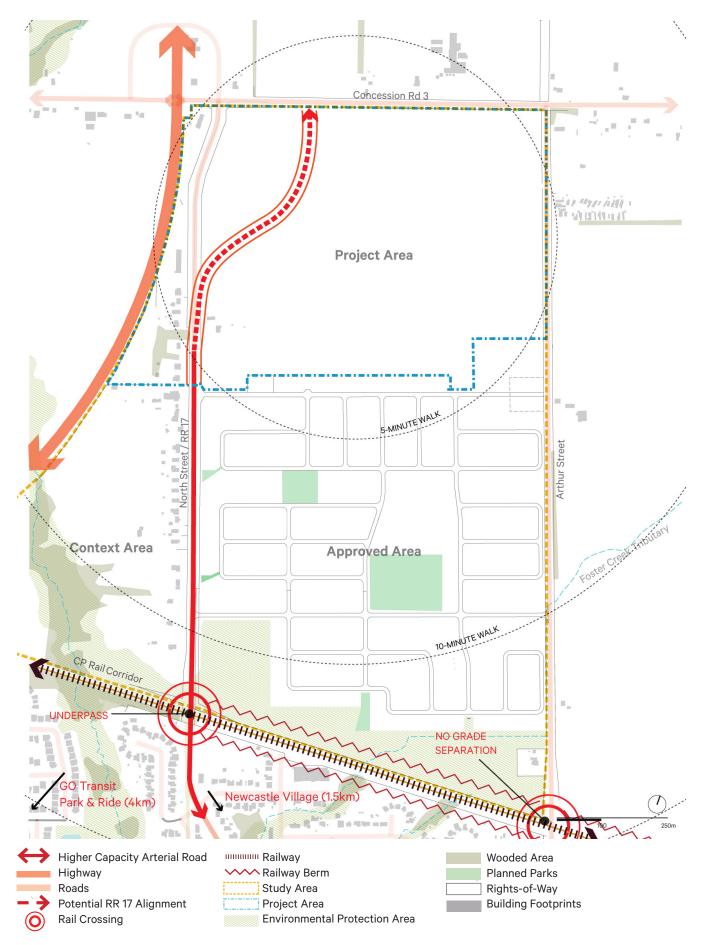


Figure 19 Limited Physical Connections to North Village

7.1.3 INTERFACE WITH SURROUNDING LANDS

Proximity to Active Farm Uses

The Project Area is currently an agricultural field at the periphery of the Clarington urban area, abutting Prime Agricultural Lands to the north and east, as well as west of Highway 35/115. It will be important to balance the ongoing needs of agricultural operations with those of the new North Village neighbourhood.

For the foreseeable future, Concession Road 3 will continue to be used by farm vehicles. The Agricultural Impact Study prepared by the Consultant Team recommends that Concession Road 3 should have large shoulders to accommodate the passage of wide farm equipment. According to the Region's Arterial Corridor Guidelines, Concession Road 3 would be considered a Rural Arterial, with a recommend 2.5 metres shoulder. Further detailed study is required through the Transportation Needs Assessment to determine the appropriate right-of-way condition that will serve all of the anticipated functions of these arterials, to the satisfaction of the Region and Municipality.

Connection to Nature

North Village is framed by tributaries of the Foster Creek to the west, north, and southeast. However, there are no existing trail connections to these natural areas. Trail access and bicycle connections are generally limited and do not extend into the surrounding natural heritage network. New connections beyond the project area boundary would further stitch the proposed neighbourhood fabric of the Project Area into its surroundings. Within the Project Area it will be important to provide naturalized spaces within the future parks and open space system to provide the opportunity for residents to connect to nature and contribute to the sites ecological health, biodiversity and resilience.

Loss of Existing Landscape Features

When RR 17 is urbanized, a conveyance of land will be required from each of the properties on the west side. This will bring the existing dwellings closer to the road, and will result in the loss of existing mature trees and landscaping. These trees can be replaced, but it will take time for them to reach the size of the trees that are there today.

New deciduous trees should be planted as part of the road reconstrution to create a generous canopy over RR 17, similar to what is there today. Plantings may also include low shrubs and coniferous species to provide a green environment through the winter and early spring. New plantings can avoid monoculture and may include pollinator species to improve the biodiversity in the area.

Existing Rural Residential Uses

The widening of RR 17 will also result in two very different conditions on either side of the road. On the west side, for the foreseeable future, there will be individual residential driveways necessitating multiple curb cuts. On the east side, the planned development is separated by a window street condition, and the new development is not likely to have direct frontage on RR 17. As the project progresses, it will be important to explore how the proposed built form and public realm on the east side of the street respond to the existing condition on the west side and create a high quality. pedestrian focused environment that encourages walkability whilst balancing the rural/suburban function of the road.

Approved Residential Neighbourhood

According to the approved Neighbourhood Design Plan, the subdivisions in the Approved Area contain 1,017 dwelling units in various residential forms including single detached and semi-detached dwellings, townhouses, and a future medium density block that could potentially include more stacked townhouses, apartments, or a seniors residence. It will be important that the design character and aesthetic of the Project Area integrates seamlessly with, the neighbourhood to the south so that the two neighbourhoods function as one cohesive "North Village".



Figure 20 Interface with Surrounding Lands to Address Sensitive Adjacencies

7.1.4 LOCATION & NATURE OF THE WATER **RESERVOIR**

A water reservoir is required to facilitate development in the Project Area and the Approved Area, and is planned to be located generally to the north of the existing reservoir, adjacent to Arthur Street. The design and construction of the facility is going through a separate Environmental Assessment process, led by the Region of Durham.

The Consultant Team is coordinating with Region of Durham staff and the EA team to understand the options for integrating this facility with the North Village neighbourhood. Options that will be explored include a rear lot interface with low density housing, fencing and landscaping, and co-locating the reservoir with public parkland.

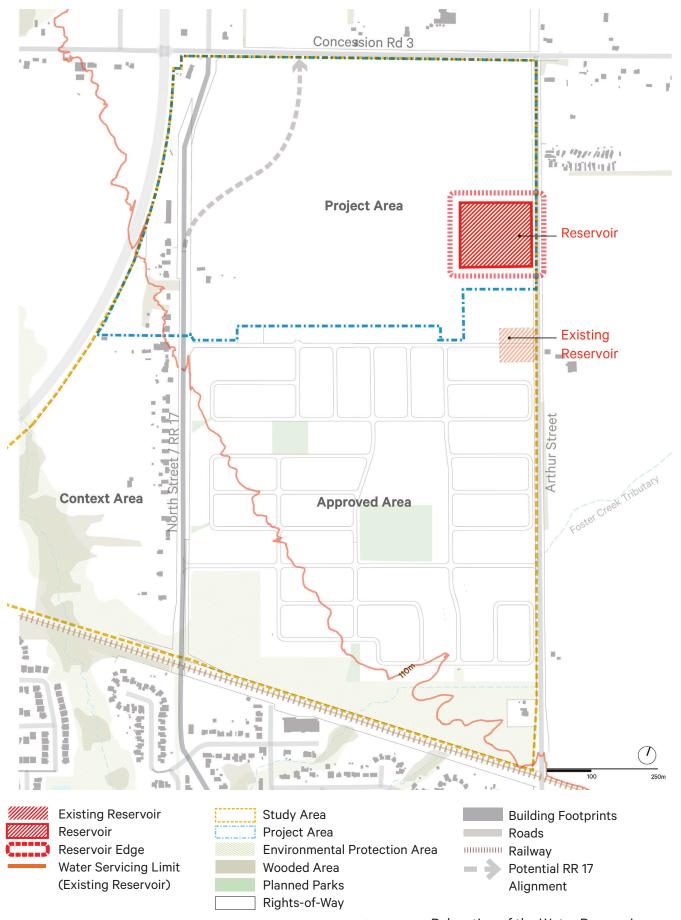


Figure 21 Relocation of the Water Reservoir

7.2 Opportunities

7.2.1 A COMPLETE, AGE-IN-PLACE NEIGHBOURHOOD

Diverse Residents

Housing options in North Village should cater to a wide range of people, and the secondary plan should consider diverse needs and how to accommodate them. For example:

- First-time home buyers who may be looking for a smaller home, with outdoor or amenity space for young children, something affordable that they can upgrade and add value to.
- Renters who may be seeking more flexible, good quality, with potentially some larger units to accommodate families.
- Seniors looking to downsize who want a comfortable space, with great access to amenities/services, and easy access to a hub of neighbourhood life - like the neighbourhood centre, and housing designed to cater to their physical ability.
- Established homeowners who are looking to upgrade to a larger house with higher quality finishes/space.

Multi-generational Living

Creating a complete, age-in-place neighbourhood is a key priority for the Municipality, the landowners group, and Newcastle residents. This includes more than just housing. There is an opportunity to provide services that cater to seniors and young families such as daycares, and pharmacies. It will also be important to consider multi-generational entertainment and recreational.

The design of the physical environment will be key to embracing people of all ages. Universally accessible sidewalks, open spaces, amenities, and proper winter maintenance will all play a role. It will also be important to have regard for 8-80 principles of design, which prioritizes the safety and accessibility requirements of the neighbourhood's youngest residents (under 8 years) and oldest residents (over 80 years).



Active and passive recreation for all ages



Local streets that families can cycle on

Diverse Housing Types

A diversity of housing types and tenures is a key priority of the Clarington Official Plan because it is one strategy to address housing affordability. Ways to respond include providing a mix of housing types and forms to accommodate people of all ages and incomes. There is an opportunity in North Village to introduce additional housing variety. Examples of different housing types include:

- Detached houses, on small lots
- Semi-detached houses
- Townhouses
- Stacked townhouses
- Walk-up apartments and condominiums

If a neighbourhood centre can be supported in North Village then locating higher density housing around it, including seniors housing, will aid in creating a vibrant neighbourhood heart.

Future Proofing

Future-proofing as a strategy will position the neighbourhood to evolve in the future and maximize the investment in its infrastructure and built spaces. Future proofing also includes planning for flexibility and evolution at a block, or neighbourhood scale. Flexible block sizes can facilitate the future evolution of the neighbourhood to accommodate added density. Residential lots could be pre-serviced to facilitate the creation of a future secondary dwelling unit, such as a garden suite, laneway suite, or granny flat. To enable this, the zoning by-law can provide flexibility for a range of uses that will allow for change over time. The zoning by-law should also provide for flexibility in the parking requirements for secondary dwelling units.

Future proofing also relates to planning for resilience against future climate change related weather events, such as by using drought-resistant species in landscape designs, and engineering solutions that prevent flooding during storms.



Street with a mix of single and semi-detached homes

7.2.2 A COMPACT & WALKABLE **NEIGHBOURHOOD**

As an undeveloped site there is tremendous potential to define a compact and walkable neighbourhood that introduces a sustainable mix of unit types and densities while supporting active living and healthy lifestyles.

Local Destinations

The Clarington Official Plan includes a 'Neighbourhood Centre' designation within the Project Area. The intent of the Neighbourhood Centre is to provide small-scale retail and service uses that cater to the local neighbourhood, subject to the specific recommendations of the Retail Market Study. A Neighbourhood Centre should also include a public square as a focal point and heart—a central hub of activity and daily life—for the neighbourhood.

The Clarington OP also contemplates a secondary school within the Project Area. Based on recent discussions with both school boards, the need for a new elementary school has been identified. The school boards have also confirmed that a high school is not warranted. There is an opportunity to integrate the new elementary school with other complementary uses with the new school, including recreational amenities, a daycare, or a seniors centre.

Safe. Convenient Connections

Within the Project Area, the placement of, and links between parks, neighbourhood amenities, and the Neighbourhood Centre can help to encourage active transportation. Walking or cycling should be an easy, convenient and safe choice for residents as the primary mode of travel within the Project Area,. The extension of Street 'B', the central collector road, from the Approved Area is an opportunity for a pedestrian and cycling spine. This would create an alternative route to the boundary roads, and connect Concession Road 3 in the north to the school and

park block at the centre of the Approved Area, as well as to the open space block to the south.

Infrastructure to Support Walking

Certain key infrastructure elements can encourage and facilitate walking. Street furniture such as benches and waste receptacles placed at regular intervals are helpful to encourage people to walk. Well-marked crossings and signage help to increase awareness and pedestrian safety.

Small(er) Lots, More Density

There is an opportunity to configure the road network such that homes will be a reasonable walking distance from neighbourhood amenities, schools, and parks. Smaller lot frontages and denser housing typologies, such as townhouses, stacked townhouses, or apartment buildings can help accomplish this. There are also opportunities to introduce additional density in key areas, as directed by the Official Plan, such as along arterial roads or around the Neighbourhood Centre.

The road configuration and building typologies will be further studied and tested through later phases of the North Village Secondary Plan project.

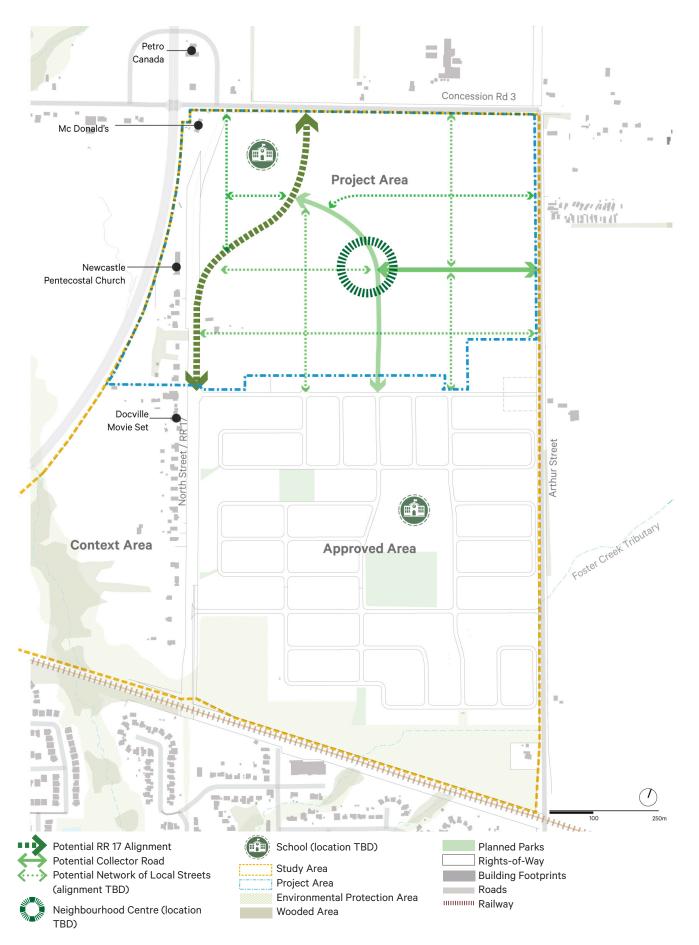


Figure 22 Potential Improved Network to Support Walkable Neighbourhoods

7.2.3 MULTI-MODAL ARTERIALS

The adjacent major streets that frame the Project Area are simultaneously the border between the urban area and the agricultural area, and the major connectors between North Village and the rest of Newcastle and Clarington. These arterial roads ought to serve as multi-modal corridors that integrate pedestrians, cyclists public transit, and private cars. Their design should be context-sensitive by responding to and reinforcing desirable existing and/or planned qualities or features of the immediate or broader North Village community; and, by providing a positive interface and public realm condition for land uses that address and activate these public rights-of way.

Balancing Different Objectives

As previously described, one challenge for these arterial roads is the need to balance the objectives of various stakeholders, including Clarington, the Region of Durham, and MTO, and to move vehicular traffic efficiently through the area. There is an opportunity to create an arterial road condition that meets these objectives while also providing safe and comfortable connections for pedestrians and cyclists.

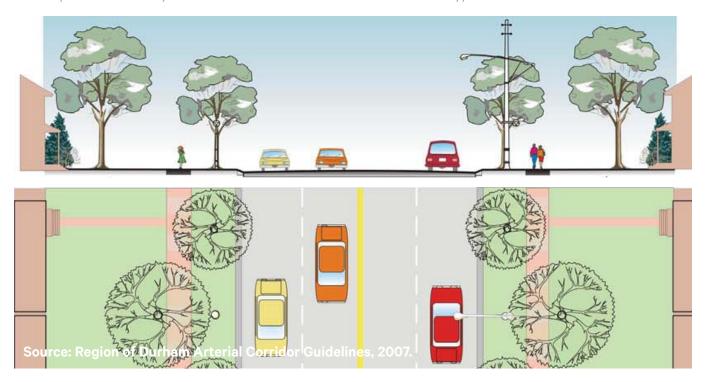
Applying Best Practices

To be consistent with Council's direction and planning objectives for North Village, it is vital the arterials framing the Project Area support multimodal travel and enable pedestrian and cyclist circulation. They are essential elements that reinforce active transportation choices, connectivity to the rest of Newcastle, and housing affordability. They will enable people to choose to walk within Newcastle to meet some of their daily needs, reducing automobile dependence. As a form of physical activity, walking also has numerous health benefits.

We heard from residents that the arterial roads around North Village are popular walking routes for Newcastle residents looking to get closer to "the country" on a leisurely walk. There is an opportunity to design the arterial in a way that celebrates this country setting.

Policy and design direction from Clarington and the Region of Durham provides a useful starting point for multi-modal arterial design.

Excerpt of Type B/C Arterial from the Region of Durham's Arterial Corridor Guidelines, indicating a generous landscape to the roadway with sidewalks and street trees. Indicative of a typical mid-block condition.



Towards Sustainable & Resilient Solutions

The Region of Durham Arterial Corridor Guidelines recognizes that arterials privilege vehicle movement (evidenced by minimum intersection spacing of 525 m) and identify several options to create a multimodal environment:

Improve connectivity with:

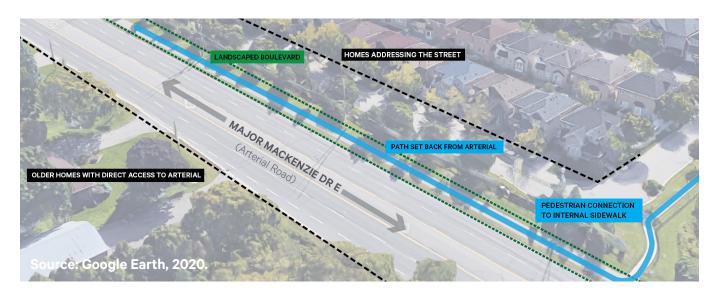
- Minor unsignalized T-intersections with turn limitations.
- 'Window streets' (or crescent streets) within the interior local street network that run parallel to the arterial for 1 - 2 blocks.
- Local streets or access roads that run parallel to the arterial, accessed from the interior local street network, also known as 'multiways'.

Create a pedestrian-friendly environment by:

- Providing sidewalks on both sides of the street.
- Designing houses to front onto the arterial road.
- Integrating cycle lanes and multi-use paths where appropriate.

The objective for North Village is to treat these roads as part of the neighbourhood, recognizing that most people will use them every day, and to transform them into vibrant green thoroughfares where people can appreciate the urban/rural interface.

The above list is a preliminary toolkit of options and the most appropriate condition for North Village will be explored through later phases of the project.



Precedent of an arterial road with a window street condition (Major Mackenzie Drive, east of Kennedy Road, Markham)

7.2.4 NEIGHBOURHOOD WITH HEART

The Clarington Official Plan shows a Neighbourhood Centre designation within the Secondary Plan Area. This is an opportunity to create an amenity area for future residents with a mix of uses including commercial and service uses, neighbourhood space and higher density residential uses. It can be a neighbourhood hub that is both a functional amenity for residents which supports their day-to-day needs while adding appeal and value for the development.

Other uses that were identified as priorities for the neighbourhood include seniors housing, medical services, and child care. The Clarington OP also states that a public square should be provided as part of the Neighbourhood Centre.

The range of potential uses will be explored further, and the potential for retail uses will be further tested by a Retail Market Study.



Neighbourhood events such as a farmers market



An active central square



Figure 23 Potential Integrated Uses to Support a Vibrant Neighbourhood Centre

7.2.5 LEVERAGE AGRICULTURAL HERITAGE FOR PLACEMAKING

Integrating Agriculture & Food Related Uses

The Project Area is in a rural context, with a rich agricultural heritage. This is a unique aspect of local culture that can be celebrated and accommodated in the plan. This could take various forms such as a community garden, farmer's market, or a partnership with a nearby farm in the surrounding Prime Agricultural lands based on the 'Community-Supported Agriculture' (CSA) model. There are examples of residential developments where quality of life is enhanced through a farm or market garden that becomes a key feature of the neighbourhood. This has been referred to as an 'Agri-burb', an example of which is the Serenbe community near Atlanta, Georgia.

We heard from the public a deep sense of pride and connection to the rural/small town nature of Newcastle and a wish to preserve this. The Neighbourhood Centre designation presents an opportunity for a weekly farmer's market or small general store that sells produce from local farms. Based on the Agricultural Impact Assessment prepared by DBH Soil Services Inc, it appears that there are active market gardens in the immediate vicinity, which may offer other partnership opportunities.

Celebrating Built Heritage Resources

There are opportunities to highlight adjacent built heritage resources such as the collection of buildings at 816 North Street (Docville) and the dwelling at 3554 Concession Road 3.

Creating a Sense of Entry and Arrival

Because the Project Area is on the edge of the urban area, there are several opportunities for gateway features to welcome people to Newcastle. The northwest corner of the Project Area is a priority for a gateway as this will be the primary route into Newcastle for cars traveling southbound on Highway 35/115.

Pedestrians accessing North Village will be arriving from the subdivision to the south.

Landscape Design

In designing the interior streets there may be an opportunity to integrate landscaping and low-impact development (LID) features to increase the amount of green space within the community and connect to the green agricultural fields that surround it. The LID features should be designed following best practices in stormwater management, and enhance community resilience as a component of the overall stormwater management strategy. Additional analysis is being completed by AECOM as part of their civil engineering analysis to test the viability of LIDs and their role in managing stormwater within the development.

The urban design and landscape strategy may also reference North Village's agricultural roots by introducing pollinator species and/or edible fruit trees and shrubs in public or private areas, such as part of boulevard landscaping, parks, and gateway features. Maintenance and care for public landscaping can be championed by the Municipality or by a local neighbourhood group, and can spark opportunities for residents to participate in a "neighbourhood harvest" or similar activity. These opportunities will be explored further through a later phase of the North Village Secondary Plan project..



Boulevard landscaping with native species

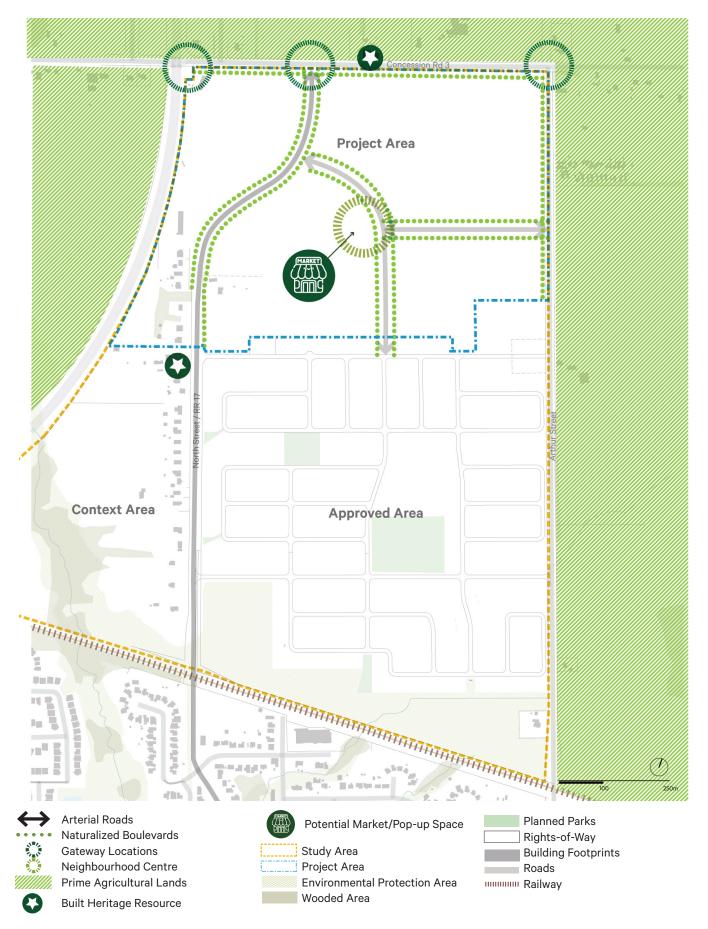


Figure 24 Potential Agricultural Heritage as Placemaking Assets

7.2.6 LEVERAGE VIEWS FOR PLACEMAKING

The topography of the Project Area provides opportunities for long views into the surrounding rural landscape. This is an extraordinary and distinct feature that should be highlighted through the placement of street and open spaces. The high elevation point along the west side of the Project Area has great views of Newcastle and Lake Ontario to the south. This should be maximized in site planning.

There is also an opportunity to use the existing topography of the site when designing road and lot layouts. The surrounding agricultural lands are not flat, and by retaining the curves of the land it will help the Secondary Plan Area feel more connected to the surrounding lands.

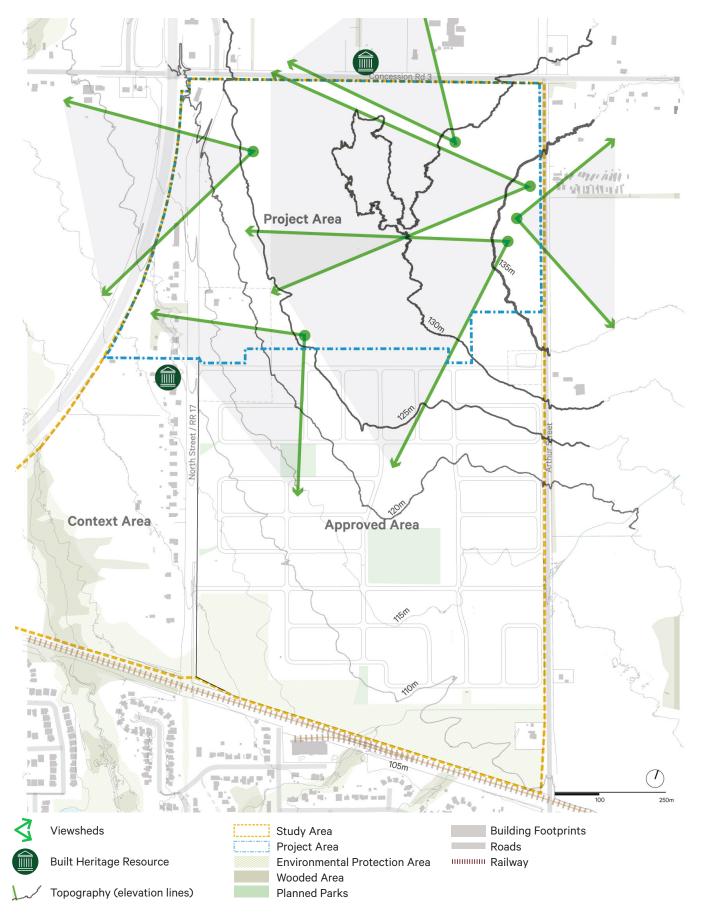


Figure 25 Existing Views for Potential Placemaking

7.2.7 GREEN NEIGHBOURHOOD DESIGN

The Clarington Priority Green Framework sets targets for the "greening" of secondary plans. There are multiple opportunities to plan for a sustainable neighbourhood, some of which have already been mentioned: supporting low-carbon transportation choices; planning for biodiversity, and leveraging stormwater to maintain natural ecological functions and recharge groundwater balances; and, planning for the future evolution of the neighbourhood.

One of the main landowners in the Secondary Plan area is Brookfield Homes, who have been a partner with the Municipality of Clarington in developing green development "demonstration homes". There is an opportunity to scale this up and create a truly green neighbourhood that will be a demonstration for others.

Energy

In planning for a sustainable neighbourhood, there is an opportunity to support local energy generation through the incorporation of renewable power into built form, infrastructure and landscaping. These also provide a visible connection to sustainable living for the neighbourhood.

High-efficiency buildings, designed around the principles and standards of Energy Star, Net Zero or Passive House, are also an opportunity to support an energy efficient neighbourhood.



Landscaped swale for low-impact stormwater management



Dwellings that can be fitted with rooftop PVs



Renewable energy as a public realm feature

Low-carbon Transportation

Transportation choices can have significant impacts on a neighbourhood's carbon footprint, and sustainability profile. There are several opportunities to mitigate these impacts by design. As mentioned previously, several design strategies can be deployed to encourage more people to walk or cycle, rather than drive. This includes creating safe and convenient connections to services and amenities; designing a compact, walkable urban form, with smaller lots; and, embracing multiple travel modes through the design of streets.

While cars are expected to be a big part of the day to day lives of residents in North Village at its infancy, as the neighbourhood evolves and the population increases, roads and infrastructure should be able to adapt to support changes in transit services, and built form needs to adapt to support diversified uses.

Source: Hamilton News, 2019.

Multi-use paths and cycle lanes

Water

Some of the elements that can be integrated at the outset include LID stormwater management features such as porous paving as well as rain gardens and swales along street. There is an opportunity to reduce the urban heat island effect through the use of paving and roofing materials hat reflect a high amount of radiation. These elements will help with the impacts due to increased rainfall and temperature rise predicted with climate change. Other opportunities could be to integrate rainwater harvesting with irrigation systems connected to greenspace areas or neighbourhood gardens.



Porous and water permeable paving



8.0 Conclusions & Next Steps

North Village presents an opportunity to create a new age-in-place neighbourhood where residents have access to local amenities such as parks and small-scale retail and services within walking distance. At the same time, the neighbourhood will be physically and socially connected to the old village centre, and will contribute to the vitality of Newcastle as a whole.

The next steps for the project include the following:

Alternative Land Use Plans

The Project Team will be exploring a variety of options for the land use and transportation network in North Village, and will evaluate these alternative plans based on their ability to support the achievement of the Guiding Principles.

The alternative land use plans will consider use, built form, and density, and be supported by technical evaluations of their ability to meet urban design, sustainability, transportation and servicing requirements.

The alternative land use plans will be presented to the public in Spring 2022.



