

# Smithville Integrated Report

Township of West Lincoln

ProjectReference: Smithville Master Community Plan  
Project number: 60619866

March 10 2023

# **Executive Summary**

## **Background**

In 2019, the Township of West Lincoln (Township) initiated a Master Community Plan process to guide the future development of the community of Smithville through a comprehensive, watershed-based, integrated land use and infrastructure planning approach. The process involved extensive consultation and engagement with the public and key stakeholders including public agencies and partners, area landowners and their consultant representatives and advisors, in addition to Indigenous communities. The Master Community Plan is a detailed land use plan and policy document which provides a comprehensive plan for sustainable future growth and expansion in the Smithville Urban Area. The Master Community Plan process has been undertaken to determine the location and amount of potentially developable land to be added to the Smithville Urban Area.

The total land area within Master Community Plan Study Area is approximately 685 hectares, and the total land area to be added to the Smithville Urban Area boundary is approximately 540 hectares.

## **Integrated Environmental Assessment Process**

The Master Community Plan is being completed through an integrated Environmental Assessment as set out in the Municipal Engineers Association Municipal Class Environmental Assessment document (as amended in 2015). The Master Community Plan process and related Transportation Master Plan, Water and Wastewater Master Servicing Plan, Subwatershed Study/Stormwater Master Plan for Infill and Intensification Areas studies are designed to form a comprehensive and co-ordinated planning process that will meet the required approvals necessary under the Planning Act and the Environmental Assessment Act. The Subwatershed Study characterizes the ecological and water resources systems, and establishes an environmental and stormwater management plan associated with the Twenty Mile Creek watershed. The Subwatershed Study supports the Master Community Plan Study including the Municipal Class Environmental Assessment process.

The Smithville Master Community Plan is following Approach No. 4 (Integration with the Planning Act). Master Plan Approach Number 4 recognizes the benefits of integrating Phases 1 and 2 of the Schedule 'B' Municipal Class Environmental Assessment Master Plan process with approvals under the Planning Act, especially with larger projects such

as Secondary Plans. This means that the requirement of the Environmental Assessment Act (primarily through the Municipal Class Environmental Assessment process) and the Planning Act, including public notice requirements are met as one integrated and co-ordinated process and with streamlined approvals and appeals. This approach is desirable for long term planning where interdependent decisions which impact servicing and land use are being made and the range of servicing alternatives needs to be addressed in an integrated fashion, so as to recommend the best overall municipal infrastructure servicing solutions for the Community to be implemented over the 30 year planning horizon (to 2051).

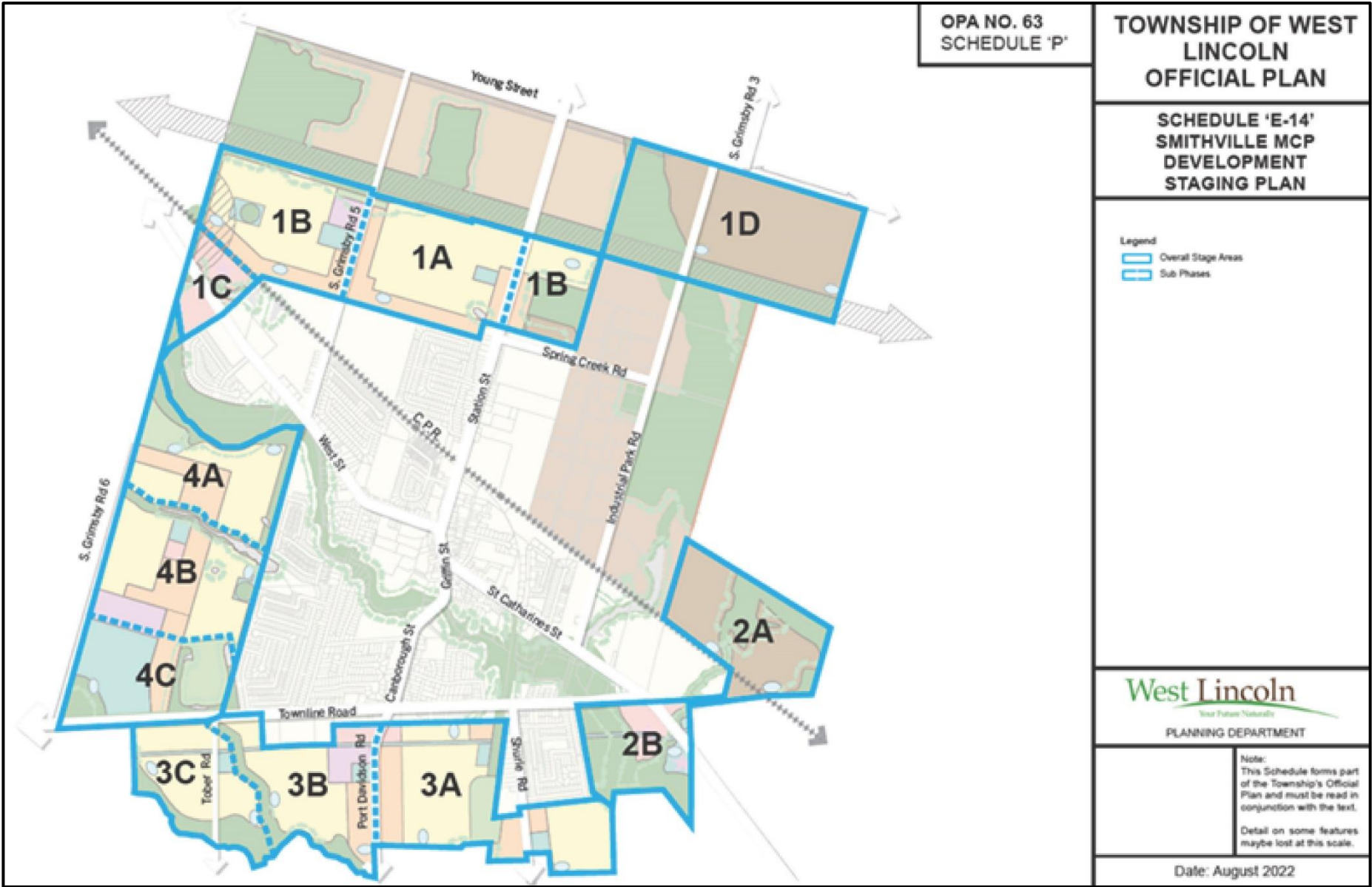
Successful completion of the Integrated Master Plan Approach No. 4 results in all Schedule B projects to be considered a Schedule A under the Municipal Class Environmental Assessment (i.e., pre-approved), if there are no appeals, or upon the resolution of any appeals, to The Regional Municipality of Niagara Niagara's decision on the Township of West Lincoln Official Plan Amendment Number 63 (OPA 63) which implements the Master Community Plan as a Secondary Plan (to be considered by Niagara Region Council in April 2023). Therefore, subject to no appeals, or upon the resolution of any appeals, the proponent (Township or Region) may therefore proceed to design and construct the project upon coming into effect or approval under the Planning Act. Placement of the Integrated Municipal Class Environmental Assessment report for public review on the Township's website and issuance of the Municipal Class Environmental Assessment Notice of Completion completes Phase 2 of the Municipal Class Environmental Assessment process. The 30 day Municipal Class Environmental Assessment comment period commences when Niagara Region issues its Notice of Decision of OPA 63 which includes the 20 day appeal period as set out under the Planning Act.

## **Development Staging**

The development Staging Plan was prepared as part of OPA No. 63 and is shown in **Figure ES-1**.

The Master Community Plan is a 30-year plan for accommodating growth in Smithville to 2051 through both intensification and greenfield development to achieve a complete community. To achieve the level of growth planned in a well-designed, balanced and inclusive manner, while ensuring minimal disruption to the existing community it is necessary to develop an orderly and aligned staging program for the provision of the necessary infrastructure, transportation improvements and community facilities. The development rational and identification of infrastructure to support the development of Smithville are detailed in a series of supporting Master Plans.

Figure ES-1: Development Staging Plan



Policy 6.11.7.6.3 h) of Official Plan Amendment 63 (OPA 63) provides that “The Township may, at its sole discretion, revise the Development Staging Plan without an amendment to this Plan where circumstances warrant, such as, but not limited to, unreasonable delay by landowner(s), in order to facilitate the planned progression of growth and development in a manner that supports the implementation of the MCP.” The policies provide for an appropriate level of flexibility and provide a solid framework for implementation through more detailed Block Plans, Master Environmental Servicing Plans and Environmental Assessment addendums, while acknowledging that future updates and changes may be needed over the 30-year time period of the plan.

Although the various Master Plan documents set out anticipated timescales and staging program for the design and implementation of various infrastructure requirements within Smithville. The flexibility provisions of OPA 63 have been specifically designed to reflect the need to accommodate changes and adjustment that can occur over the 30-year planning horizon of the Master Community Plan. OPA 63 recommendations were presented to the public, Council, and the landowners on multiple occasions including: the Public Meeting, Council Decision of OPA 63, and Technical Advisory Committee meetings as late as December 16, 2022.

As part of the Township’s Official Plan, additional flexibility is provided through periodic review and updating of the plan and policies over the 30-year planning horizon of the plan.

## **Planning Policy Context**

The provincial, regional, and municipal planning framework directs that future population, housing and employment growth shall be focused in urban settlement areas with municipal services and accommodated through infilling and intensification balanced with compact development in greenfield areas.

Several key provincial planning policies have been reviewed in depth to support the Smithville Master Community Plan including the Provincial Policy Statement and a Place to Grow: Growth Plan for the Greater Golden Horseshoe. The Smithville Master Community Plan process has been completed to be consistent with the Provincial Policy Statement. The Provincial Policy Statement has also been reviewed in the development of municipal infrastructure servicing strategies in support of the Smithville Master Community Plan.

As a lower tier municipality, the Township of West Lincoln and development within Smithville are subject to Niagara Region’s Official Plan and Sewage Policy. The Smithville Master Community Plan has been completed in keeping with the policies of

the Niagara Region Official Plan. The Secondary Plan for the urban boundary expansion will be implemented through the new urban boundaries for Smithville in the new Niagara Region Official Plan as identified in Official Plan Amendments No. 62 and No. 63 to the Township's Official Plan. Other Master Plan documents have been utilised to identify key recommendations for servicing within transportation, water and wastewater systems.

At the Township level, The Township's Official Plan and a number of related plans, documents, and Master Plans were reviewed to support the Smithville Master Community Plan. The Township of West Lincoln Master and Secondary Plans have been reviewed in the development of Municipal infrastructure servicing strategies in support of the Smithville Master Community Plan. Current Parks and Recreation, and Trails and Corridors Master Plans were considered in the development of alternative and preferred Master Plan development concepts. The proposed municipal infrastructure servicing strategies have been reviewed in the context of the Source Protection Plan for the Niagara Peninsula Source Protection Area.

## **Problem or Opportunity Statement**

Smithville is a vibrant community – the area is filled with cultural heritage, natural environmental features and is the largest settlement area and the only full-served urban centre in the Township of West Lincoln. Dramatic growth in the Greater Golden Horseshoe over the next three decades will place increasing demands on residential and commercial facilities across the Township. Current servicing capacities of transportation, municipal water and wastewater, and stormwater management systems are insufficient to accommodate this planned growth and does not exist within future development lads. This urban expansion provides an opportunity to create a sustainable, compact, complete and resilient Smithville community. This also streamlines the municipal planning and infrastructure planning processes, allowing land use planning decisions to occur at the same time as evaluating infrastructure servicing alternatives and associated works.

## **Population Growth Forecasts**

As of the 2021 census, the estimated population for the Smithville Urban Area was 7140. The Township intends to accommodate the population and employment growth forecasts provided for the Township of West Lincoln in the Niagara Region Official Plan which are based on projections to the year 2051 provided in the Growth Plan. The Niagara Region Official Plan directs the Township of West Lincoln to plan for a total



population of 38,370 people and for total employment of 10,480 jobs by 2051 of which 29,030 people and 7,360 jobs will be in Smithville.

## Master Plan Development

The Master Community Plan is intended to guide and direct future sustainable development in the Smithville urban expansion area and through intensification of the built-up area over the next 30 years; it will be implemented through three Master Servicing Plans, transportation, water and wastewater, and stormwater management, as well as the Subwatershed Study. The goal of these plans is to ensure that future development proposals align with the Preferred Land Use Concept (**Figure ES-2**) and Preferred Concept Plan (**Figure ES-3**) and the objectives, strategies, targets, and policies of the Master Community Plan.

## Transportation

Smithville currently has a transportation network that is developed around two regional roads, Highway 20 running east/west and Thirty Road which provides a connection to the QEW to the north. In addition to these roads the CP rail line also runs through the town in an east/west alignment, which currently includes three at grade crossings. The town has additional secondary arterial roads providing connections around town including Townline/Regional Road 14 and Canborough Street/Regional Road 14. In addition to the road network there are a series of off street trails that provide cycling and pedestrian connections to some of the existing facilities across the town, although there are a number of gaps in this network.

Forecasted growth required an assessment of the existing road network to understand what the possible impacts of the new development are, this exercise was conducted using a traffic model which replicates existing traffic conditions on the community's road network and then forecasts the growth in trips across the network as a result of the new development.

The proposed development planned out to 2051 and presented in **Figure ES-1** when modelled indicate that the existing road network was insufficient to provide a similar level of service to existing conditions. Forecasts for 2051 suggested that the performance of several intersections would fall below acceptable standards, creating significant delays. It also highlighted that several constraints existed including north/south crossing of the CP rail corridor, movements west towards Hamilton become congestion as existing roads are over capacity, and areas around the downtown also become constrained as additional local traffic is impacted by increases in regional traffic.

### Figure ES-2: Preferred Land Use Concept

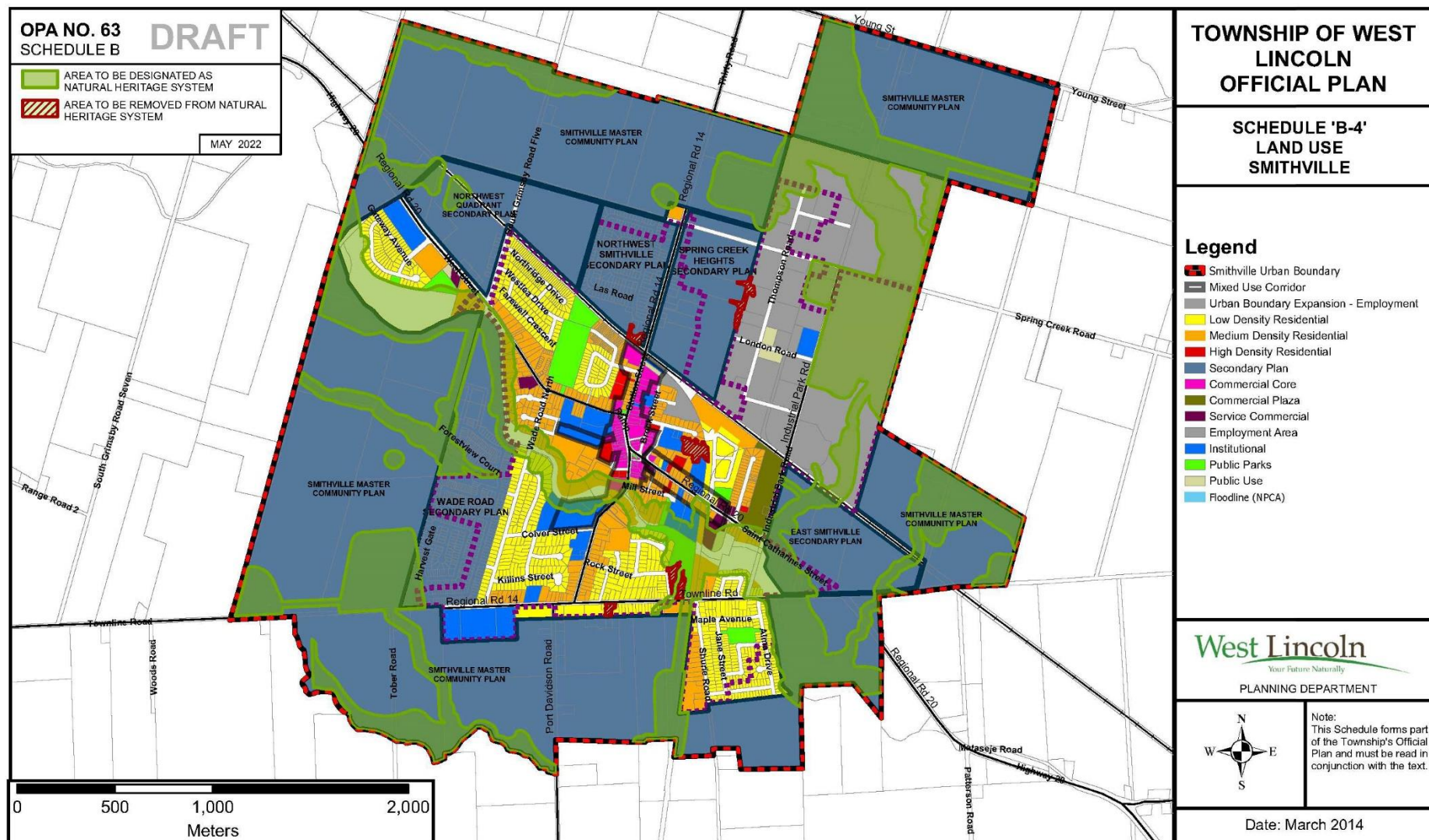
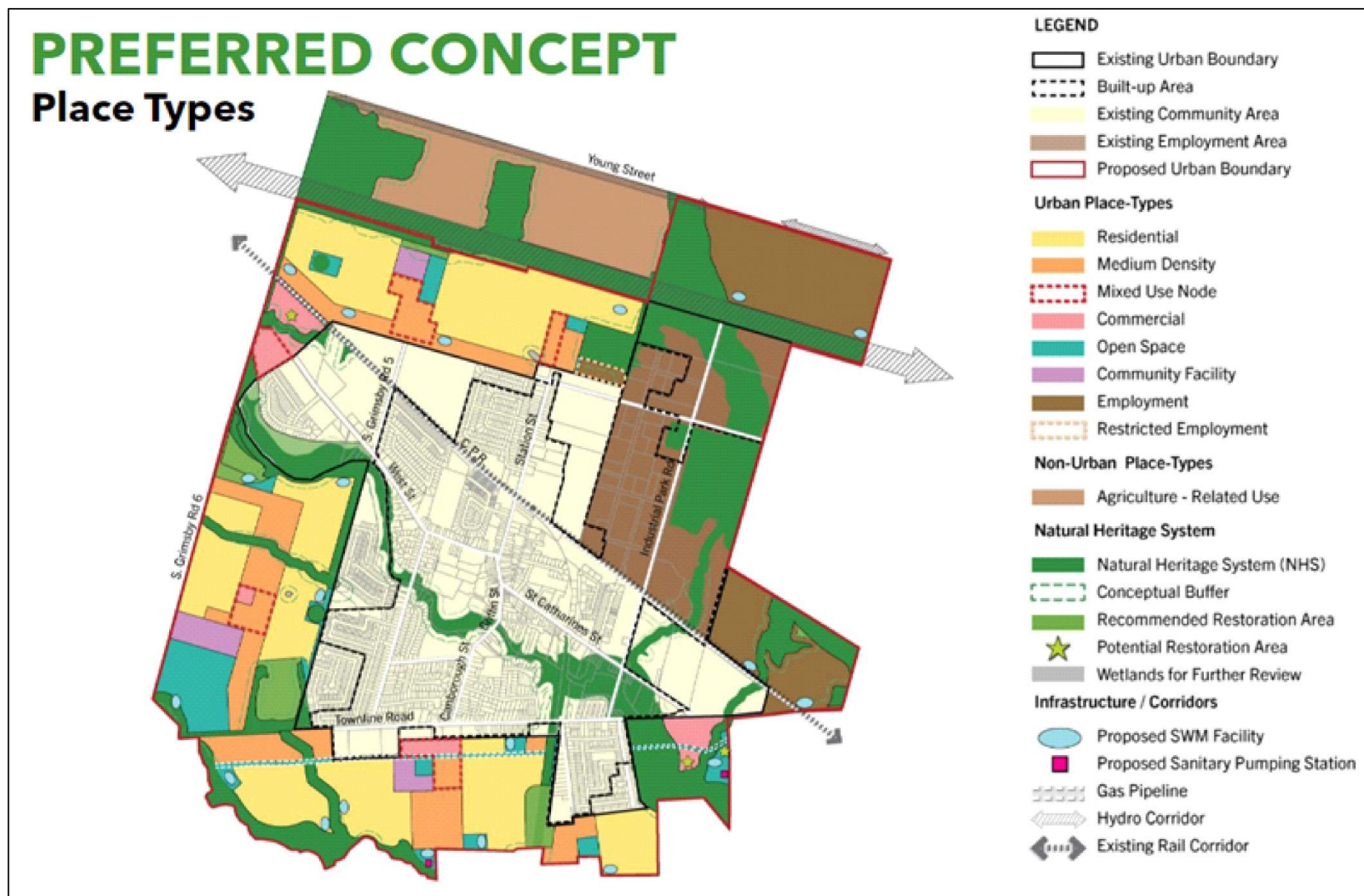




Figure ES-3: Preferred Concept Plan



**Figure ES-4, Figure ES-5 and Figure ES-6** highlight the implementation plans created to address these requirements.

Whilst the Master Plan will not reference the specific criteria utilised to evaluate alternative transportation strategies, this information is documented in the Transportation Master Servicing Plan.

The recommended strategy for the transportation system to accommodate the urban boundary expansion concept was identified based on the overall environment assessment results, technical feasibility, safety, ability to accommodate multiple transportation methods, and financial implications. The Transportation Master Servicing Plan includes a project listing of recommended transportation capital works projects to be implemented by the Township of West Lincoln and Niagara Region as the Master Community Plan develops over time. The project listing will also be used to support the Township and Region's development studies. Refer to Appendix B of this report for the complete Project Listings table.

## Water and Wastewater

Smithville currently has a water-wastewater network that is developed around one water pumping station and two sewage pumping stations. In addition, Smithville is dependent on an inground reservoir, an elevated storage facility and two sewer lift stations. The current overall water-wastewater system is comprised of roughly 33 kilometres of watermains and 34 kilometres of sewer lines and provides servicing to a population of 7,625 and 1,115 jobs. Whilst the infrastructure network within the existing urban boundary of Smithville is extensive, current imaging highlights the network as a limiting factor in population growth.

Forecasted growth required an assessment of the existing water and wastewater network to understand what the possible impacts of the new development are, this exercise was conducted using a hydraulic model which replicates existing water and wastewater conditions and servicing capacity and then forecasts the growth system usage as a result of the new development.

Current urban boundary expansion plans to improve existing infrastructure centre around four distinct development Stages (1-4) with each Stage requiring an individualized water and wastewater servicing strategy to both fit the needs of Township and minimize.



### Figure ES-4: Proposed New Roads and Road Upgrades

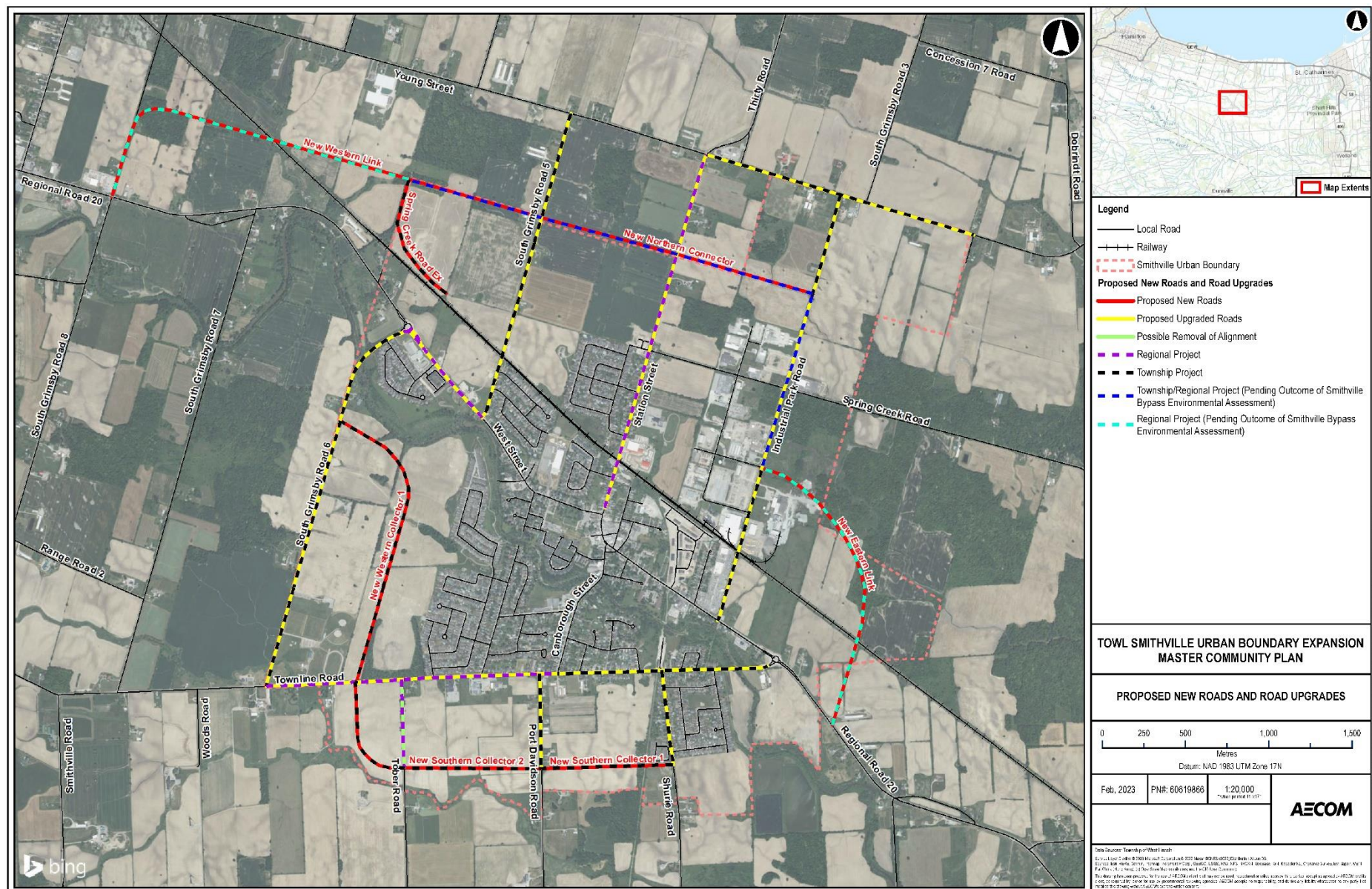
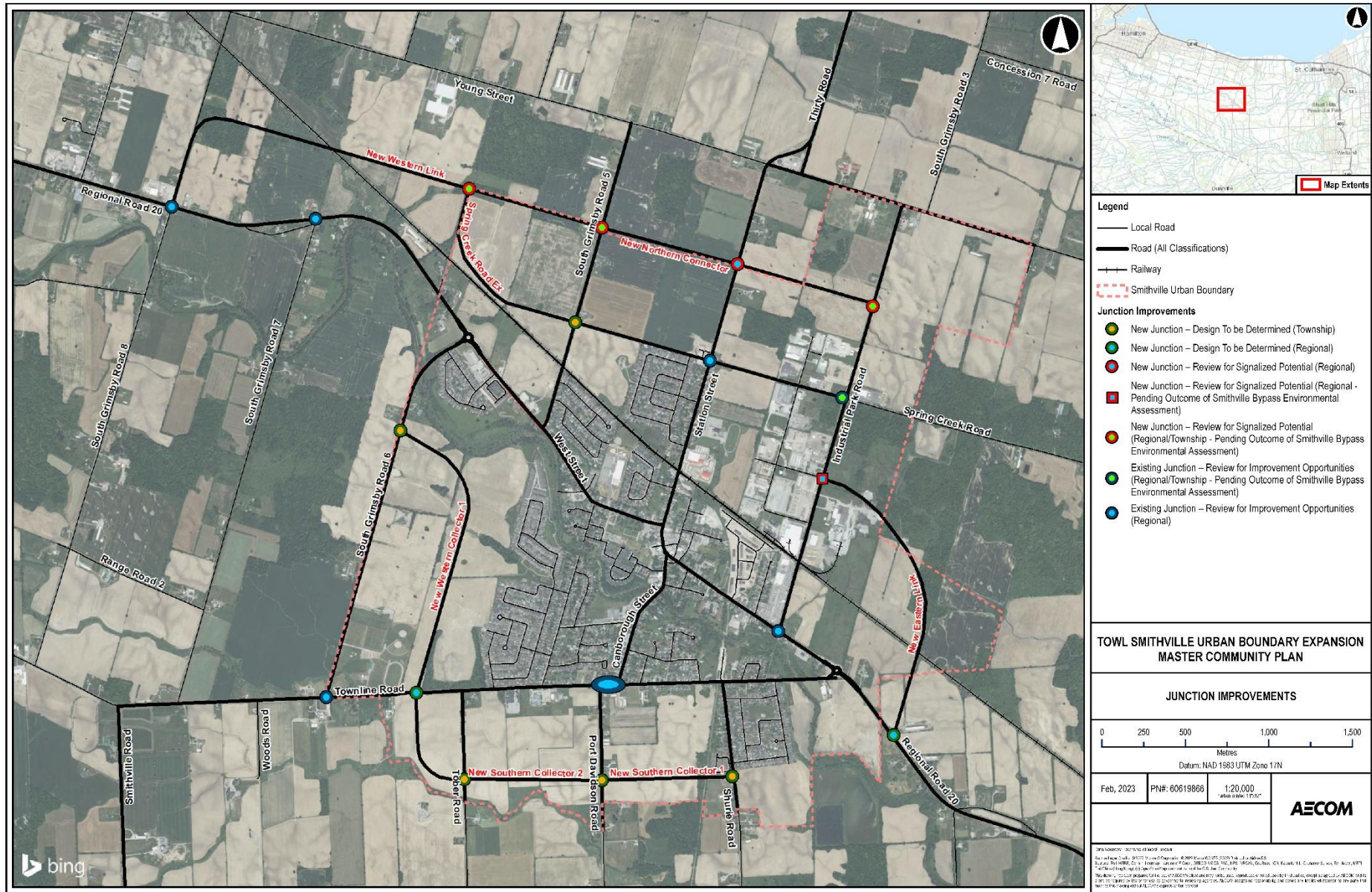


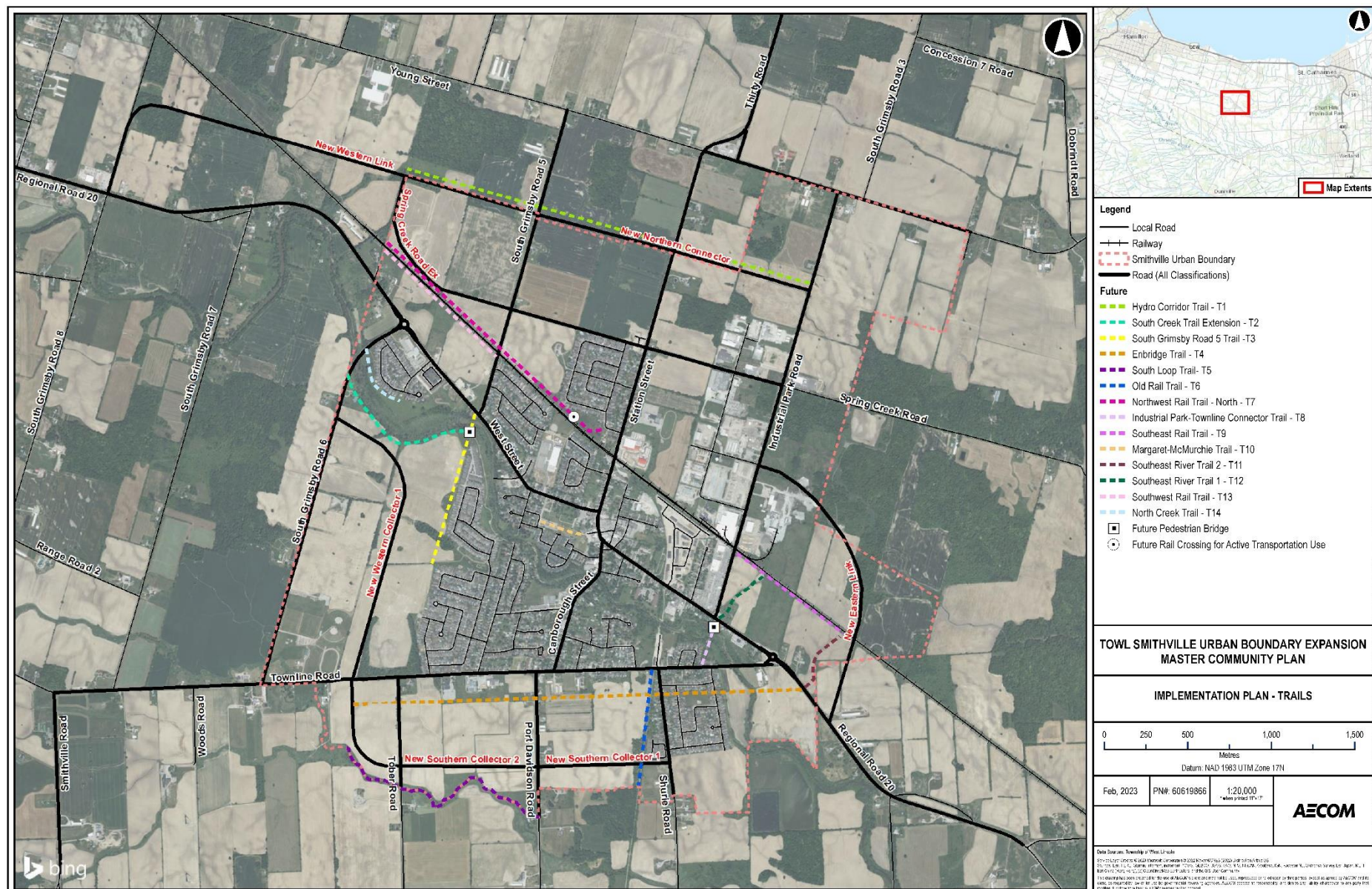


Figure ES-5: Planned Junction Improvements





### Figure ES-6: Implementation Plan – Trails





The recommended strategy for the water wastewater system to accommodate the urban boundary expansion concept was identified based on the overall environment assessment results, technical feasibility and financial implications.

The following section provides the list of preferred options for each stage’s servicing strategy.

**Table ES-1: List of Preferred Options for Each Stage’s Servicing Strategy**

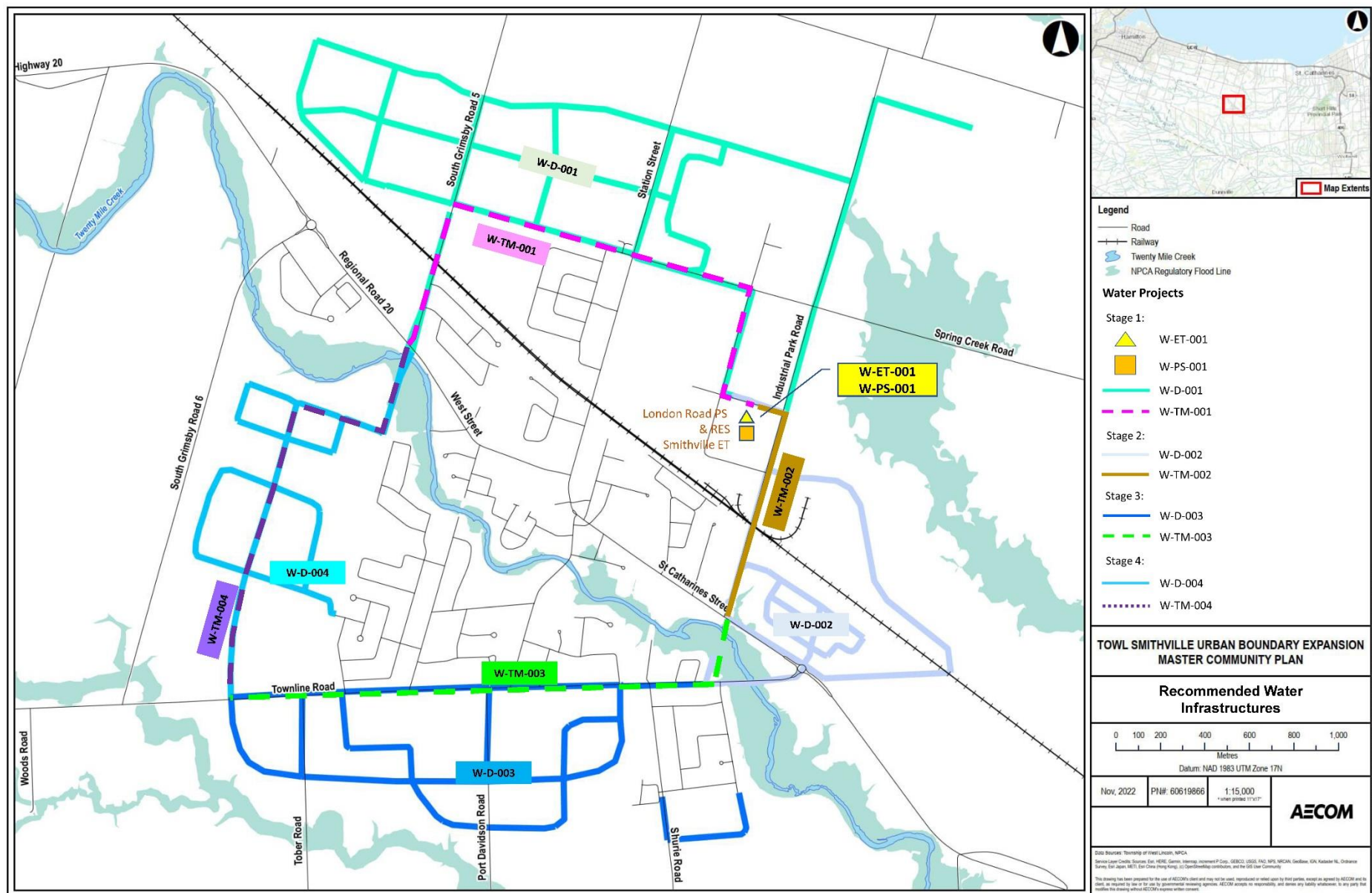
Stage	Preferred Water Servicing Strategy	Preferred Wastewater Servicing Strategy
1	S1W1	S1WW1
2	S2W2	S2WW1
3	S3W1	S3WW1A, S3-FM1B, S3WW2A
4	S4W3	S4WW1, S4-FM2

**Figure ES-7** and **Figure ES-8** present the preferred water and wastewater servicing strategy, respectively.

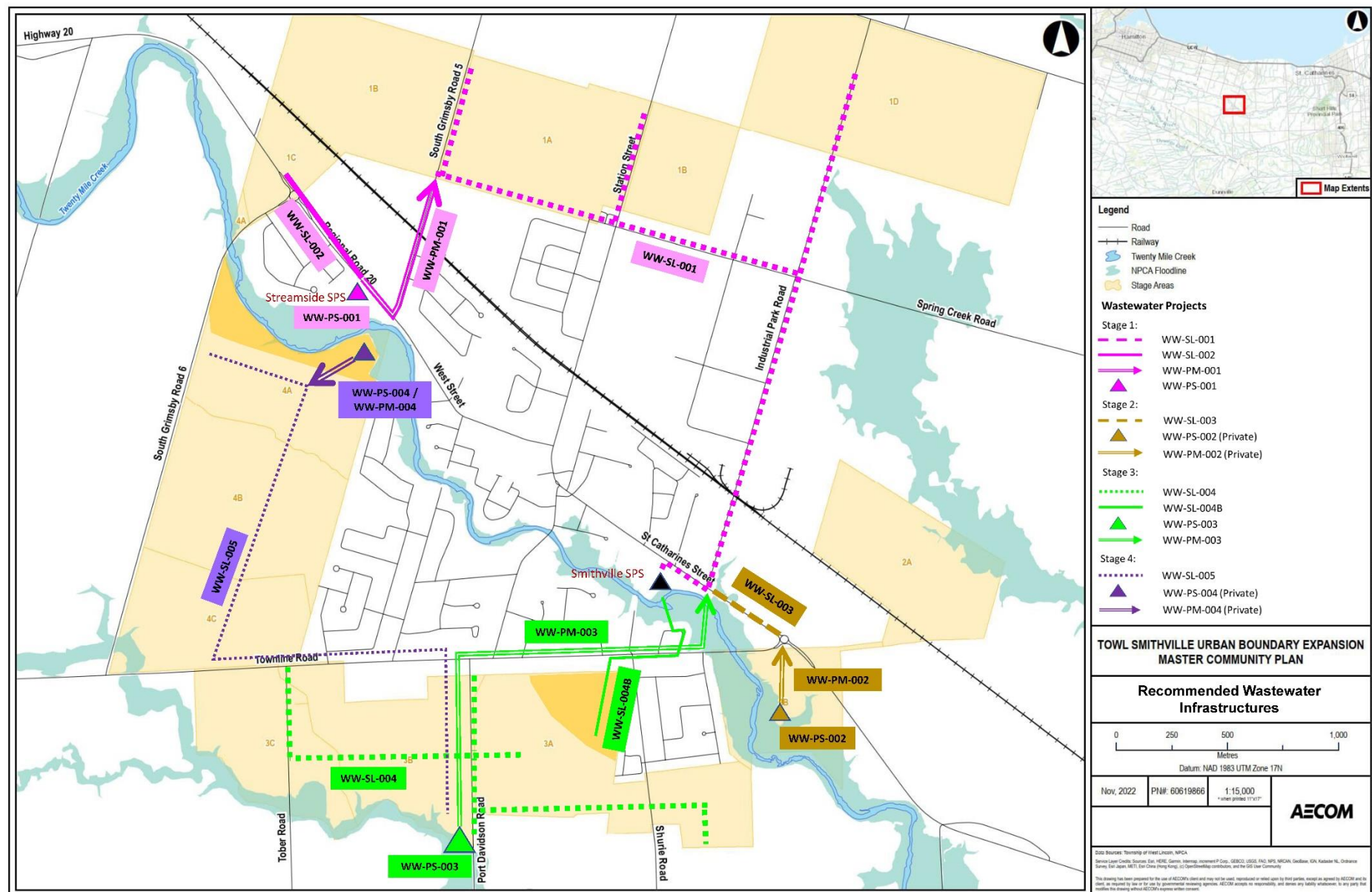
Whilst the Master Plan will not reference the matrices utilised to evaluate alternative water and wastewater strategies, this information is documented in the Water-Wastewater Master Servicing Plan.

The Water-Wastewater Master Servicing Plan includes a project listing of recommended water and wastewater capital works projects to be implemented by the Township of West Lincoln and Niagara Region as the Master Community Plan develops over time. The project listing will also be used to support the Township and Region’s development studies. Refer to Appendix C of this report for the complete Project Listings table.

### Figure ES-7: Preferred Water Servicing Strategy



### Figure ES-8: Preferred Wastewater Servicing Strategy



## Subwatershed Study

In addition to guiding the Master Community Plan land use concept/policy planning and OPA process, the Subwatershed Study also supported the Integrated Municipal Class Environmental Assessment planning process that followed specific steps outlined in the Municipal Engineers Association Municipal Class Environmental Assessment document (as amended in 2015) and outlined in section A.2.9.3.

The Subwatershed Study has been completed in three phases corresponding to Subwatershed “Characterization and Integration”, “Impact Assessment”, and “Management, Implementation, and Monitoring Plan”. The Subwatershed Study analyses and findings have provided inputs to the Municipal Class Environmental Assessment Phase 1 Problem/Opportunity Statement, in addition to Municipal Class Environmental Assessment Phase 2 Existing Conditions and Alternatives Evaluations where applicable. The Subwatershed Study includes the preparation of a Stormwater Management Master Plan, which establishes the stormwater management requirements for the future intensification and infill areas within urban Smithville. Upon completion, the Subwatershed Study and the Stormwater Management Master Plan will be endorsed by Council.

With respect to alternative solutions, various technologies and practices have been considered to address the stormwater management criteria as per current (2003) Ministry of Environment criteria and emerging guidance for providing a treatment-train for stormwater management combining controls at source and end-of-pipe noted in the Phase 2: Impact Assessment Subwatershed Study, some of these may include: wet end-of-pipe facilities (i.e., wetlands, wet ponds, hybrid facilities), vegetated technologies (i.e., grassed swales, buffer strips, etc.), oil/grit separators, bioswales/biofilters, and infiltration trenches.

Approaches for thermal control: LID infiltration BMPs, urban terrestrial canopy (also NHS), facility shading (includes orientation and length/width ratio), facility cooling trenches, facility bottom draws, stormwater management facility orientation, Concrete Sewer System, Underground Storage Facilities, Green & White roofs, Floating Islands, and other measures.

It should be noted that preliminary stormwater management facility locations have been determined based upon study area topography and within Master Community Plan park – open space blocks and that these, including stormwater management facilities are conceptually shown on **Figure ES-3**. Similarly storm sewer alignments follow the preferred Master Community Plan road network and in some cases existing roads and easements.



Once OPA 63 is approved under the Planning Act (subject to no appeals or following the resolution of appeals) select Schedule B projects (e.g., new stormwater management facility, where property is required) are automatically approved as Schedule A projects. This also aligns with Municipal Class Environmental Assessment document Appendix 1 Project Schedules, (Schedule A Wastewater Protect # 17) “the construction of stormwater facilities establishment which are required as a condition of site plan, consent plan, plan of subdivision or condominium which come into effect under the Planning Act prior to construction of the facility” are automatically approved. It is also important to note that any change in infrastructure location (example stormwater management facility) would be documented in a Master Environmental Servicing Plan and Municipal Class Environmental Assessment Addendum process in conjunction with the Block Plan process.

## Implementation Plan

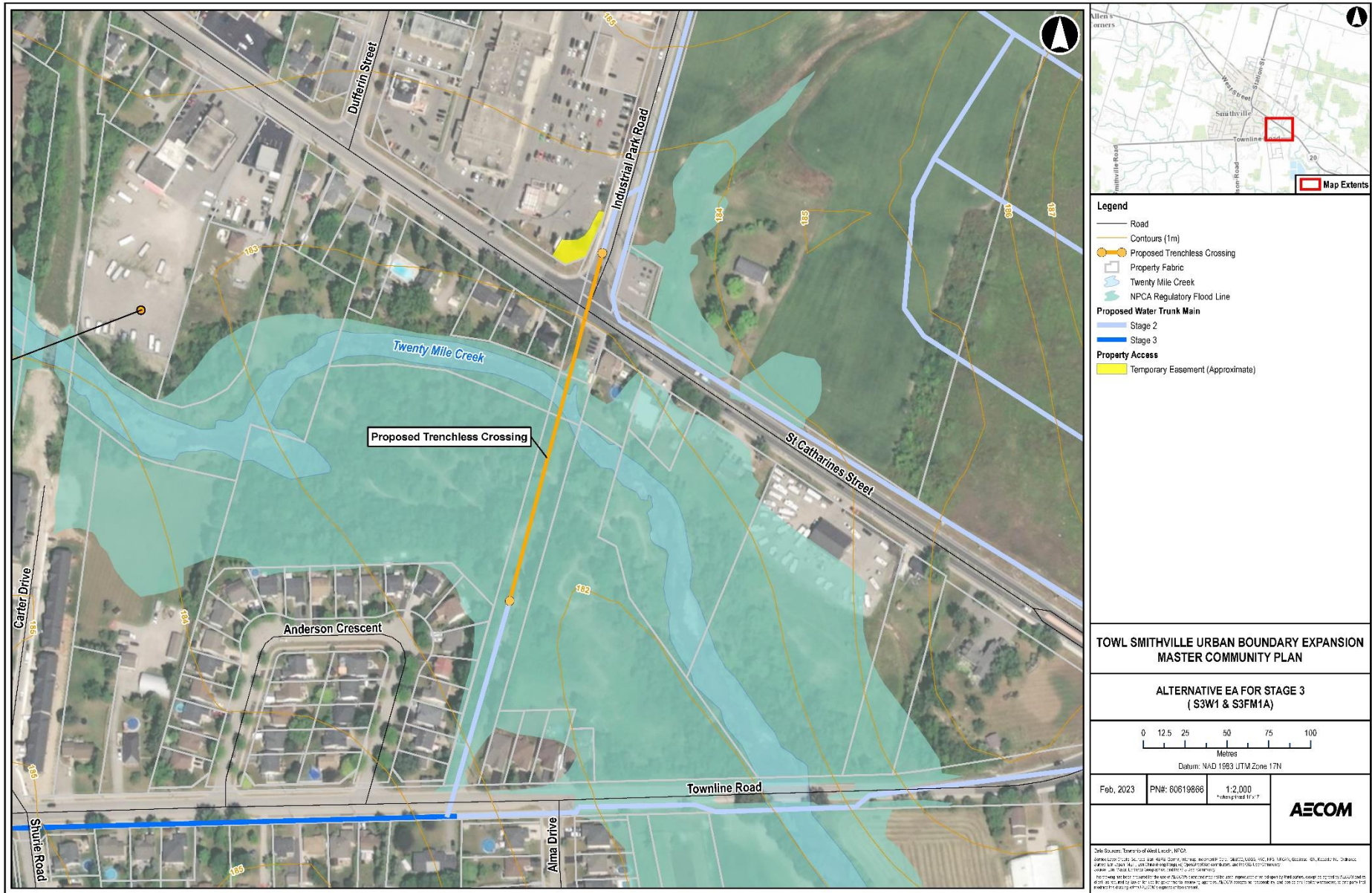
As identified in the Phase 3 Subwatershed Study, the urban expansion area for the Community of Smithville has been organized into contiguous blocks, representing areas with common infrastructure for servicing and transportation. At the next stage of planning, the land use for the blocks will be refined to develop more detail for the respective Block Plans. These Block Plans may represent the individual blocks identified, or encompass contiguous groups of blocks, depending upon the timing of development for the respective blocks and servicing and transportation infrastructure. The Block Plans are to be supported by Master Environmental Servicing Plans which will be guided by the Terms of Reference (provided under separate cover).

## Property Requirements

The majority of planned infrastructure will be located within future development blocks in addition to existing and future roads and easements. Specific to the water servicing strategy, temporary easements have been identified related to the watermain crossing on Twenty Mile Creek at South Grimsby Road 5 and Regional Road 20 (West Street) in addition to Industrial Park Road at Regional Road 20 (St. Catharines Street) as shown on **Figure ES-9** and **Figure ES-10**. A permanent easement has also been identified related to the watermain crossing on Twenty Mile Creek at South Grimsby Road 5 and Regional Road 20 (West Street) as shown in **Figure ES-10**. It is accordingly recommended that the Township approach the affected land owners who secured the temporary easements so that the watermains can be constructed at the appropriate time. It is also recognized that future temporary or permanent easements may be identified through the future Block Plan and Master Environmental Servicing Plan process.

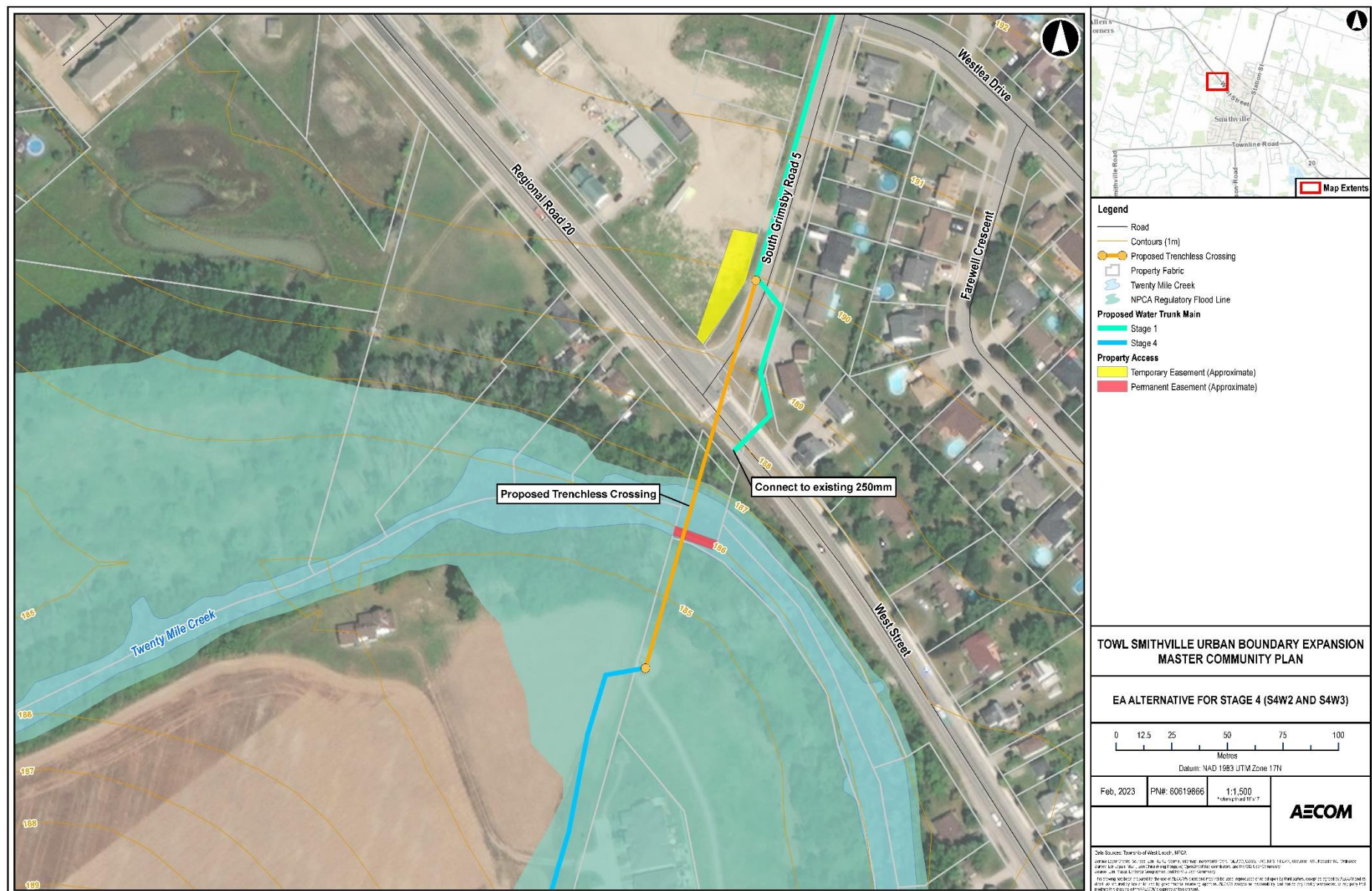


Figure ES-9: Stage 3 Property Requirements





### Figure ES-10: Stage 4 Property Requirements



## Potential Impacts and Recommended Mitigation Measures

Impacts related to construction of the recommended transportation, water, wastewater and stormwater projects will be largely limited to the duration and location of construction.

Based on the preferred municipal infrastructure servicing strategies and proposed construction techniques, construction is expected to have varied effects on the environment and community. Efforts to minimize impacts such as loss or disruption to terrestrial and aquatic natural heritage features, land use disturbances, noise and vibration, traffic flow and property access disruptions will be made by implementing standard construction and best management practices that will be further developed during the Block Plan and Master Environmental Servicing Plan processes as well as preliminary and detailed design phases by means of further studies and permit applications, where applicable.

## Community and Stakeholder Engagement

Community and stakeholder engagement has been undertaken strategic points along the project schedule, and included:

- With respect to Planning Act and Municipal Class Environmental Assessment Integration consultation, co-ordinated Planning Act/Class Environmental Assessment public notices were sent out and presentations to Township Council were made with all disciplines present.
- Public Information Centres (in-person/ virtual) – to provide information about the project to the community. Public Information Centres also facilitate dialogue between the Township, consultant team and members of the public. These events are important milestones to seek community feedback to improve our work. There are a total of four Public Information Centres being held throughout the duration of this study.
- Plansmithville.ca – virtual engagement platform with project information and the opportunity to provide feedback on various aspects of the project.
- In addition to the Steering Committee, a Technical Advisory Committee was formed which further spawned sub Technical Advisory Committees that also helped focus individual disciplines. This also included a number of meetings with landowner representatives and their consultants to review the

recommended servicing strategies and staging. Technical Advisory Committee workshops with stakeholders such as Niagara Region Public Works and Planning, Niagara Peninsula Conservation Authority, and landowner group representatives – were held at strategic points in the project timeline to review and comment on technical work prior to supporting decisions and presentation to the public.

- Other meetings held with stakeholders, including the school boards, Municipal of Ministry Affairs and Housing and Hydro One to provide an opportunity early in the planning process to comment on how land uses are conceptually integrated into the Master Community Plan.
- Local Indigenous Communities and organizations were notified as part of the integrated Municipal Class Environmental Assessment consultation process that included issuance of all notifications (e.g., study commencement and Public Information Centre notices). Local Indigenous Communities and organizations were also offered the opportunity to meet to confirm their interests in the Master Community Plan Integrated Environmental Assessment process and how they would like to be engaged.

## **Conclusions**

This Municipal Class Environmental Assessment Study fulfills the requirements for Schedule B projects as outlined in the MEA Municipal Class Environmental Assessment Guide. Consultation requirements of the Municipal Class Environmental Assessment process have been fulfilled through consultation with stakeholders, review agencies, and local Indigenous Communities, and the submission of this Integrated Environmental Assessment report. Subject to no appeals, or following the resolution of appeals, to Niagara Region's decision on OPA 63 the proposed transportation, water and wastewater and stormwater infrastructure works may proceed to the Block Plan and Master Environmental Servicing Plan as well as the design and property acquisition (temporary easements) phases. Lastly, it is noted that select Schedule C projects as identified in the Transportation Master Servicing Plan (e.g., Townline Road widening improvements and Smithville By-pass) will be addressed through separate Schedule C planning processes that will use the Transportation Master Servicing Plan to address Phases 1 and 2 of the Municipal Class Environmental Assessment process.