TECUMSEH HAMLET SECONDARY PLAN AREA INFRASTRUCTURE IMPROVEMENTS

DILLON CONSULTING

SCHEDULE C
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT AND FUNCTIONAL DESIGN

MUNICIPAL SERVICING OVERVIEW

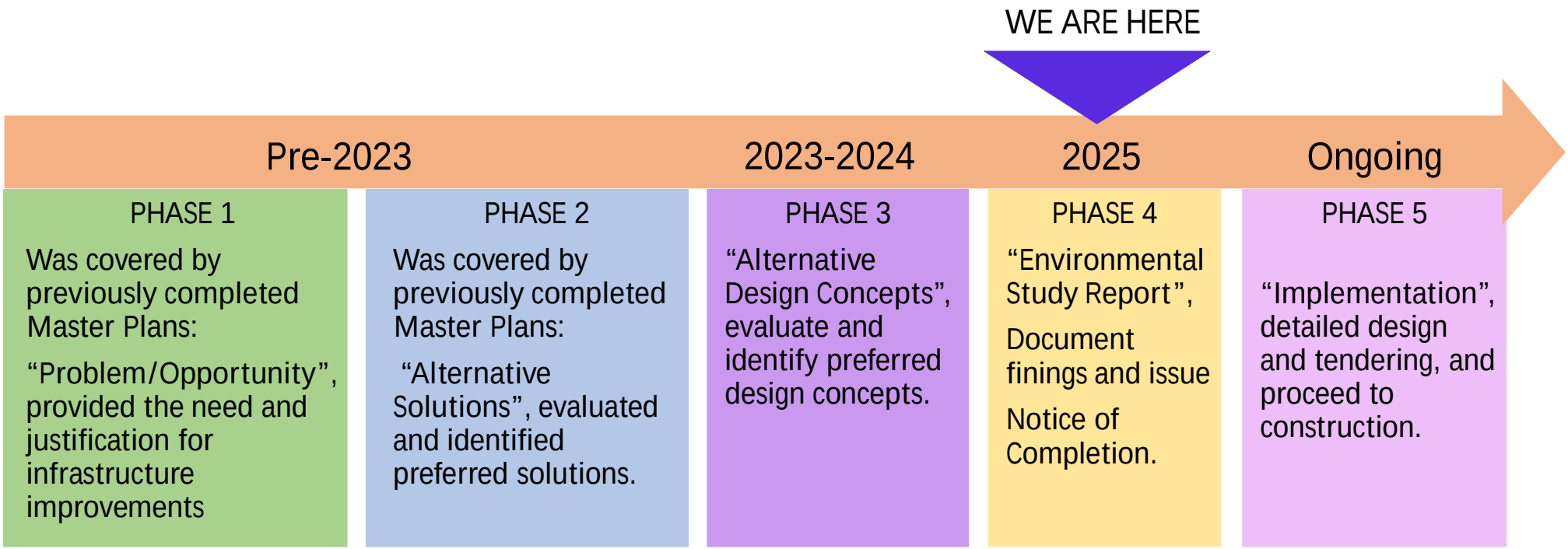
JUNE 24, 2025

TECUMSEH

Problem and Opportunity Statement

To accommodate population growth and housing, it is recommended that municipal infrastructure facilities, including road, water, wastewater and stormwater management improvements, be implemented to service new development in the Tecumseh Hamlet Secondary Plan Area. The facilities shall be planned and designed to mitigate impacts to natural heritage, water and cultural resources and minimize other environmental impacts, including impacts on the existing Hamlet.

Municipal Class EA Process



This study follows the Schedule C Process under the Municipal Class Environmental Assessment.

TECUMSEH HAMLET INFRASTRUCTURE IMPROVEMENTS

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT & FUNCTIONAL DESIGN

Environmental Assessment

Pre-2023

PHASE 1

Was covered by **previously completed Master Plans**:

"Problem/Opportunity", provided the need and justification for infrastructure improvements

PHASE 2

Was covered by **previously completed Master Plans**:

"Alternative Solutions", evaluated and identified preferred solutions.

Transportation Projects

- Town of Tecumseh Transportation Master Plan (2017)
- Banwell Road Environmental Assessment (2016) (City of Windsor)
- County Road 42 and 43 Environmental Assessment (2009) (County of Essex)
- County Road 22 and County Road 19 Environmental Assessment (2008) (County of Essex)

Water and Wastewater Projects

- Town of Tecumseh Water and Wastewater Master Plan (2019)

Stormwater Projects

- Upper Litter River Watershed Drainage and Stormwater Management (SWM) Master Plan (2023); and
- Tecumseh Drainage Master Plan (2019).

The previous Master Plans concluded that road, water, wastewater and SWM projects are needed to service new development in Tecumseh Hamlet.
Conceptual design alternatives were developed for recommended solutions.

New - Southeast Hamlet – Master Plans did not previously develop stormwater management servicing solution for this area, therefore Phases 1 to 4 were completed.

TECUMSEH HAMLET INFRASTRUCTURE IMPROVEMENTS
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT & FUNCTIONAL DESIGN

Existing Conditions

Site Assessments
- Stage 1 Archaeological Assessment
- Cultural Heritage Evaluation Report
- Natural Heritage Existing Conditions Assessment
- Groundwater and Methane Investigations - MTO Landfill Site

Engineering Studies

Transportation
- Traffic Impact Study Update
- Battery Plant Traffic Assessment

Water
- Town of Tecumseh Water and Wastewater Master Plan (2019)

Wastewater
- Sanitary Servicing Modelling Assessment
- Sanitary Sewer Recalibration Study

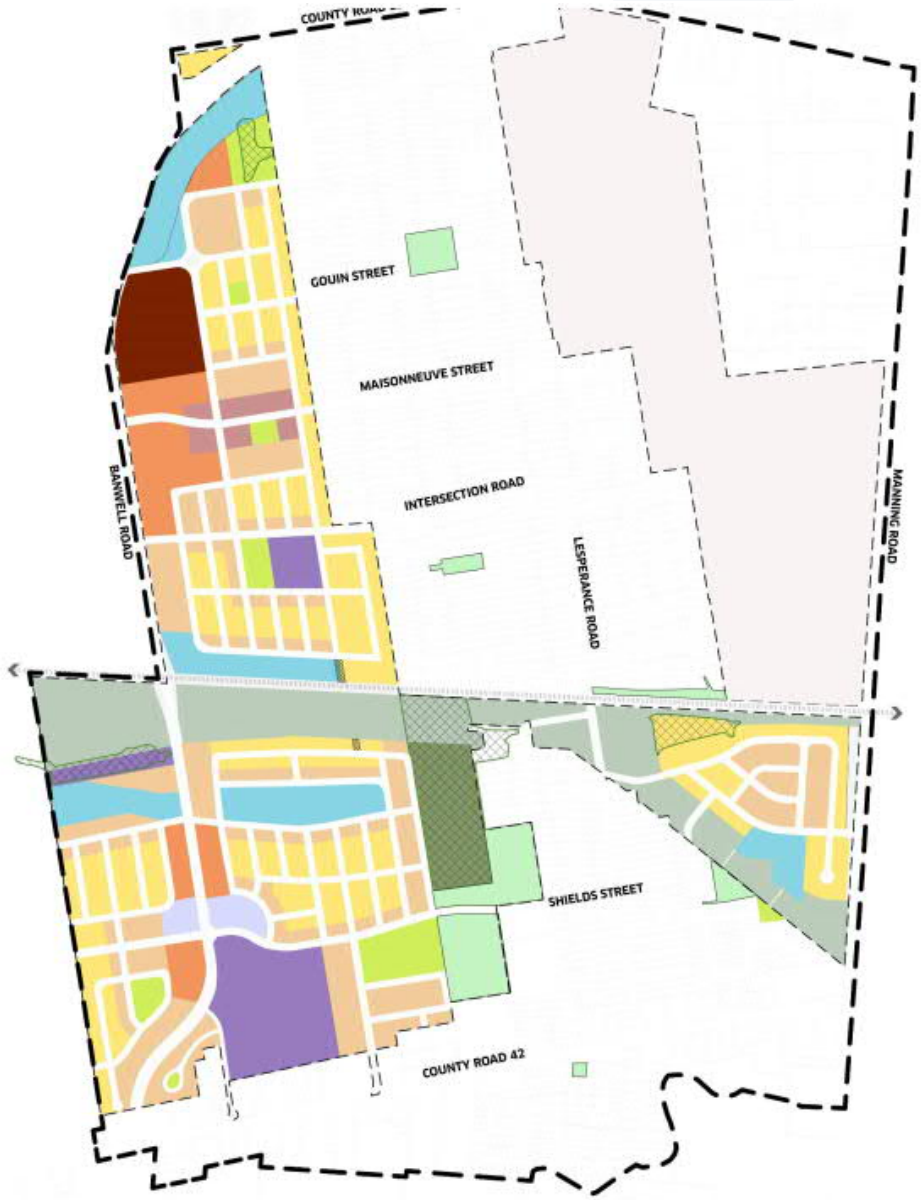
Stormwater Management
- Little River Watershed Outlet Capacity Assessment
- Little River Floodplain Study
- East Townline Drain Stormwater Management Report

Natural Heritage Inventory
Ecological Land Classification (ELC) Mapping

Ultimate Conditions

Tecumseh Hamlet Secondary Plan:

- The Secondary Plan has addressed the integration of existing and new development, land use distribution and growth projections.
- Next 10 years:
  - 1,500 residential units
  - 3,500 people
  - 22,000 m^2 commercial space
  - Over 2 hectares of Main Street
- Ultimate:
  - 4,300 residential units
  - 8,800 people
  - 37,000 m^2 commercial space



TECUMSEH HAMLET INFRASTRUCTURE IMPROVEMENTS

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT & FUNCTIONAL DESIGN

Engagement Summary

Oct 2022	• Stakeholder **Interviews** with Key Landowners
Oct 2022	• **Key Landowners** Workshop
Dec 2022	• Project Re-initiation **Open House**
Dec 2022	• Meeting with Greater Essex County **School Board**
Apr 2023	• Public Information Centre (**PIC #1**)
July 2023 & Sep 2023	• Workshop with **McAuliffe Park Sports Group**
Nov 2023	• Public information Centre (**PIC#2**)
Jan-July 2024	• Meetings with **COTTFN**, **City** of Windsor, Essex **County**, **ERCA**, Property Owners, Community Members

DIALOG

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Feedback and Engineering Design Input

Meetings and design coordination with developers, property owners and key stakeholders were undertaken to help develop implementable solutions that considered planned redevelopment schemes.

Proactive consultation with agencies and neighboring municipalities including:

- Essex Regional Conservation Authority (ERCA)
- Ministry of Environmental Conservation and Parks (MECP)
- Ministry of Citizenship and Multiculturalism (MCM)
- City of Windsor
- County of Essex
- First Nations including the Caldwell First Nations (CFN) and Chippewas on the Thames First Nation (COTTFN)
- Utilities (Hydro One, Enwin, Telecommunications and Enbridge)

TECUMSEH HAMLET INFRASTRUCTURE IMPROVEMENTS

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT & FUNCTIONAL DESIGN

2023-2024

PHASE 3

"Alternative Design Concepts", evaluate and identify preferred design concepts.

Evaluation of Alternatives

Design concepts were assessed and compared against a comprehensive set of evaluation criteria addressing the natural and socio-cultural environment as well as financial and technical factors.

Through inputs described, preferred design concepts were selected.

Preferred Design Concepts

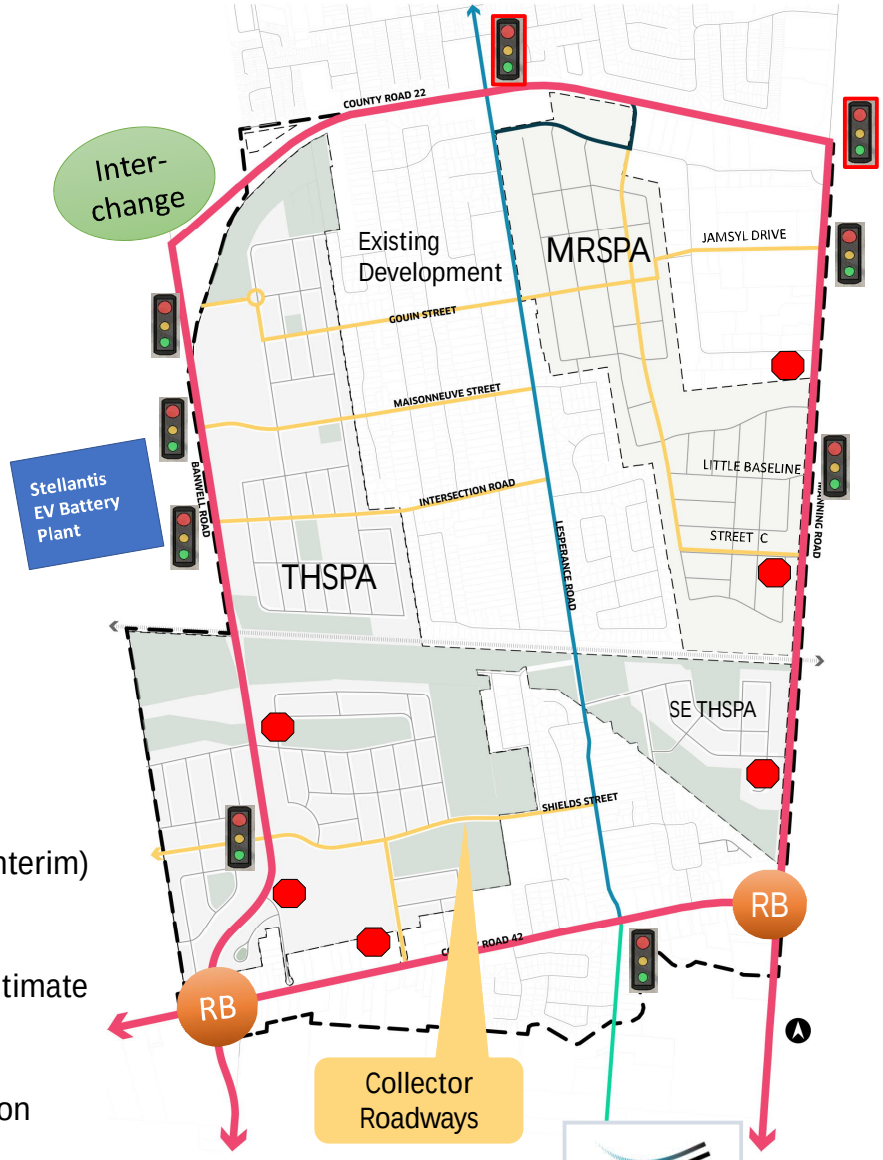
Project	Preferred Design Concept
Transportation Projects	
Gouin Street - New Urban Collector Roadway	Design Concept #2: Two Lane Roadway, Off-Street Cycling Facilities and No Parking
Maisonneuve Street - New Urban Collector Roadway	
Intersection Road Reconstruction - Rural to Urban cross-section	
Shields Street and North South Collector Road - New Urban Collector Roadway	Design Concept #4: Two Lane Roadway, Off-Street Cycling Facilities, No Parking and Bioswale Median
Water Servicing Projects	
West Tecumseh Trunk Watermain, CR 22 to CP Railway	Design Concept #3: West Alignment (CR43/CR42)
West Tecumseh Trunk Watermain, CP Railway to CR 42	
Wastewater Servicing Projects	
West Tecumseh Trunk Sanitary Sewer, CR 22 to CP Railway	Design Concept #1: Central Alignment
West Tecumseh Trunk Sanitary Sewer, CP Railway to CR 42	
Intersection Road and Shields Street Relief Sanitary Sewers including decommissioning of the St. Alphonse Pump Station.	
Southeast Hamlet Sanitary Pumping Station Outlet and Outlet	N/A (Exempt)
County Road 42 Sanitary Sewer for Future Settlement Area Expansion	N/A (Exempt)
Stormwater Management Projects	
Gouin Stormwater Management Facility and Storm Trunk Sewers	Design Concept #2: Dry Stormwater Management Facility
Lachance Stormwater Management Facility and Storm Trunk Sewers	Design Concept #1: Wet Stormwater Management Facility
Desjardins (East and West) Stormwater Management Facility and Storm Trunk Sewers	Design Concept #1: Wet Stormwater Management Facility
Southeast Hamlet Stormwater Management Facility and Storm Trunk Sewers	Design Concept #2: South Stormwater Management Facility, Partially in Hydro Corridor

TECUMSEH HAMLET INFRASTRUCTURE IMPROVEMENTS

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT & FUNCTIONAL DESIGN

Transportation

- ✓ Objective: Provide a comprehensive, interconnected road network and active transportation facilities to support development.
- ✓ Strategically spaced collector roads will improve network connectivity.
- ✓ Identified road right-of-way will accommodate facilities for all ages and abilities.
- ✓ Road corridors can accommodate shared municipal servicing infrastructure.
- ✓ The arterial network will support development of the Tecumseh Hamlet (THSPA) and Manning Road (MRPSA) Secondary Plan Areas.
- ✓ Facilitate interconnections to existing or proposed Active Transportation facilities, such as the multi-use paths along Lesperance Road, County Road 43, and Banwell Road, etc.



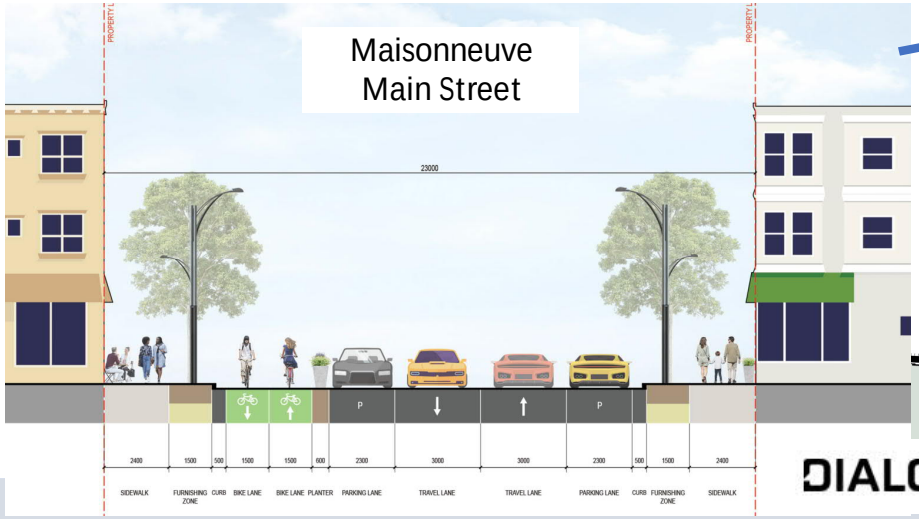
TECUMSEH HAMLET INFRASTRUCTURE IMPROVEMENTS

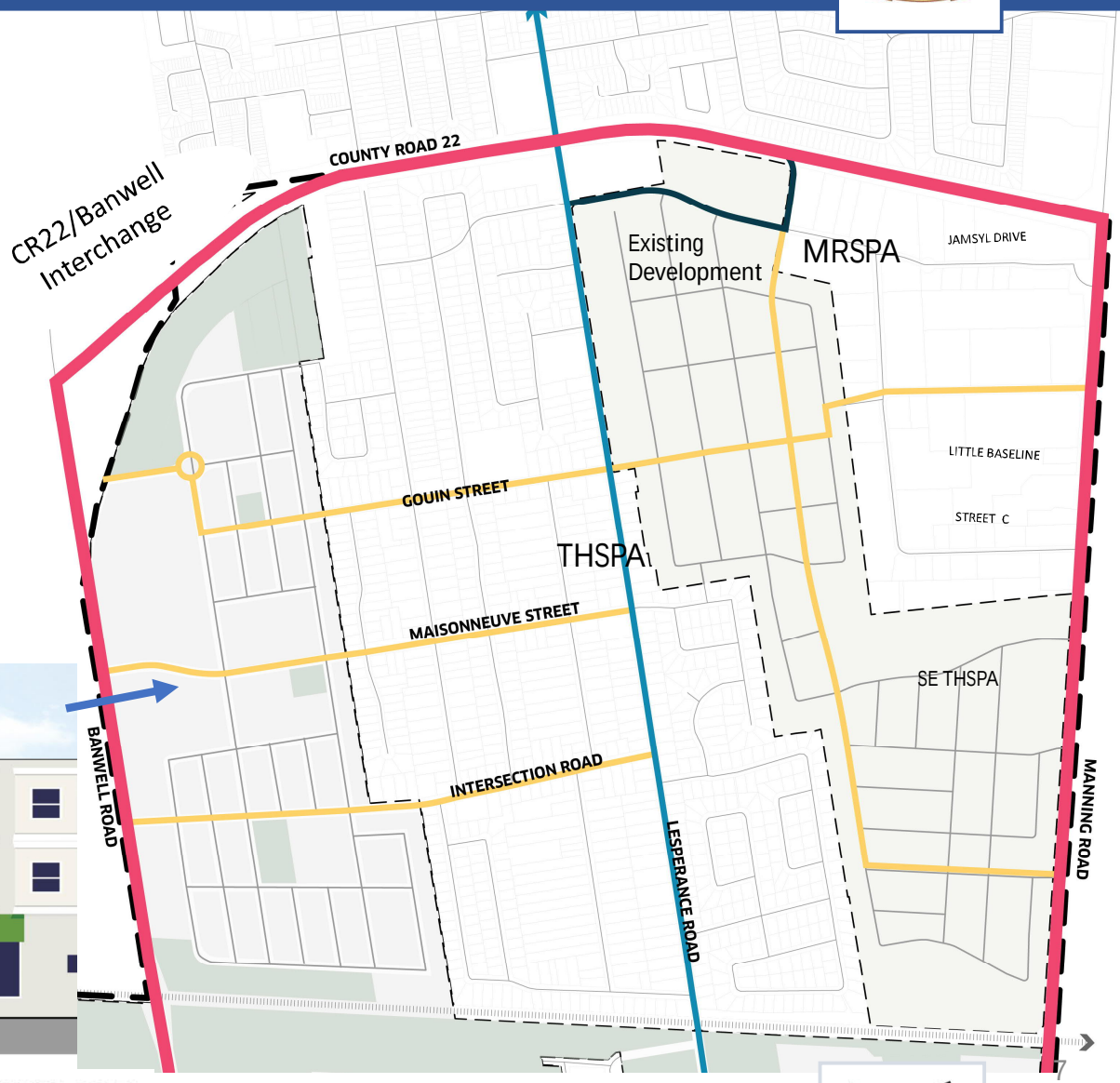
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT & FUNCTIONAL DESIGN

Transportation

North Collectors

- Gouin Street Extension
  - New Two Lane Roadway
  - Urbanize Existing Gouin Street
- Maisonneuve Street Extension
  - New Two Lane Roadway
  - Main Street
  - Urbanize Existing Maisonneuve Street
- Intersection Road Improvements
  - Urbanize Existing Roadway





DIALOG

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TECUMSEH HAMLET INFRASTRUCTURE IMPROVEMENTS

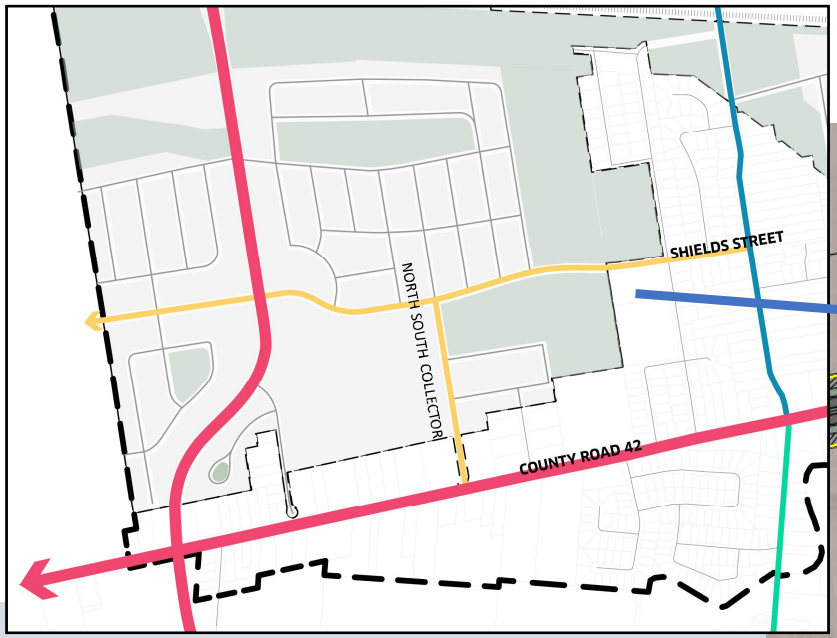
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT & FUNCTIONAL DESIGN

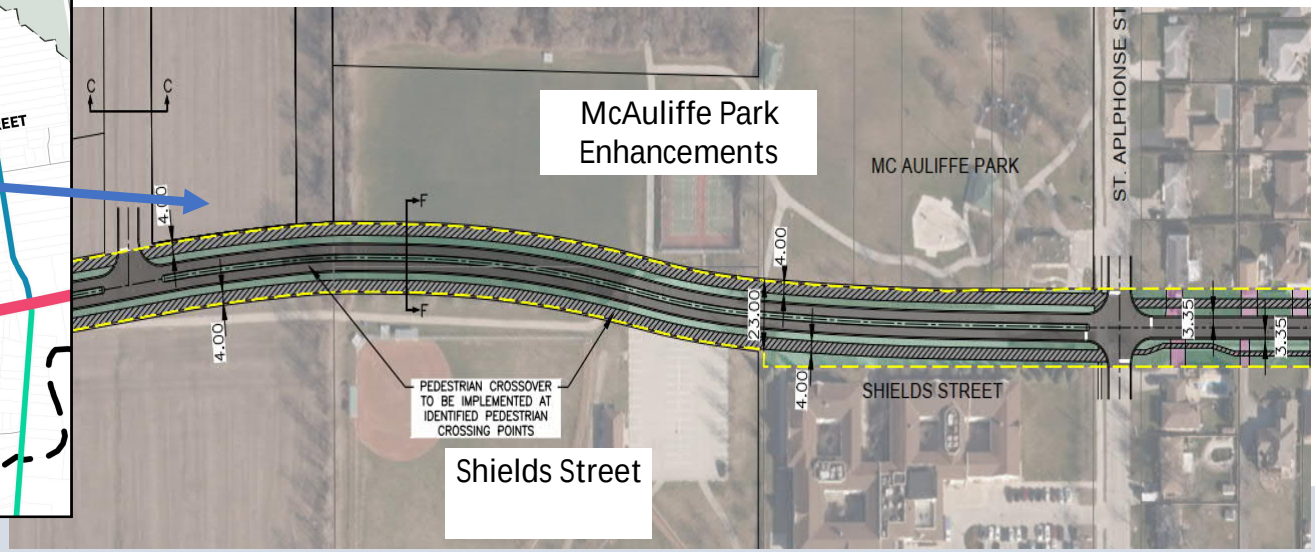
Transportation

South Collectors

- ✓ Shields Street Extension and Park Enhancements
  - New Two Lane Road with safety features and integrates into future park plan.
- ✓ North-South New Urban Collector
  - ✓ Two Lane Roadway

Conceptual Rendering - Potential Future of Shileds.



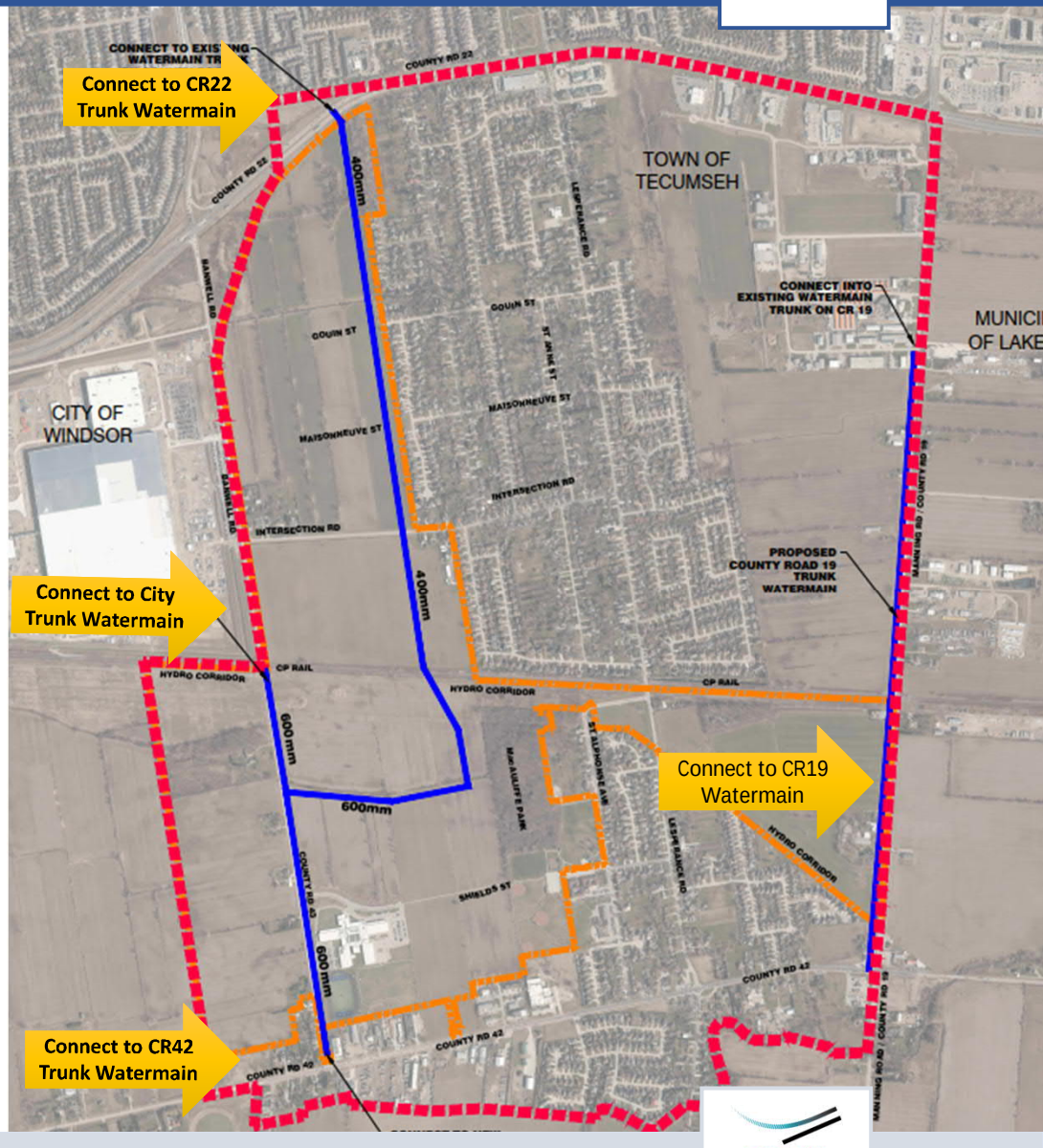


TECUMSEH HAMLET INFRASTRUCTURE IMPROVEMENTS

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT & FUNCTIONAL DESIGN

Water Servicing

- ✓ Objective: Provide water service for future development area.
- ✓ New interconnection with the City of Windsor's Trunk watermain on County Road 43 and Intersection Road.
- ✓ Improve water circulation and servicing capabilities for existing and future areas to satisfy the Water and Wastewater Master Plan.

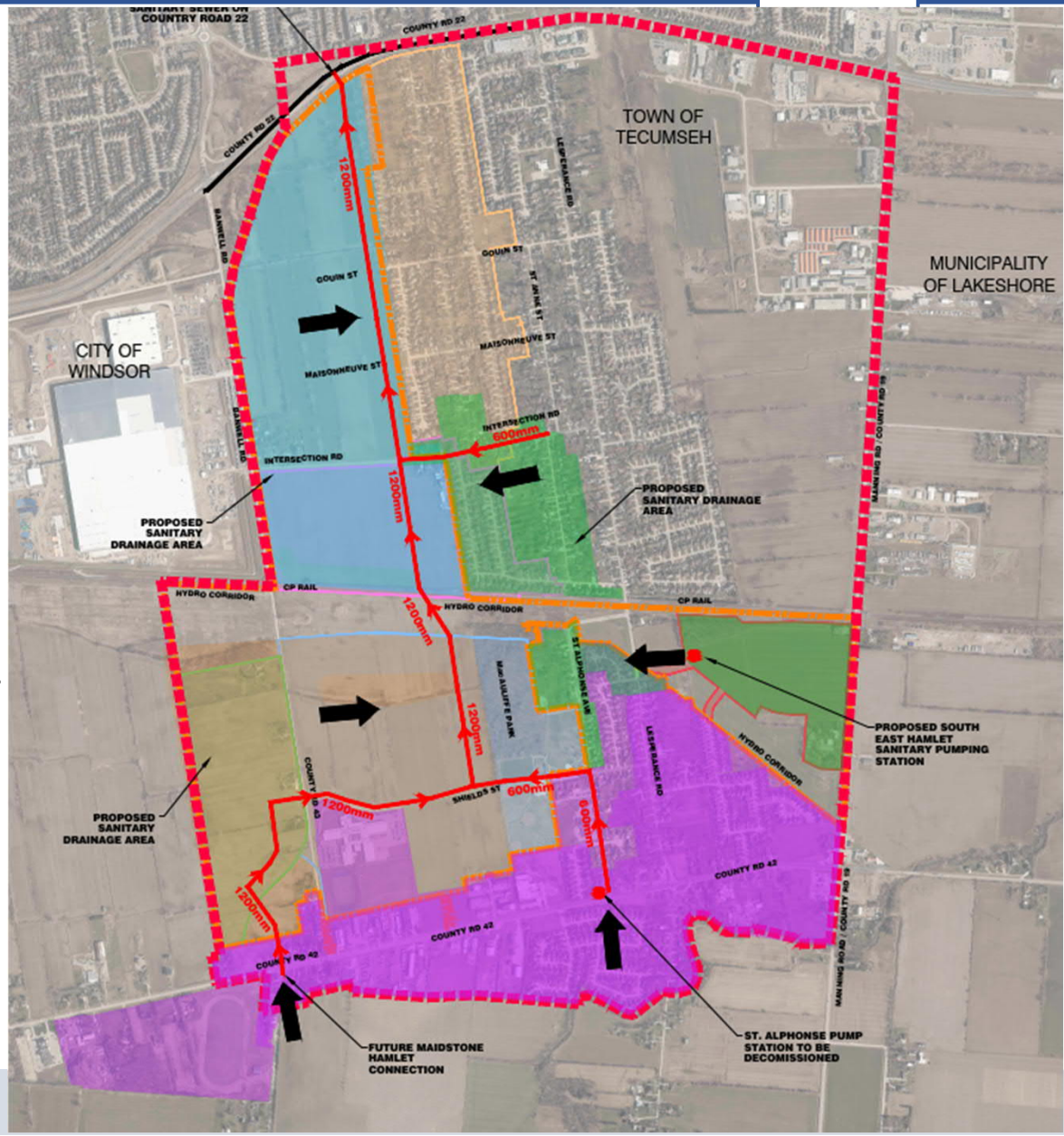


TECUMSEH HAMLET INFRASTRUCTURE IMPROVEMENTS

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT & FUNCTIONAL DESIGN

Wastewater Servicing

- ✓ Objective: Provide wastewater service for future development area.
- ✓ Redistribute wastewater flows to provide relief for the existing development areas.
- ✓ Part of the Town's strategy to mitigate basement flood risk.
- ✓ Utilize updated design criteria and population densities that considers impacts of wet weather on the system.
- ✓ Servicing capacity evaluation considers flexibility for increased densities to account for the possibility of future ARUs.
- ✓ Conveys flows to the City of Windsor in accordance with the Wastewater Servicing Agreement.

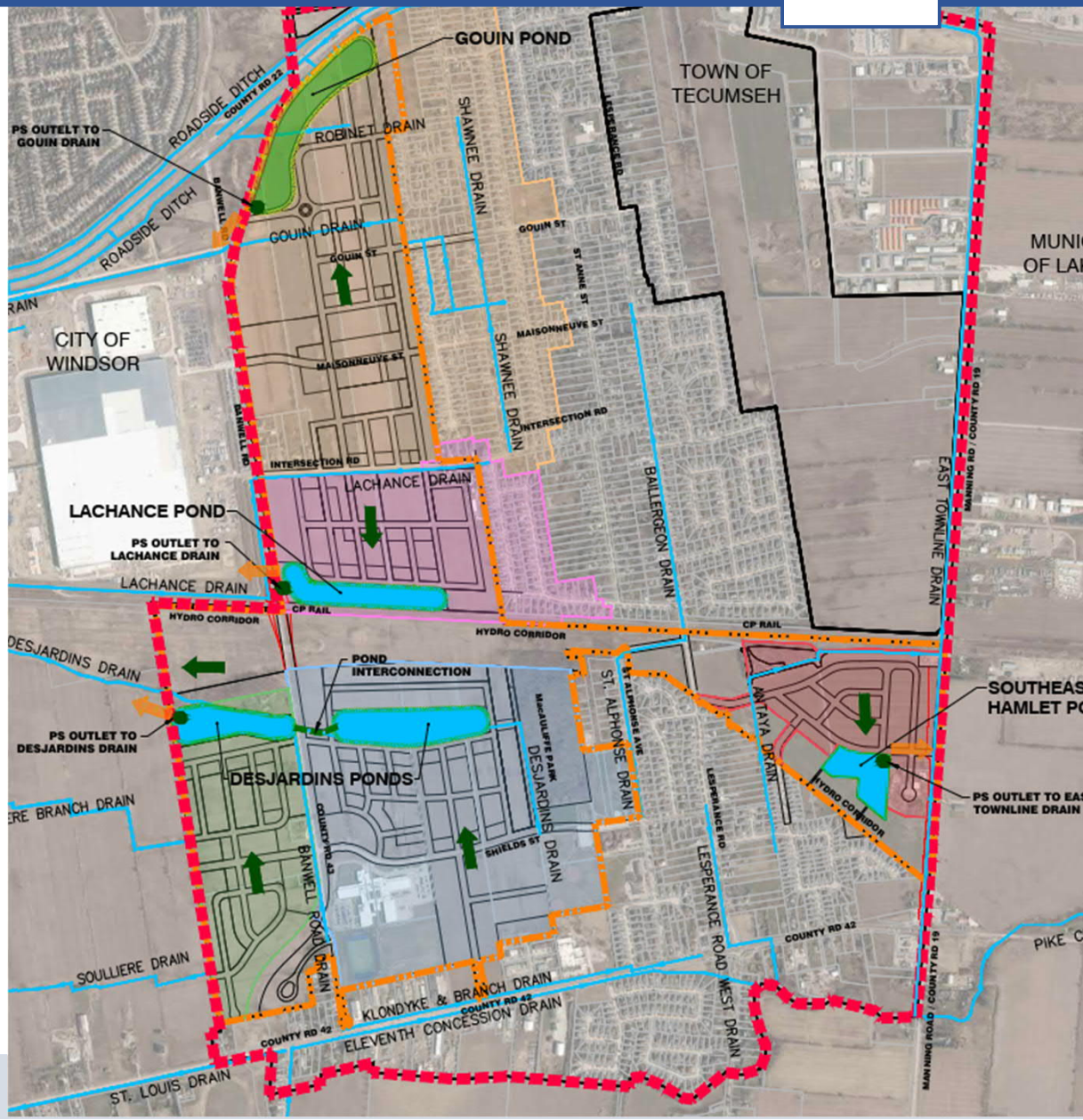


TECUMSEH HAMLET INFRASTRUCTURE IMPROVEMENTS

MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT & FUNCTIONAL DESIGN

Stormwater Management

- ✓ Objective: Provide quality and quantity control of runoff to protect the upper reaches of Little River and the East Townline drain.
- ✓ Require four (4) controlled outlets to existing drains to mitigate downstream impacts.
- ✓ Accommodate capacity to improve storm sewer systems upstream with existing residential sections to the east.



Stormwater Management

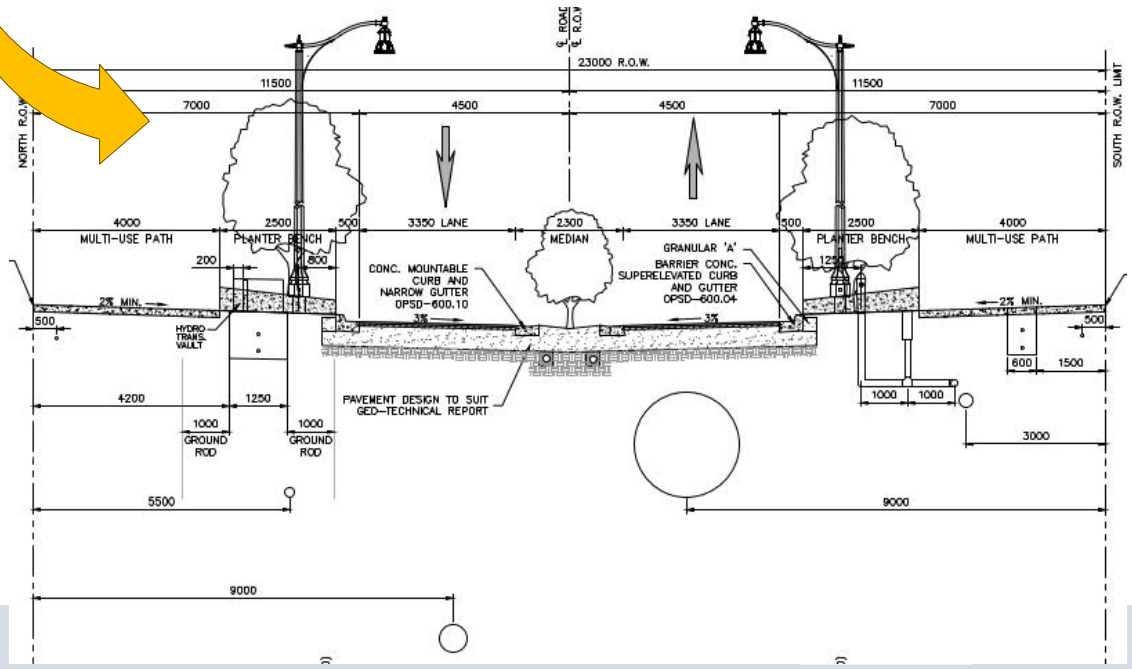
- Wet Ponds were recommended to provide water quality control to mitigate the need for inline or onsite quality controls which are costly, difficult to maintain
- Exception – Gouin Stormwater Management Pond – Due to proximity to the Airport
- Accommodate added resiliency to account for climate change.
- Incorporate natural linkages, adding an element for natural green infrastructure.
- Must consist of features to mitigate waterfowl.
- All ponds will have pumped outlets discharging to downstream Municipal Drains.

Functional Servicing Design

- In addition to the ESR, a functional servicing report (FSR) was prepared.

- Provides developers a comprehensive framework for the servicing of developable lands.

  - ✓ Confirms system capacity.
  - ✓ Establishes design parameters and level of service.
  - ✓ Defines how upstream and downstream systems must be accommodated.
  - ✓ Identifies lands acquisition and property easement corridors.
  - ✓ Promotes sustainable development practices.



TECUMSEH HAMLET INFRASTRUCTURE IMPROVEMENTS
MUNICIPAL CLASS ENVIRONMENTAL ASSESSMENT & FUNCTIONAL DESIGN

Implementation

- Timing of projects will be development driven.
- Many projects are currently underway such as the wastewater and water projects, north of Intersection Road.

Ongoing

PHASE 5

"Implementation", detailed design and tendering, and proceed to construction.

Estimated Cost

- Based on the functional design, budgetary project costs were estimated.
- Costs can be used for project planning by the Town, developers and partnerships.
- Mechanisms for funding will be determined as development proceeds and will include cost sharing agreements dictated by Development Charge polices and stipulated through the Draft Plan of Subdivision process.
- Infrastructure costs associated with the development of private property will be the responsibility of those property owners.
- In the future, the Town will contribute to the capital costs for infrastructure facilities that will service a wider community to fulfill needs beyond local servicing within each development.

Implementation – Estimated Cost

Project	Estimated Costs ($ Million)	Proposed Regional Infrastructure
Transportation	$21.1 M	1.8 kms of New Roadway 2.7 kms of Road Reconstruction
Water	$18.4 M	3.7 kms of Trunk Watermain – West Hamlet 2.7 kms of Trunk Watermain – East Hamlet
Wastewater	$53.2 M	5.7 kms of Trunk Sanitary Sewer 5.2 kms of Local Trunk Sanitary Sewers 1 Pumping Station
Stormwater	$91.5 M	4 Stormwater Management Ponds 4 Pumping Stations 5.9 Km of Trunk Storms Sewer
Total	$184.2 M	

Improvements require significant investment however it is important to recognize these improvements are meant to be implemented over the next 20+ years.

As new infrastructure is implemented necessary operation and maintenance costs should be incorporated into the Town's Annual Capital Works budget.

Next Steps and Timelines

- Issue Notice of Completion
  June 27, 2025
- 30-Day Review Period
  August 8, 2025
- Review Comments/ Amend Report
- Study Completion
  September 2025
- Council Adoption

Provide your input!

To provide comments on this project or request further information, please contact one of the project team members listed below.

Please provide your comments by August 8, 2025.

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Information collected for this study will be used in accordance with the *Municipal Freedom of Information and Protection of Privacy Act*. With the exception of personal information, all comments will become part of the public record.

Questions/Comments?