

# Municipal Class Environmental Assessment Study for Oxford Road 19 Corridor Improvements

PUBLIC CONSULTATION CENTRE 2 / SPRINGFORD HALL  
429 MAIN ST W SPRINGFORD, ON  
DECEMBER 6, 2022  
5:00 P.M. - 7:00 P.M.

# WELCOME

## to the Public Consultation Centre 2 for the Oxford Road 19 Corridor Improvements

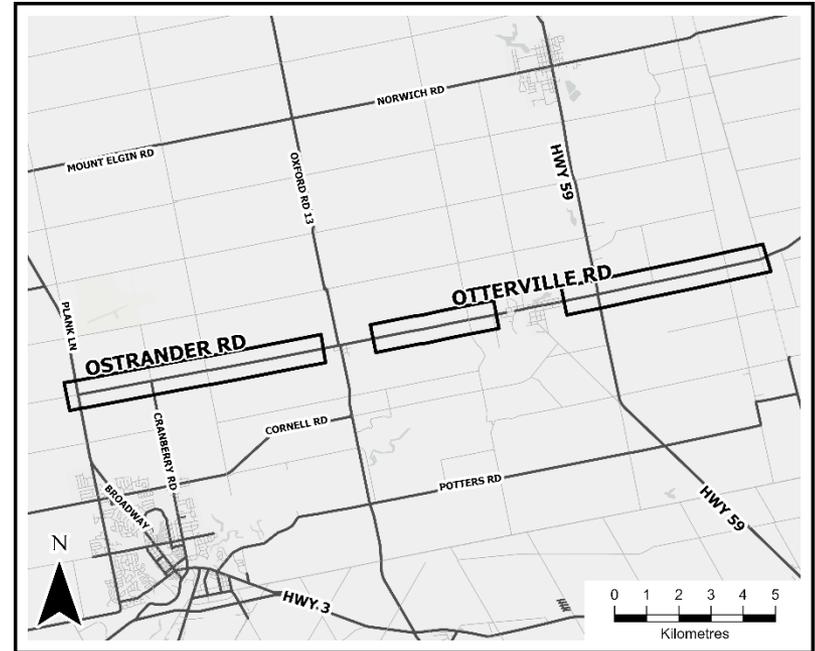
Please Sign In

- Meet with Study Team Members
- Review the display materials and discuss your questions and ideas with the Study Team
- Please fill out a comment sheet and return it to the Study Team in person, by email or fax by **January 13, 2023**

# STUDY AREA

The County is undertaking a Class EA study to consider improvement options for the Oxford Road 19 corridor to suit anticipated transportation demands for the 25-year horizon and beyond.

The Study Area includes approximately 16 kilometres of Oxford Road 19 between Highway 19 (Plank Line), and the Norfolk County boundary (Windham Road 19), which excludes the Settlements of Springford and Otterville.



The site location and approximate extent of the Study Area are shown on the map.

# PROBLEM/OPPORTUNITY STATEMENT

*Following completion of the County of Oxford's Transportation Master Plan, the County of Oxford has identified the need to improve Oxford Road 19 between Highway 19 and the boundary of Norfolk County to support the safe and efficient movement of people and goods to 2046.*

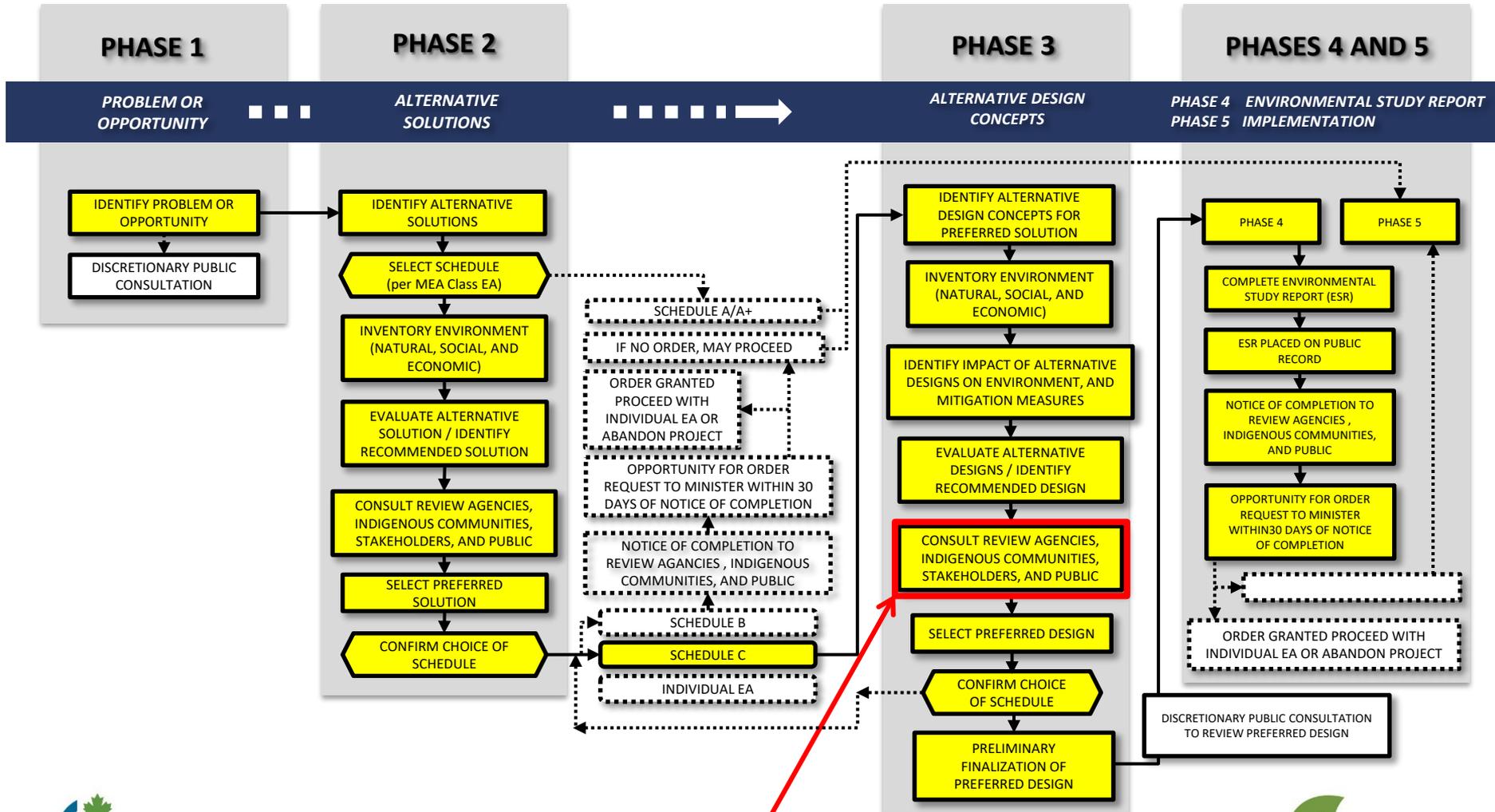


# THE EA PROCESS

The Class EA Study is being carried out in accordance with the planning and design process for Schedule C projects as outlined in the Municipal Class Environmental Assessment (October 2000, as amended in 2007, 2011 and 2015), which is approved under the Ontario Environmental Assessment Act.

Nearing completion of the study, an Environmental Study Report (ESR) will be prepared and made available for final public review and comment.

# THE EA PROCESS



We are Here

# SUPPORTING STUDIES

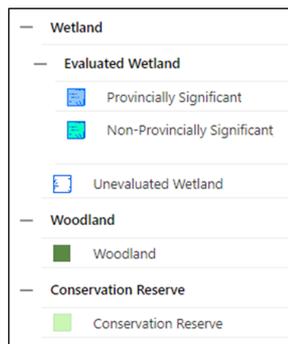
- Transportation Study (including Illumination Assessment)
- Natural Environment Assessment
  - Terrestrial Habitat Assessment
  - Aquatic Habitat Assessment
- Stage 1 Archaeological Assessment
- Cultural Heritage Resource Assessment
- Air and Noise Impact Assessments
- Stormwater Management Assessment



# NATURAL HERITAGE RESOURCES

## ***Designated Features within the Study Area***

- Significant valleylands and locally significant natural heritage features
- Watercourses: Spittler Creek, Plumb Creek, and Big Otter Creek.
- Spittler Creek and Big Otter Creek are both associated with significant valleylands
- Otterville Provincially Significant Wetland (PSW) Complex and other wetlands across Spittler Creek
- Woodlands



# NATURAL HERITAGE RESOURCES

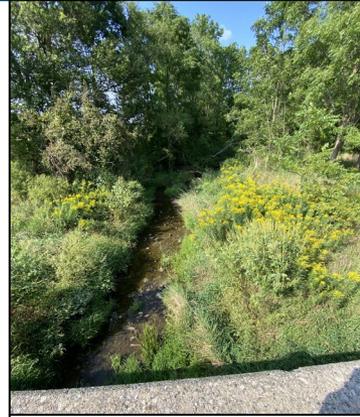
## ***Aquatic habitat***

No Species at Risk (SAR) were found through the desktop review.

- Big Otter Creek is a warm water creek with spring-spawning species such as Largemouth Bass and Yellow Perch.
- Spittler Creek is a cool water creek with observed spring-spawning species.
- Plumb Creek is a cool water creek with fall and spring-spawning species such as Brown Trout, Creek Chub, and Blacknose Dace.

Field work was conducted in the field season to assess aquatic habitat in the Study Area:

- Fish habitat was noted at all six crossings. All crossings has adequate, flow / depth, riparian life, and substrate providing suitable fish habitat.
- Large schools of bait fish were noted throughout both the upstream and downstream reaches of the crossings.
- Spawning Hornyhead Chub (*Nocomius biguttatus*) were observed in the downstream reach and underneath the clear span bridge at two of the crossings.



# NATURAL HERITAGE RESOURCES

## ***Terrestrial Habitat***

The desktop review found several potential Species At Risk (SAR):

Snapping Turtle (Special Concern), Wood Thrush (Special Concern), American Badger (Endangered), American Chestnut (Endangered)

Field work was conducted in the field season to assess ecological communities present in the Study Area:

- Barn Swallows were observed foraging within agricultural fields. Potential habitat for Barn Swallow is restricted to crossing structures within the Study Area. Barn Swallow nests were not present on crossing structures at the time of field investigations. Consideration should be provided for this species during the detailed design phase as this species is known to nest within bridges and culverts.
- A single Butternut was observed on the south side of the ROW. Additional surveys including a Butternut Health Assessment may be required at the detailed design phase if it is anticipated that the specimen will be impacted by road improvements.

## ***Bats***

The desktop review found records of 4 bat species: Eastern Small-footed Myotis, Little Brown Myotis, Northern Myotis, and Tricoloured Bat

Impact to potential habitat is not expected. Direct impact is to be avoided with timing vegetation removal to be completed outside of the active season for bats.



# SOURCE WATER PROTECTION

The Study Area falls under the Long Point Region Source Water Protection Area and Lake Erie Source Water Protection Area.

## **Wellhead Protection Areas**

Three portions of the study area have been identified to fall under Wellhead Protect Areas (i.e., part of Ostrander, north part of Springford and east of Otterville).



## **Issue Contributing Area**

The area west of Otterville is also considered an Issue Contributing Area (ICA), for its potential to contribute elevated concentrations of particular substances to the drinking water source (e.g., chloride, sodium, nitrate).

## **Highly Vulnerable Aquifer**

A significant part of the Oxford Road corridor (i.e., from west of Otterville to east of Oxford Road 59) is also located in a Highly Vulnerable Aquifer (HVA) area.

## **Significant Groundwater Recharge Areas**

A significant part of the study area is also within Significant Groundwater Recharge Areas (SGRAs)

# ARCHAEOLOGICAL RESOURCES

The Ministry of Citizenship and Multiculturalism (MCM) Standards & Guidelines lists criteria that are indicative of archaeological potential. The Stage 1 archaeological assessment showed that:

- 27 Previously identified archaeological sites within 1 km of the Study Area, 2 sites of which are located within the Study Area, and six of which are within 50 m of the Study Area;
- Springford Community Cemetery and Pine Street Burial Ground are located within 20 m of the Study Area. The legal cemetery boundaries shall be avoided by project designs.
- The Pettman Cemetery is approximately 100 m north of the Study Area, however the historic limits are unknown and therefore the lands within the Study Area require Stage 2 archaeological assessment.
- Stage 2 archaeological assessment is recommended in any other areas identified as exhibiting archaeological potential within the impact area of the project.
- Stage 2 archaeological assessment, if required, will be completed during the detailed design.





# TRANSPORTATION STUDY DESIGN NEED ASSESSMENT

- Collision rates along the corridor in the study area (0.71 per 1 million vehicle km's travelled [MVKT] over the last 8 years) as compared to the provincial average collision rate of 1.53 per MVKT (2019), with no significant collision hot spots or patterns.
- No additional travel lanes are required on Oxford Road 19 to beyond year 2046
- A westbound left turn lane may be required at Highway 19 by 2046
- The existing pavement structure should be improved to address the deterioration and to allow for removal of half-load restrictions
- Oxford Road 19 is not part of the County's planned primary or secondary cycling networks, however it does provide connectivity to such cycling networks and trails
- Improvements to vertical or horizontal alignments of the road to be considered at 20 identified locations in the detailed designs, to improve traffic operations
- Right-of-way is recommended to be expanded to a minimum width of 30 metres in the rural area and 26 metres in Ostrander
- Improved illumination is warranted at the intersections with Highway 19 and Oxford Road 59.

# AIR AND NOISE ASSESSMENT

## Noise

- Traffic noise is forecasted to be 1 dBA over the daytime threshold level of 65 dBA (according to the Ministry of Transportation [MTO] Noise Guide) at two houses along the corridor, which triggers further investigation of noise impacts.
- Further investigation of noise levels were completed at the two houses noted above, however no noise mitigation is warranted based on noise levels estimated within the various living spaces.

## Air Quality

- There are no houses on the road that will be exposed to a level of air contaminants that exceed criteria, except for the annual benzene impact.
- Annual benzene impact is unaffected by the local road and people would be impacted by the same level anywhere in the area, regardless of how close they were to this or any other road. Therefore, No significant impacts to air quality are forecasted to result from the proposed road improvements.

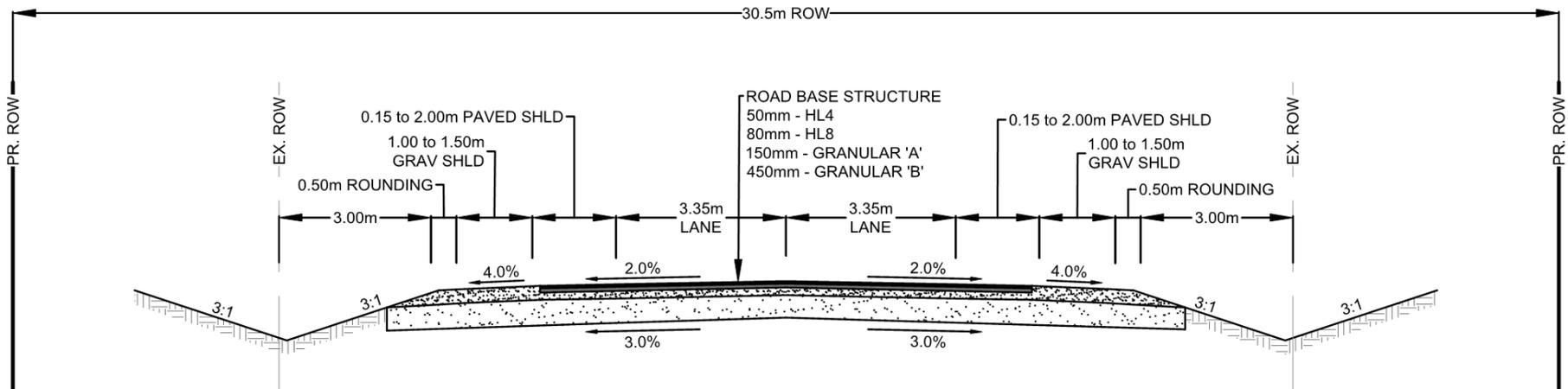
# STORMWATER ASSESSMENT

- One structure was identified to have an existing width that will require widening to accommodate wider paved shoulders.
- Vegetated ditches will continue to provide roadside drainage requirements
- Impacts to surface water quantity or quality are expected to be minimal from the proposed project.
- Erosion and sediment control measures will be implemented during the construction phase.

# Preferred Alternative Solution

## Structural Improvements to the Road, Including Widened Lanes and Shoulders within a Widened ROW

- Provide a two-lane road to County requirements with paved shoulder.
- Widened travel lanes and partially paved shoulders to reduce maintenance and improve safety.
- Improvement of pavement structure to remove half-load restrictions in the Spring.



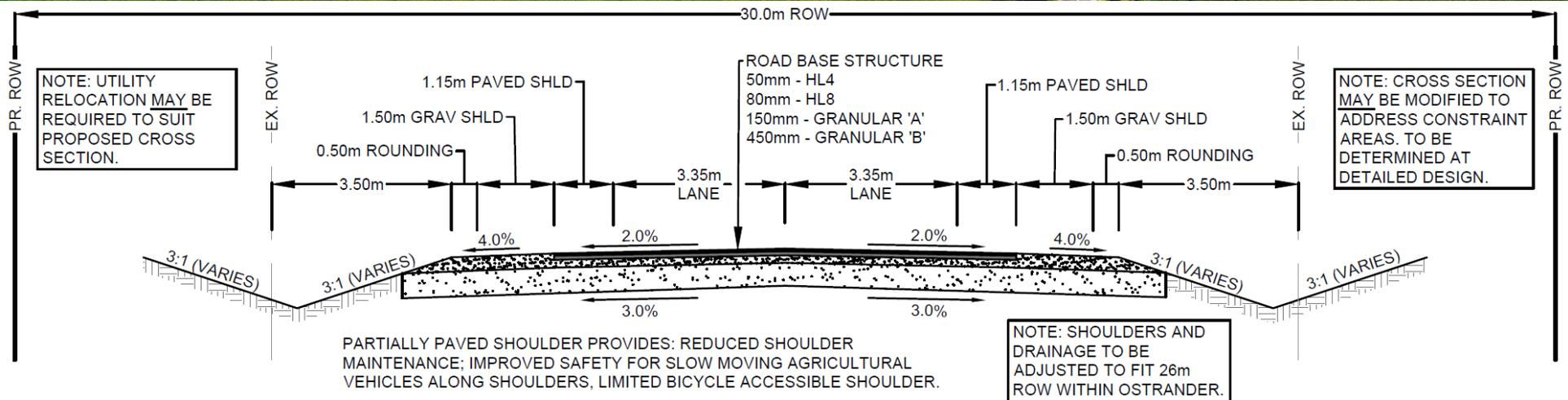
NOTE: WIDTH OF SHOULDER TO BE DETERMINED AS PART OF CONSIDERATION OF DESIGN ALTERNATIVES AND PURPOSE OF SHOULDER (e.g., TO REDUCE MAINTENANCE, TO IMPROVE SAFETY, TO PROVIDE UNBUFFERED BICYCLE ACCESSIBLE SHOULDER OR TO PROVIDE BUFFERED BICYCLE ACCESSIBLE SHOULDER).

**ALTERNATIVE 5 - PARTIALLY PAVED SHOULDER - IMPROVED PAVEMENT STRUCTURE - WIDEN ROW TO MEET OFFICIAL PLAN REQUIREMENT**

# Alternative Design Concepts

## Alternative 1

- 9.0 m paved asphalt
- Each side with 3.35 m travel lane, 1.15 m paved shoulder and 1.5 m gravel shoulder with 0.5 m rounding
- 30 m ROW - Centered on the existing road centerline (26 m in Ostrander)



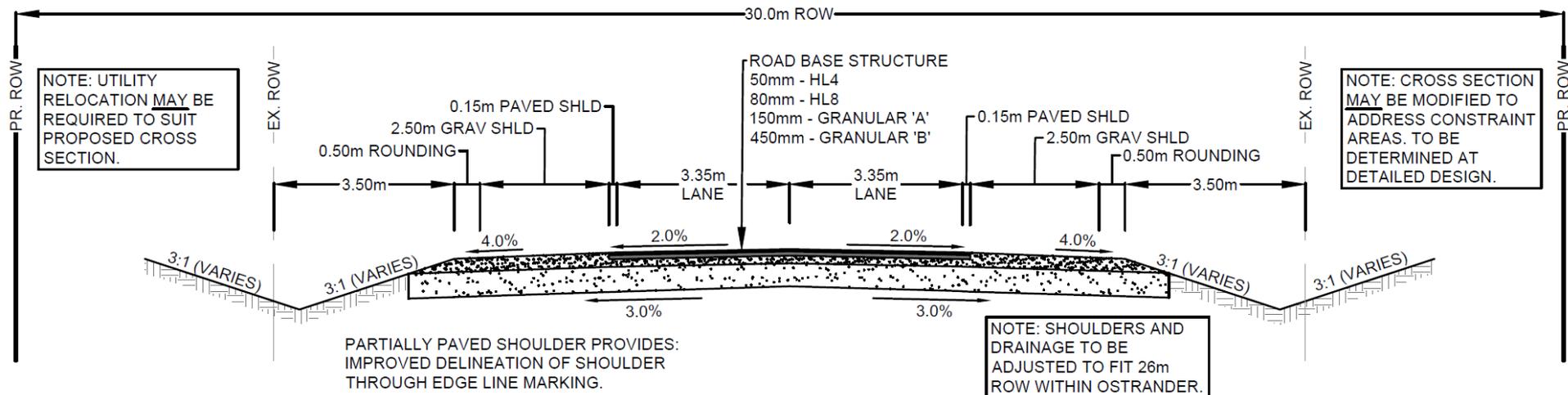
**ALTERNATIVE 1 - PARTIALLY PAVED SHOULDER - IMPROVED PAVEMENT STRUCTURE - WIDEN ROW TO MEET OFFICIAL PLAN REQUIREMENT**

SCALE 1:150

# Alternative Design Concepts

## Alternative 2

- 7.0 m paved asphalt
- Each side with 3.35 m travel lane, 0.15 m paved shoulder and 2.5 m gravel shoulder with 0.5 m rounding
- 30 m ROW - Centered on the existing road centerline (26 m in Ostrander)



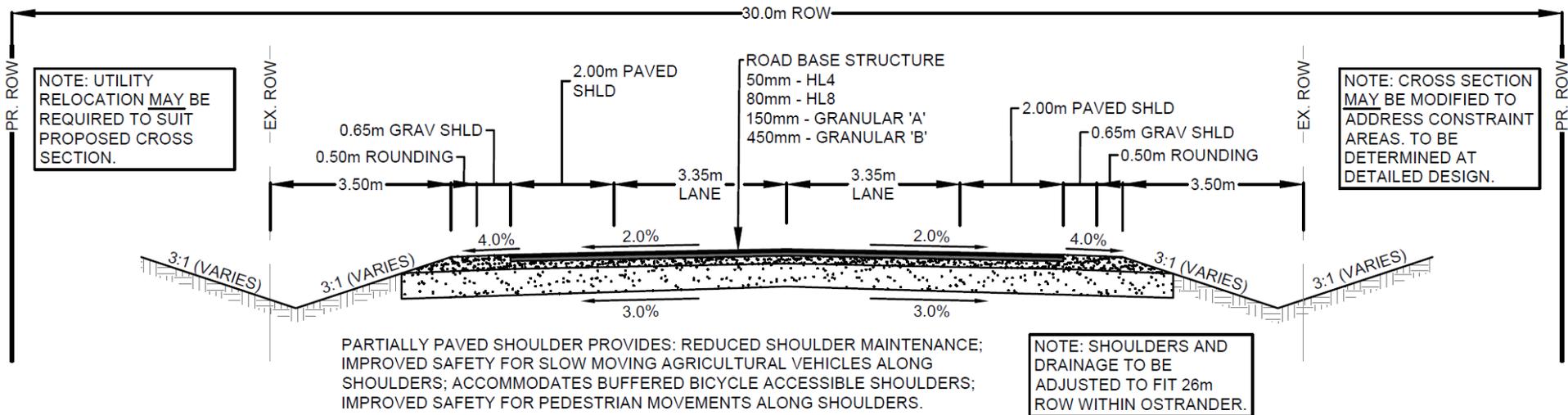
**ALTERNATIVE 2 - 0.15m PAVED SHOULDER - IMPROVED PAVEMENT STRUCTURE - WIDEN TO MEET OFFICIAL PLAN REQUIREMENT**

SCALE 1:150

# Alternative Design Concepts

## Alternative 3

- 10.7 m paved asphalt
- Each side with 3.35 m travel lane, 2.0 m paved shoulder and 0.65 m gravel shoulder with 0.5 m rounding
- 30 m ROW - Centered on the existing road centerline (26 m in Ostrander)



**ALTERNATIVE 3 - 2.0m PAVED SHOULDER - IMPROVED PAVEMENT STRUCTURE - WIDEN ROW TO MEET OFFICIAL PLAN REQUIREMENT**

SCALE 1:150

# EVALUATION CRITERIA

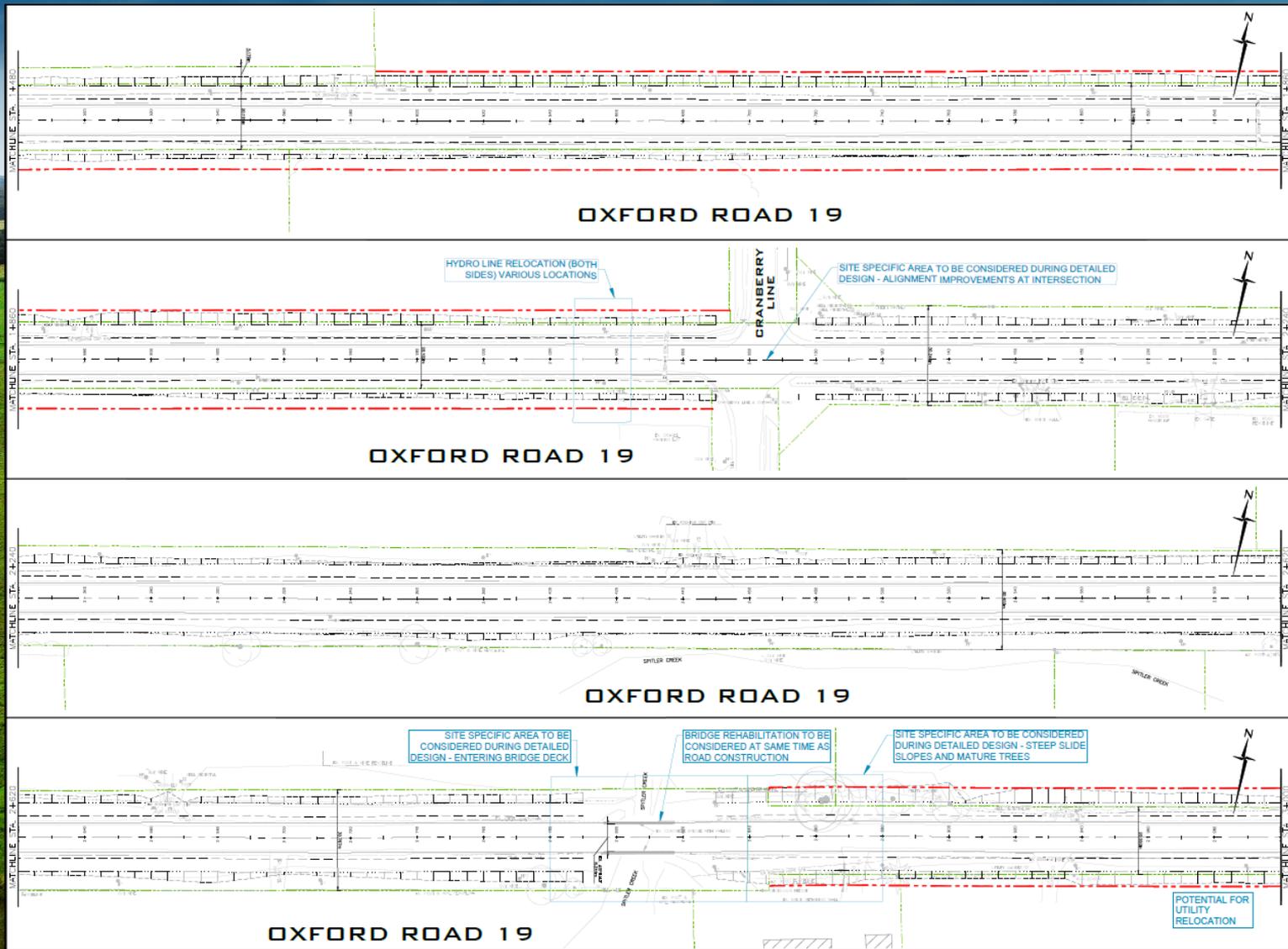
- **Natural Environment**
  - Impacts to vegetation and terrestrial habitat
  - Impacts to fisheries and aquatic habitat
  - Impacts to Hazard Lands (erosion, slope stability, flooding)
  - Impacts to Designated Features/species
  - Impacts to surface water quality and quantity
  - Impacts to groundwater quality and quantity
- **Technical Environment**
  - Accommodation of various modes of transportation and vehicle types
  - Improvement to road safety
  - Road maintenance requirements
  - Design complexity
  - Impacts to utilities and drainage work/structures
- **Socio-Cultural Environment**
  - Impacts to cultural heritage resources
  - Impacts to archaeological resources
  - Private property impacts
  - Nuisance impacts (noise, traffic, visual impact)
- **Financial**
  - Capital and operation/maintenance costs
  - Property acquisition cost

Evaluation Criteria	Alternative 1: 9.0 m paved asphalt Each side with 3.35 m travel lane, 1.15 m paved shoulder and 1.5 m gravel shoulder with 0.5 m rounding. 30 m ROW (Rural) or 26 m (Ostrander)- Centered on the existing centreline of the road	Alternative 2: 7.0 m paved asphalt Each side with 3.35 m travel lane, 0.15 m paved shoulder and 2.5 m gravel shoulder with 0.5 m rounding. 30 m ROW (Rural) or 26 m (Ostrander)- Centered on the existing centreline of the road	Alternative 3: 10.7 m paved asphalt Each side with 3.35 m travel lane, 2.0 m paved shoulder and 0.65 m gravel shoulder with 0.5 m rounding. 30 m ROW (Rural) or 26 m (Ostrander)- Centered on the existing centreline of the road
Natural Environment	 <p>Removal of limited vegetation within woodland and riparian communities. The extent of impact to terrestrial Species at Risk (SAR) is anticipated to be low to moderate with suitable mitigation measures. Some potential impacts in the areas of unstable ditch conditions, mitigated through ditch embankment improvement. No aquatic SAR are found within the study area. Minimal impact may occur considering major structures are not being replaced.</p>	 <p>Removal of limited vegetation within woodland and riparian communities. The extent of impact to terrestrial Species at Risk (SAR) is anticipated to be low to moderate with suitable mitigation measures. Some potential impacts in the areas of unstable ditch conditions, mitigated through ditch embankment improvement. No aquatic SAR are found within the study area. Minimal impact may occur considering major structures are not being replaced.</p>	 <p>Removal of limited vegetation within woodland and riparian communities. The extent of impact to terrestrial Species at Risk (SAR) is anticipated to be low to moderate with suitable mitigation measures. Some potential impacts in the areas of unstable ditch conditions, mitigated through ditch embankment improvement. No aquatic SAR are found within the study area. Minimal impact may occur considering major structures are not being replaced.</p>
Socio-Cultural Environment	 <p>Similar amount of property. Some potential impact to archaeological resources (not likely). There may be some impact to cultural heritage resources. Similar noise impacts due to minor increased truck traffic and traffic growth, similar visual impact due to tree and vegetation removal, and similar speeds. Some dust created by agricultural equipment travel along gravel shoulders.</p>	 <p>Similar amount of property. Some potential impact to archaeological resources (not likely). There may be some impact to cultural heritage resources. Similar noise impacts due to minor increased truck traffic and traffic growth, similar visual impact due to tree and vegetation removal, and similar speeds. Significant dust created by agricultural equipment travel along gravel shoulders.</p>	 <p>Similar amount of property. Some potential impact to archaeological resources (not likely). There may be some impact to cultural heritage resources. Similar noise impacts due to minor increased truck traffic and traffic growth, similar visual impact due to tree and vegetation removal, and similar speeds. May lengthened the temporary construction period impacts if bridges require widening. Very little dust created by agricultural equipment travel along gravel shoulders.</p>
Technical Environment	 <p>Wider paved shoulders provides increased spacing between traffic. Limited buffer for cyclists or pedestrians. Moderate improvement of safety for all travel modes using the corridor. Better able to accommodate full range of operating speeds. Moderate improvement to access operations along the corridor (pullover onto shoulder to exit roadway at accesses). Some adjustment of design required to interface the wider asphalt widths with crossings and accesses.</p>	 <p>Minimal asphalt width provides for minimum space between traffic. Cyclists and pedestrians use gravel shoulder. Some improvement of safety for all travel modes using the corridor. Lower ability to accommodate vehicles with excessive speeds and / or slow-moving vehicles. No improvement to access operations along the corridor. Maintains existing asphalt interface with crossings (i.e., 3 bridges) and accesses.</p>	 <p>Wider paved shoulders provides increased spacing between traffic. Increased buffer for cyclists and pedestrians. Significant improvement of safety for all travel modes using the corridor. Minimal gravel shoulder may direct agricultural equipment further onto paved areas and into travel lane. Better able to accommodate full range of operating speeds. Significant improvement to access operations along the corridor. Design may not be achievable in area of constraints without significant adjustment of such constraints. Potential for longer temporary construction impacts if structure widenings are required.</p>
Economic Environment	 <p>All alternatives have similar property acquisition cost to widen ROW to meet Official Plan requirements. Moderate increase in cost over alternative 2, due to partially paved shoulder. Approximately \$118/m for shoulder. Some additional cost for adjustment of major bridge crossings.</p>	 <p>All alternatives have similar property acquisition cost to widen ROW to meet Official Plan requirements. Lowest cost due to minimal paved shoulder. Approximately \$45/m for shoulder.</p>	 <p>All alternatives have similar property acquisition cost to widen ROW to meet Official Plan requirements. Higher increase in cost over alternative 2, due to fully paved shoulder. Approximately \$180/m for shoulder. Increased additional cost for adjustment of major bridge crossings.</p>
Overall Summary	<b>Most Preferred</b>	<b>Less Preferred</b>	<b>Least Preferred</b>

Level of Preference: Least Preferred  Less Preferred  Moderately Preferred  More Preferred  Most Preferred 

# Preferred Design Concepts

## Sample Plan



**CONCEPT DRAWINGS OF THE FULL CORRIDOR ARE AVAILABLE TO VIEW, SHOWING EXISTING AND PROPOSED ROAD AND RIGHT-OF-WAY DETAILS**

Pr. Property Line	---
Pr. Top Bank/Matchline	- - - - -
Pr. Ditchline	· · · · ·
Pr. Edge of Shoulder	— — — — —
Pr. Edge of Pavement	=====
Ex. Property Line	— · — · — · — · —

# Proposed Mitigation Measures

**A comprehensive list of proposed mitigation measures will be prepared as part of this EA and included in the Environmental Study Report (ESR).**

**Some key measures include:**

- Health and safety is a priority for Oxford County. Construction will adhere to strict safety guidelines including best practices for vehicle and pedestrian safety.
- Advance notice to local residents of potential traffic impacts from construction.
- Access to residences/farms/pedestrian facilities will be maintained during construction.
- Temporary site fencing and other construction measures will be implemented to minimize noise, vibration, dust, mud and visual impacts.
- The following plans will be prepared by the contractor and implemented during construction: Erosion and Sediment Control Plan; Emergency Response and Communications Plan; Spill Prevention and Contingency Plans; Complaint Response Protocol; Construction Management Plan; Health and Safety Plans; Soil Management Plan; and Traffic Management Plan.

# Proposed Mitigation Measures

## Natural Heritage Specific Mitigation Measures:

- Plant species loss will be minimized.
- Tree inventory, preservation and protection plan to be prepared at detailed design.
- To reduce the risk of potential impact to wildlife, vegetation clearing will not be completed during appropriate timing to avoid the active period for breeding birds and bat species.
- Installation of temporary fencing as required.
- Any in-water works will occur during appropriate in-water works timing window.
- Refueling and maintenance of construction equipment shall occur within designated areas only. Any hazardous materials used for construction will be handled in accordance to appropriate regulations.
- Spills or depositions into watercourses shall be immediately contained and cleaned up in accordance with provincial regulatory requirements and the contingency plan.

# Preferred Design Concepts

## Future Detailed Design Considerations:

- Confirm utility relocation requirements (hydro poles, natural gas main, telecommunications)
- Confirm adjustments to Ostrander Municipal Drain
- Widen existing bridge at one location and coordinate with required bridge rehabilitation
- Adjust cross section and/or drainage measures to address significant localized constraints (e.g., existing buildings, residential areas, topography, natural areas, interface with urban areas)
- Features to minimize impact on quality or quantity of stormwater runoff and erosion
- Localized improvements to vertical and/or horizontal alignments to improve sight lines
- Traffic calming near village boundaries
- Finalize right-of-way requirements and property acquisition requirements
- Phasing strategies for construction, considering access and budget constraints

# Next Steps

- Confirm Preferred Design Concepts (January 2023)
- Finalize Transportation Study (January 2023)
- Environmental Study Report (February 2023)
- File Environmental Study Report for Schedule C Class EA Study (March 2023)

# Invitation for Participation

Public input is an important component of the decision-making process.

**You are invited to provide comments by completing the forms provided and submitting forms to the Study Team members below on or before January 13, 2023.**

**Jesse Keith, P.Eng.  
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**THANK-YOU FOR ATTENDING**