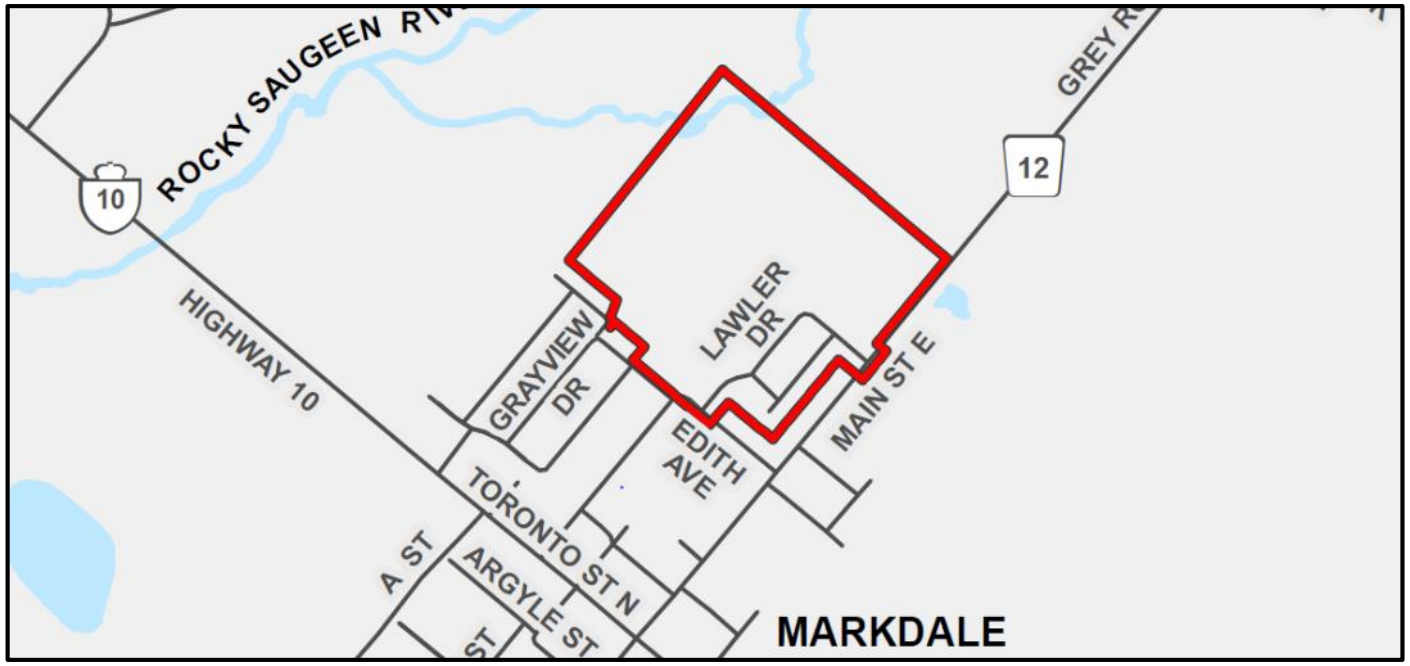
Municipality of Grey Highlands

Class EA for Stormwater Drainage Improvements
Community of Markdale



Council Presentation

October 16, 2024

Municipality of Grey Highlands

BMROSS engineering better communities

Agenda

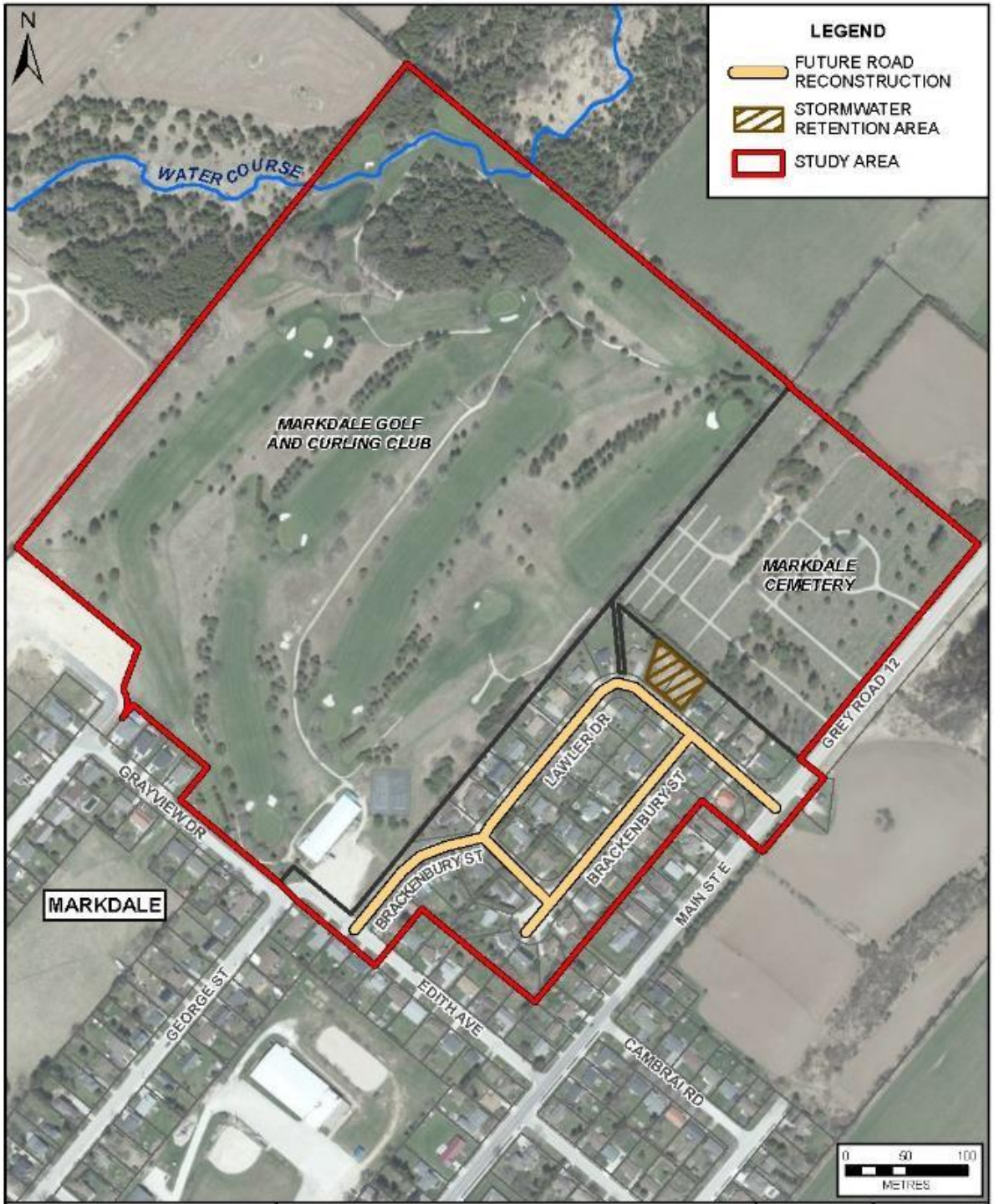
- Project Background
- Schedule ‘B’ Class EA Process
- Specialized Studies
- Class EA Alternatives
- Recommended Approach
- Property Matters
- Next Steps

Municipality of Grey Highlands

BMROSS engineering better communities

Project Study Area

Community of Markdale



Site Photos

Existing stormwater storage area



Site Photos

Flooding in Rear Yards and Cemetery




Lawler and Brackenbury Streets
Typical Road Layout


Golf Course Outlet Route

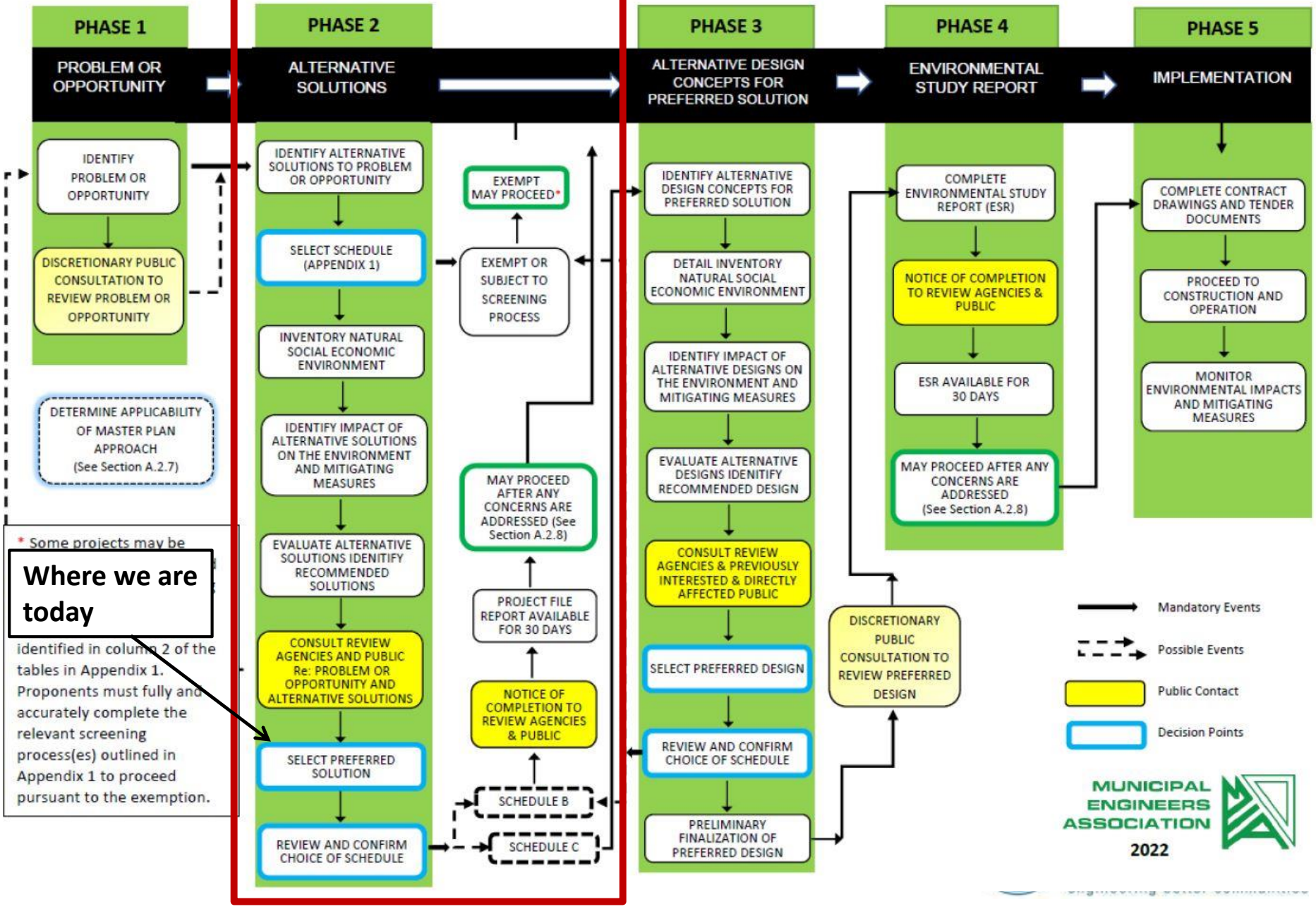
Municipal Class Environmental Assessment (Class EA)

- Planning and Design Process for Municipal Water, Wastewater and Road Projects
- Conducted to Evaluate the Potential Impacts of Municipal Projects and Impact Mitigation
- Involves Consultation with the Public, Regulatory Agencies, Adjacent Property Owners
- Requires Consideration of Natural, Social, Cultural, Economic and Built Environments

BMROSS
engineering better communities

EXHIBIT A.2. MUNICIPAL CLASS EA PLANNING AND DESIGN PROCESS

NOTE: This flow chart is to be read in conjunction with Part A of the MCEA



Problem Identification

- Surface Drainage Study Report completed in April 2019 and revised in May 2021
- Report identified the Lawler & Brackenbury Area for further investigation due to an insufficient outlet and flooding of rear yards and the adjacent cemetery
- Ponding area never formally designed as a stormwater management facility – no outlet for stormwater
- Changes to land uses within the pond's drainage area, that increases the degree of imperviousness, will increase the degree and duration of flooding
- The Municipality desires to reconstruct the Lawler & Brackenbury area to current standards (i.e. provide curb and gutter, storm sewer) but cannot unless there is a proper storm outlet in place
- The Municipality desires to permit development on the south side of Grey Road 12 but cannot unless there is a proper storm outlet in place

Class EA Consultation Program

- October 2023 – Project Initiation
  - Notice Published in Dundalk Herald, Municipal Website
  - Letters sent to Review Agencies and Stakeholders
  - Letters sent to Indigenous Communities
- Public Comments
  - Comments received from two residents
  - Concerns expressed about discharging stormwater to the Rocky Saugeen River
  - Questions regarding the need for an EA and the current state of stormwater facilities in the vicinity of Lawler and Brackenbury
  - Response to comments provided by GH staff

BMROSS
engineering better communities

Input from Agencies

- **Ministry of Environment, Conservation and Parks**
  - Adequate consultation must occur with residents, stakeholders, First Nation and Métis Communities
  - Impacts associated with Climate Change and Source Water Protection need to be considered
- **Saugeen Valley Conservation Authority (SVCA)**
  - Ontario Regulation 169/06, Development, Interference with Wetlands, and Alterations to Shorelines and Watercourses.
  - Approval from SVCA will be required for the storm drain outlet
  - Part of study area is in a WHPA, however Source Protection Staff have confirmed that no Source Protection policies apply
  - They will not comment on the design of the Stormwater works

Agencies and Indigenous Groups

- **County of Grey**
  - Concerned with potential Species at Risk (SAR) and Source Water Protection
  - Wanted to be involved in Natural Heritage Investigations
- **Ministry of Natural Resources**
  - Provided links to various provincial mapping sites in order to identify potential sensitive features such as species at risk and natural hazards
- **Historic Saugeen Métis**
  - Interested in receiving additional information related to the project

BMROSS
engineering better communities

Class EA Alternatives

- **Alternative 1** – Keep Pond – 900mm Storm Outlet
  - Construct 900mm diameter outlet sewer from site of existing pond to Rocky Saugeen tributary
  - Maintain existing pond configuration to dampen peak flows
- **Alternative 2** – Fill Pond – 1050mm Storm Outlet
  - Construct 1050mm diameter outlet sewer from site of existing pond to Rocky Saugeen tributary
  - Fill existing pond
- **Alternative 3** – Do Nothing
  - No work would occur to address the existing storm drainage deficiencies

BMROSS
engineering better communities

Class EA Alternatives – Brief Evaluation

- **Alternative 1** – Keep Pond – 900mm Storm Outlet
  - Allows for future urbanization of Lawler/Brackenbury to Municipal standards
  - Allows for construction of an outlet for the area south of Grey Road 12
  - Would mitigate existing flooding at cemetery and rear yards
- **Alternative 2** – Fill Pond – 1050mm Storm Outlet
  - Allows for future urbanization of Lawler/Brackenbury to Municipal standards
  - Allows for construction of an outlet for the area south of Grey Road 12
  - Would mitigate existing flooding at cemetery and rear yards
  - Allows for development of lots at site of existing pond
- **Alternative 3** – Do Nothing
  - Does not allow for future urbanization of Lawler/Brackenbury or for an outlet for the area south of Grey Road 12
  - Existing flooding issues remain and potentially will get worse with changes to land uses (i.e. increased imperviousness) and if storm events get worse (climate change)

BMROSS
engineering better communities

Class EA Alternatives – Cost Estimates

	Estimated Relative Cost
• **Alternative 1:**	
• Keep Pond – 900mm outlet	$0 (Base Case)
• **Alternative 2:**	
• Fill Pond – 1050mm outlet	-$50k*
• **Alternative 3:**	
• Do Nothing	N/A

***Assumes**:
-**Sell two buildable lots at $170k each at pond site**
-Existing soils from pond considered “non-hazardous” and can be taken to Municipal landfill
-Pond can be filled with old road base excavated from Lawler/Brackenbury reconstruction project

BMROSS
engineering better communities

Class EA Alternatives – Cost Estimates

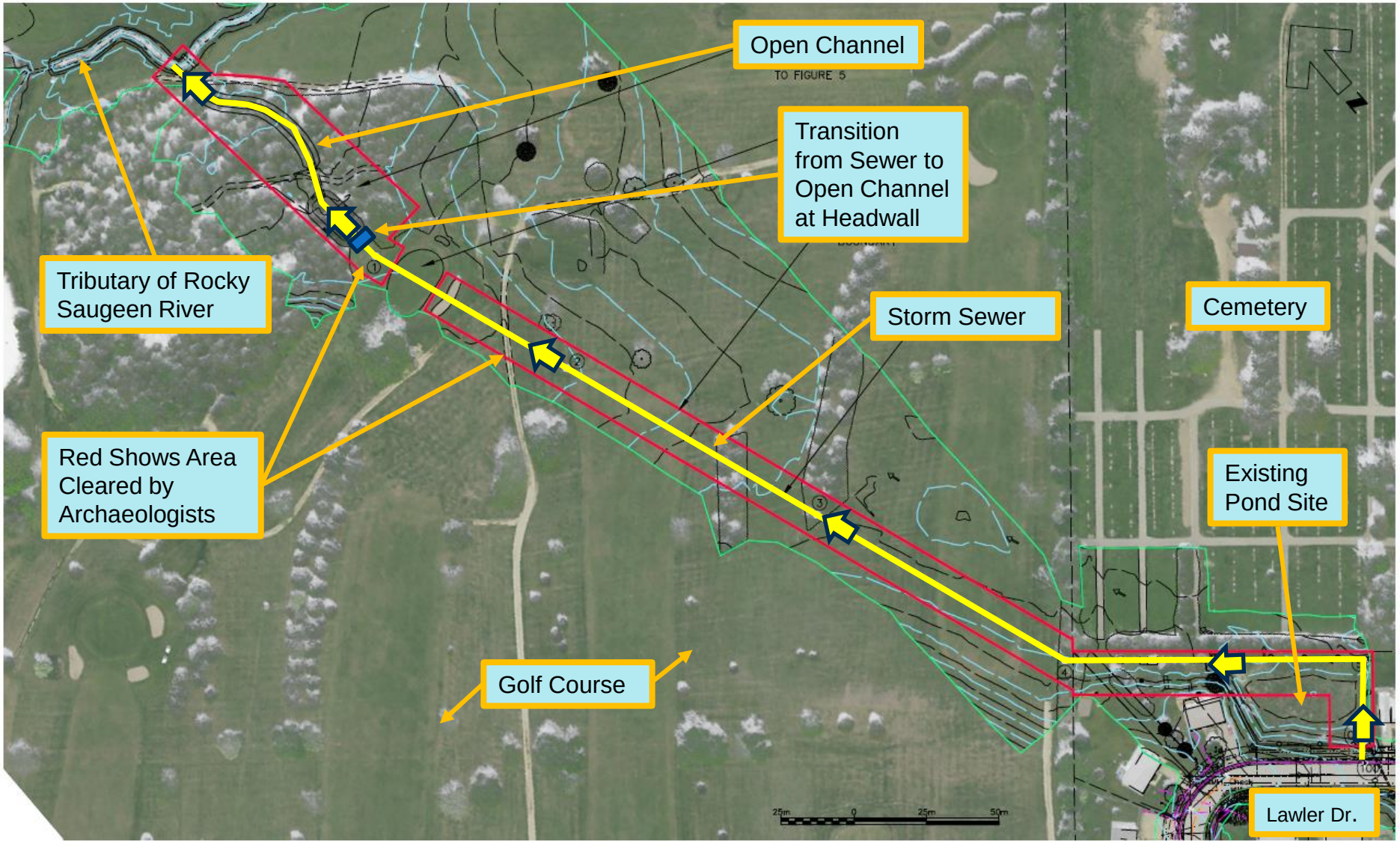
- Alternative 2 (Fill pond) up-front cost is $50k lower than Alternative 1 (Keep pond) based on noted assumptions
- Ways Cost of Alternative 2 could be further reduced:
  - Pass on some costs to developer – retaining wall and fencing costs
  - Increased revenue from new lots (property taxes; sewer/water user fees)
- Ways Cost of Alternative 2 could be increased:
  - If existing soil within pond is considered “hazardous” and cannot be taken to Municipal landfill
  - If soil from Lawler/Brackenbury reconstruction is not geotechnically or chemically suitable for re-use at the site.
  - If the sale price of the lots is lower than assumed.

Recommended Approach

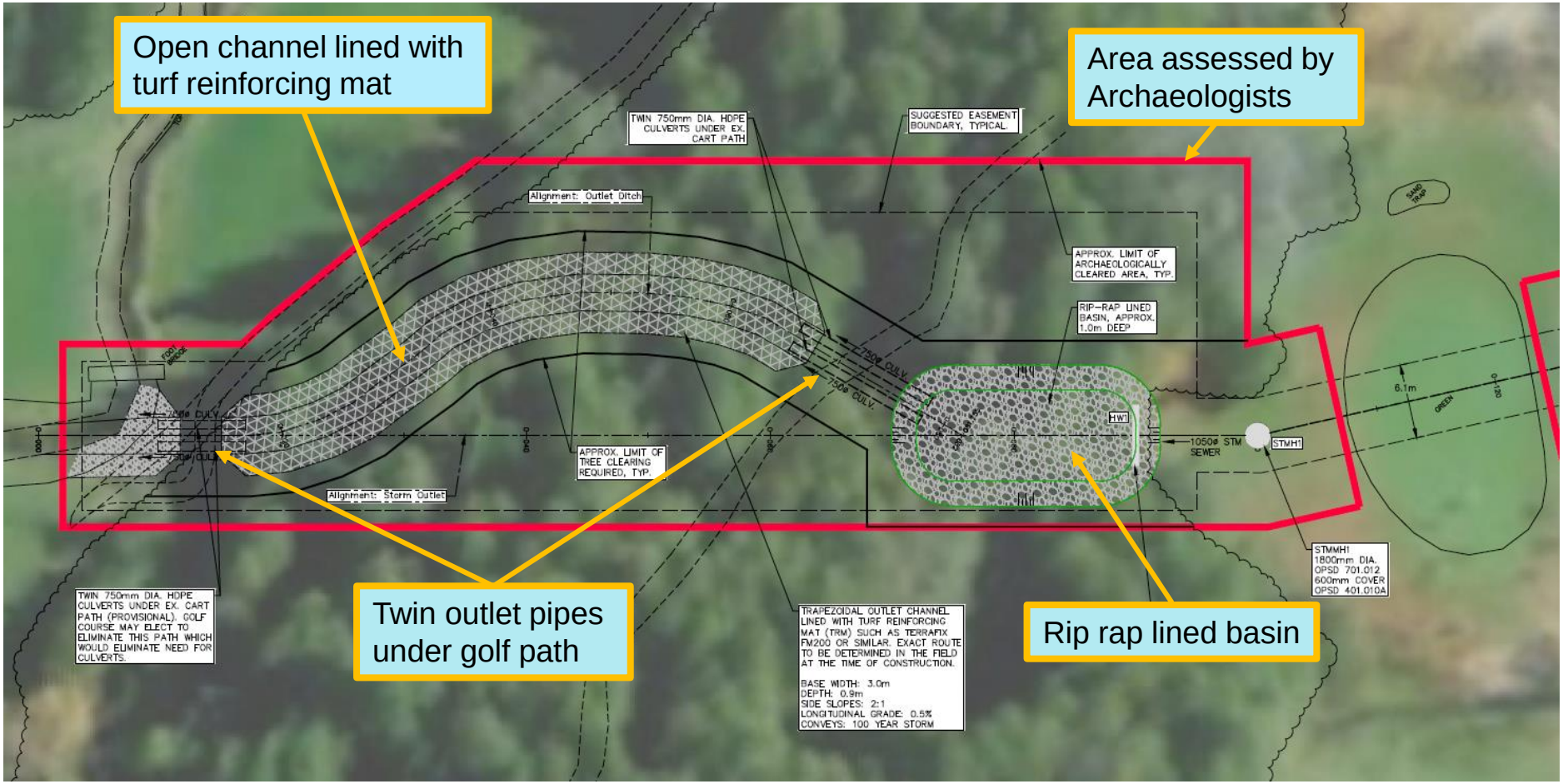
- Select Alternative 2 - Fill Pond – 1050mm Storm outlet
  - Obtain easement for drainage route across golf course, obtain ownership of land required for route through rear of lots
  - Construct 1050mm diameter outlet sewer from existing pond to Rocky Saugeen tributary
  - During Lawler/Brackenbury reconstruction project, fill pond with suitable granular fill excavated from the existing road base, and install water and sewer services
  - Sell residential building lots to offset costs

BMROSS
engineering better communities

Proposed Storm Outlet Route:

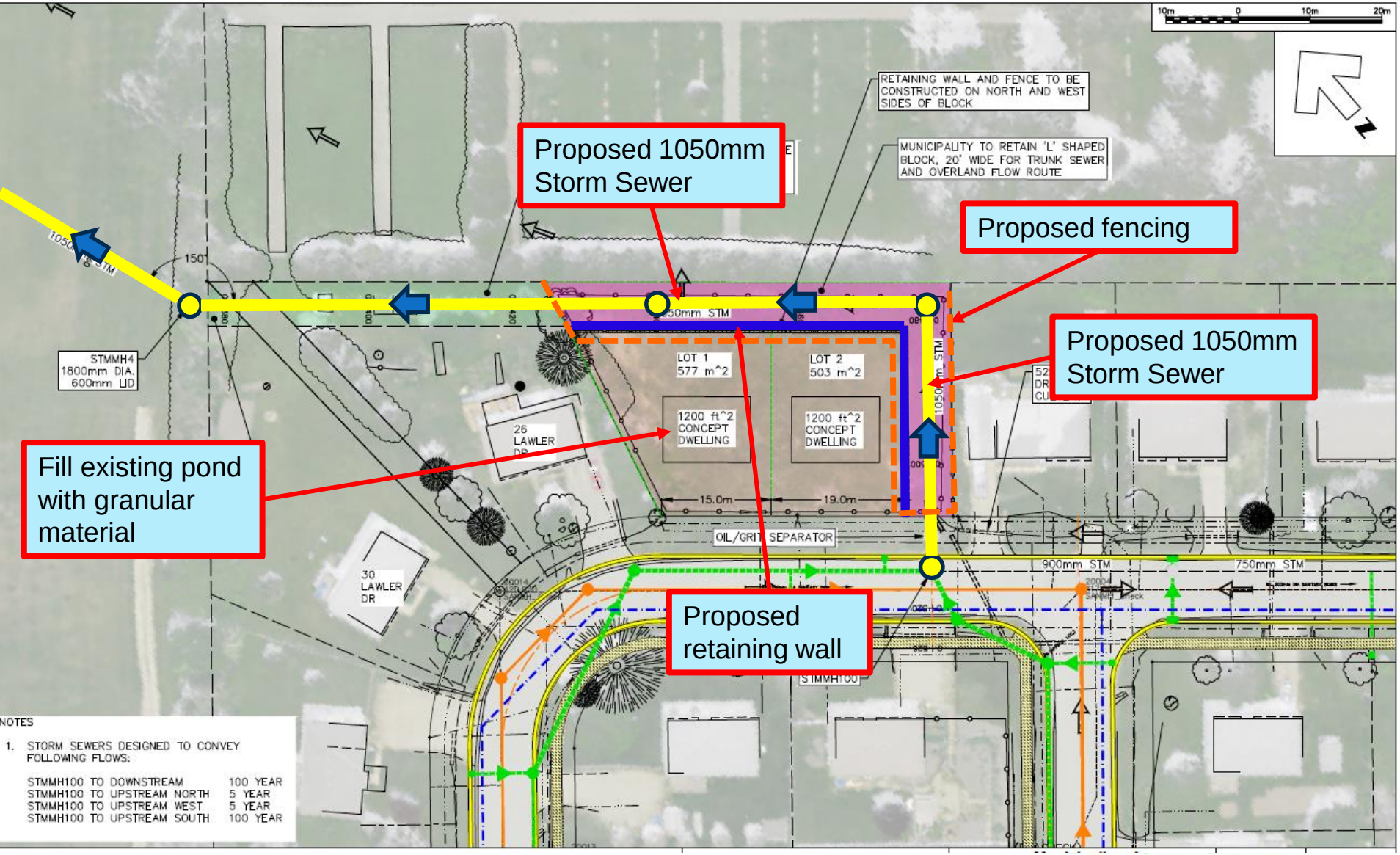


Outlet to Rocky Saugeen



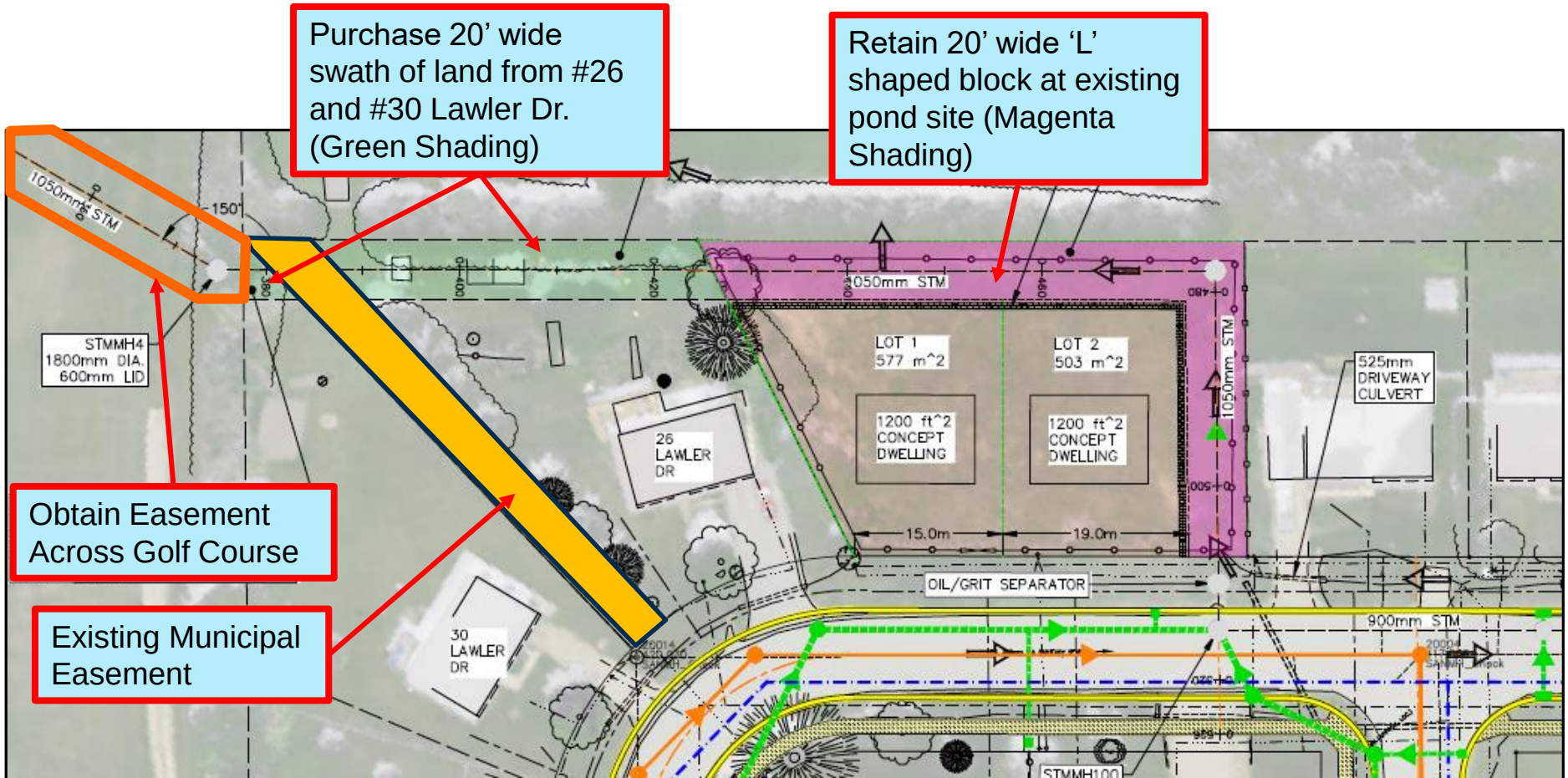
BMROSS
engineering better communities

Concept at former pond site – Alternative 2



Property Matters

- Easements and property purchases will be required
- Preliminary discussions have been initiated with property owners and with the Golf Course



Proposed Schedule

- **Fall 2024:**
  - Open House to present Preferred Alternative to the Public
  - Continue to Negotiate Easements
  - Continue Engineering Design
- **Winter 2024/2025** – Finalize EA
  - Update Council on Input Received from Residents
  - Confirm Selection of Preferred Alternative
  - Finalize Class EA Report
  - Publish Notice of Study Completion

BMROSS
engineering better communities

Next Steps

- Select date for Public Open House
- Hold Open House
- Collect Input from Residents
- Draft Class EA Screening Report
- Additional Consultation with Agencies/Aboriginal Communities that indicated an interest
- Initiate Approvals with SVCA/MNR/MECP

Municipality of Grey Highlands

BMROSS engineering better communities

Questions

BMROSS
engineering better communities