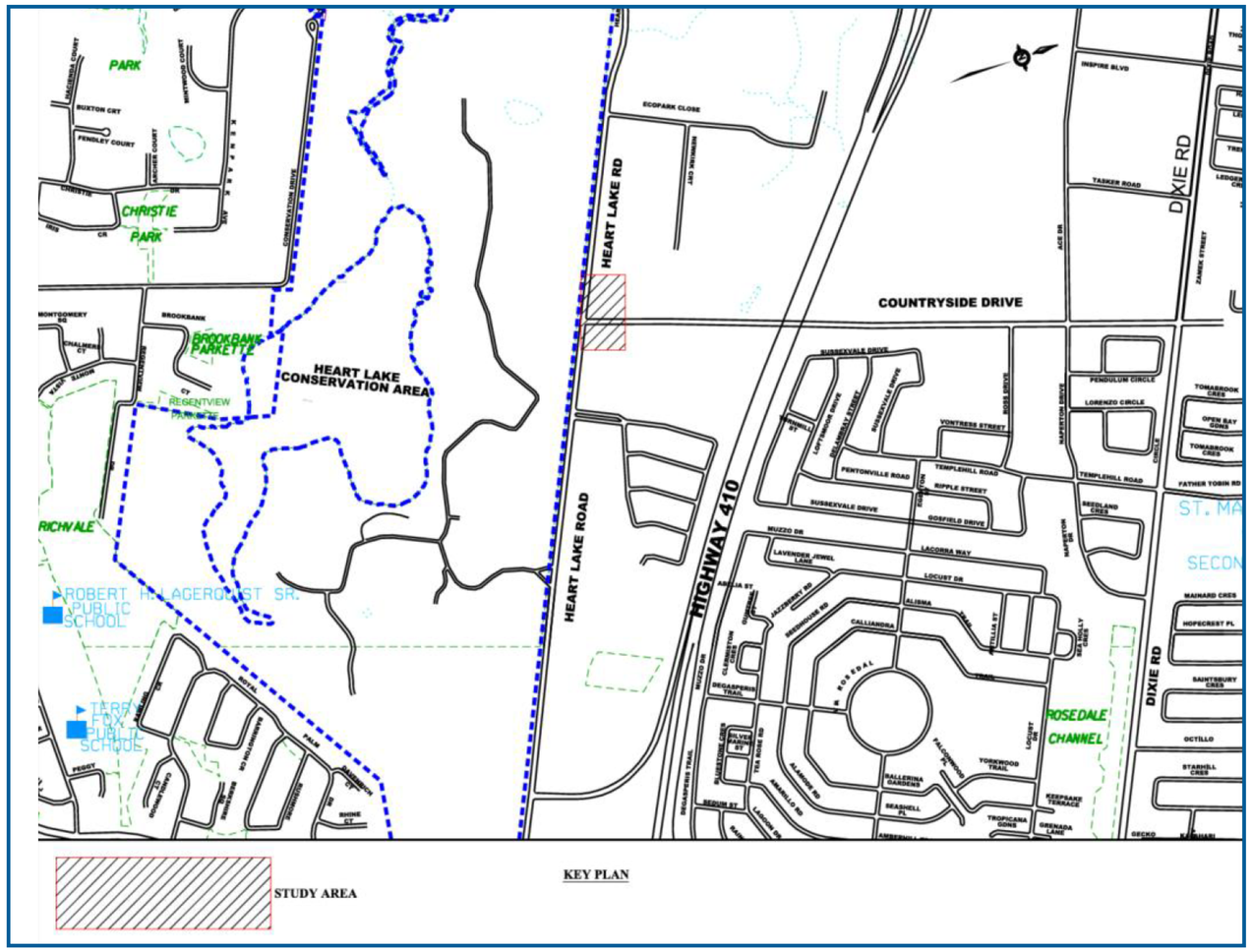
Welcome to the

Heart Lake Road & Countryside Drive Class EA Public Information Centre

April 14 - May 13, 2022



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Introduction

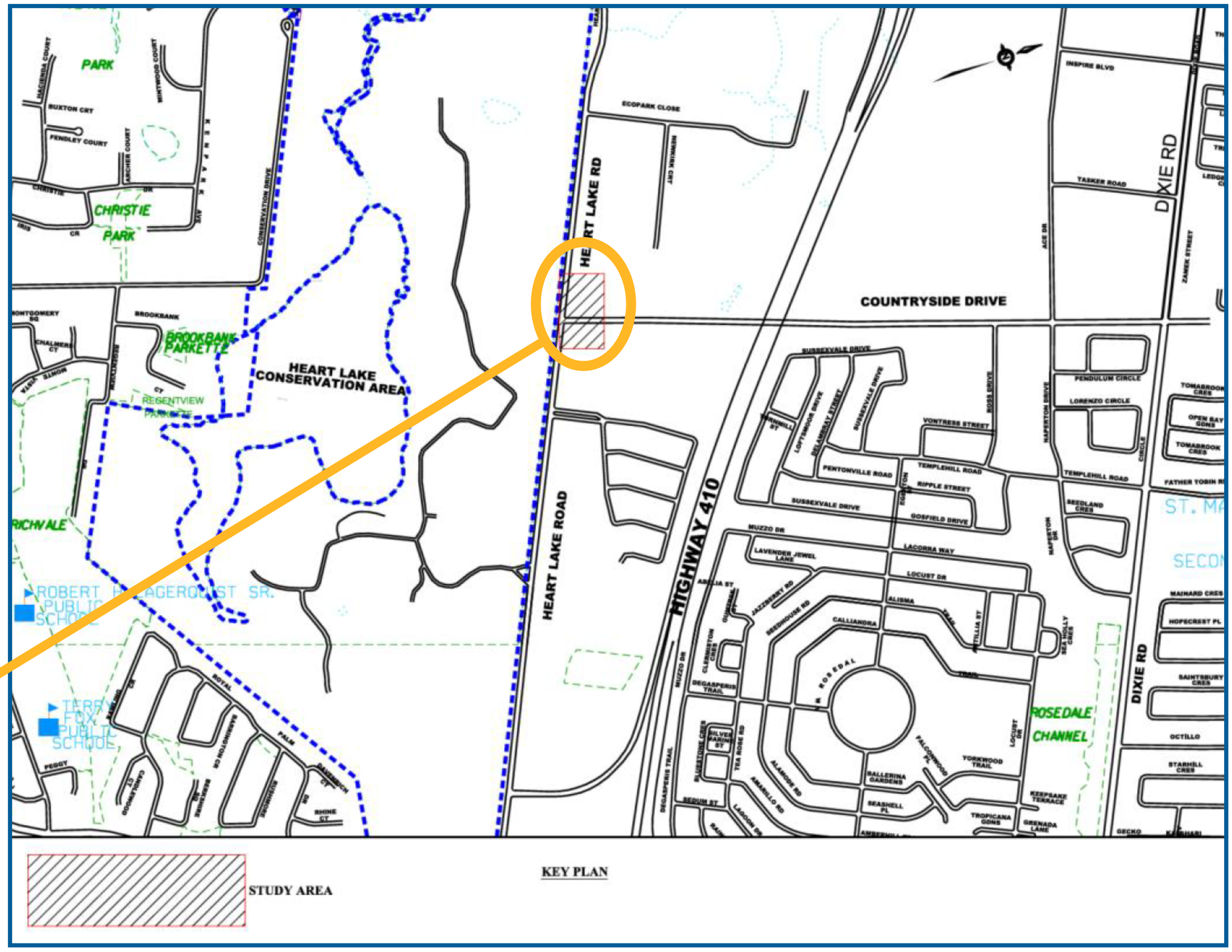
The City of Brampton has initiated a Schedule B Class Environmental Assessment (EA) for improvements to the intersection of Heart Lake Road and Countryside Drive

Desired Outcomes of this Class EA Study:

- Safety and operations - including traffic calming
- Minimize natural environment impacts and wildlife mortality
- Conservation of cultural heritage landscape
- Consider proposed land uses and meet travel demands
- Vision Zero initiative, active transportation, safety

Study Limits

Study Area



2019 Function and Design Review Study

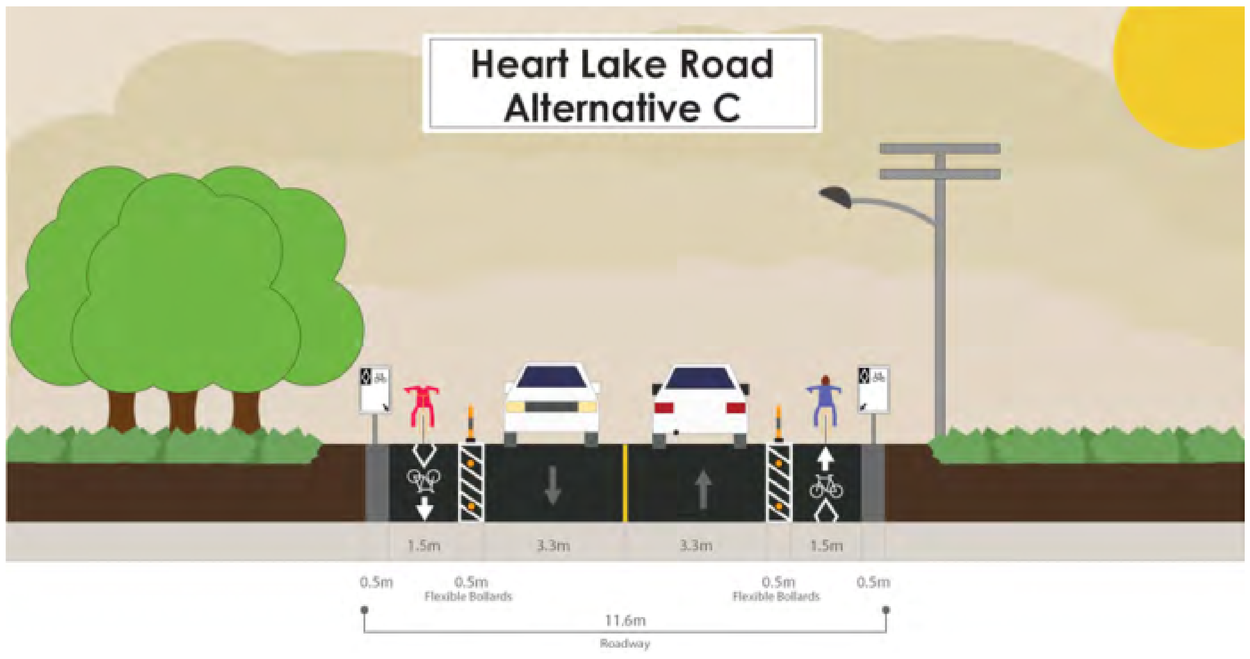
Short-Term Recommendations

- Narrower lanes, hybrid multi-use trails through Heart Lake Conservation Area
- Reclassify as Collector Road, 50 km/h speed limit, speed cushions
- *Wildlife mortality:* Maintain flashers, maintain optical speed bars, additional eco-passages, wildlife directional fencing, turtle nesting mounds
- Maintain an enhance wildlife

2019 Function and Design Review Study

Long-Term Recommendations

- Separated bike lanes on Heart Lake Rd. & Roundabout at Countryside



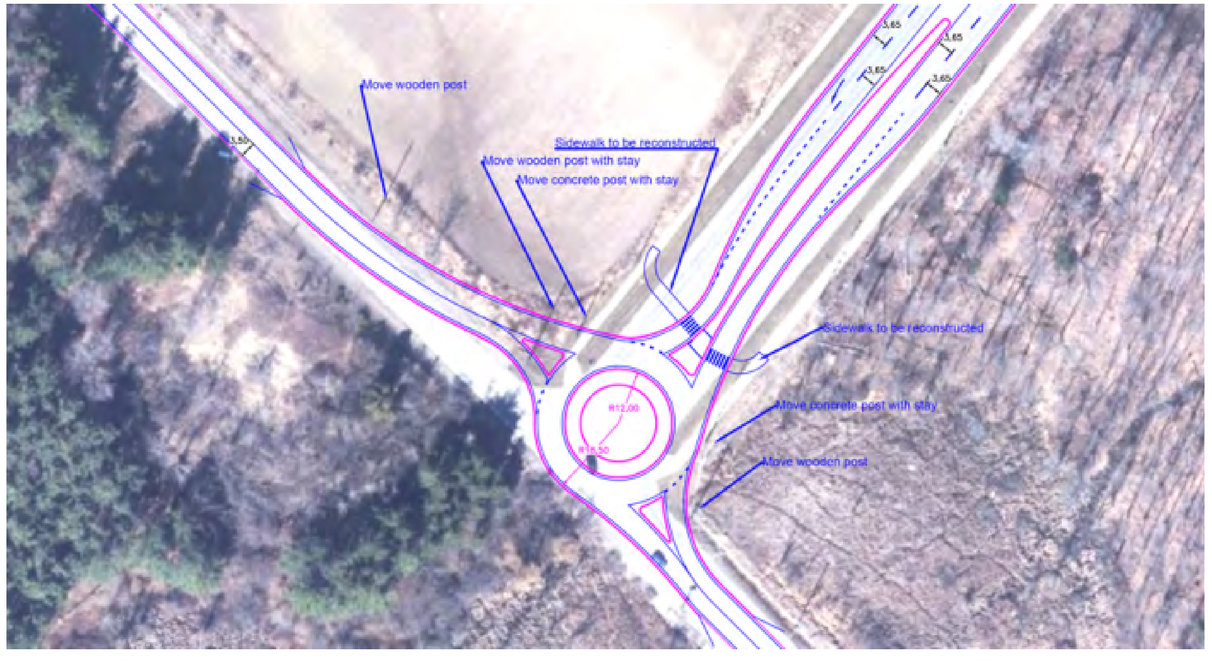
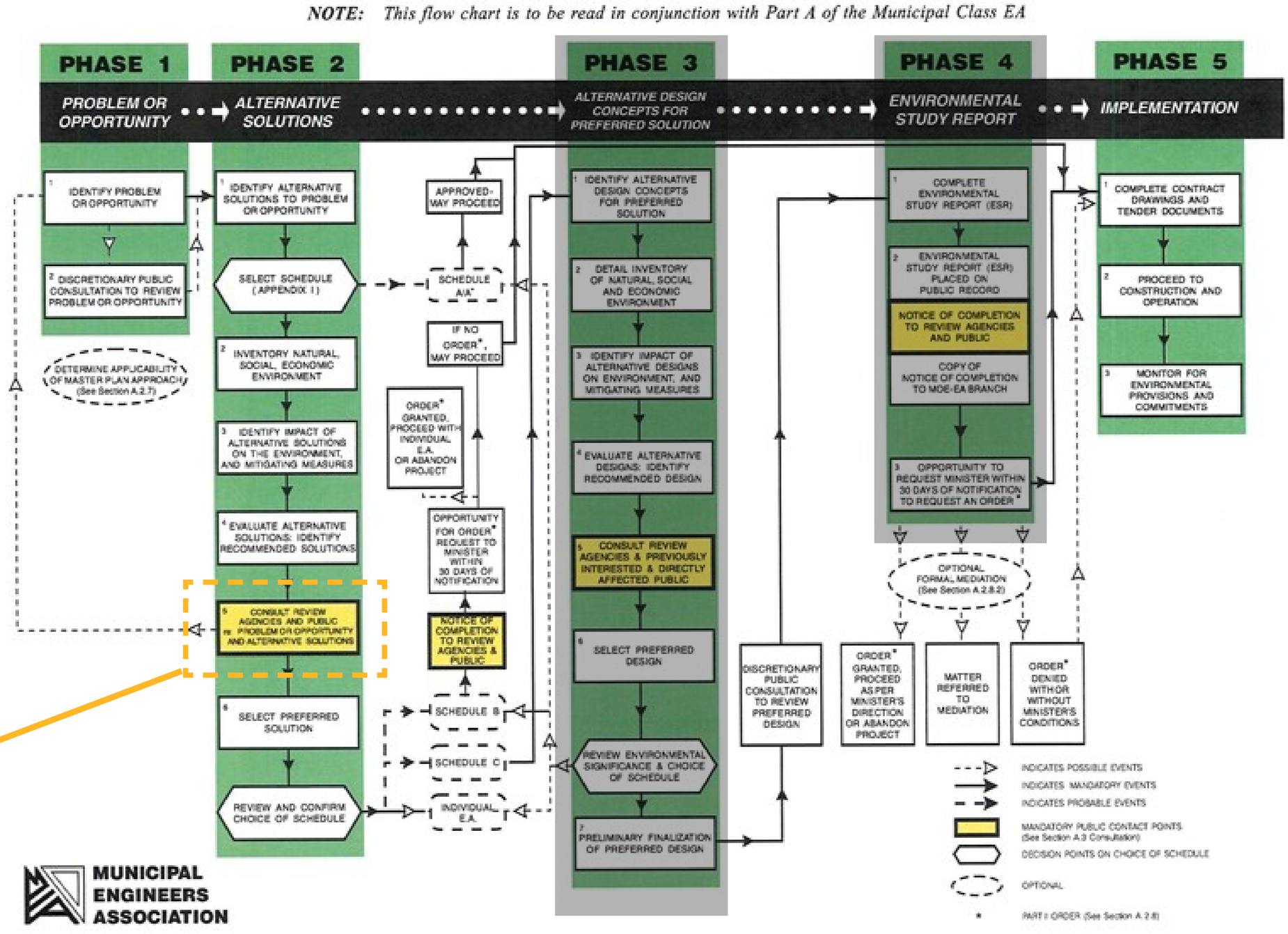


Figure 50: Roundabout at Countryside Option 2 (without encroachment on TRCA lands)

The Class EA Process

- The study is being undertaken in accordance with the Municipal Class EA planning and design process for Schedule “B” project
- *Study is for Heart Lake Road and Countryside Drive intersection only*
- The Function & Design Review of Heart Lake Road Corridor (2019) Study provides background information, provide support for problem/opportunity identification for this intersection improvement
- Additional studies have been undertaken building upon existing background information and studies

The Class EA Process



We are here

Phases 3 and 4 Not Required for Schedule 'B' Class EA

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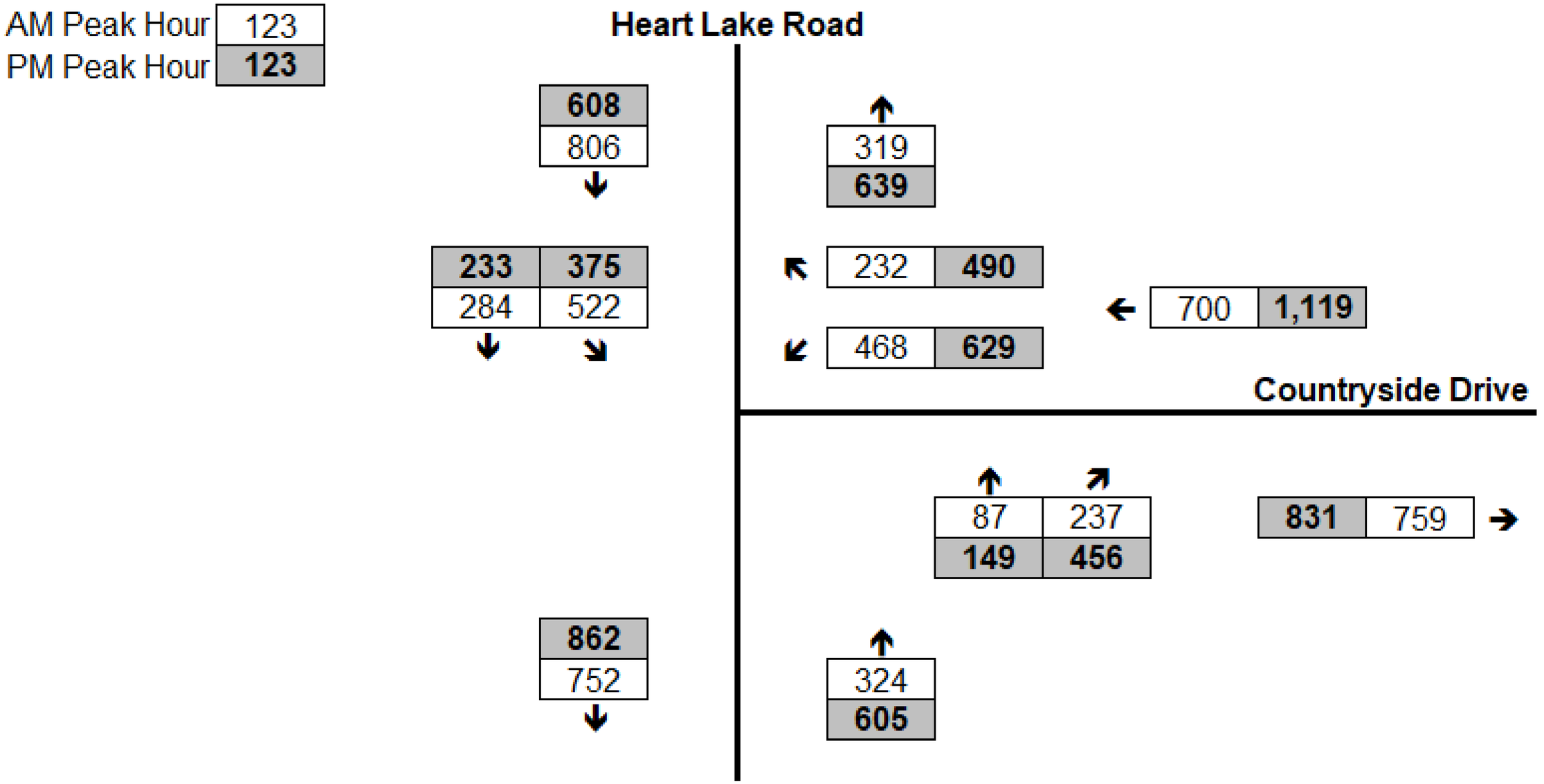
Needs and Justification

Improve the safety and operations of the Heart Lake Road and Countryside Drive intersection including *meeting the traffic demand* of increasing population and growth while incorporating *traffic calming and wildlife mortality reduction* recommendations for the Heart Lake Road Corridor.

2041 Traffic Volumes



Traffic forecasts were developed via the application of calculated growth rates

The 2041 traffic forecasts represent approximately a 65% increase in comparison to base year traffic volumes

2041 Traffic Operations

1. Do Nothing Scenario (Remain as Unsignalized)

- The westbound left-turn movement is forecast to operate over-capacity

2. Traffic Signal Control

- The forecast traffic volumes would warrant the consideration of traffic signal control
- Operating under signal control, the overall intersection and all movements are forecast to operate within capacity and with acceptable delays

3. Roundabout Control

- Initial screening of the intersection identified and confirmed the location would be applicable for roundabout consideration
- Operating under roundabout control, the overall intersection and all movements are forecast to operate well within capacity and with acceptable delays

Safety Review Study

- Investigation confirmed there is more than adequate approach and departure sight distance available
- However, even with the adequate sight distances, a high frequency of collisions were reported and were determined to be attributed to aggressive driver behaviour (i.e. speed)
- Correlates with the poor traffic operations stemming from a lack of gaps within the traffic stream along Heart Lake Road
- Concluded that the current intersection warrants improvement

Collision Data

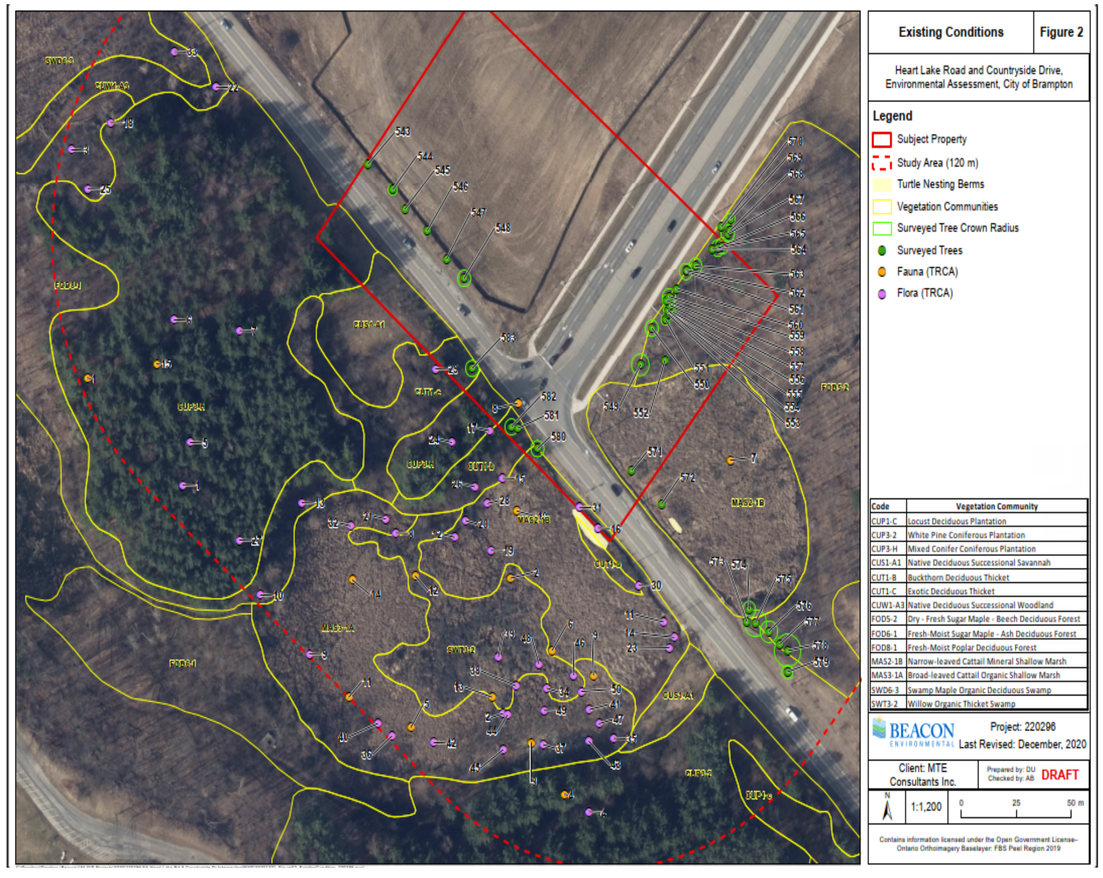
Collision Data: January 2015 – December 2019

Heart Lake Road/Countryside Drive:

- Total of 26 collisions reported (average 5.2 collisions per year)
- 10 single motor vehicle collisions, 7 rear-end collisions, 5 angle collisions, and 4 turning movement collisions reported
- No fatal collisions, no non-fatal injury collisions reported. A total of 26 property-only collisions reported

Natural Environment

- Significant wetlands and woodlands near intersection (Part of Heart Lake PSW)
- Significant wildlife habitat in wetland and woodland communities, endangered and threatened species:
  - *Bats, turtles (incl. Snapping), waterfowl, raptor nesting, reptiles*
- Turtle nesting berms
- No fish habitat
- Adjacent to Heart Lake ANSI's



Drainage Study

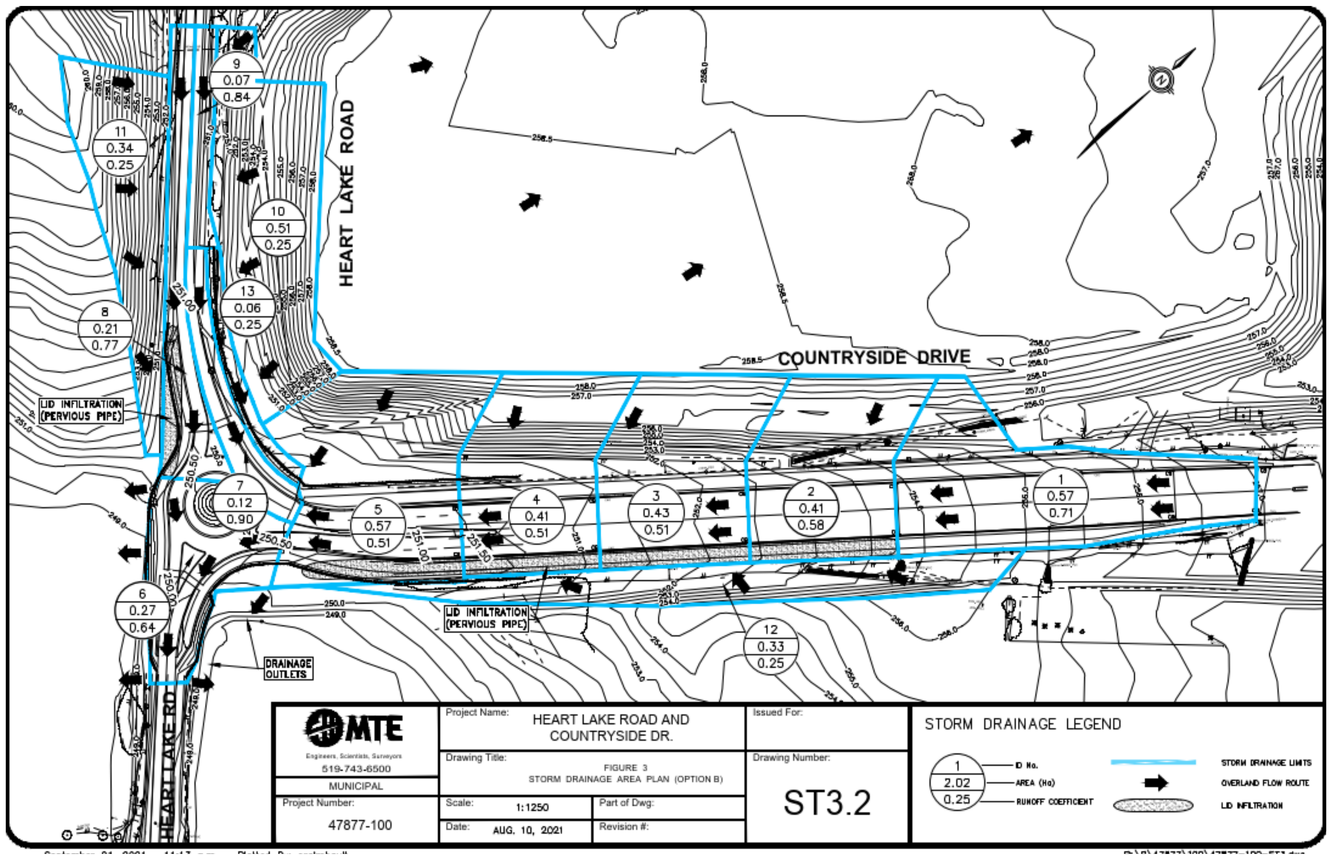
- Roundabout results in an extra 14 L/s during 100-year-storm compared to signalized intersection
- Low-impact development (LID) recommended for stormwater quantity/quality control

Existing

300-mm storm sewer with sub-drains

Ditch drainage with culvert crossing Countryside Drive; at intersection

Overland flow draining to ditch / wetlands (generally uncontrolled drainage)



Proposed

Replace existing storm sewers and enhance LID to promote infiltration

Re-grade/enhance ditches and replace/relocate culvert at intersection

Flows contained and conveyed into ditches or infiltrated within project limits

Phase 1 Environmental Site Assessment

- No records of spills
- Fill has been added over the years
- Additional testing should be undertaken prior to construction

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Stage 1 Archeological Investigation

- Most areas have no archaeological potential; previously disturbed, permanently wet, previously assessed
- Intersection options to be designed to avoid potential areas

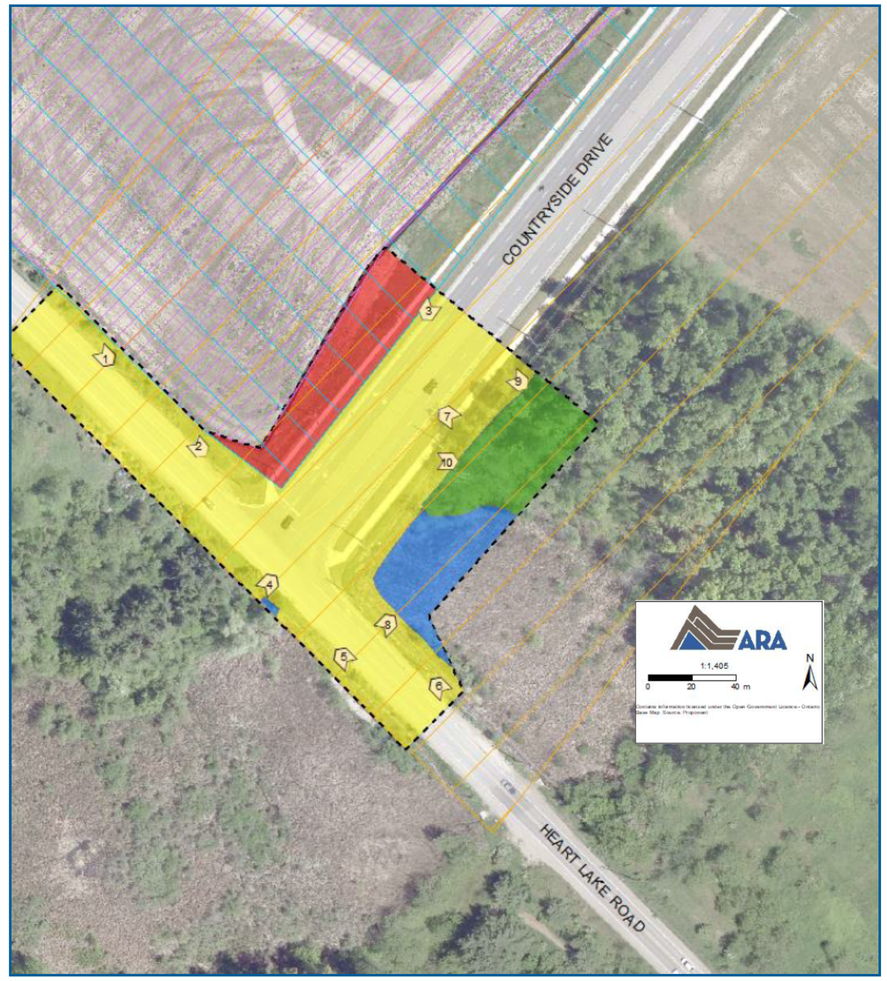

Image
Study Area

Previous Assessments

Licence #P029-100 (Stage 1)
CIF #P163-016-2007 (Stage 1)
CIF #P013-522-2009 (Stage 1–2)

Potential Modelling
(Recommended Survey Method)

Archaeological Potential
(Test Pit Survey at an Interval of 5 m)
No Archaeological Potential - Permanently Wet
(No Further Work)
No Archaeological Potential - Disturbed
(No Further Work)
Previously Assessed
(No Further Work)

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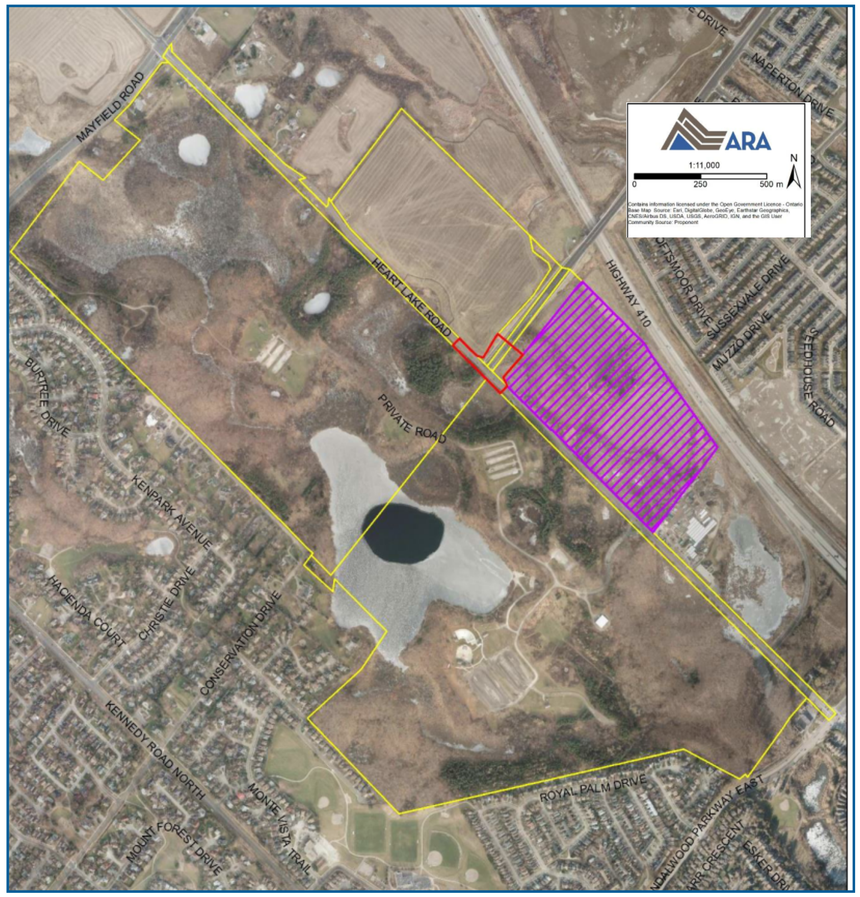
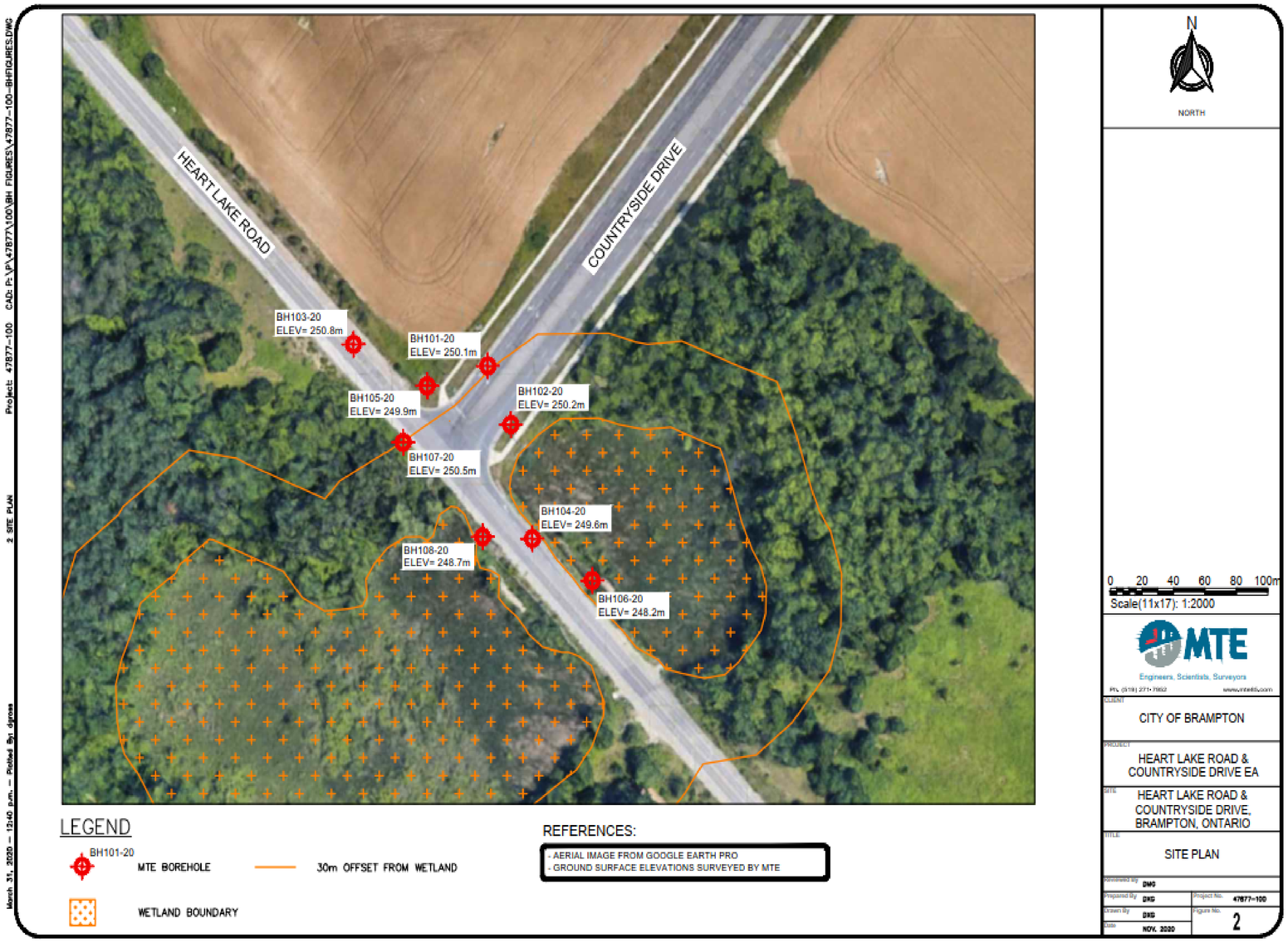
Built/ Cultural Heritage Assessment

- Wetland is considered a Built Heritage Resource
- Heart Lake Road is considered a Cultural Heritage Landmark



Geotechnical Investigation

- Underlying soil is glacial till - gravelly silt
- Peat deposit between 2-4 m, found on west side of Heart Lake Road
- Dewatering expected in excavations greater than 2-m deep



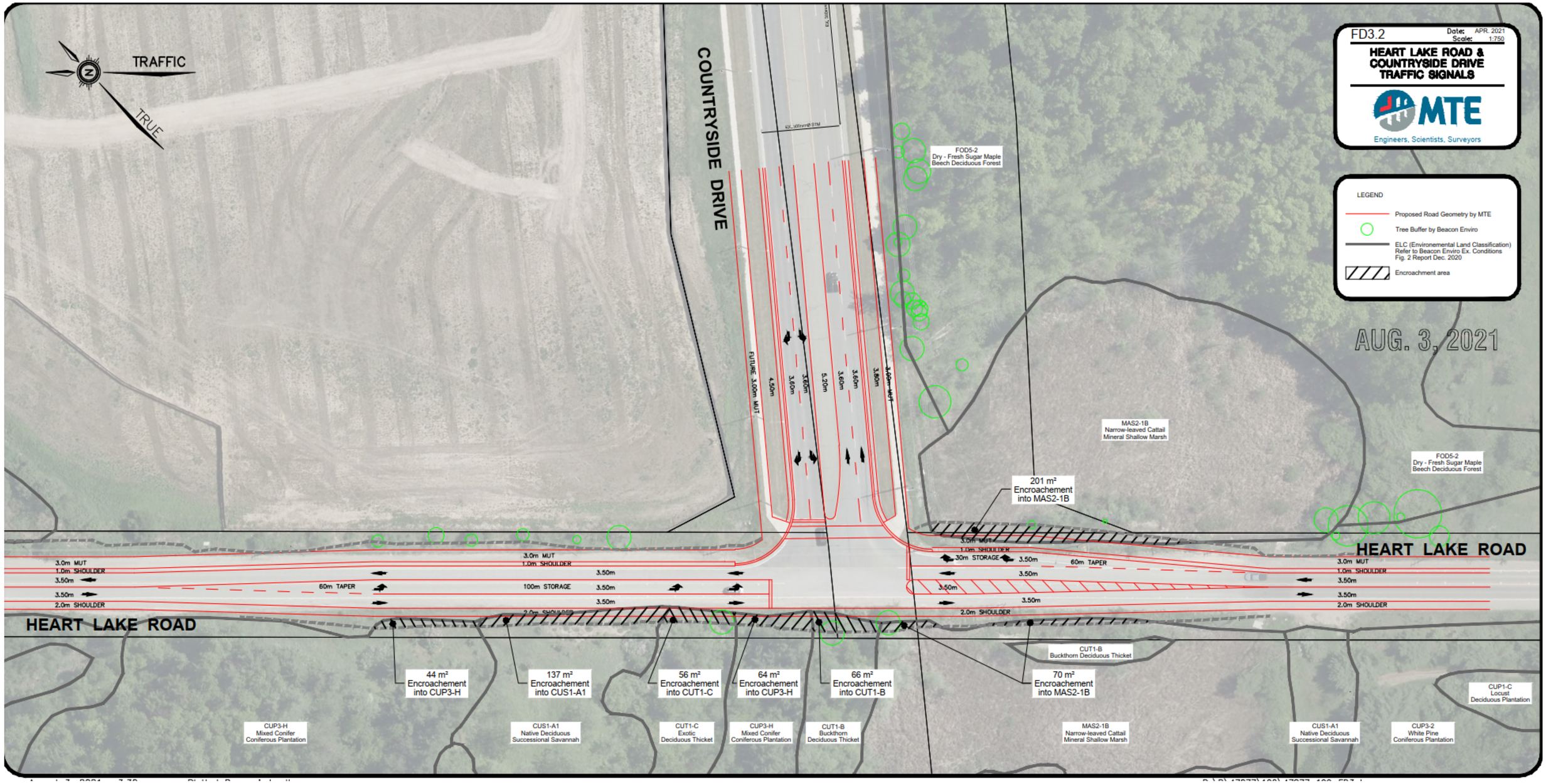
Alternatives

Do Nothing

Signalized Intersection with Turn Landes

Roundabout

Signalized with Turn Lanes



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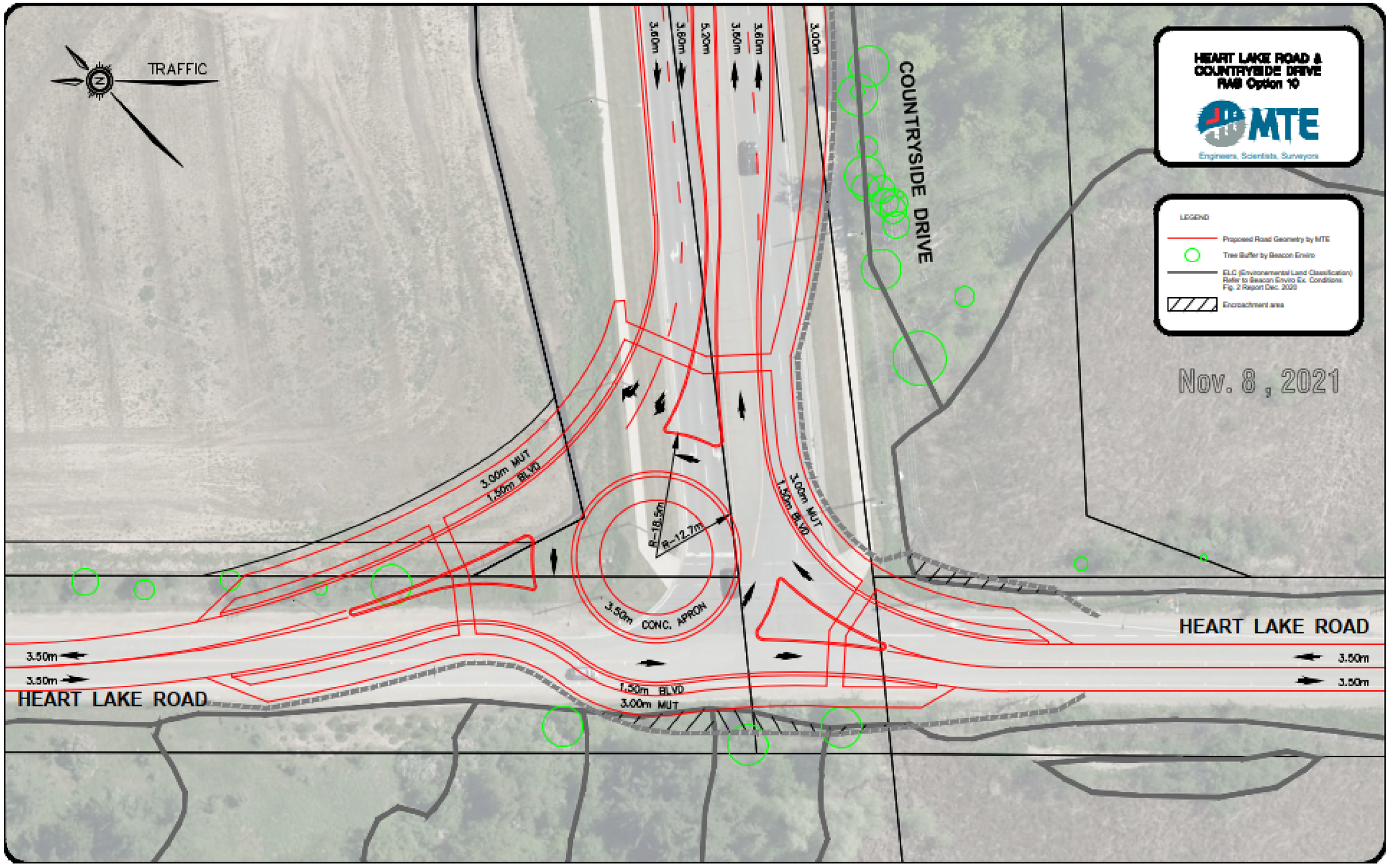
Roundabout



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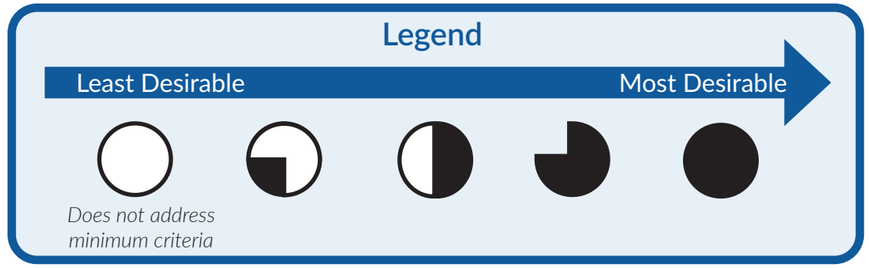
Heart Lake Road at Countryside Drive Environmental Assessment

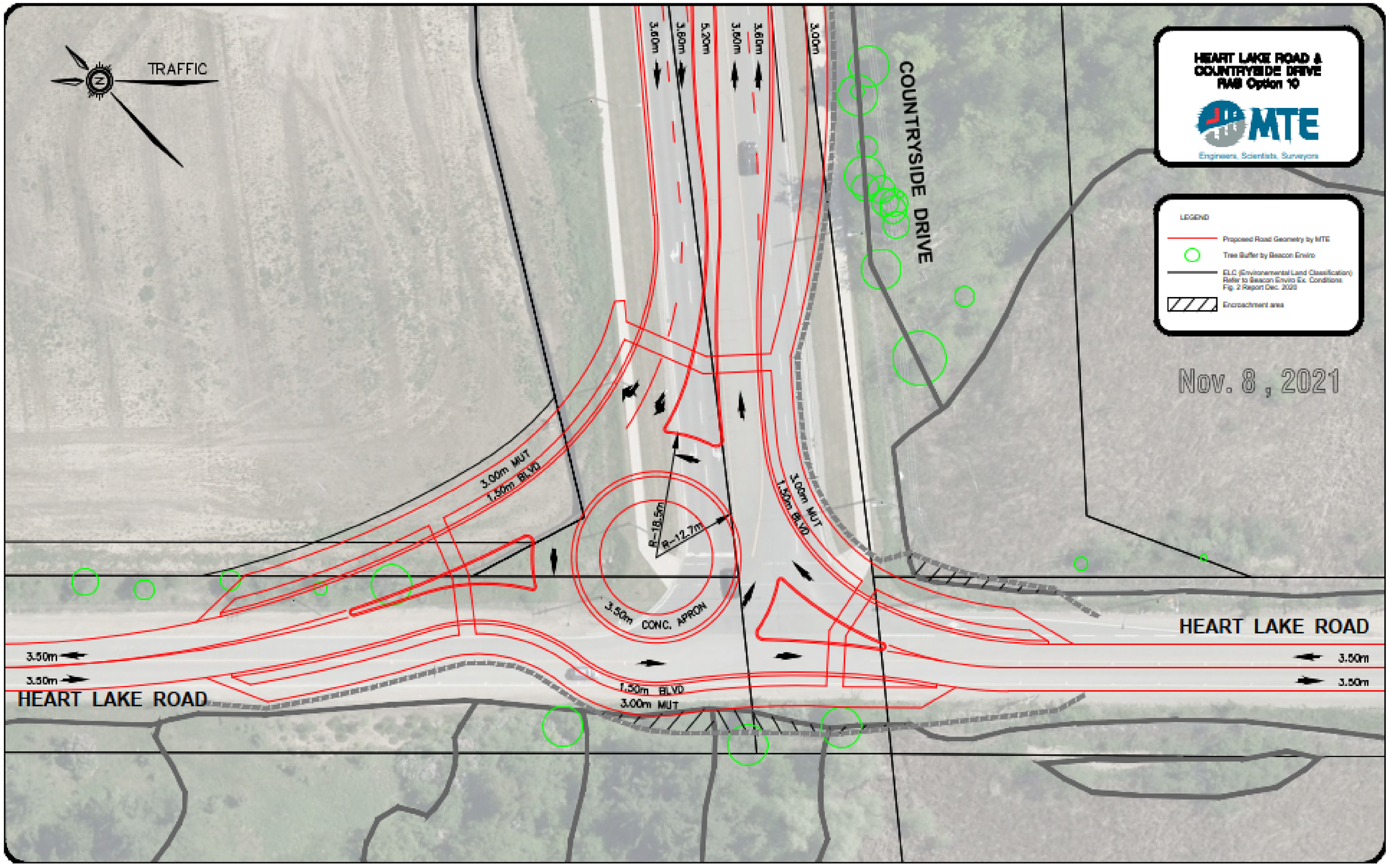


Evaluation Criteria	Do Nothing	Signalized Intersection with Turn Lanes	Roundabout
Natural Environment			
1. Minimize impacts to Designated Natural Areas, vegetation, wildlife, aquatic features	1. No impacts to existing Natural Areas, vegetation, wildlife or aquatic features, but Heart Lake Road traffic will continue at speed limit, increasing chance of wildlife strikes	1. a) Traffic with green light will continue at speed limit increasing chance of wildlife strikes b) Wildlife fencing and erosion controls to be installed	1. a) All traffic will slow down to navigate roundabout, which should reduce wildlife strikes b) Wildlife fencing and erosion controls to be installed
2. Minimize impacts to wetlands	2. No impacts to designated wetlands	2. Some intrusions into designated wetlands (271m^2)	2. Minimal intrusion into designated wetlands (45m^2)
3. Minimize impacts to surface water and groundwater	3. No change in runoff/ surface drainage	3. Least pavement drainage/surface water runoff	3. More pavement resulting in more drainage/ surface water runoff
4. Minimize air quality impacts and effects on climate change	4. Traffic volumes will continue to increase, resulting in increase delays / congestion	4. Traffic delays/congestion resulting in vehicles idling at red lights	4. Less traffic delays due to vehicles not having to stop at red lights, less vehicle starting/stopping
	4	1	3
Planning Objectives			
1. Adhere to Transportation Master Plan	1. Does not implement required improvements per Transportation Master Plan	1. Adheres to Transportation Master Plan	1. Adheres to Transportation Master Plan
2. Adhere to Official Plan	2. Other transportation improvements will be required to adhere to the Official Plan	2. Adheres to Official Plan	2. Adheres to Official Plan
3. Adhere to Active Transportation Master Plan	3. Does not adhere to Active Transportation Master Plan	3. Adheres to Active Transportation Master Plan	3. Adheres to Active Transportation Master Plan
4. Adhere to Region Official Plan Policies	4. Other transportation improvements will be required to adhere to Official Plan Plolicies	4. Adheres to Region Official Plan Policies	4. Adheres to Region Official Plan Policies
	0	4	4

Evaluation Criteria	Do Nothing	Signalized Intersection with Turn Lanes	Roundabout
Social and Cultural Environment			
1. Improve visual aesthetics	1. Visual aesthetics will remain the same, no opportunities to enhance landscape	1. Landscaping opportunities behind curb/ sidewalk/MUT	1. Opportunities for landscaping in center island and behind sidewalk/MUT
2. Preserve archaeological and cultural heritage features	2. No impacts to archaeological/ heritage features	2. a) No direct impacts to archaeological/ heritage features b) Some impact on existing rural road cross section	2. a) No direct impacts to known archaeological features b) Disrupt existing linear views c) Changes the existing cross section d) Additional Stage 1/2 Archaeological investigation required in property purchase area
3. Preserve the agricultural setting, community character and public realm	3. No impacts to existing setting, character or public realm	3. Signals contribute to urban look and setting	3. Opportunity to enhance the public realm, and all traffic must slow to navigate roundabout
4. Minimize traffic noise	4. Traffic noise will continue to increase as traffic volumes increase	4. Traffic noise will not decrease	4. Traffic noise will decrease due to less stop/starts of traffic
5. Minimize disruption due to construction	5. No disruption due to construction, however, increasing congestions may cause disruption	5. Least time for construction and traffic can be maintained during construction	5. Most time for construction and traffic can be maintained during construction
6. Minimize impacts to existing accesses in the area	6. No impacts to existing access, however, increasing congestion may impact access	6. No accesses impacted in the area	6. No accesses impacted in the area
	2	2	3
Economic Development			
1. Beneficial to business/ community with respect to travel time	1. Travel time will not be reduced, and will increase as traffic volumes increase	1. More delays than with a roundabout due to stopped traffic stopped for red lights	1. Roundabout provides more free flowing traffic, and results in less traffic delays/congestion
2. Minimize capital and construction costs	2. No construction or capital costs	2. Road improvements and signal installation have lowest capital/construction costs - est. $1.15 million	2. Highest Capital Costs due to additional pavement, curb, signage and line markings - est. $1.57 million
3. Minimize property impacts/ requirements	3. No additional property required	3. No additional property required	3. Approximately 550 sm of property is required on NE corner, which can be obtained through subdivision approvals
4. Minimize operating and maintenance costs	4. Operating and maintenance costs do not change	4. Operating and maintenance costs include powering and maintaining signals	4. No signal power and maintenance costs
	3	2	2

Evaluation Criteria	Do Nothing	Signalized Intersection with Turn Lanes	Roundabout
Engineering and Technical			
1. Congestion and collisions will continue	1. Is safe for all travel modes	1. Safe for all travel modes	1. Safe for all travel modes. Roundabout reduces severity of collisions (i.e. less conflict points and sideswipes vs head-on or “T bone” collisions)
2. Create an Active Transportation Friendly Environment (Cyclists, pedestrians etc.)	2. No additional sidewalks or cycling facilities	2. Sidewalks, cycle facilities provided. Motorist must stop at red light and be aware of pedestrians.	2. Sidewalks, cycle facilities provided. Requires pedestrians to be sure motorists are aware of their presence. Cyclists can use Roundabout or multi-use path at Roundabout
3. Accommodate future travel demands	3. Future travel demands not accommodated	3. Future travel demands accommodated (20 years)	3. Future travel demands accommodated (20 years). Roundabout results in less delays/congestion
4. Improve transportation mode choice including transit	4. Transportation mode choice not improved	4. All transportation modes accommodated including transit	4. All transportation modes accommodated including transit
5. Accommodate emergency services	5. Fire trucks can be accommodated, but may experience congestion in future	5. Fire Truck can use priority signal to enhance access through intersection	5. Fire trucks can navigate roundabout within acceptable response times - less congestion
6. Minimize impacts to utilities in the corridor	6. No utility relocations required	6. Utility relocations will be required, but somewhat less than Roundabout	6. Utility relocations required will be slightly more than signalized due mainly to additional street lighting
	1	4	3
Overall Evaluation Score			
	Does not meet planning objectives nor active transportation requirements, and will result in increased congestion.	Meets Planning and Engineering/ Technical objectives; some intersections encroach into natural areas; idling traffic will continue/ increase; and noise and urban look will increase.	Meets Planning and Engineering/ Technical objectives; visual/ landscaping can be enhanced; less idling/ congestion; lower lifecycle cost due to very low maintenance with no intrusions into wetlands; Pedestrians/ cyclists may be initially unfamiliar with Roundabouts.
	10	13	15

Roundabout is Preferred



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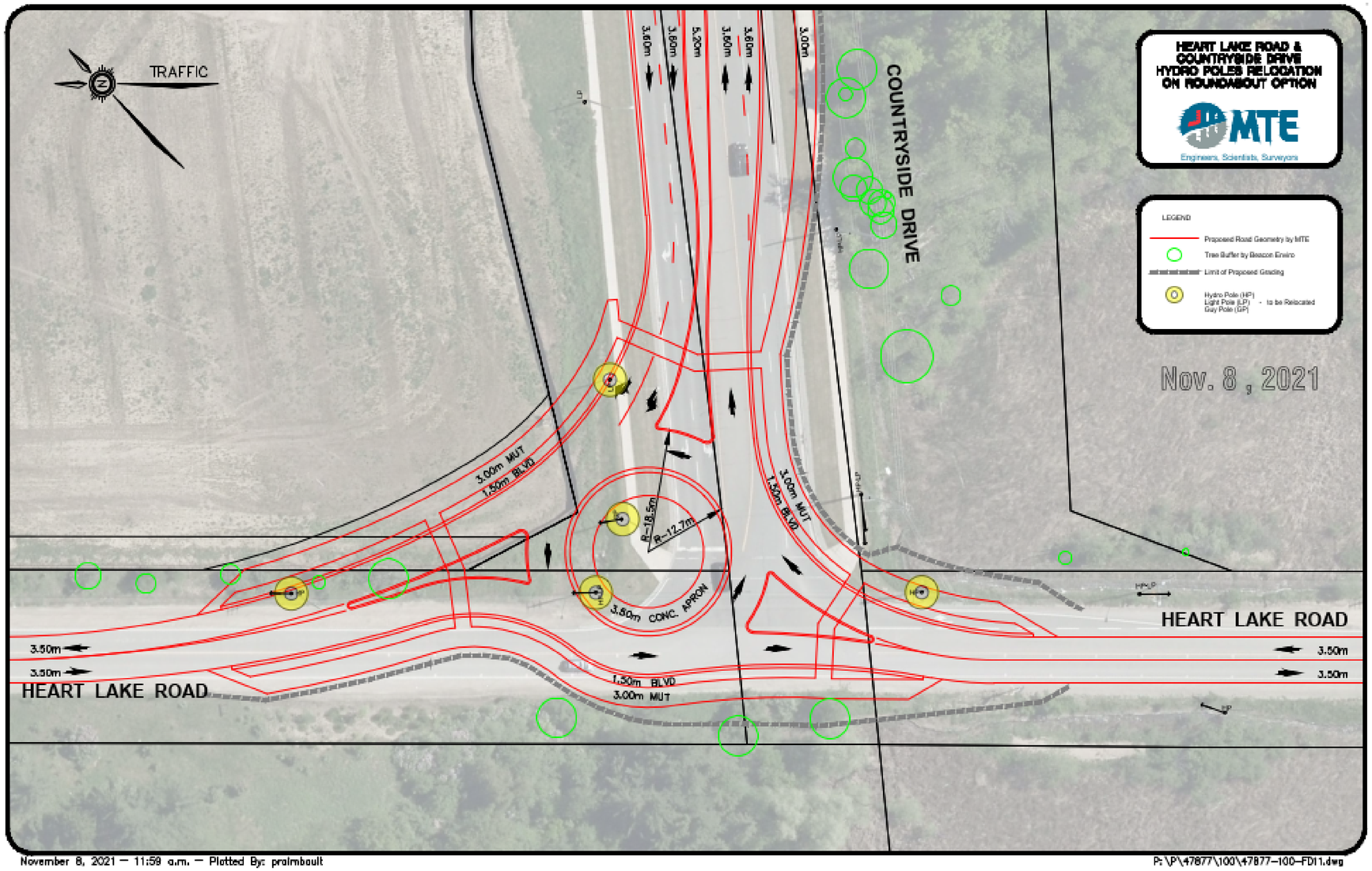
Utility Issues



- Alectra, some communications cables
- Not many conflicts, but hydro relocations and new streetlighting is critical

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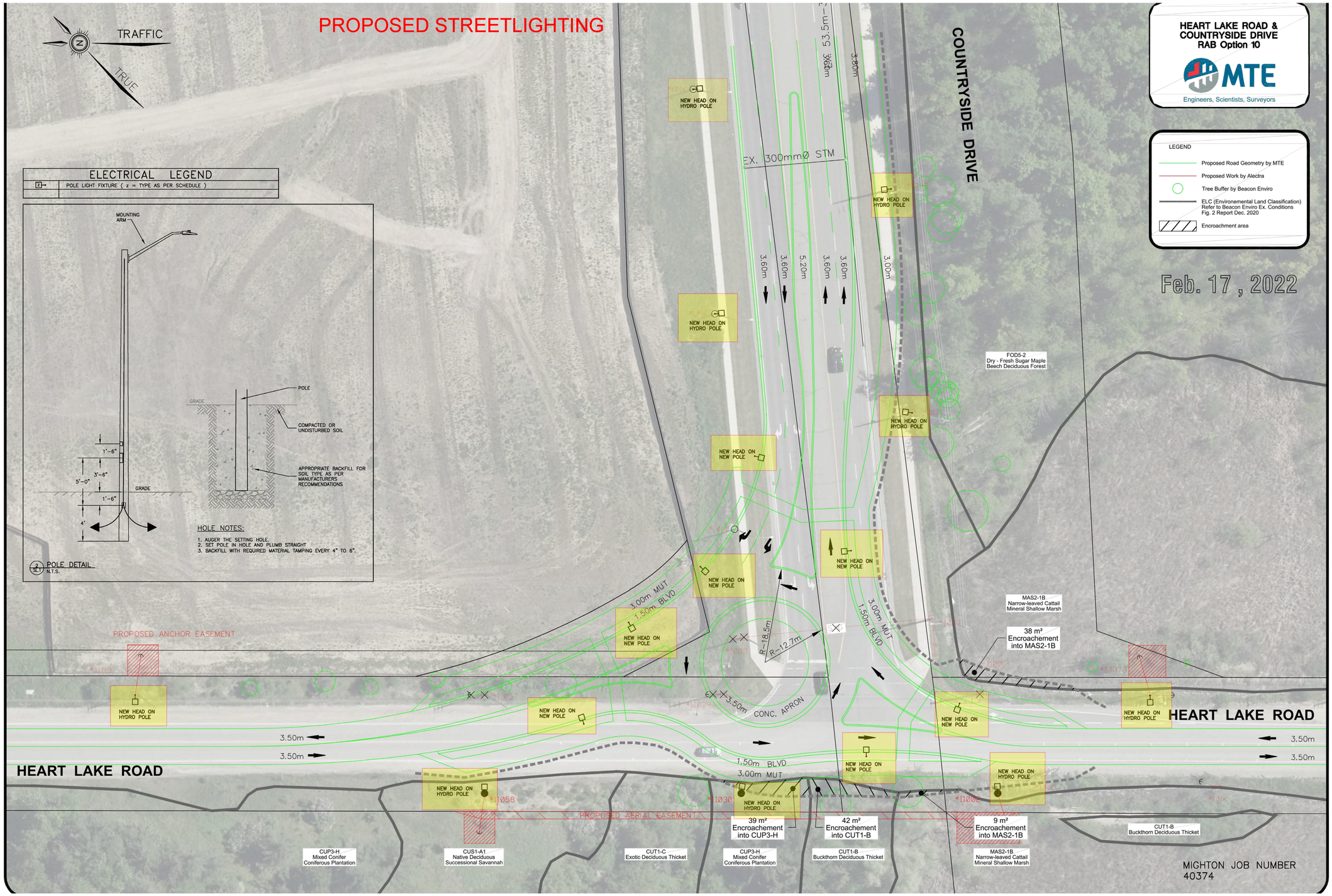
Proposed Streetlighting



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We Want to Hear From You!

Please provide comments by filling out the comment form or by contacting the City's representative or the consultant below by May 13, 2022:

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