

# Timberlee Drain Board of Determination Meeting



*Engineering Presentation*  
Brian J. Cenci, P.E. – Sr. Project Mngr.  
Director of MI County Drain Services  
GEI Consultants of Michigan, P.C.

## **Timberlee Drain Board of Determination**

**October 29, 2020**

**7:30 p.m.**

**Leelanau County Board of Commissioner's Room  
8527 E. Government Center Drive**

**Leelanau County Drain Commissioner  
Steve Christensen**



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## PURPOSE OF ENGINEERING REVIEW:

- A Landowner Application and Petition submitted to the Leelanau County Drain Commissioner for establishing a new County Drain District (Ch. 3) and a new County Drain (Ch. 4) to provide flooding and drainage relief
- Drain Commissioner required to hire a Licensed Professional Engineer to Determine the District Boundary (i.e. the drainage area / watershed) contributing to the proposed Drain Route
- Field Review of potential routes for the proposed Timberlee Hills Drain; potential Drainage District options
- Identify any potential drainage problems or issues that may necessitate construction of a new County owned & operated drain and/or including branch drain
- Determine the most feasible and prudent route for the Drain that would service the Drainage District Boundary
- Present a Preliminary Engineering Summary of findings at a Board of Determination



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## WORK PERFORMED:

- Obtain & analyze existing record information (County maps, building records, aerials, topographic contour information, County Road Commission records, existing land use information, soils info, wetland data, etc.)
- Delineate the proposed Timberlee Hills Drain Drainage District boundary through County topographic contour information, site inspections and survey work to understand stormwater inputs into the drain system and analyze direction of flow for stormwater runoff
- Perform basic hydraulic analysis for different storm events to analyze the capacity needed to provide adequate drainage and flooding relief based on various design criteria for the proposed County Drain

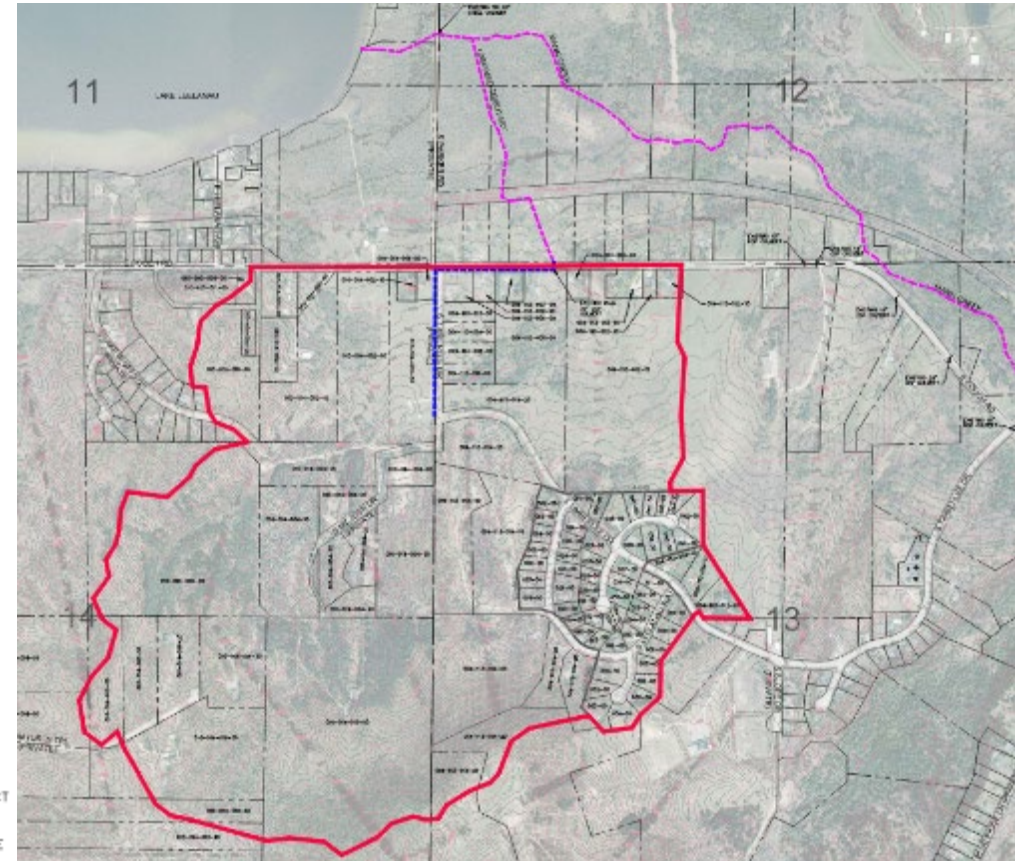
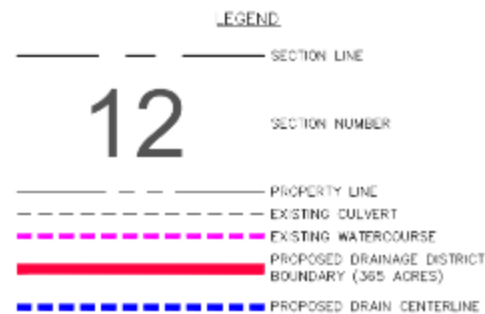


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## PROPOSED DRAINAGE DISTRICT BOUNDARY:

- Proposed Drainage District Boundary is determined based on topographic contour information and field observations
- Approximate area = 365 acres
- Proposed Drain route shown is preliminary and the Drain Commissioner is not held to it

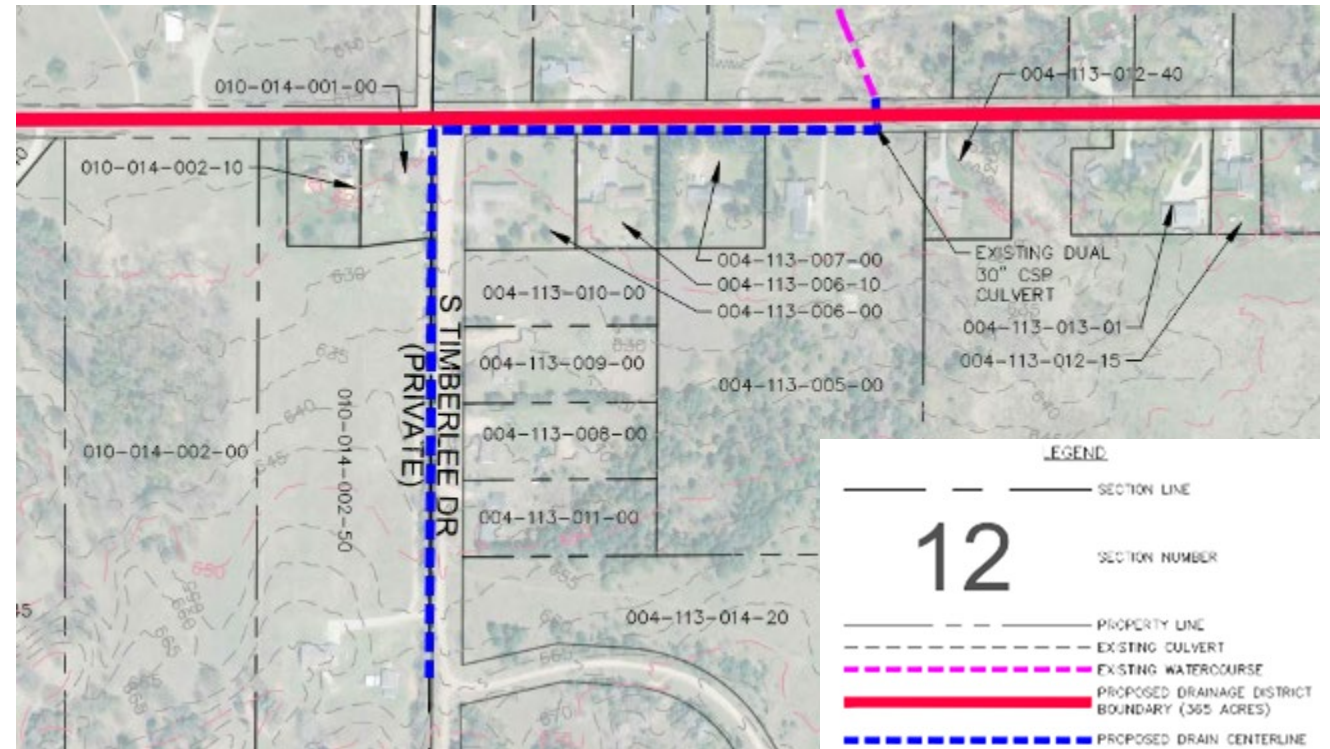


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## PROPOSED ROUTE AND COURSE:

- The proposed Route and Course would start on Timberlee Drive and continue north to E. Fouch Road where it would continue east along the south side of the road before crossing through 2 twin 24" CSP Culverts to the north side of the road and ending at an existing unnamed tributary that flows into Mann Creek and eventually Lake Leelanau

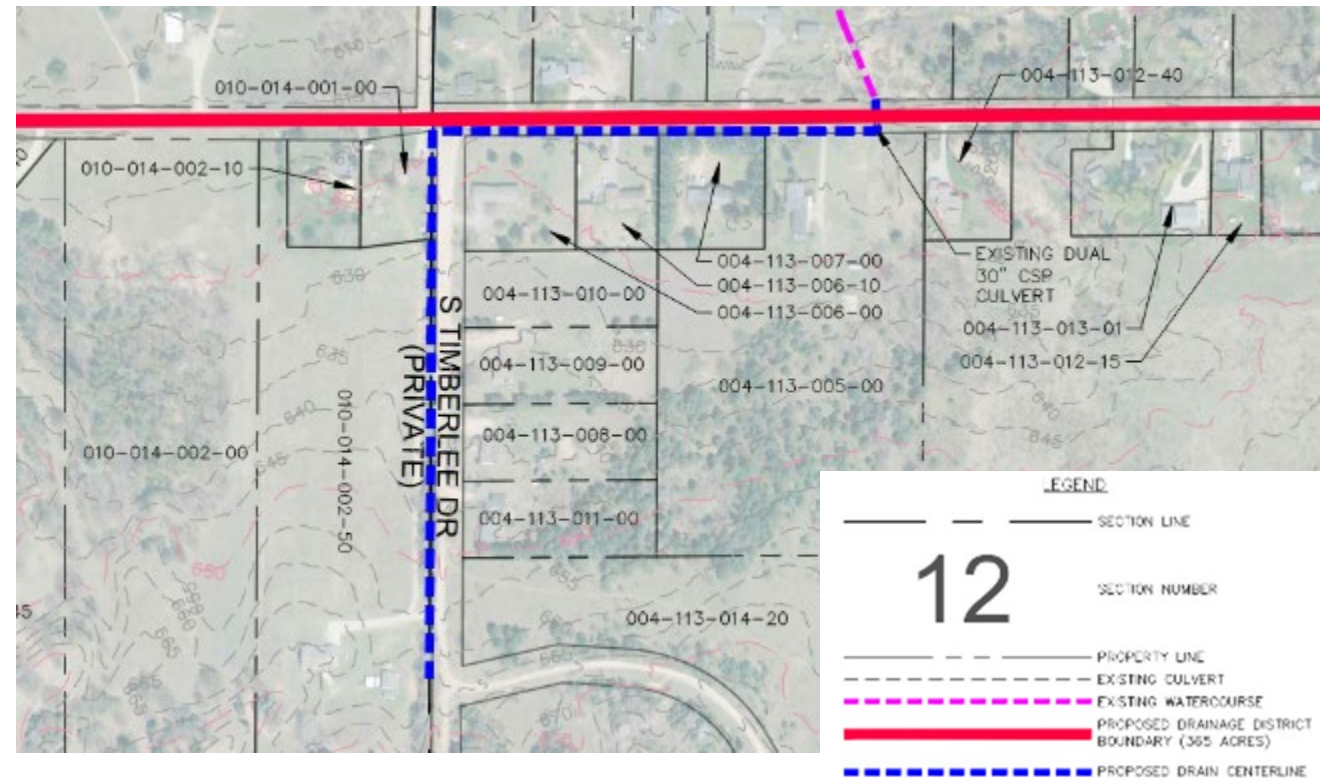


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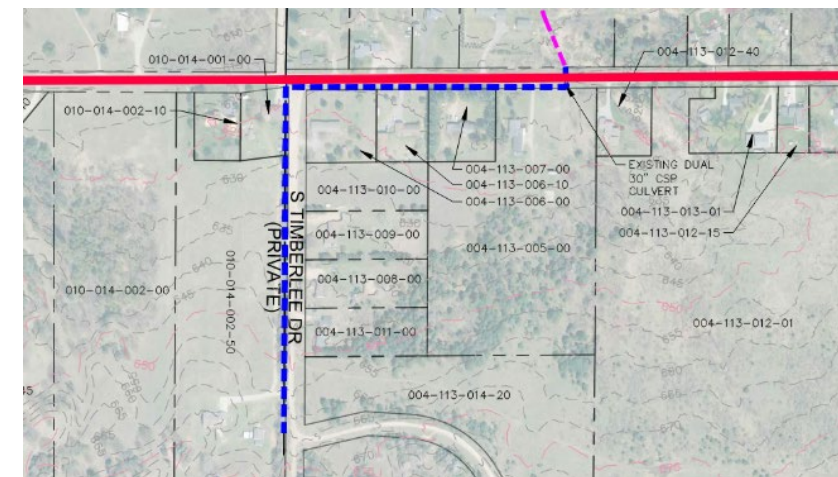


## EXISTING INFRASTRUCTURE:

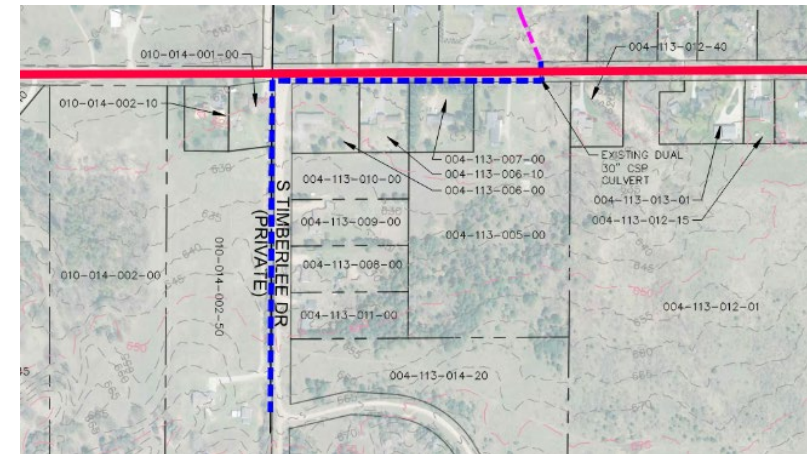
- Stormwater runoff within the Timberlee Drain Drainage District currently makes its way to Lake Leelanau primarily via overland flow and roadside ditches to the existing unnamed stream north of Fouch Rd. The unnamed stream outlets into Mann Creek which then outlets into Lake Leelanau.



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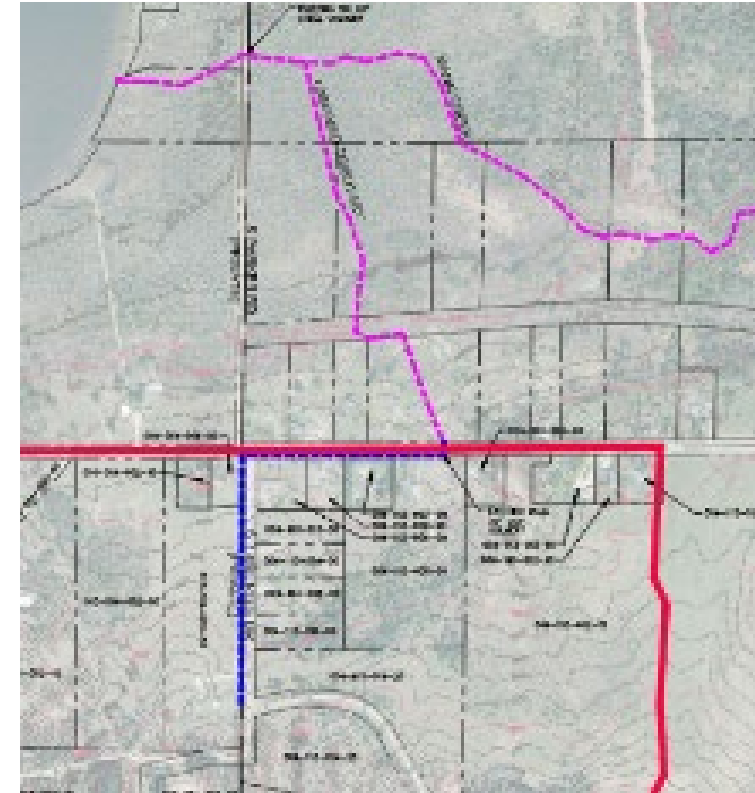
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# Questions

