

WELCOME

Hwy 10 Resurfacing & Intersection Improvements

Public Meeting

PROJECT OVERVIEW & SCHEDULE

Hwy 10 Resurfacing & Intersection Improvements



Design Kickoff Meeting

November 2024



Data Collection

December 2024



Alternative Concept Design

December 2024 through April 2025



Alternative Refinement & Intersection Control Report - April through July 2025



Public Meeting

August 2025



Preferred Alternative Selected

September 2025



Geometric Layout & Cost Estimate

September through December 2025



Highway 10 Resurfacing (Mill & Overlay) Design & Plans - January 2026 & Onward



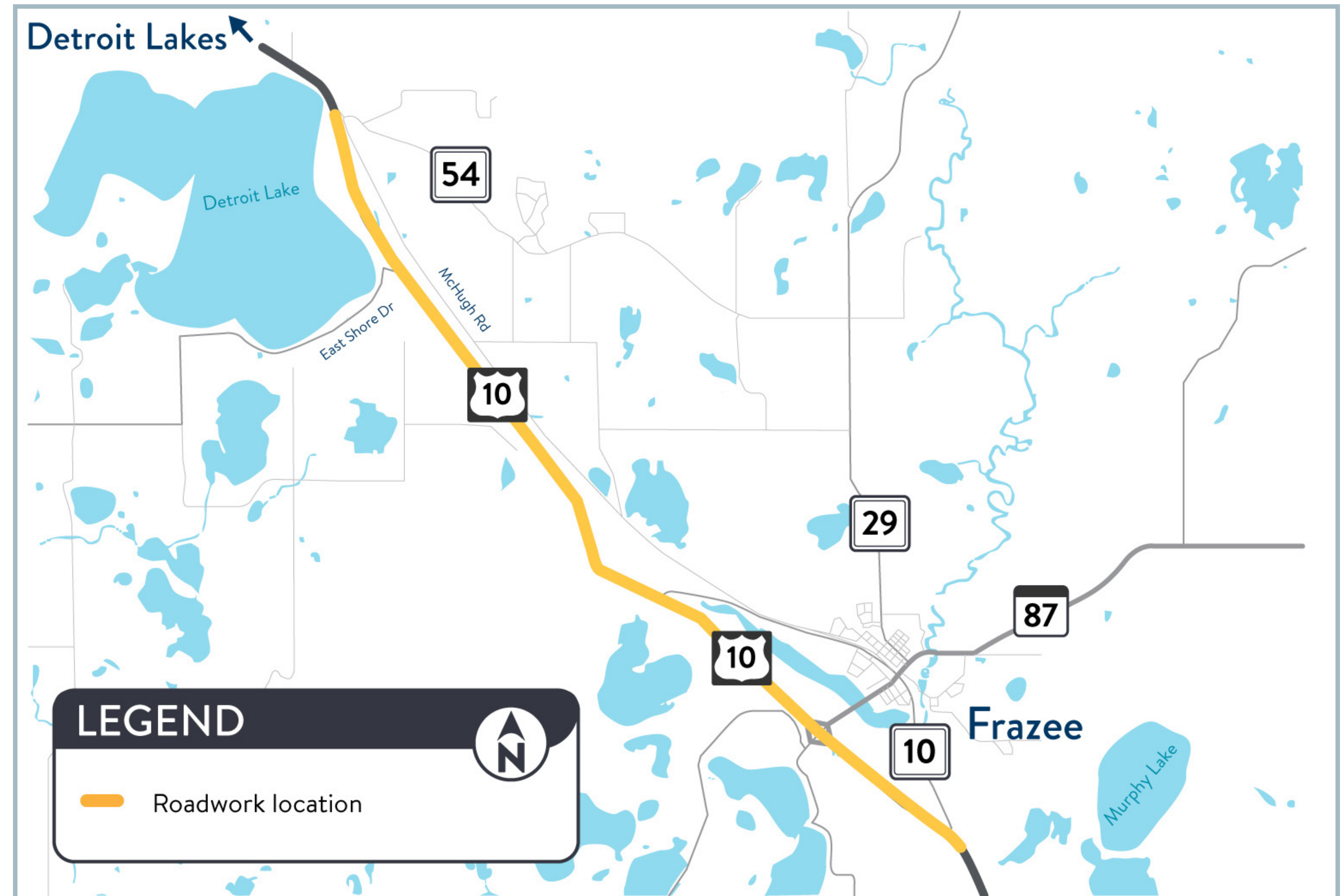
Project Bid Letting

January 2029



Construction

Spring/Summer 2029



For more information visit:

<https://www.dot.state.mn.us/d4/projects/hwy10dl-frazee/>

PURPOSE & NEED

Hwy 10 Resurfacing & Intersection Improvements

Project Purpose

The primary purpose is to preserve the roadway structure, improve ride quality for the traveling public, and conduct a comprehensive corridor assessment on highway 10 near the intersections of East Shore Drive and McHugh Road to identify improvements that:

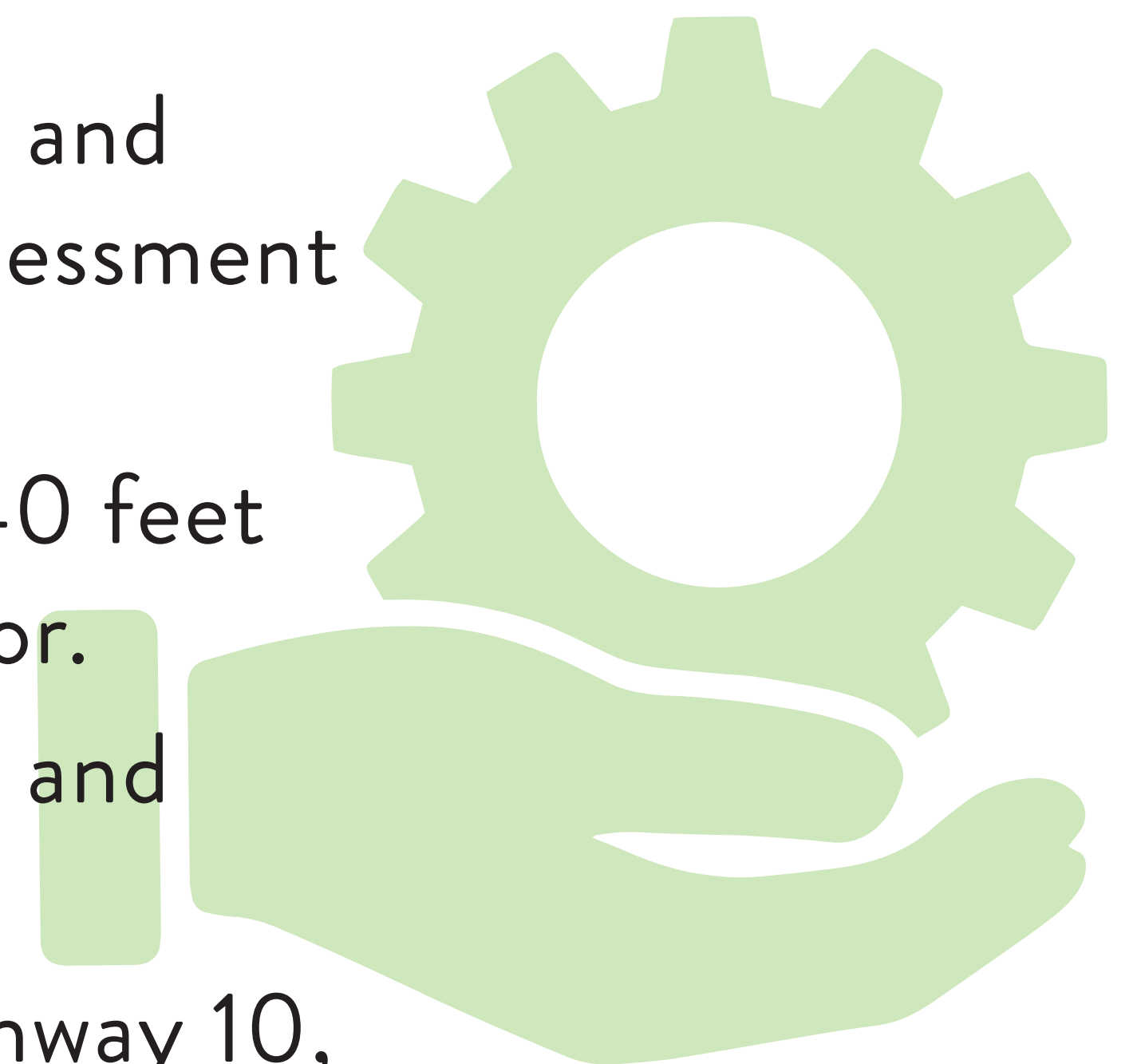
- Enhance traffic performance and mobility.
- Improve driver comprehension and safety.
- Support future growth and development.
- Facilitate strategic access management and geometric improvements.



Project Need

The roadway resurfacing is needed due to decreasing ride quality index values for both eastbound and westbound Highway 10 that are projected to be below the trigger value in 2028. The corridor assessment is needed to identify solutions to key issues:

- Traffic Safety Challenges. Closely spaced access points – two full access public roads only 340 feet apart – create confusion for drivers, resulting in inconsistent and unpredictable driver behavior.
- Degraded Mobility & Performance. Drivers struggle to anticipate others' speeds, movements and intentions, reducing overall roadway efficiency and satisfaction.
- Growth and Development. As the greater Detroit Lakes area continues to develop along Highway 10, traffic demand is increasing, leading to more congestion on the existing infrastructure.



EXISTING CONDITIONS & CRASH HISTORY

Hwy 10 Resurfacing & Intersection Improvements

A study of the intersections of Highway 10 at E Shore Drive and 290th Avenue/McHugh Road found a number of issues that a potential intersection improvement should resolve:



Safety: Two serious injury or fatal crashes have occurred in recent years. Most crashes at these intersections are angle or left turn crashes which are among the most dangerous crash types.



Access: The closely spaced intersections, continuous turn lanes, and high number of accesses in a small area create driver confusion, increase conflict points and crash potential. Closely spaced frontage roads and driveways further this issue.



Delays: During peak periods, E Shore Dr and 290th Ave traffic can wait over 30 seconds find a safe gap in Hwy 10 traffic to turn left onto the highway. These delays increase significantly during peak summer months as traffic volumes increase on Hwy 10. Long delays may cause drivers to accept smaller and riskier gaps in traffic.



ALTERNATIVES EVALUATION

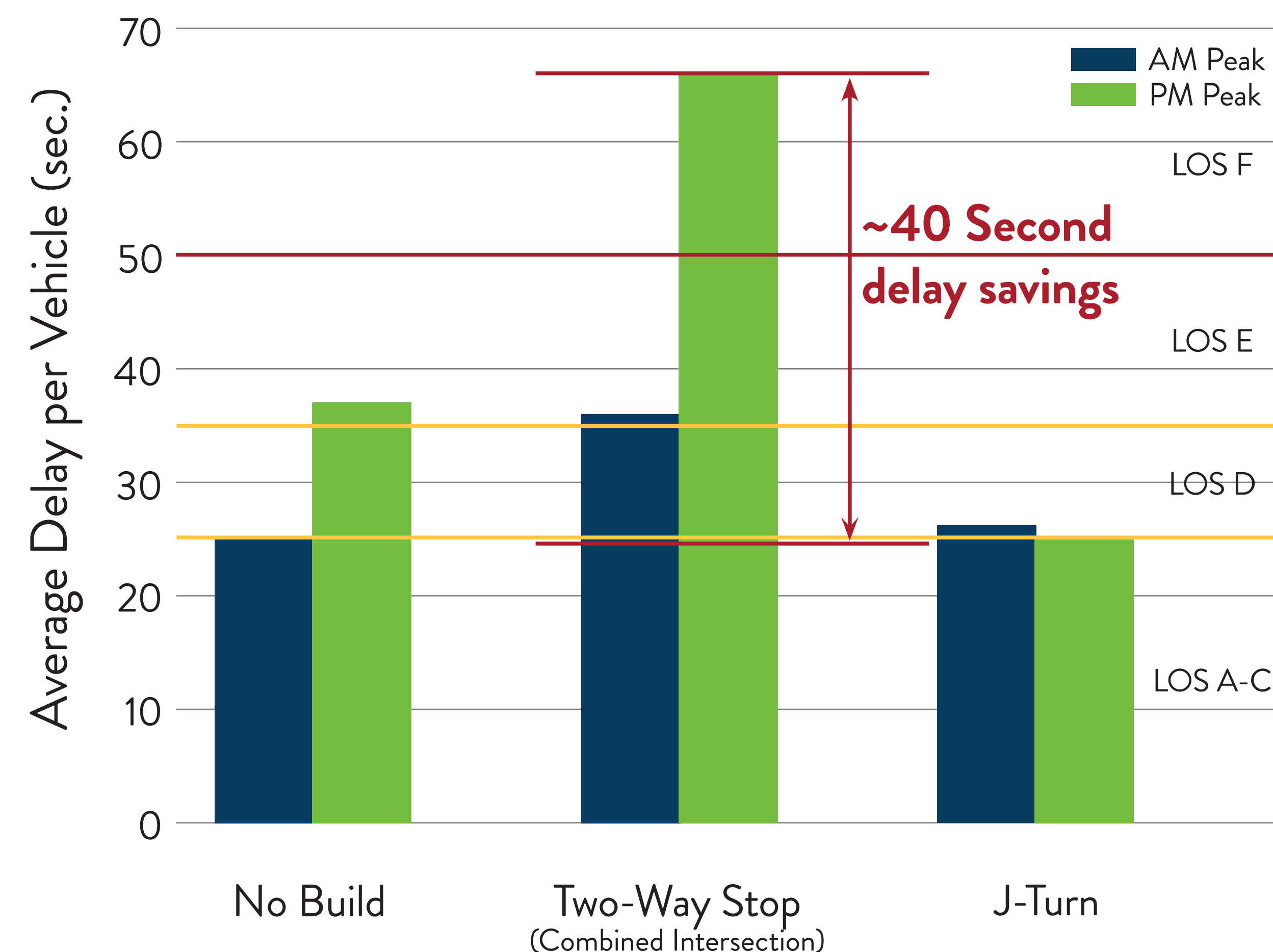
Hwy 10 Resurfacing & Intersection Improvements

Several intersection control alternatives were considered and evaluated in terms of their operations and safety performance at the intersections of Highway 10 at E Shore Dr and 290th Ave/McHugh Rd:

- A traffic signal is not a viable alternative as minor street traffic volumes are not high enough to satisfy signal warrants.
- A roundabout was eliminated from consideration due to high impacts and costs, as well as unacceptable degradation of mobility along Highway 10.
- Viable alternatives considered include a single stop-controlled intersection (E Shore Dr and 290th Ave combined), and a J-Turn intersection.

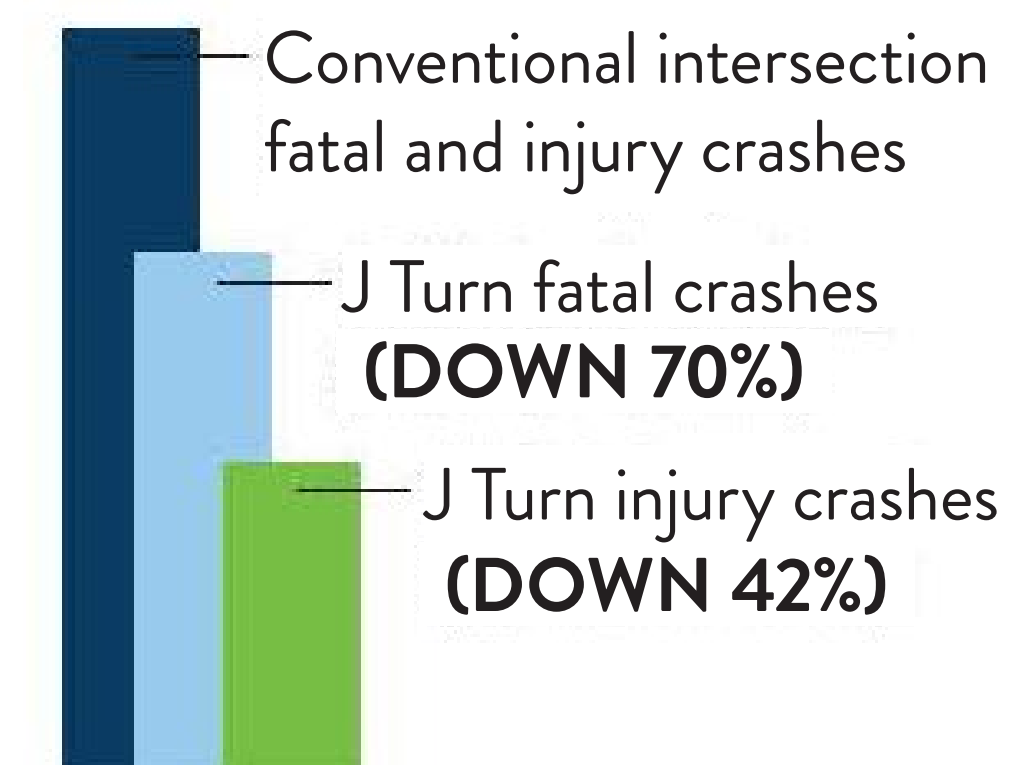
Consolidating the two intersections of E Shore Dr and 290th Ave into one intersection improves safety by eliminating 50% of conflict within the area. However, delays may increase as local traffic only has one access point to Hwy 10.

SIDESTREET APPROACH DELAY



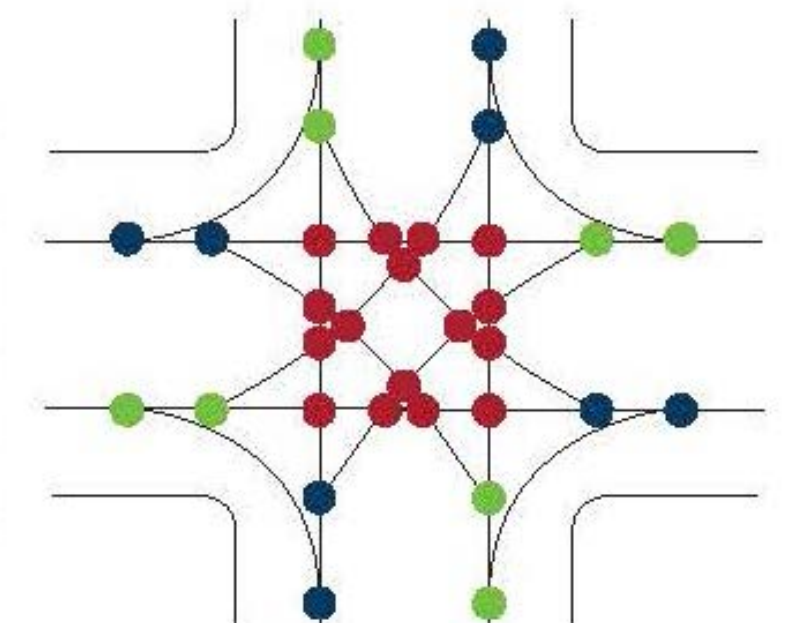
SAFETY FACTS

RESEARCH SHOWS J TURNS REDUCE FATAL AND INJURY CRASHES:



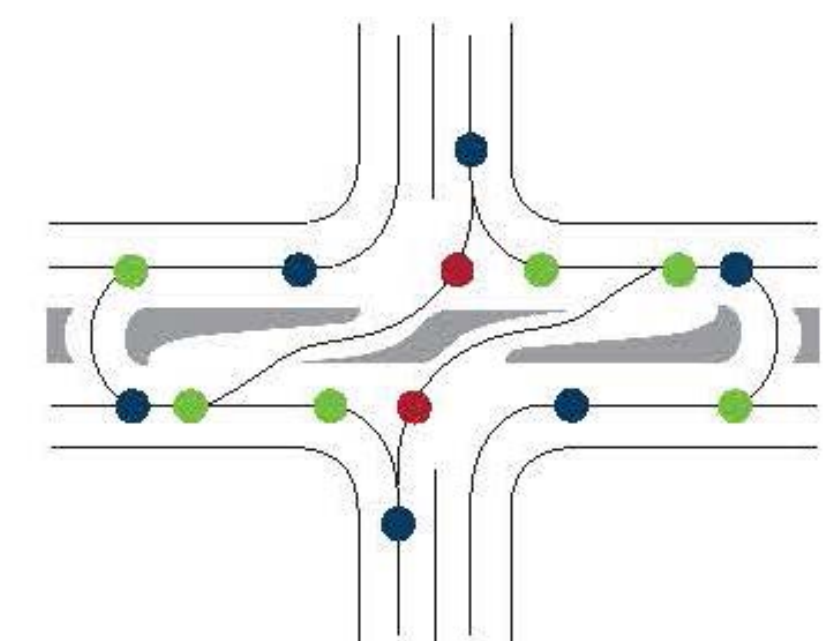
CONVENTIONAL INTERSECTION CONFLICT POINTS

Conflict Type	Count
Crossing	16
Merging	8
Diverging	8
Total Conflicts	32



J TURN INTERSECTION CONFLICT POINTS

Conflict Type	Count
Crossing	2
Merging	6
Diverging	6
Total Conflicts	14



Even with the additional travel distance created by the J-Turn, the overall travel time to travel west to Detroit Lakes is expected to be improved compared to a two-way stop-controlled intersection. Using the J-Turn will be faster than using alternate routes such as Oxcart Trail or the traffic signal at County 54.

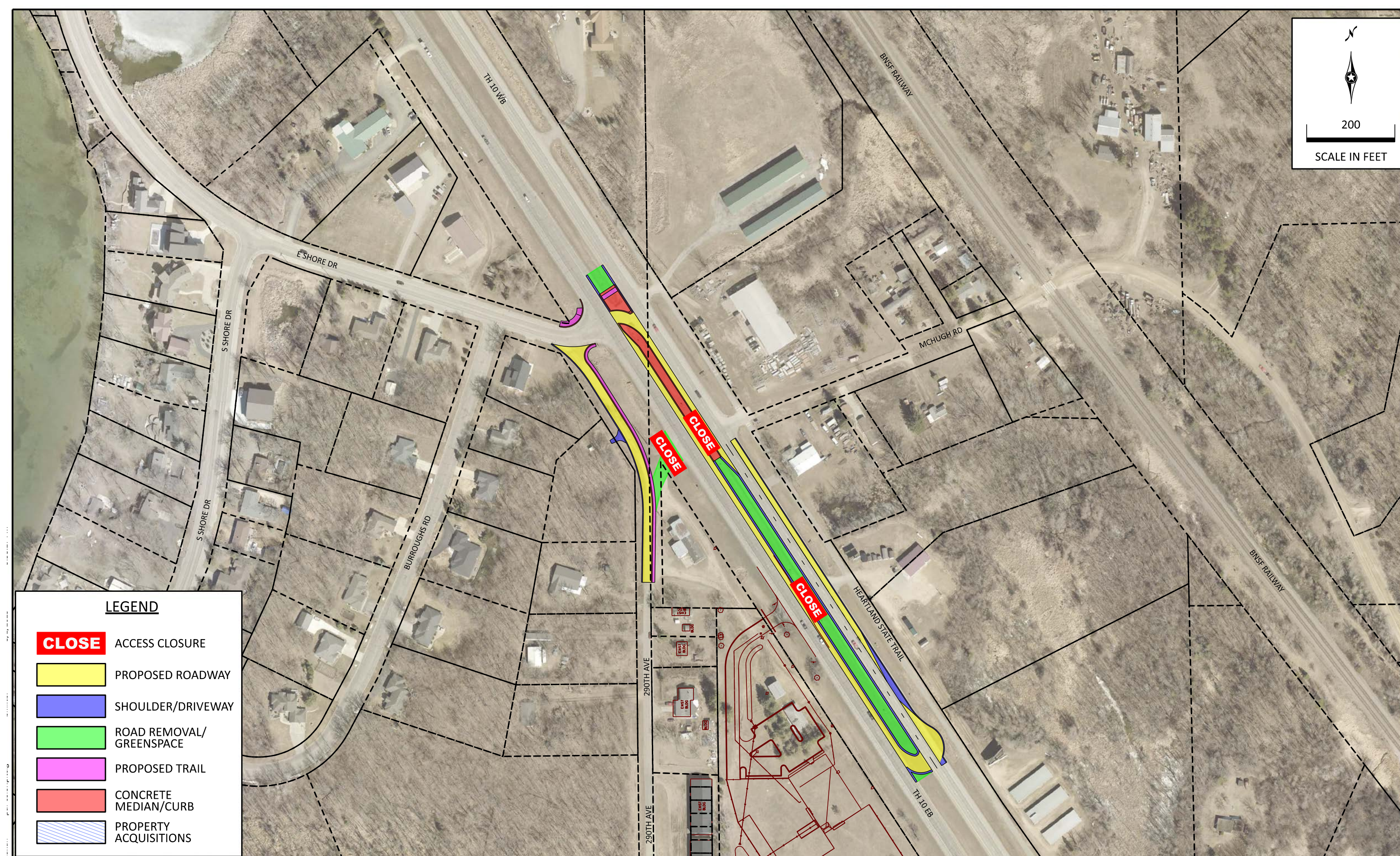
ALTERNATIVES CARRIED FORWARD

Hwy 10 Resurfacing & Intersection Improvements

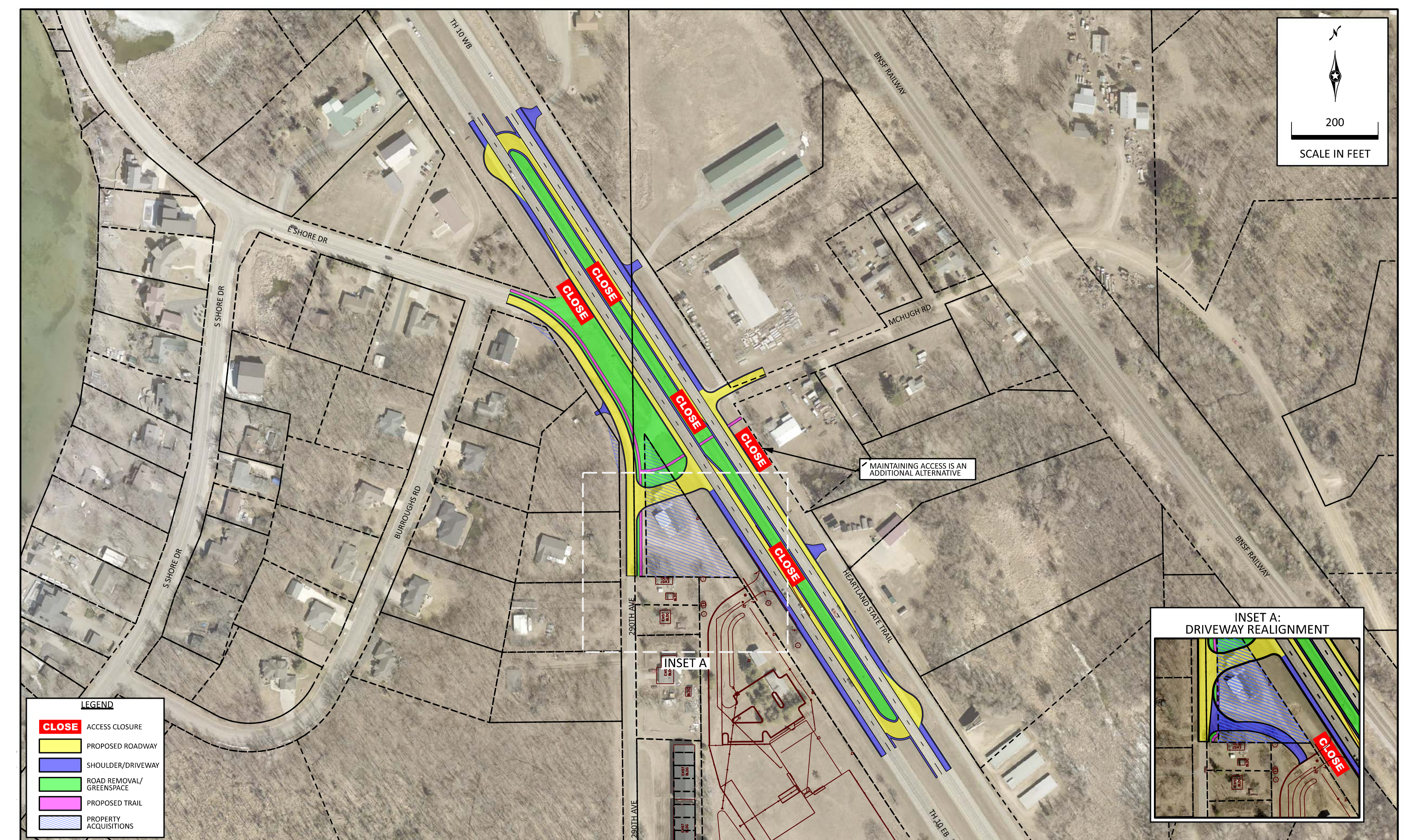
The two design alternatives shown below were chosen to be carried forward based on the following key considerations:

- Best Cost/Safety Benefit value.
- Impacts are contained within public right-of-way or involve minimal private right-of-way impacts.
- Addresses perceived sight distance issue that exists today.
- Maintains consistency with the roadway classification of the Hwy 10 corridor.

ALTERNATIVE 1:

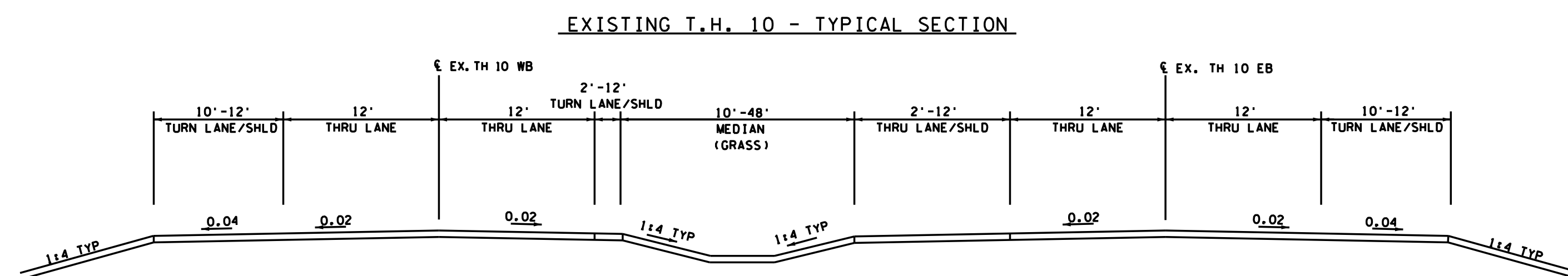


ALTERNATIVE 4:

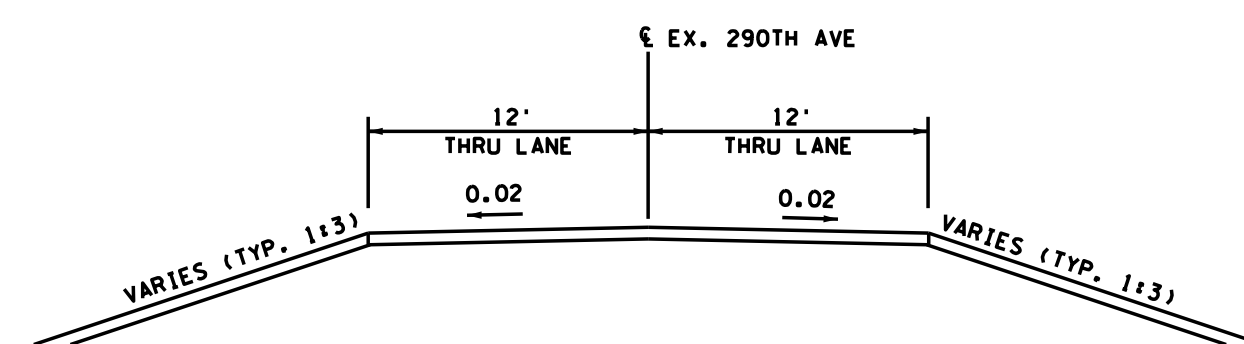


Hwy 10 Resurfacing & Intersection Improvements

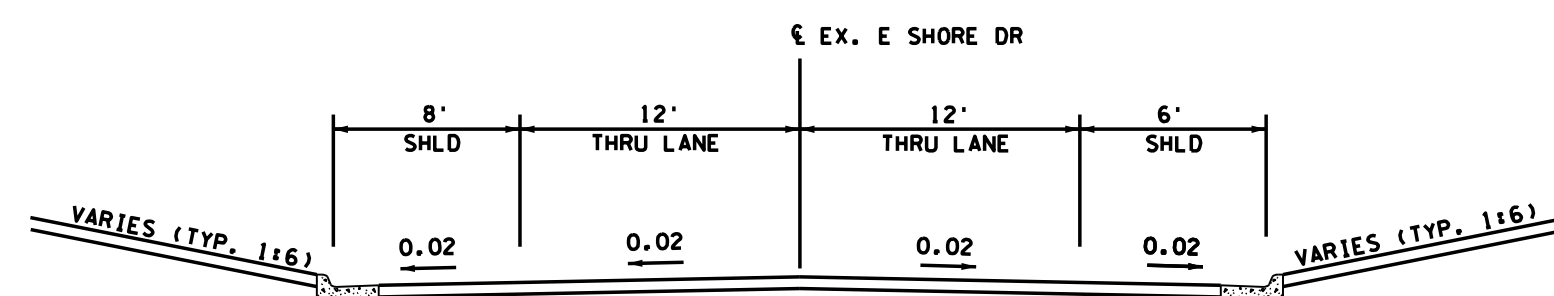
EXISTING TYPICAL SECTIONS



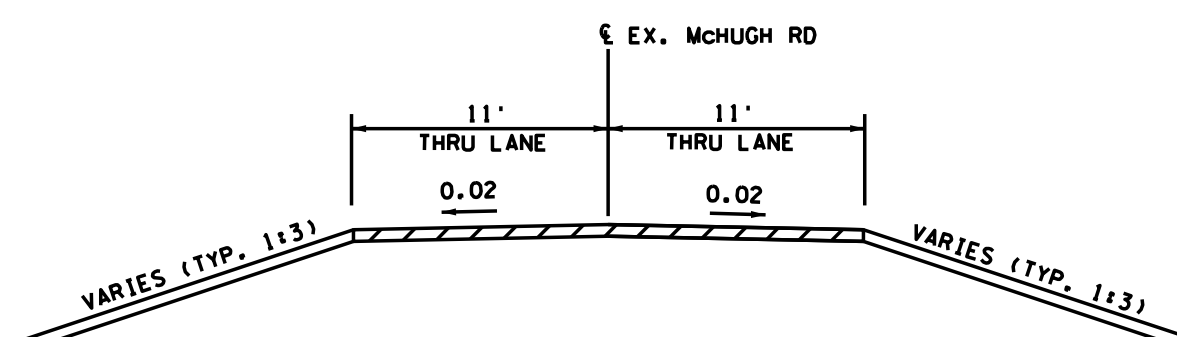
EXISTING 290TH AVE - TYPICAL SECTION



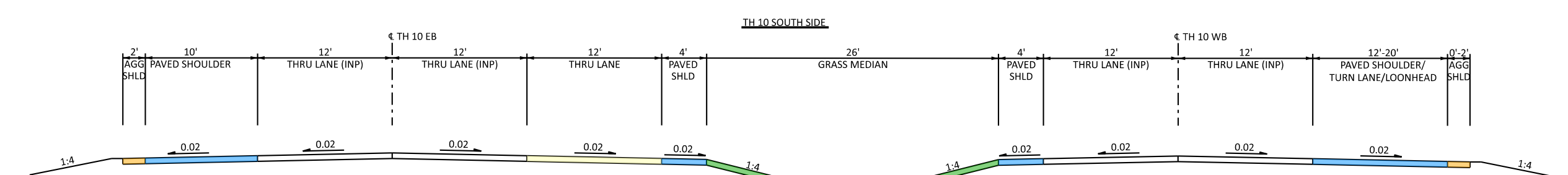
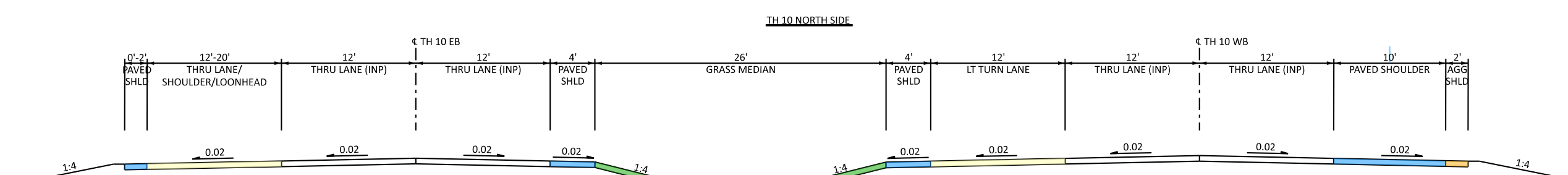
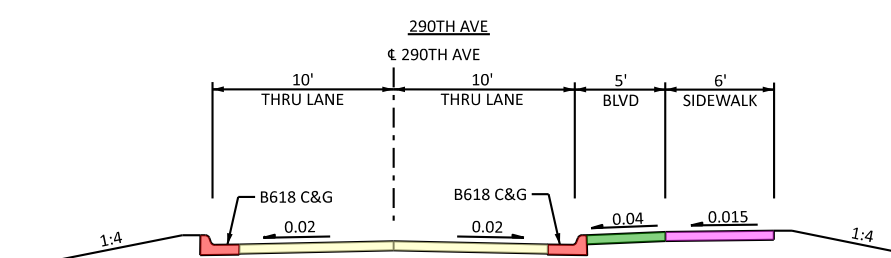
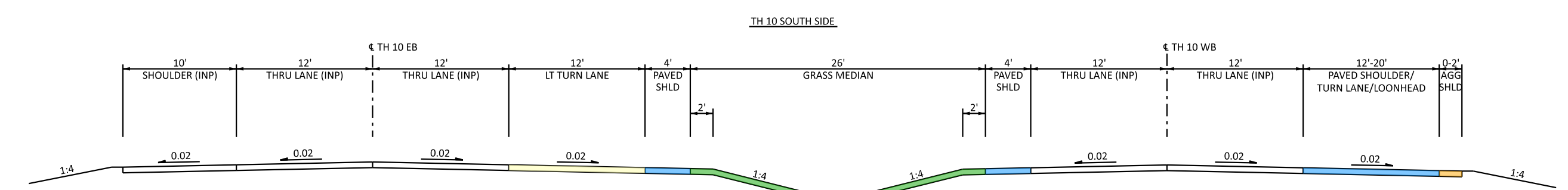
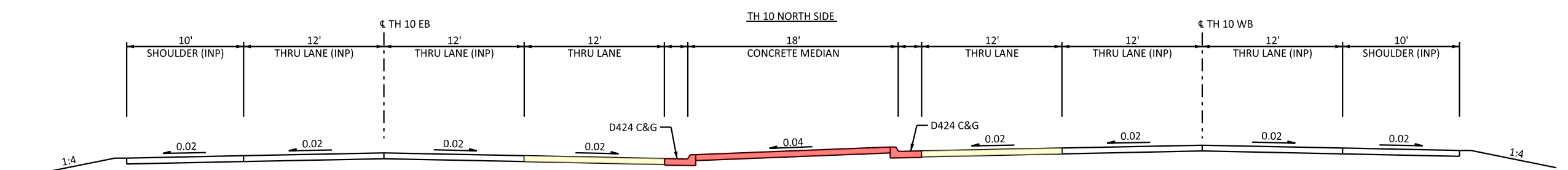
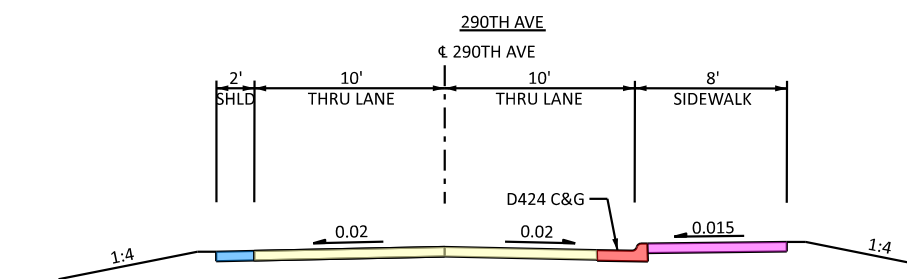
EXISTING E SHORE DR - TYPICAL SECTION



EXISTING MCHUGH RD - TYPICAL SECTION

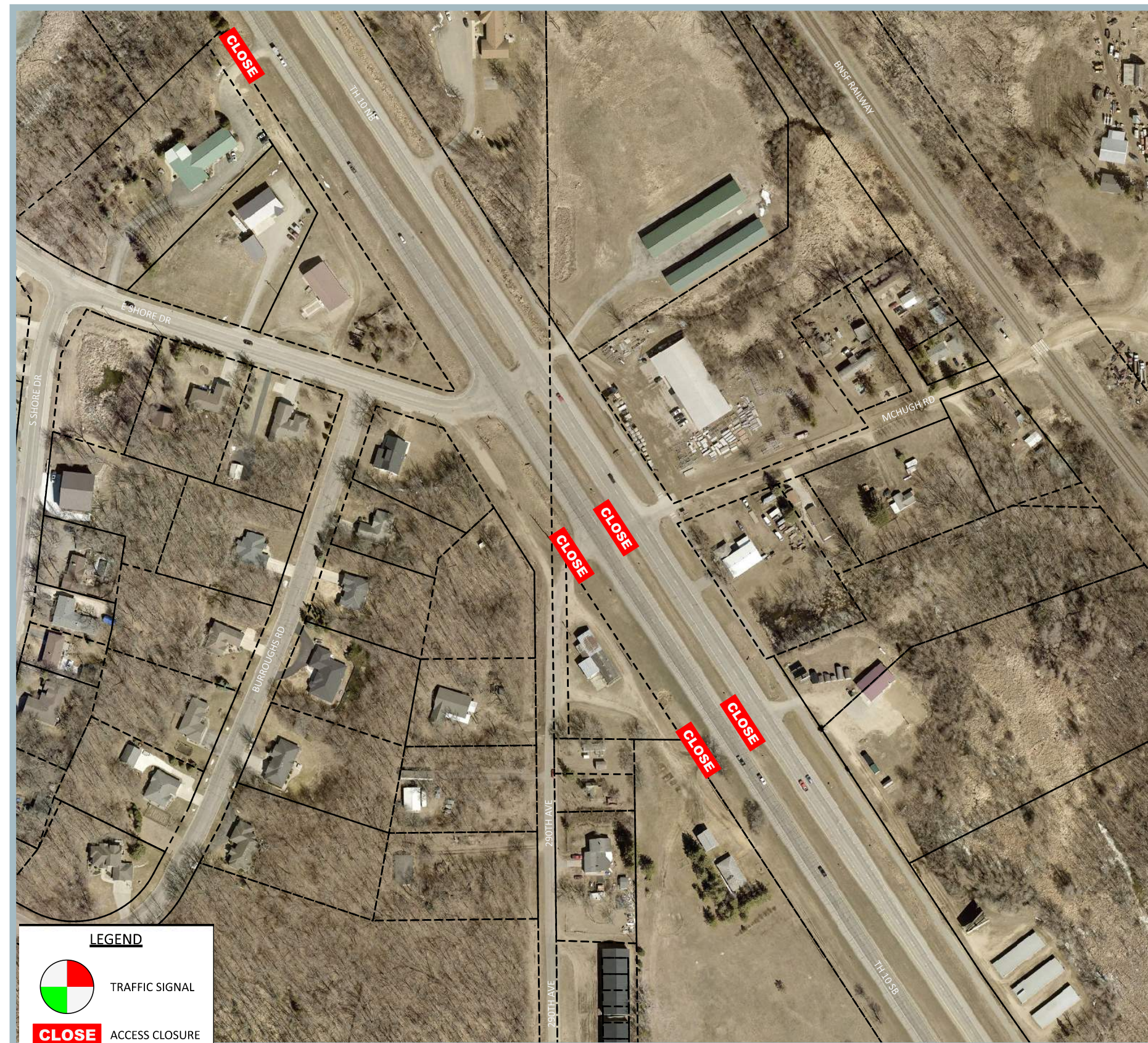


PROPOSED TYPICAL SECTIONS



HIGH LEVEL CONCEPTS STUDIED & ELIMINATED

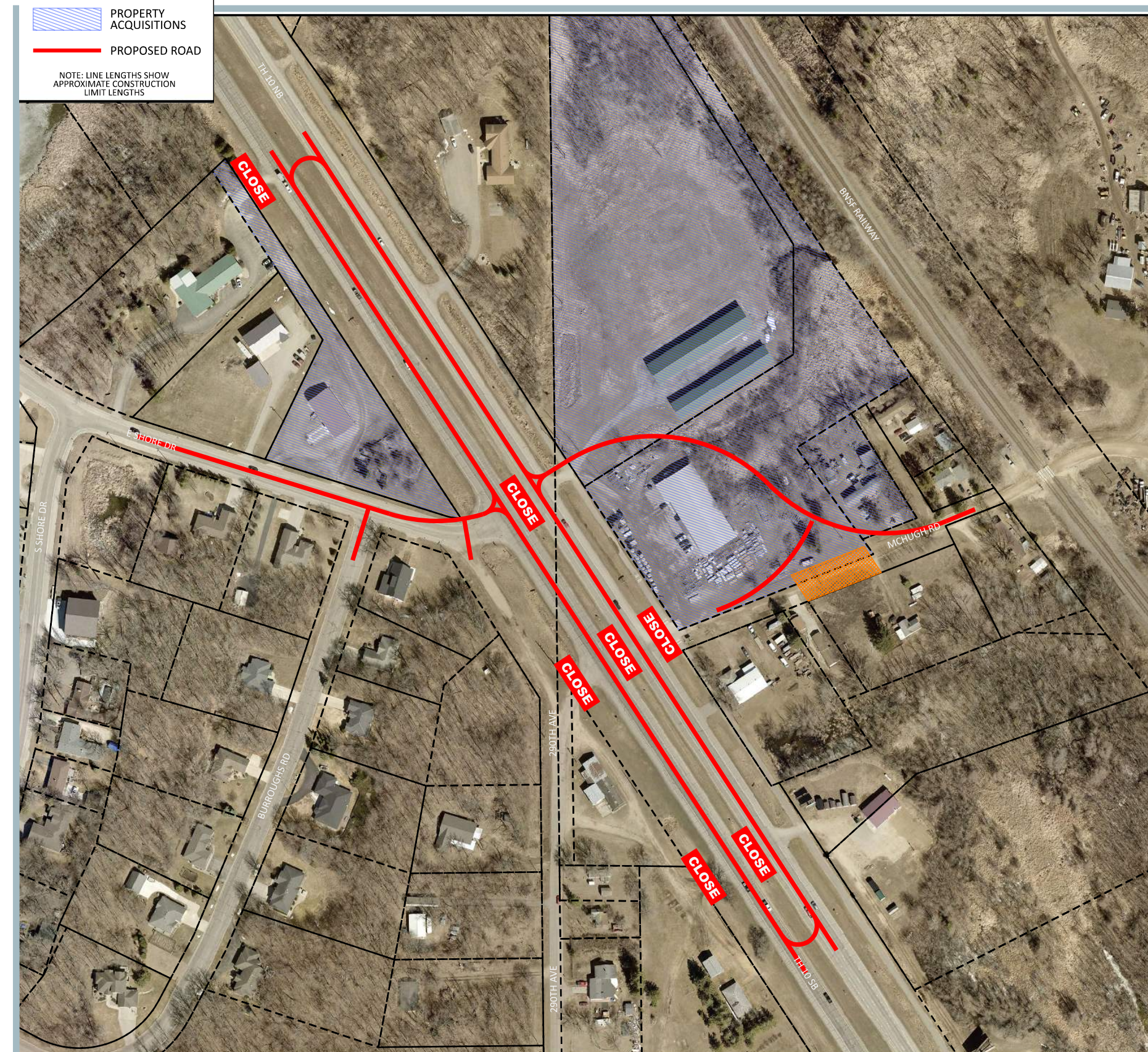
Hwy 10 Resurfacing & Intersection Improvements



Alternative 0

Alt 0 Reason for Elimination:

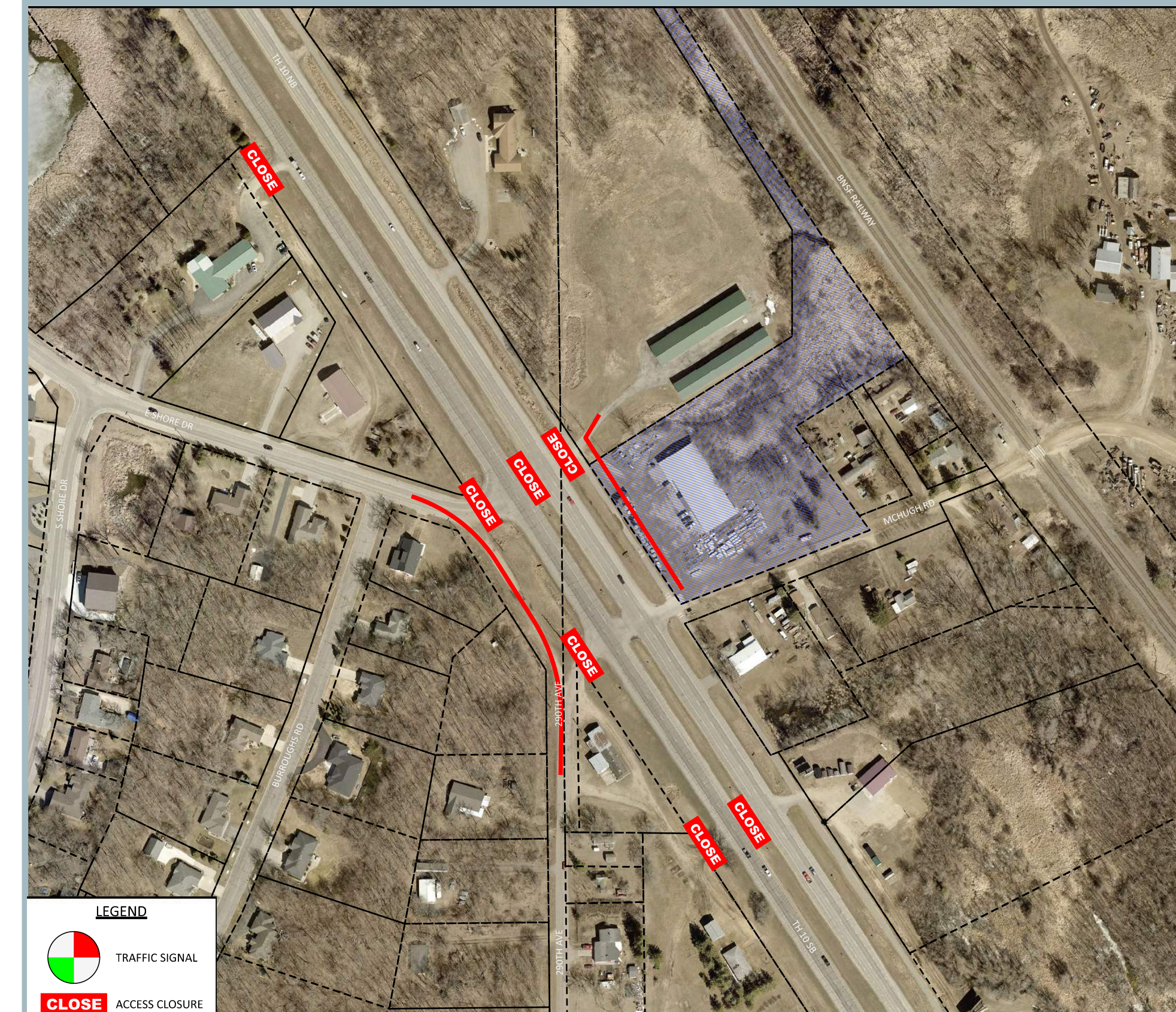
- Doesn't address project purposed and need.
- Doesn't address the main intersections of E Shore Dr and Mchugh Rd.
- Limited access for adjacent properties.
- Unacceptable sidestreet delays.



Alternative 6

Alt 6 Reason for Elimination:

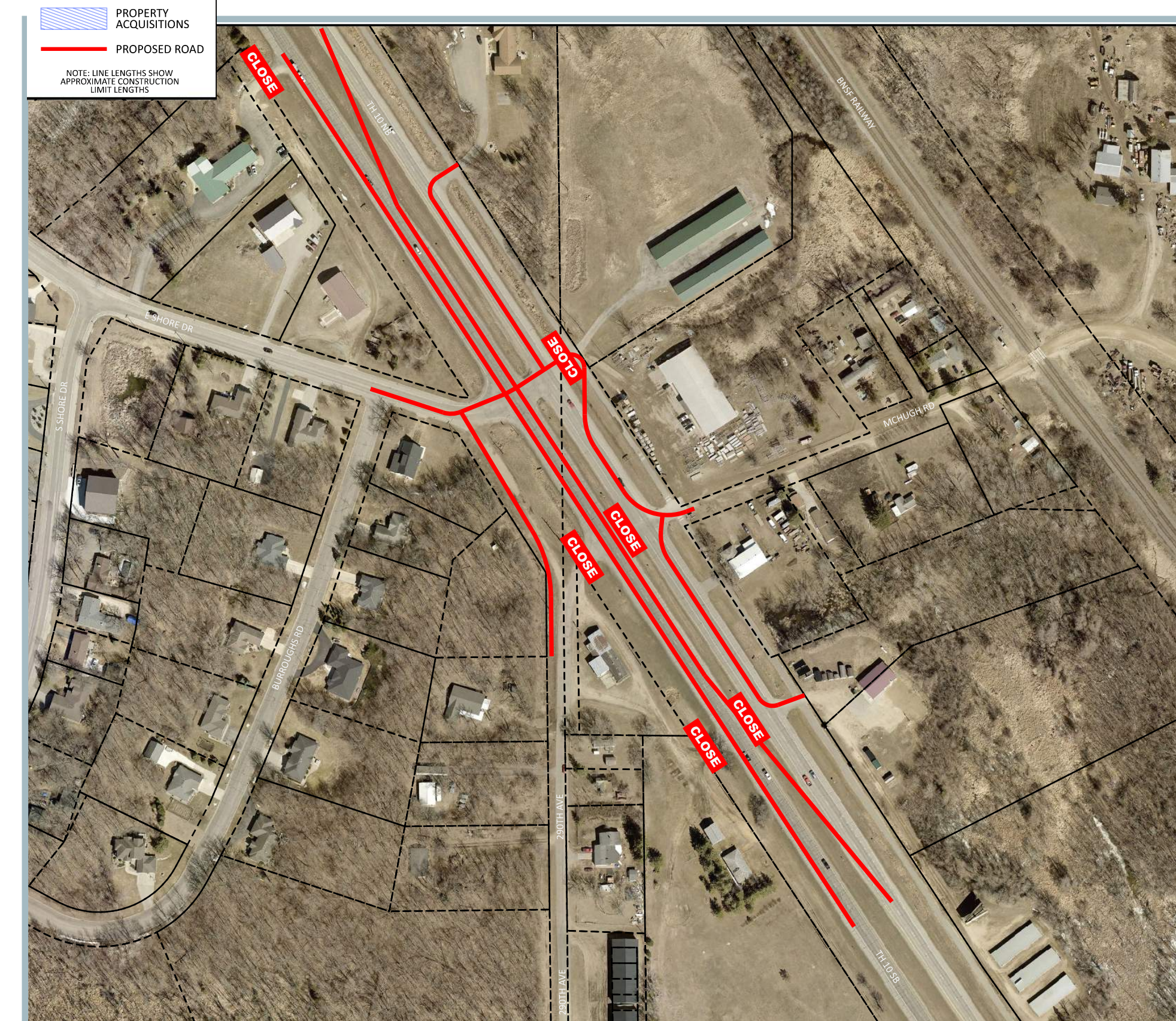
- Doesn't address the issues as well as other alternatives available.
- Impactful to Right-of-Way.
- Too costly compared to other alternatives that fulfill the project purpose and need.
- Would be expensive to local agencies per MnDOT's Cost Participation Policy.



Alternative 2

Alt 2 Reason for Elimination:

- Eliminates too much access.
- Shifts traffic from the east side to access Hwy 10 north and south of this intersection (Oxcart Tr and 130th St).
- Shifts issue to Oxcart Tr and 130th St intersections instead.
- Unacceptable sidestreet delays.



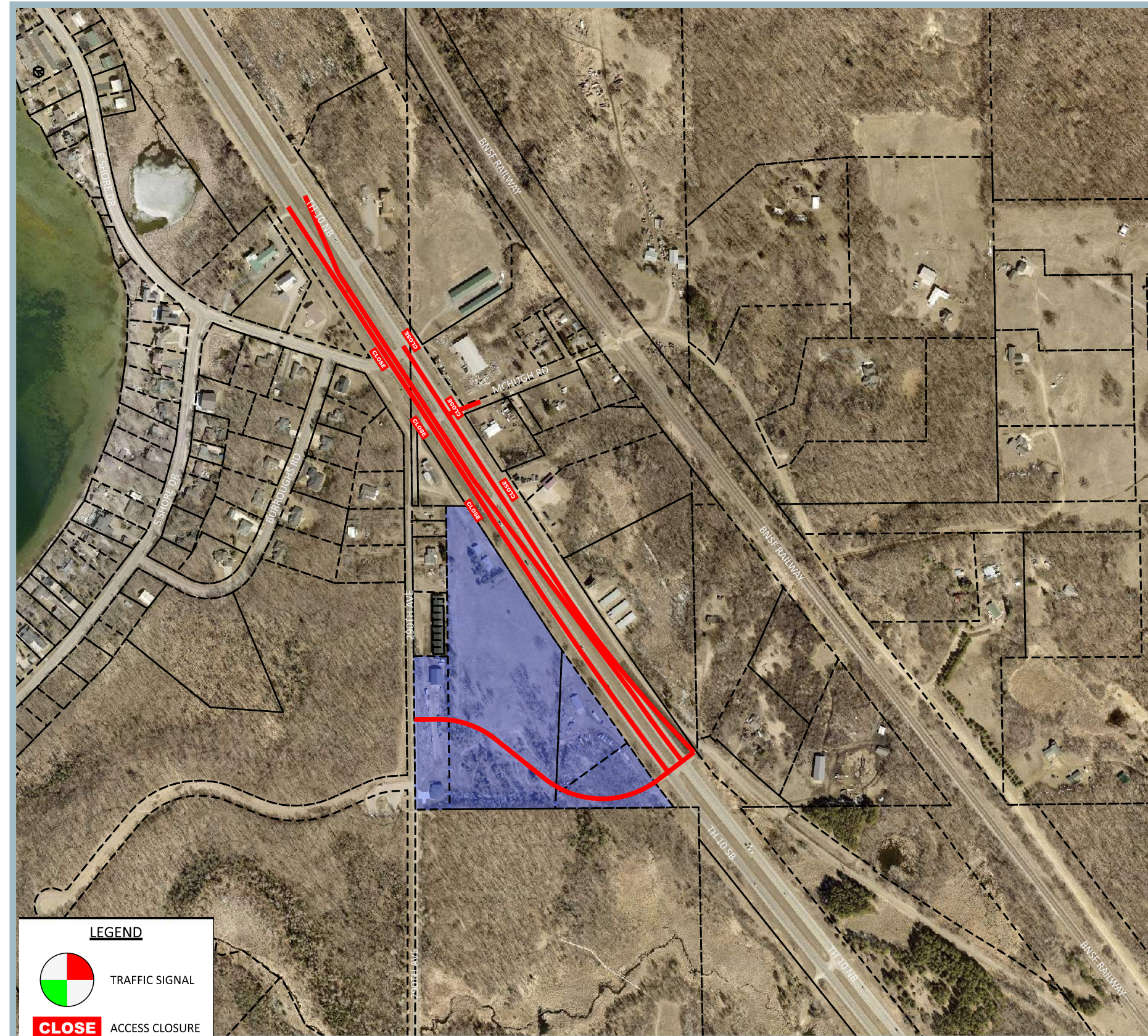
Alternative 7

Alt 7 Reason for Elimination:

- Does not allow for a 2-Stage crossing movement for the left turns which is the major concerned movement.
- Median will not be wide enough for a vehicle to queue and wait for the on-coming traffic to merge into.
- Intersections too closely spaced on local roadways.

HIGH LEVEL CONCEPTS STUDIED & ELIMINATED

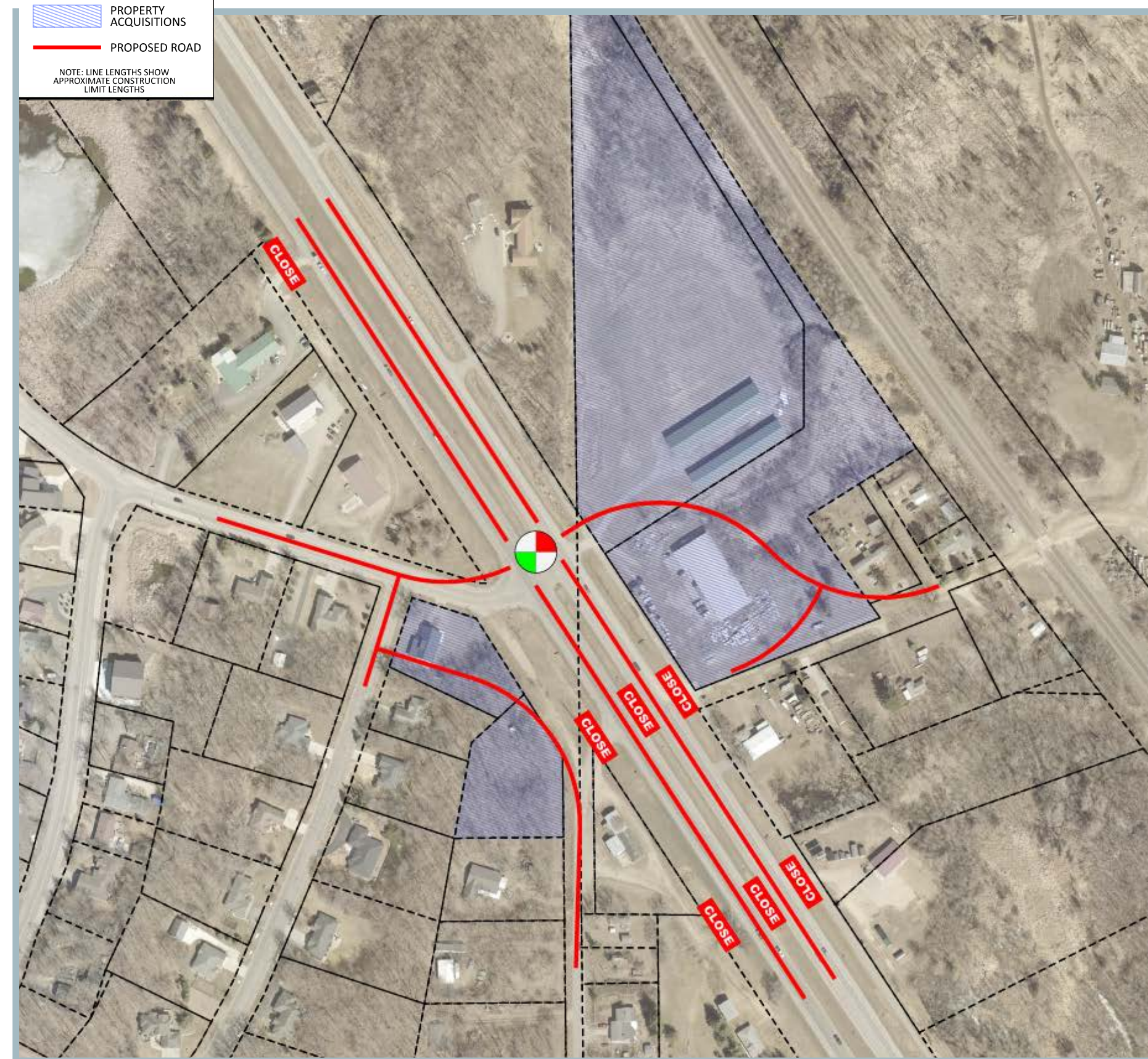
Hwy 10 Resurfacing & Intersection Improvements



Alternative 8

Alt 8 Reason for Elimination:

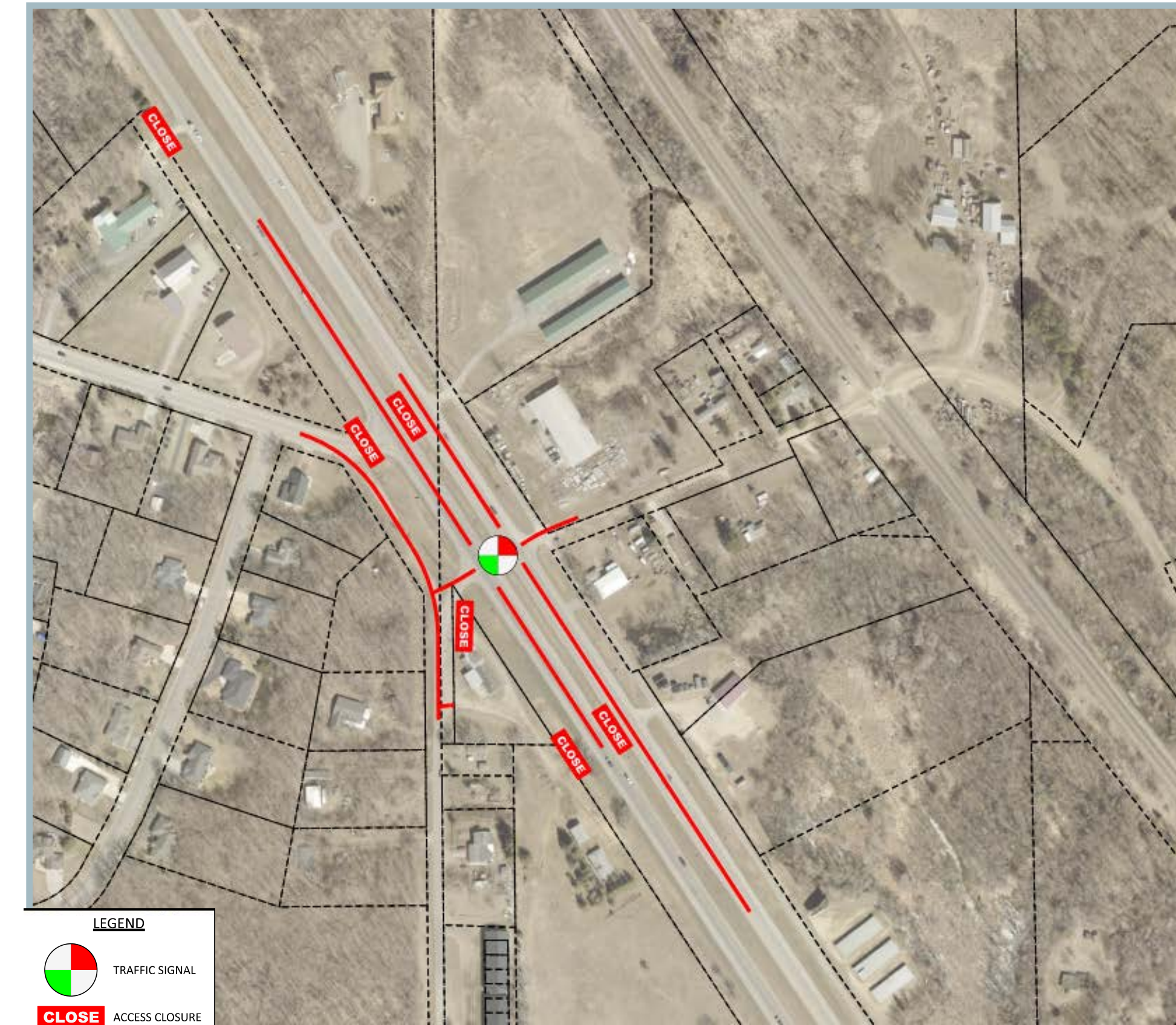
- Too costly compared to other alternatives that fulfill the project purpose and need.
- Unacceptable sidestreet delays.
- High impacts to Sucker Creek Preserve property.



Alternative 10

Alt 10 Reason for Elimination:

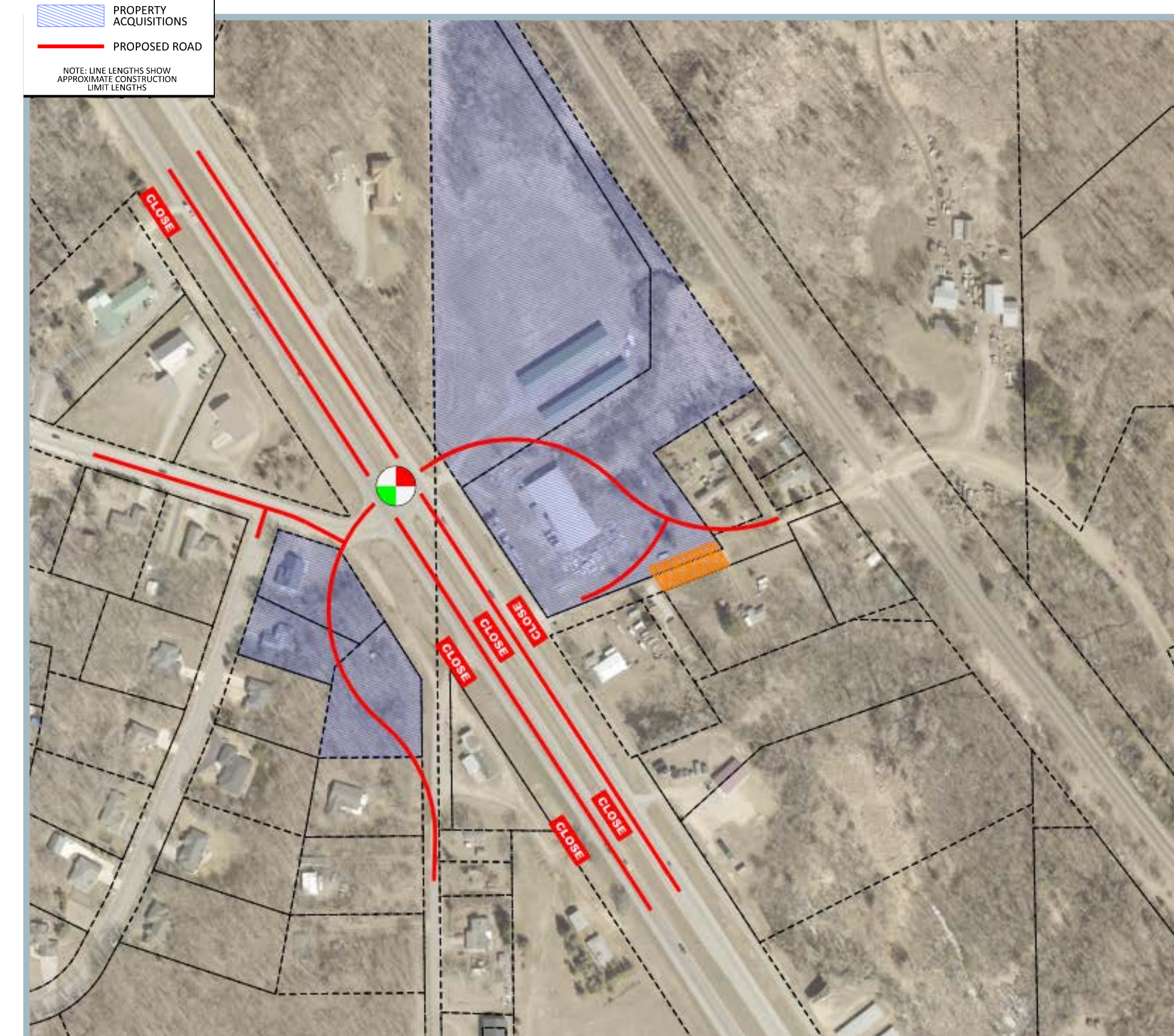
- Signal not warranted.
- High impacts to private property.
- Too costly compared to other alternatives that fulfill the project purpose and need.
- Would be expensive to local agencies per MnDOT's Cost Participation Policy.



Alternative 9

Alt 9 Reason for Elimination:

- Signal not warranted.
- Limited queuing for E Shore Dr and 290th Intersections in relation to Hwy 10.



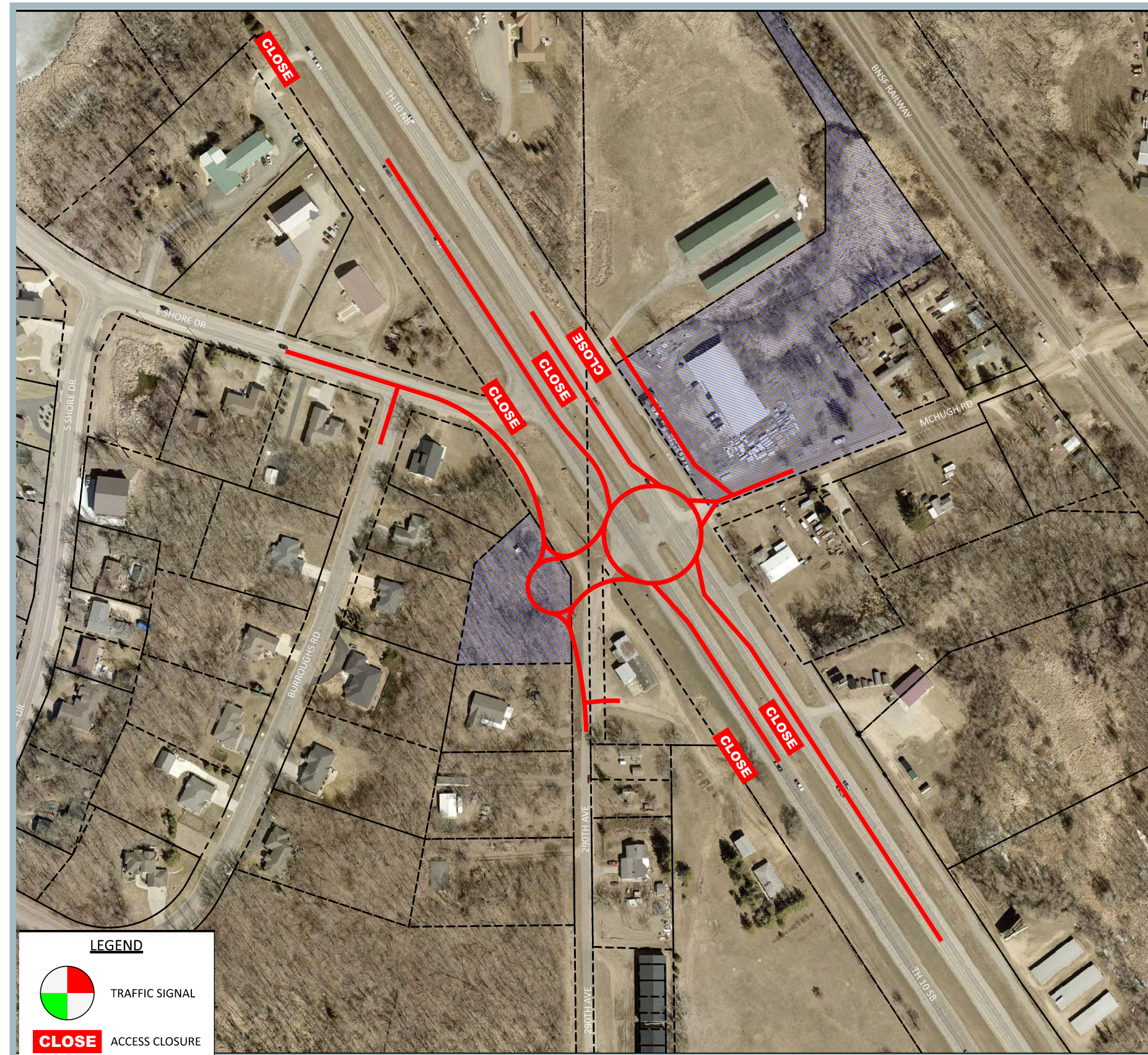
Alternative 11

Alt 11 Reason for Elimination:

- Signal not warranted.
- High impacts to private property.
- Too costly compared to other alternatives that fulfill the project purpose and need.
- Would be expensive to local agencies per MnDOT's Cost Participation Policy.

HIGH LEVEL CONCEPTS STUDIED & ELIMINATED

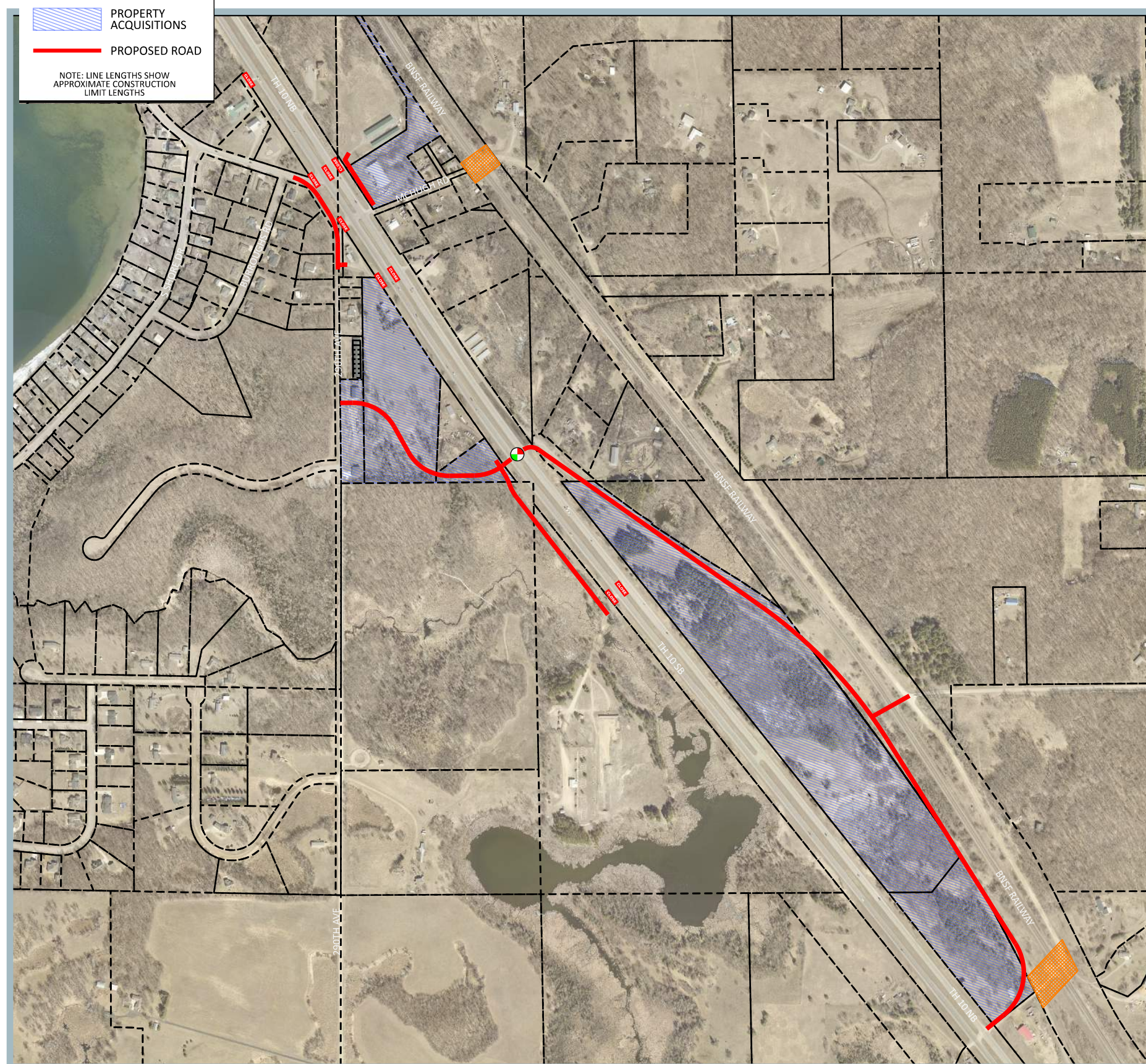
Hwy 10 Resurfacing & Intersection Improvements



Alternative 13

Alt 13 Reason for Elimination:

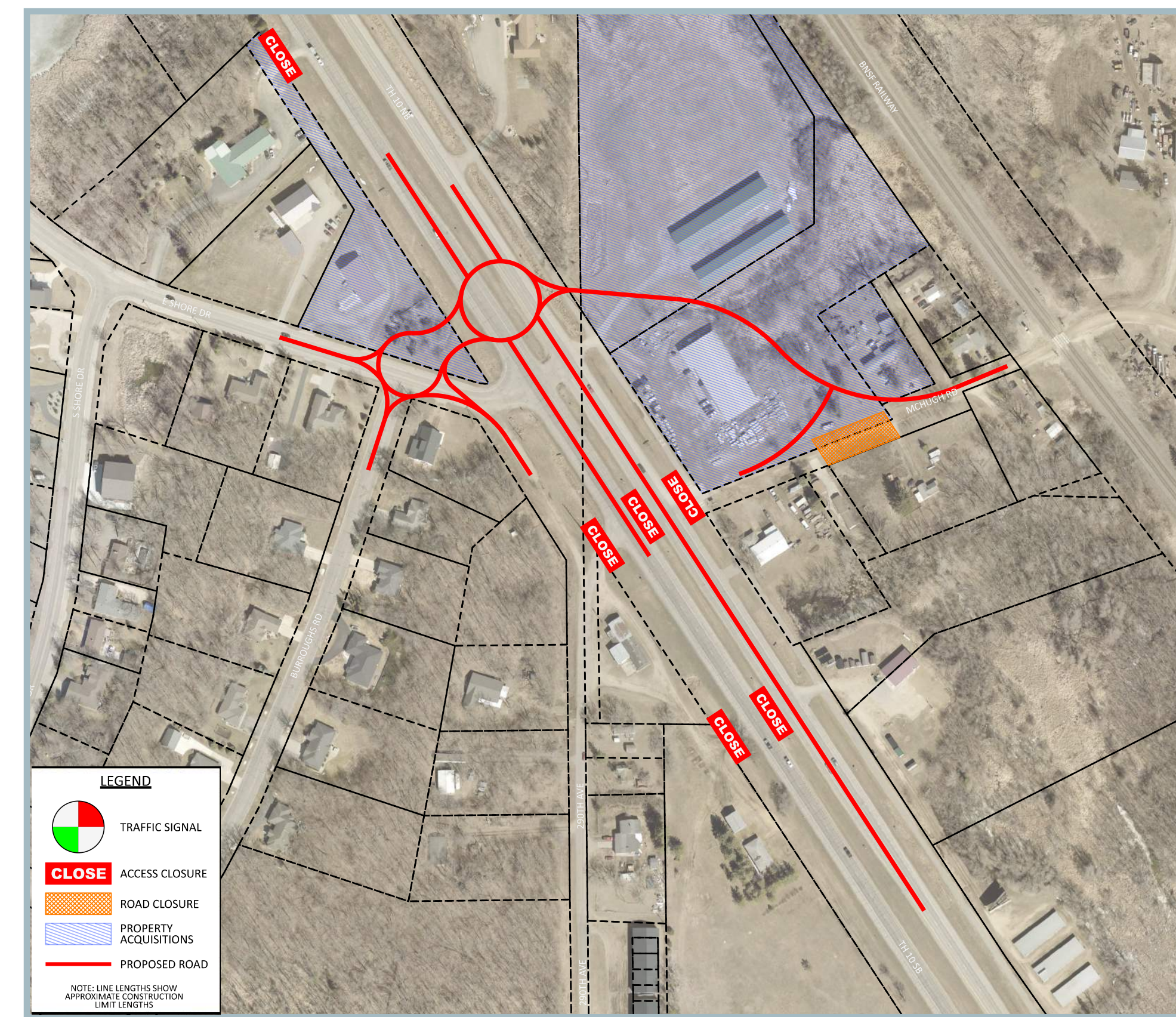
- Too costly compared to other alternatives that fulfill the project purpose and need.
- Would be expensive to local agencies per MnDOT's Cost Participation Policy.
- Do not fit the context of the corridor.
- Hwy 10 Alignment would need to be modified.



Alternative 16

Alt 16 Reason for Elimination:

- Impacts Sucker Creek Preserve property.
- Environmental impacts.
- Too costly compared to other alternatives that fulfill the project purpose and need.
- Too large of project footprint and improvement needs.



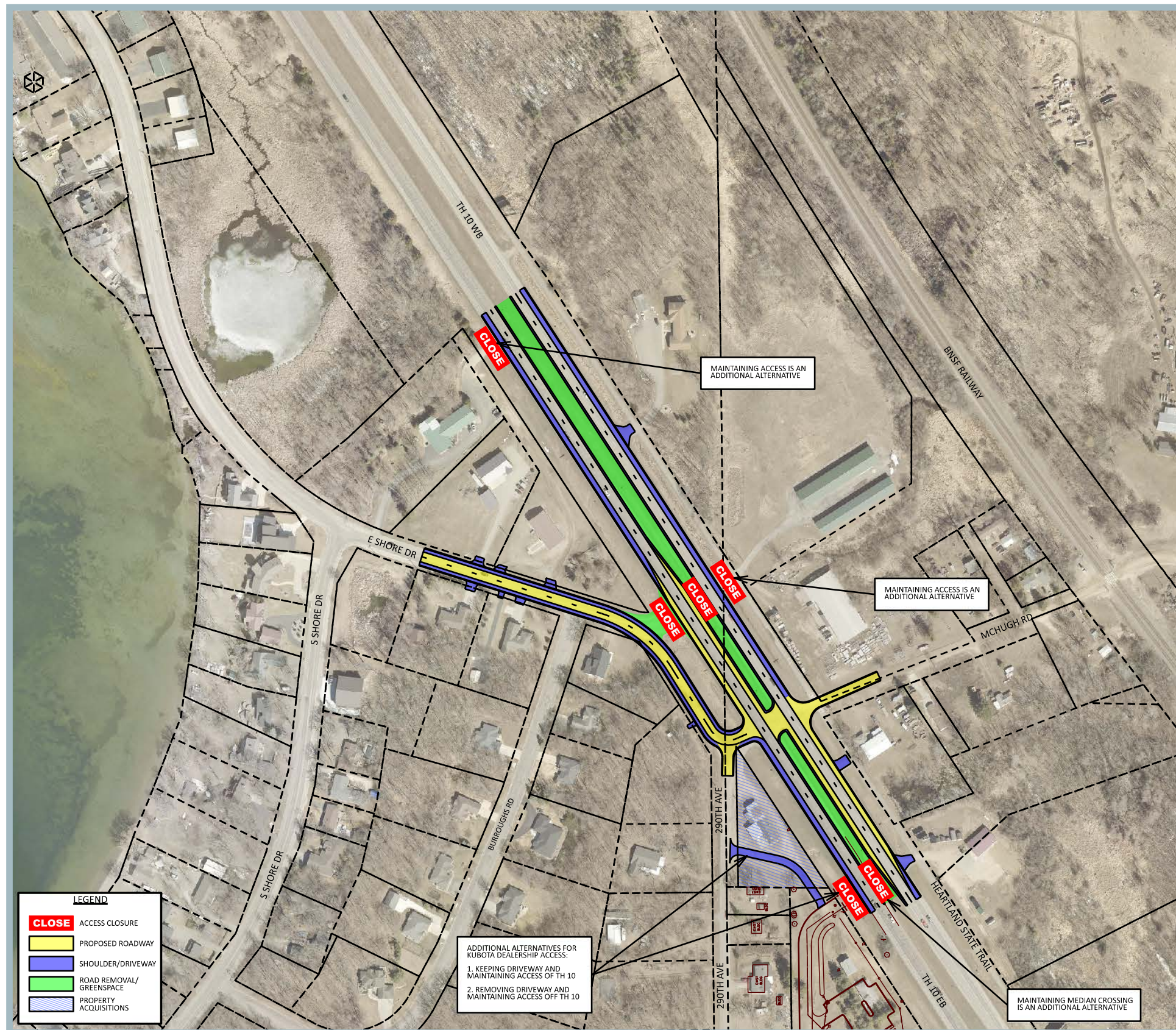
Alternative 15

Alt 15 Reason for Elimination:

- Too costly compared to other alternatives that fulfill the project purpose and need.
- Would be expensive to local agencies per MnDOT's Cost Participation Policy.
- Do not fit the context of the corridor.
- Hwy 10 Alignment would need to be modified.

REFINED ALTERNATIVES EVALUATED FURTHER & ELIMINATED

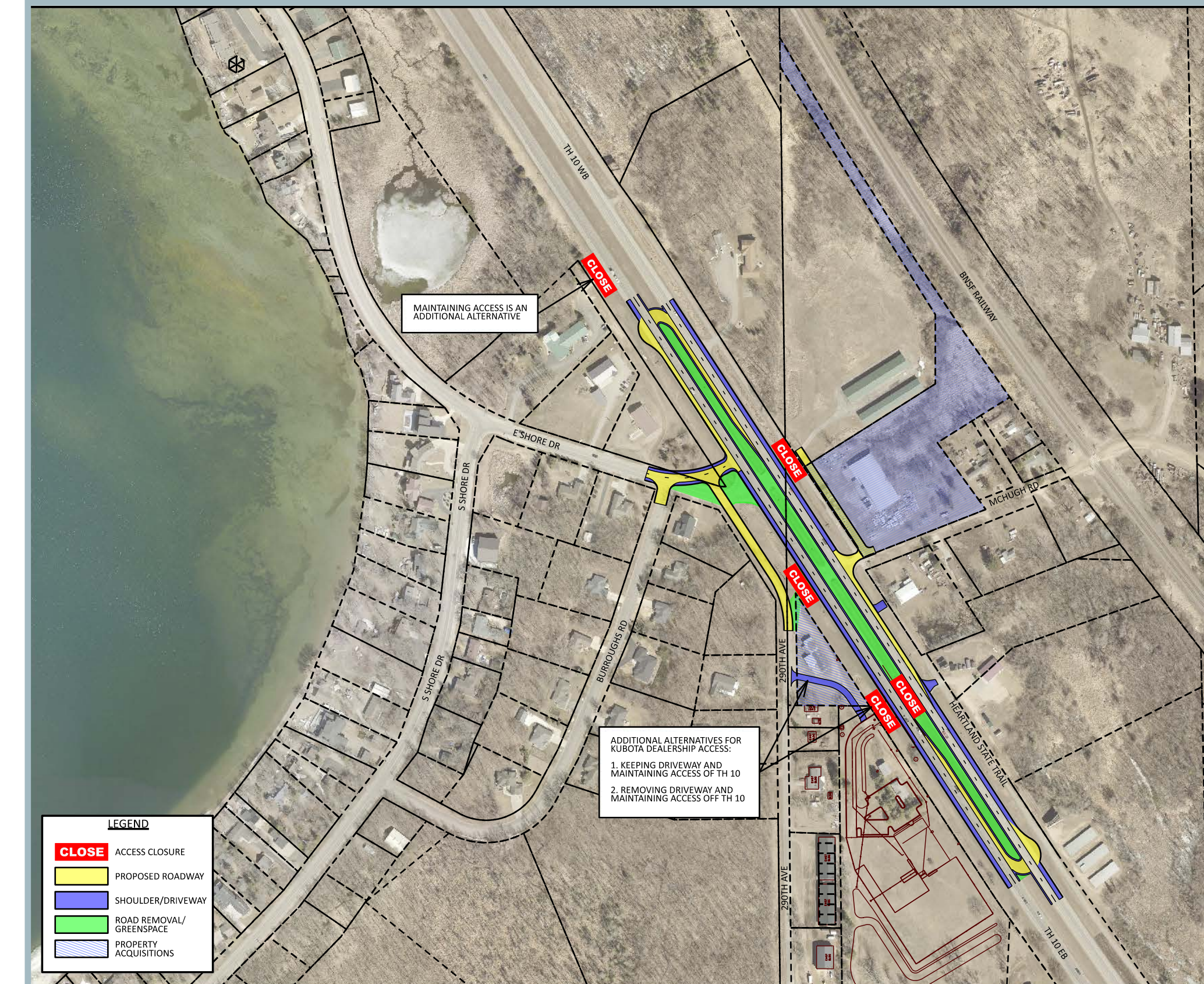
Hwy 10 Resurfacing & Intersection Improvements



Alternative 3

Alt 3 Reason for Elimination:

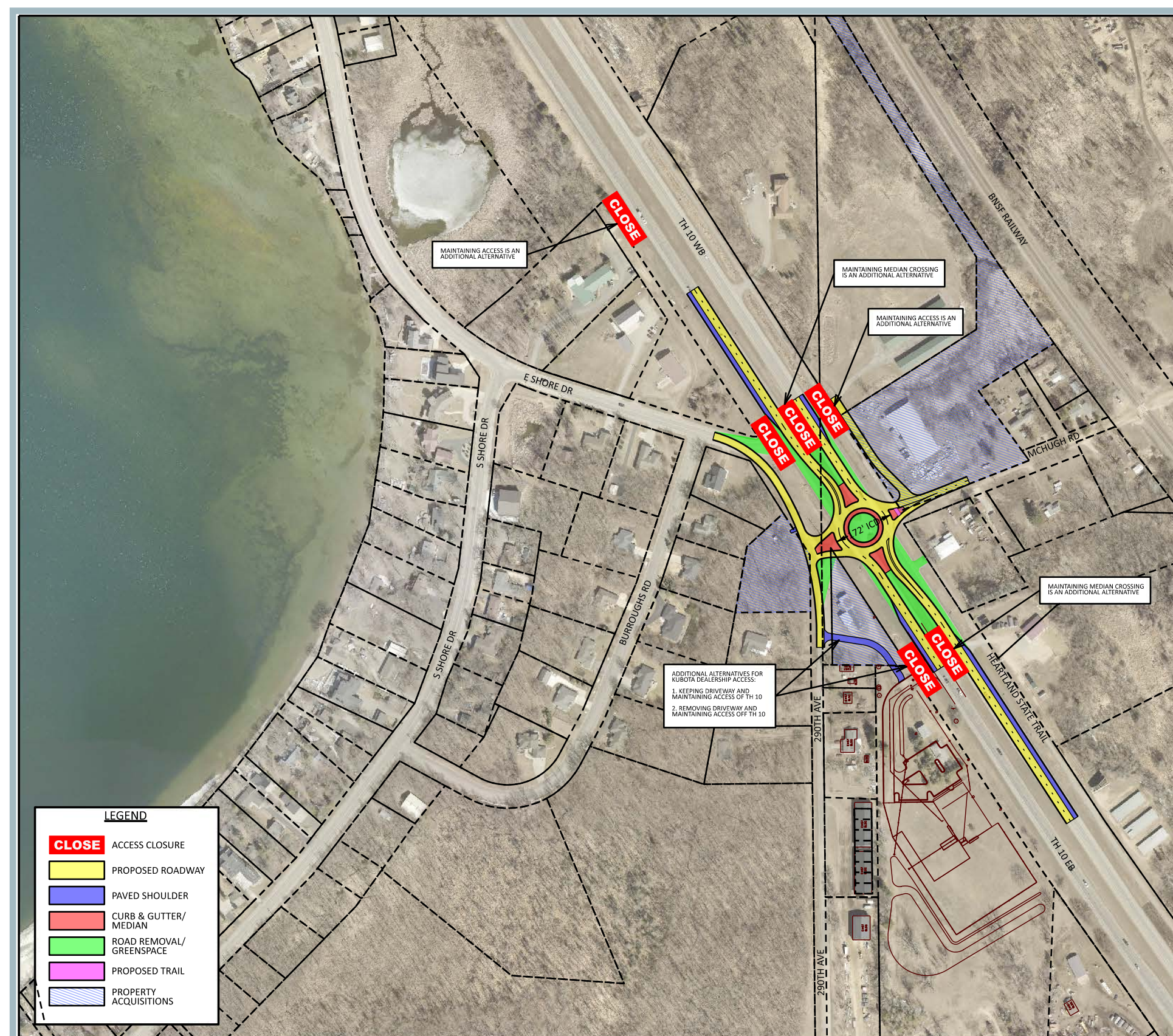
- Unacceptable sidestreet delays.
- Close spacing of intersections between E Shore Drive and 290th Ave in relation to Hwy 10.
- Would involve substandard curves.
- Too many conflict points between traffic movements.



Alternative 5

Alt 5 Reason for Elimination:

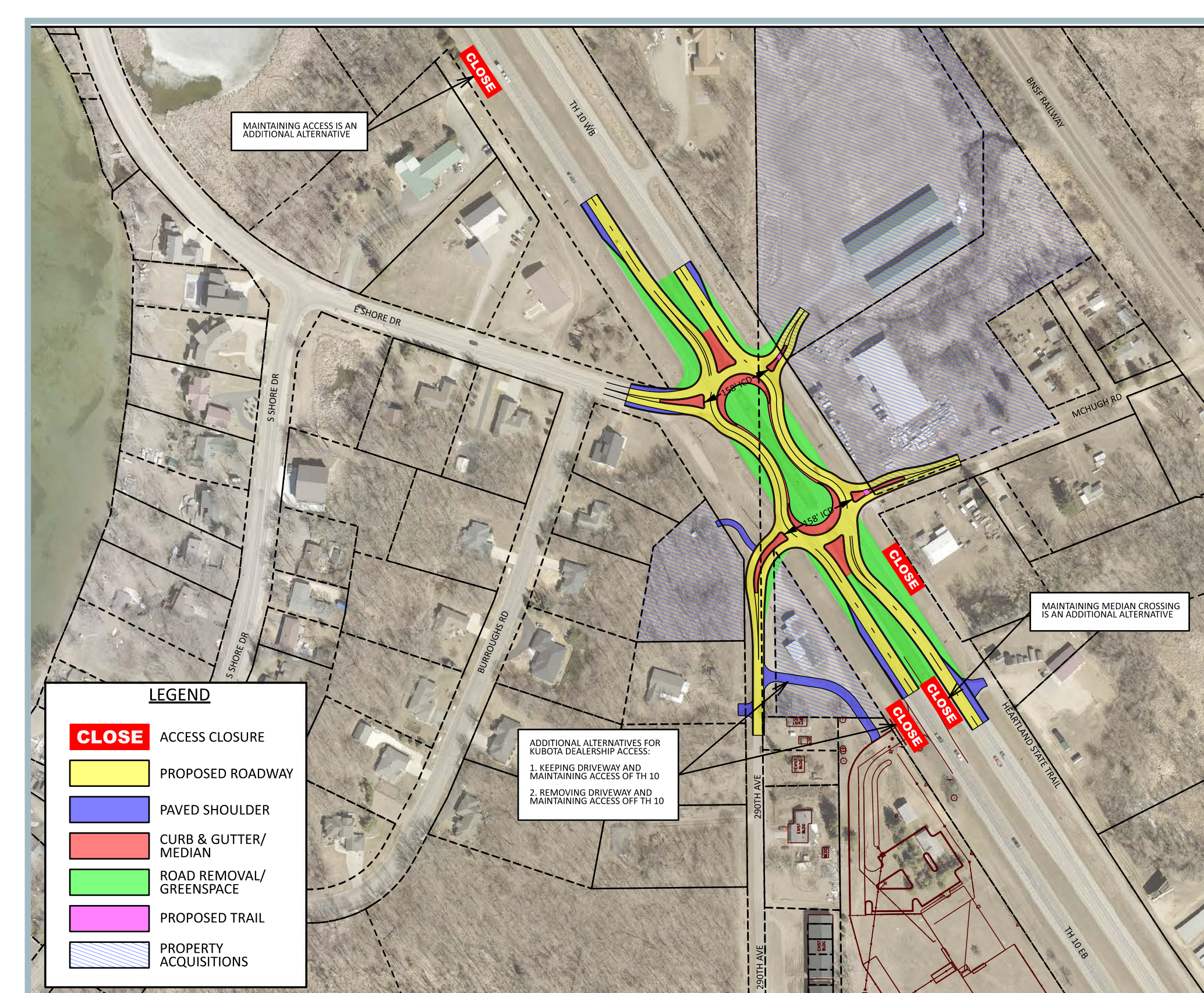
- Larger number of Conflict points.
- Close spacing of intersections between E Shore Drive and 290th Ave in relation to Hwy 10.



Alternative 12

Alt 12 Reason for Elimination:

- Too costly compared to other alternatives that fulfill the project purposed and need.
- Would be expensive to local agencies per MnDOT's Cost Participation Policy.
- Do not fit the context of the corridor.
- Hwy 10 Alignment would need to be modified.



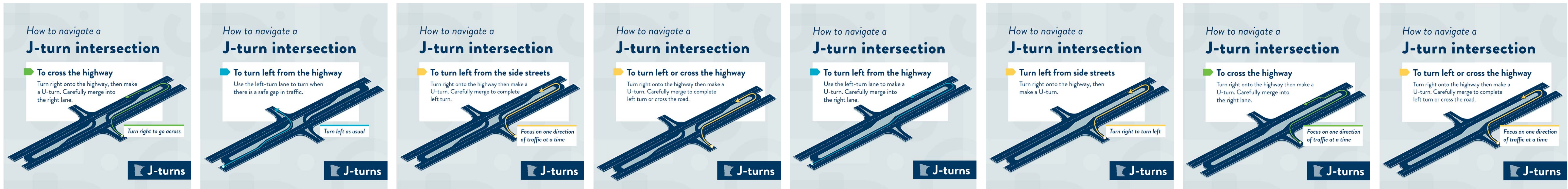
Alternative 14

Alt 14 Reason for Elimination:

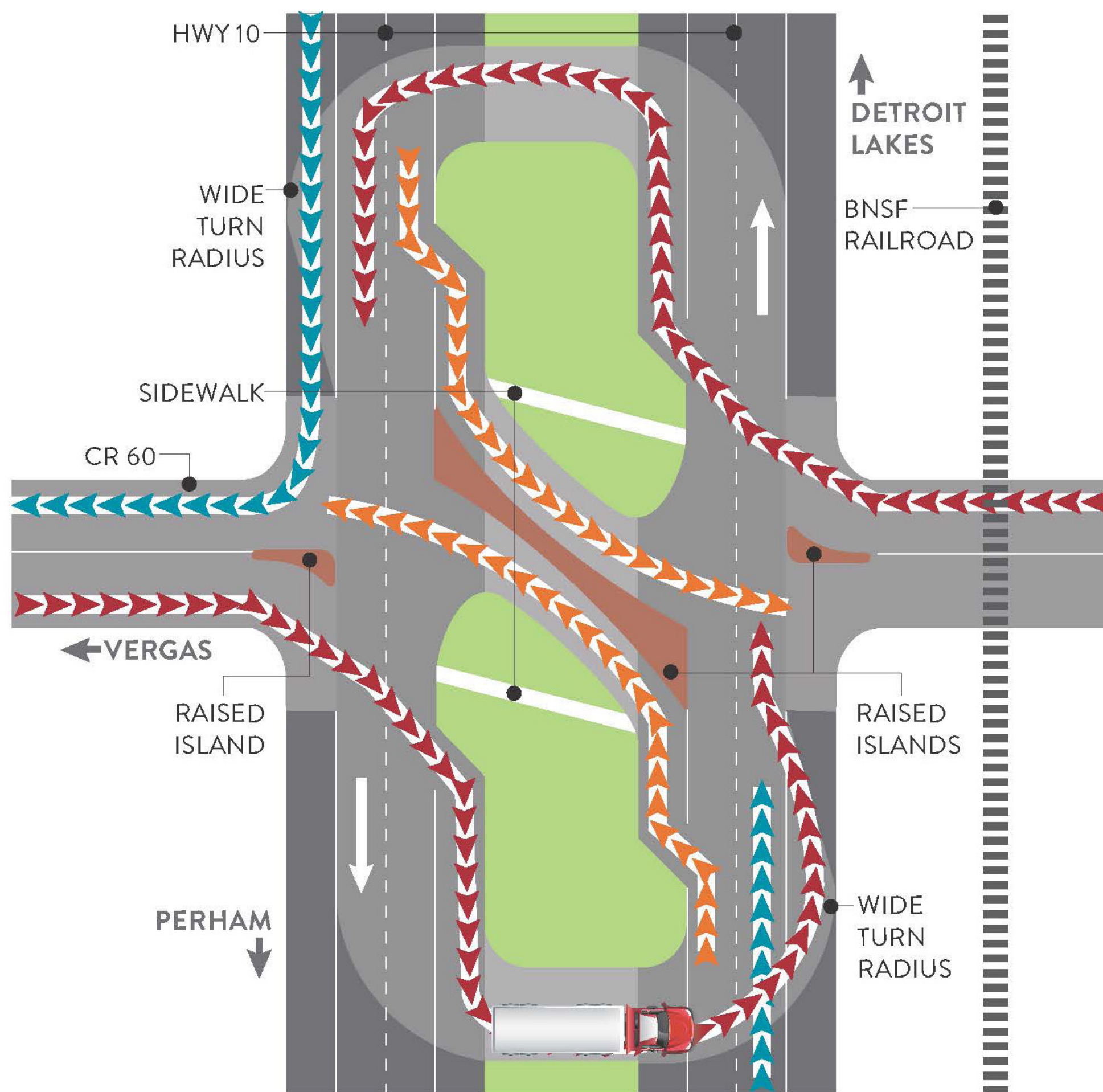
- Too costly compared to other alternatives that fulfill the project purposed and need.
- Would be expensive to local agencies per MnDOT's Cost Participation Policy.
- Do not fit the context of the corridor.
- Hwy 10 Alignment would need to be modified.

HOW J TURNS WORK

Hwy 10 Resurfacing & Intersection Improvements



RESTRICTED CROSSING U-TURN



HOW ABOUT A J-TURN?

J-turns are a driving movement proven to reduce serious and fatal crashes caused by “T-bone” crashes at intersections. When using J-turns, drivers focus on one direction of traffic at a time.

Benefits of J-turns

- Eliminates or reduces the highest risk movements – directly crossing multiple lanes of traffic and left turns
- Shown to reduce fatalities by 70%
- Shown to reduce injuries by 42%
- Designed to help prevent severe broadside or “T-bone” crashes
- Moves traffic safely and effectively
- Simplifies navigation and traffic flow
- Can be designed and built quickly to address fatal crashes
- Maintains access to local roads and businesses

STUDIES SHOW J-TURNS:

REDUCE FATALITIES by 70%

REDUCE INJURIES by 42%

For more information on J-turns

VISIT: [MnDOT.gov/j-turns](https://mn.gov/j-turns)
CONTACT: [Derek Leuer](mailto:derek.leuer@state.mn.us)
derek.leuer@state.mn.us
651-234-7372



NAVIGATING J-TURNS

Motorists

At a J-turn intersection, you focus on one direction of traffic at a time.

When on the side street approaching the divided highway, always make a right turn.

To cross the highway (or turn left) from the side street, come to a complete stop, then turn right onto the highway. Enter the designated left-turn lane that leads to the median opening and complete a U-turn.

- When making the right turn, you are allowed to cross both lanes and move into the left-turn lane in one motion – when it is safe to do so – to minimize the amount of time in through lanes of the divided highway.
- When you are completing the U-turn, you must yield to oncoming traffic – and stop if necessary – before entering the through lanes of the divided highway.

Semis, farm equipment and longer vehicles

Longer vehicles like semis, larger commercial vehicles, longer RVs and even farm implements may use the shoulder on the far side of the road to complete their U-turn. Shoulders may be widened, and may also use bump-outs (called “loons”) so longer vehicles and larger equipment with a wider turning radius can make the U-turn.

Access to local roads and businesses

J-turns always provide access to local roads. While the route may change slightly in some instances, access to all local businesses and other local destinations is maintained.

How to navigate a J-turn intersection

Drivers only need to focus on one direction of traffic at a time when navigating a J-turn.

YIELD TO ONCOMING TRAFFIC

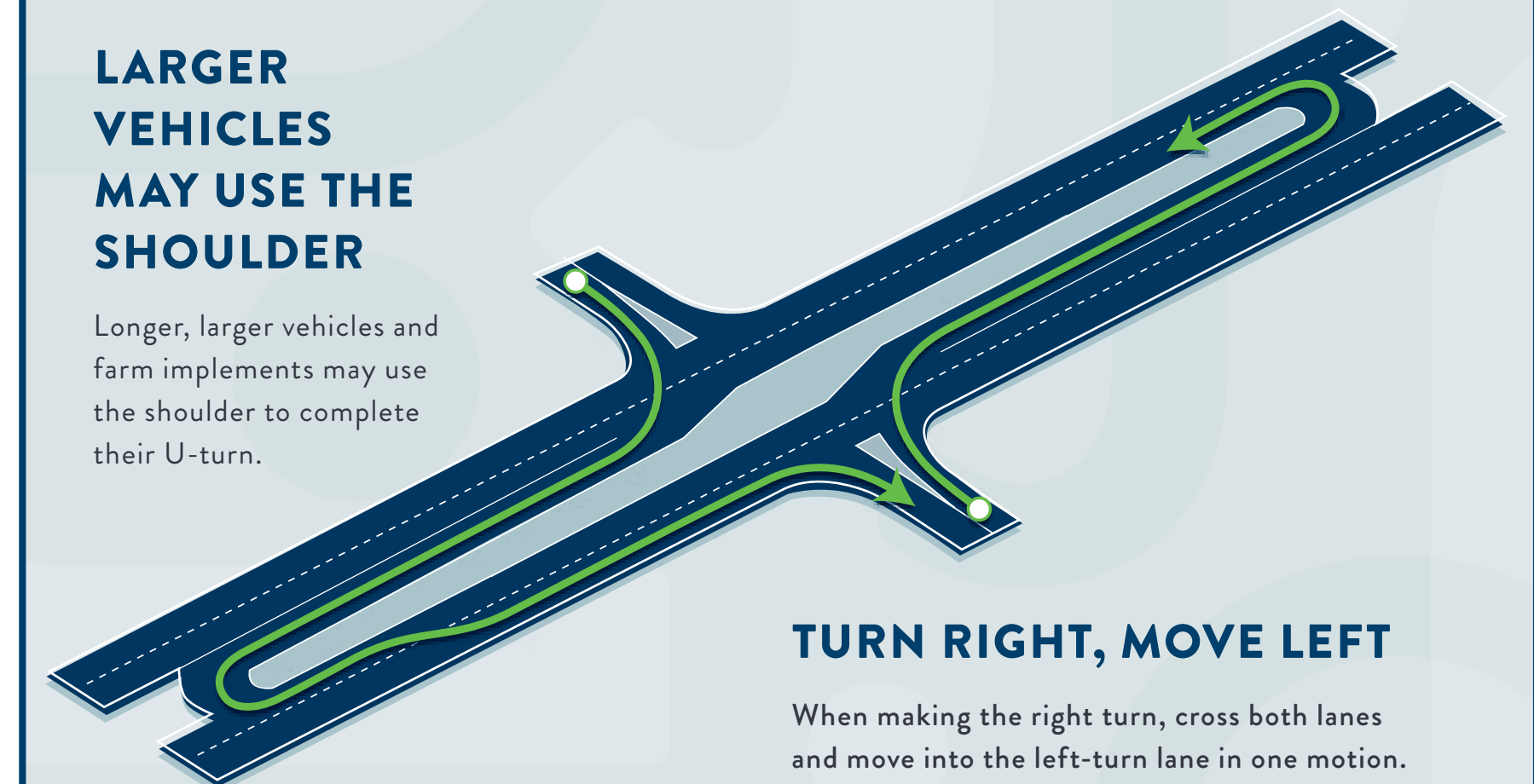
When you are completing the U-turn, you must yield to oncoming traffic – and stop if necessary.

LARGER VEHICLES MAY USE THE SHOULDER

Longer, larger vehicles and farm implements may use the shoulder to complete their U-turn.

TURN RIGHT, MOVE LEFT

When making the right turn, cross both lanes and move into the left-turn lane in one motion.



NEARBY J TURN - CR 60

Hwy 10 Resurfacing & Intersection Improvements

Hwy 10 Before J Turn



Hwy 10 After J Turn Construction



J TURNS

