



DEPARTMENT OF
TRANSPORTATION

Executive Summary

Highway 78

Perham through Ottertail

February 3, 2025

Project Overview

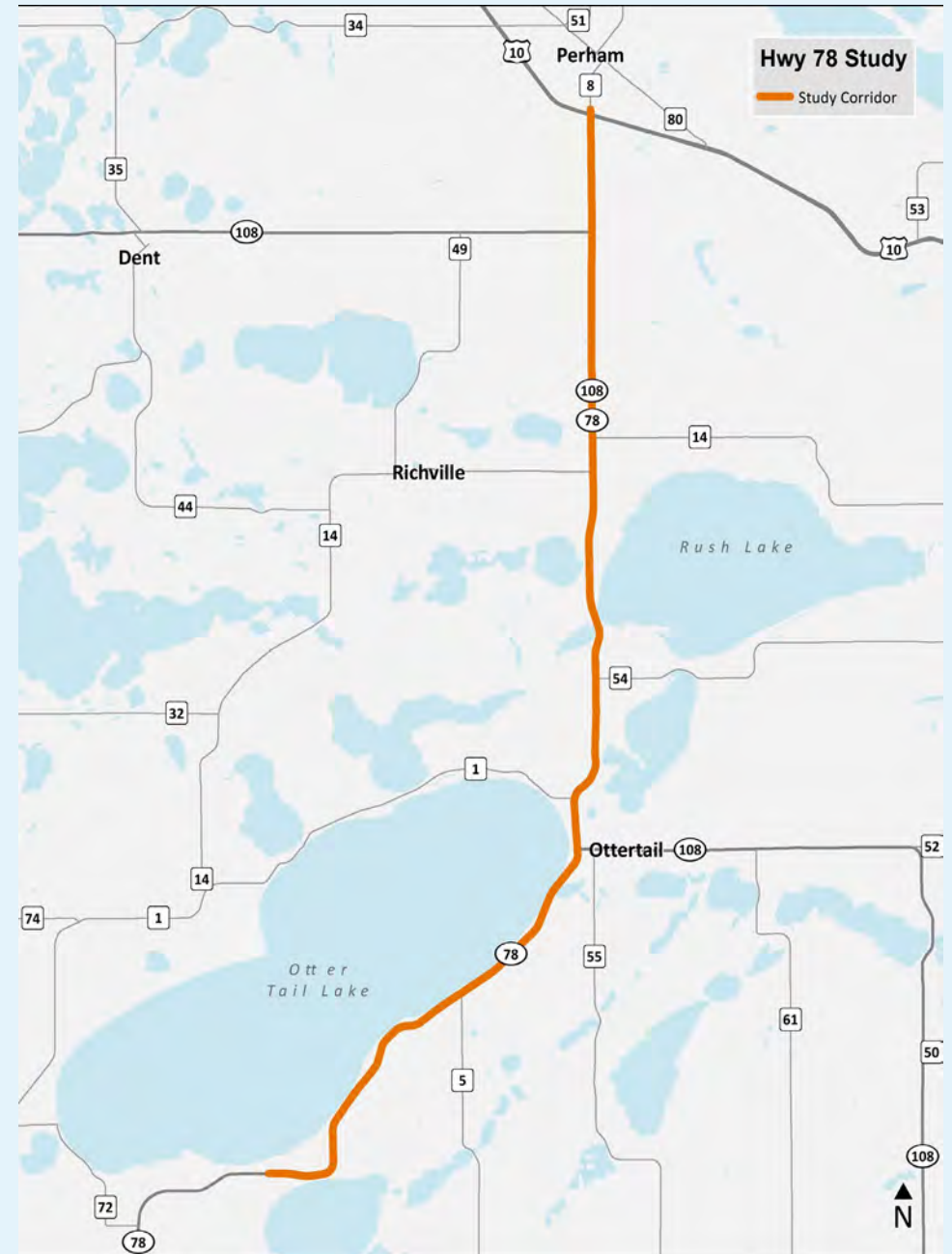
Project Summary/ Background

MnDOT is studying the Highway 78 corridor from Highway 10 near Perham through downtown Ottertail and along Otter Tail Lake.

The study will evaluate the needs and safety of both motorized and non-motorized users, including an evaluation of intersection safety and pedestrian connections and accessibility.



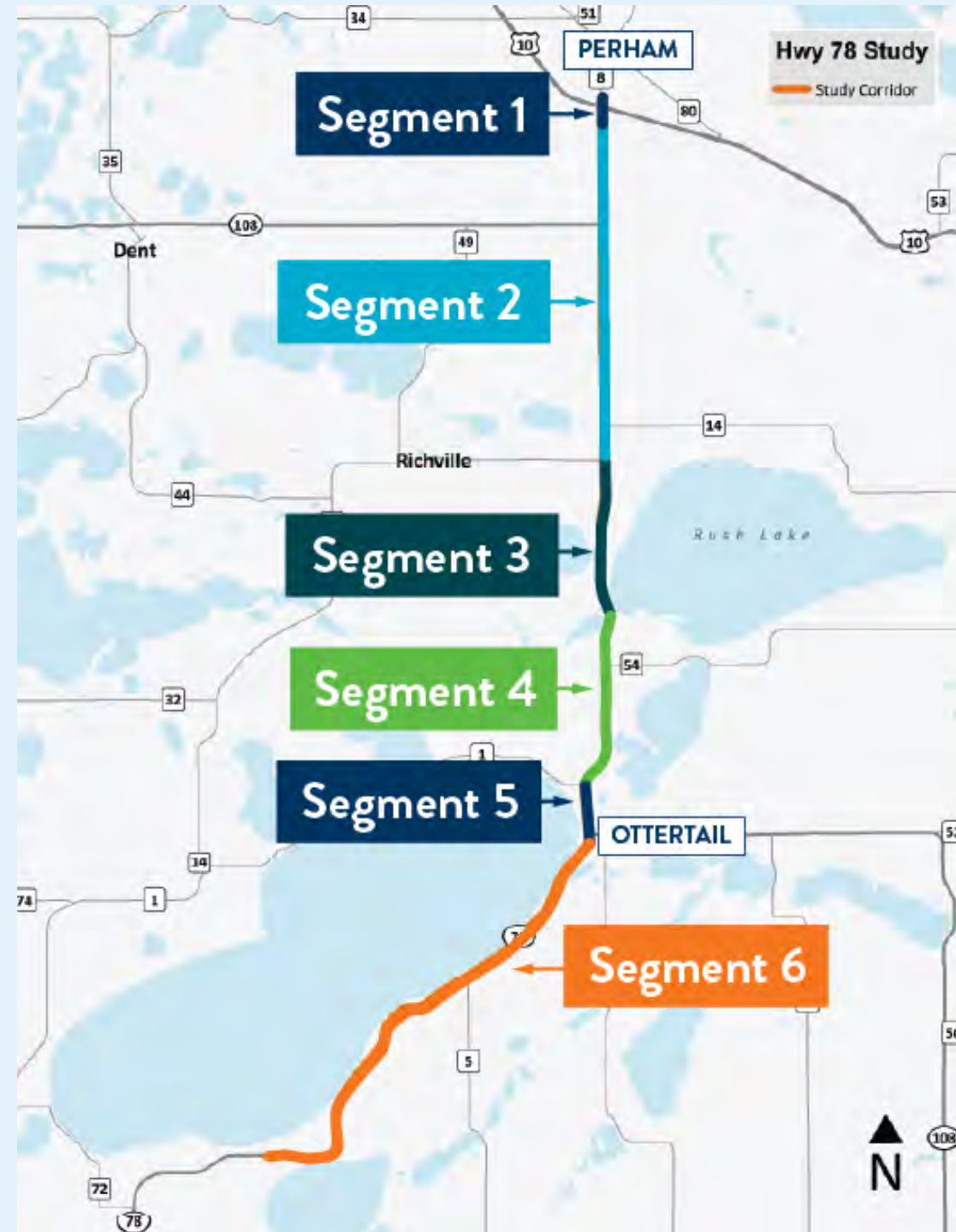
mndot.gov/d4/projects/hwy78



Project Overview

Segments

Improvement concepts were developed for 6 roadway segments, some intersections, and select locations along the corridor.



Project Overview

Engagement Summary

Stakeholder and Public Engagement took place in November 2023 to gather feedback on a range of corridor issues and concerns from stakeholders, residents, and corridor users.

Stakeholder Meeting #1

November 14, 2023

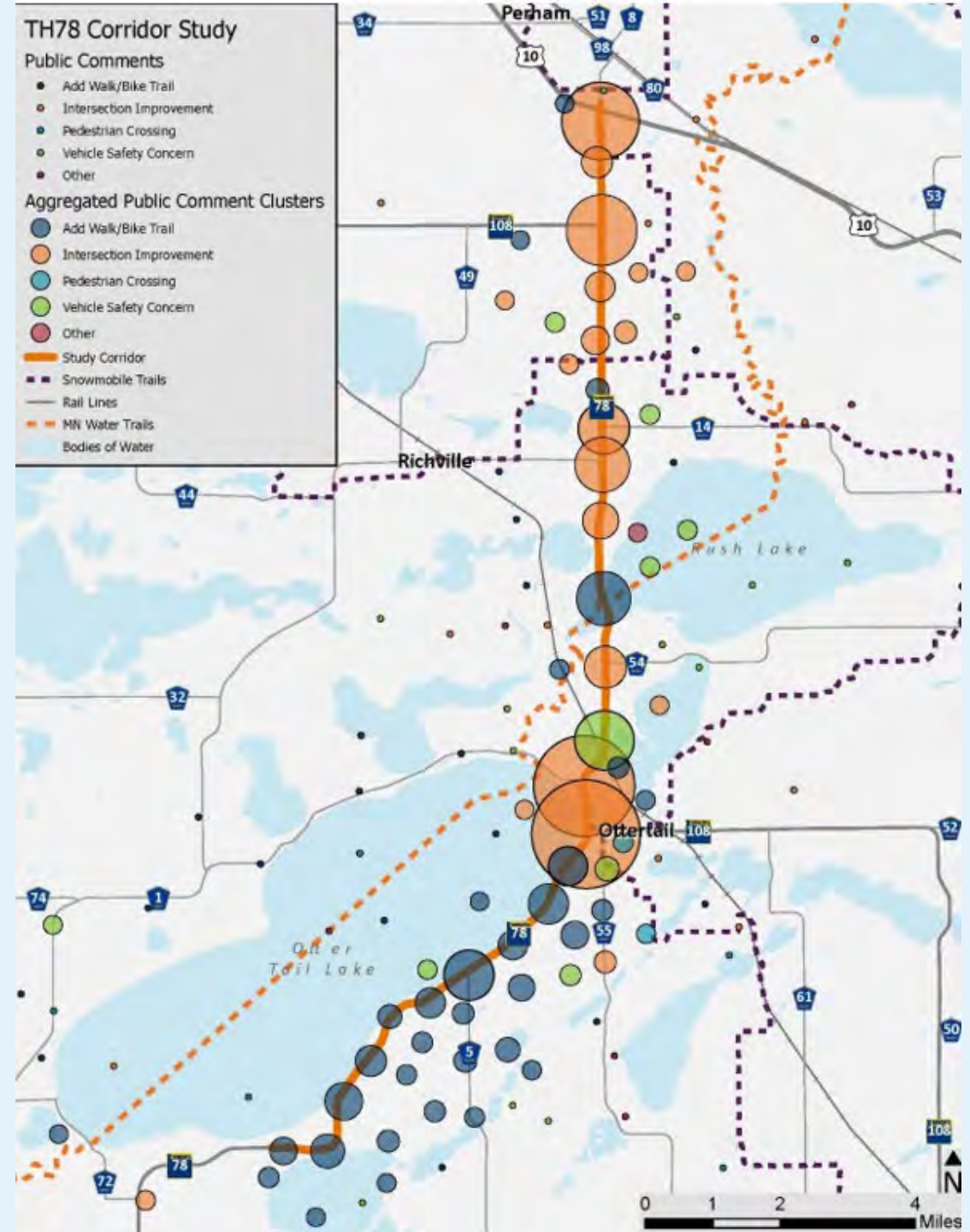
Stakeholder Meeting #2

November 6, 2024

Virtual Public Open House

November 13 – 30, 2023

More than 1,500 comments and survey responses collected.



Survey Summary

Survey Results



Highway 78 Corridor Study

From Perham through Ottertail

How do you most often use the Hwy 78 corridor?



- Drive
- Motorcycle
- Bike or Walk
- ATV/UTV/Snowmobile



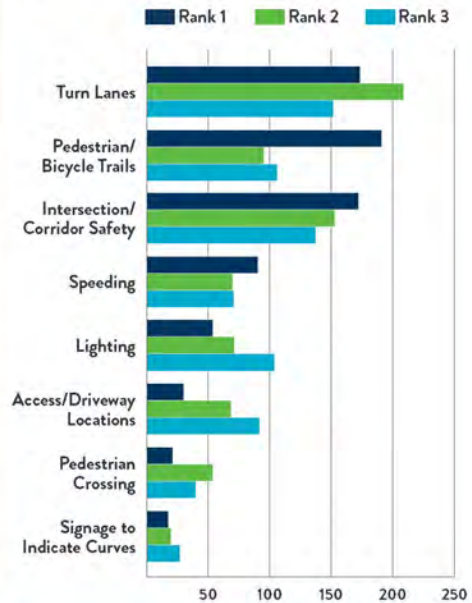
Participants indicated they primarily drive the corridor



And use it daily for local trips to businesses/appointments or commute to school or work.

Transportation and Safety Goals

The top three priorities include Turn Lanes, Pedestrian/Bicycle Trails, and Intersection/Corridor Safety.



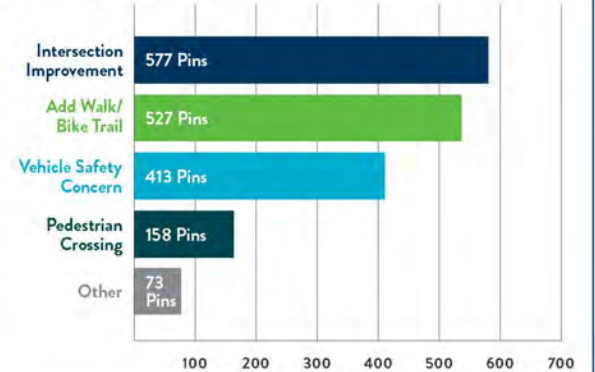
Map Marker Summary

Over 1,700 comments were collected in an interactive map of the study area.



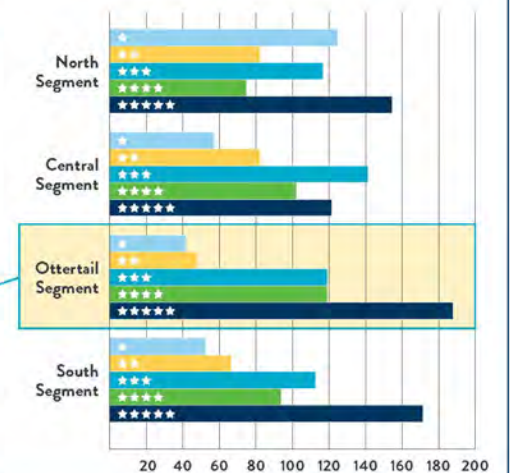
Many people indicated turn lanes were needed at key intersections and walk/bike trail along Otter Tail Lake on the south end of the corridor.

Comment categories include:



Segment Needs

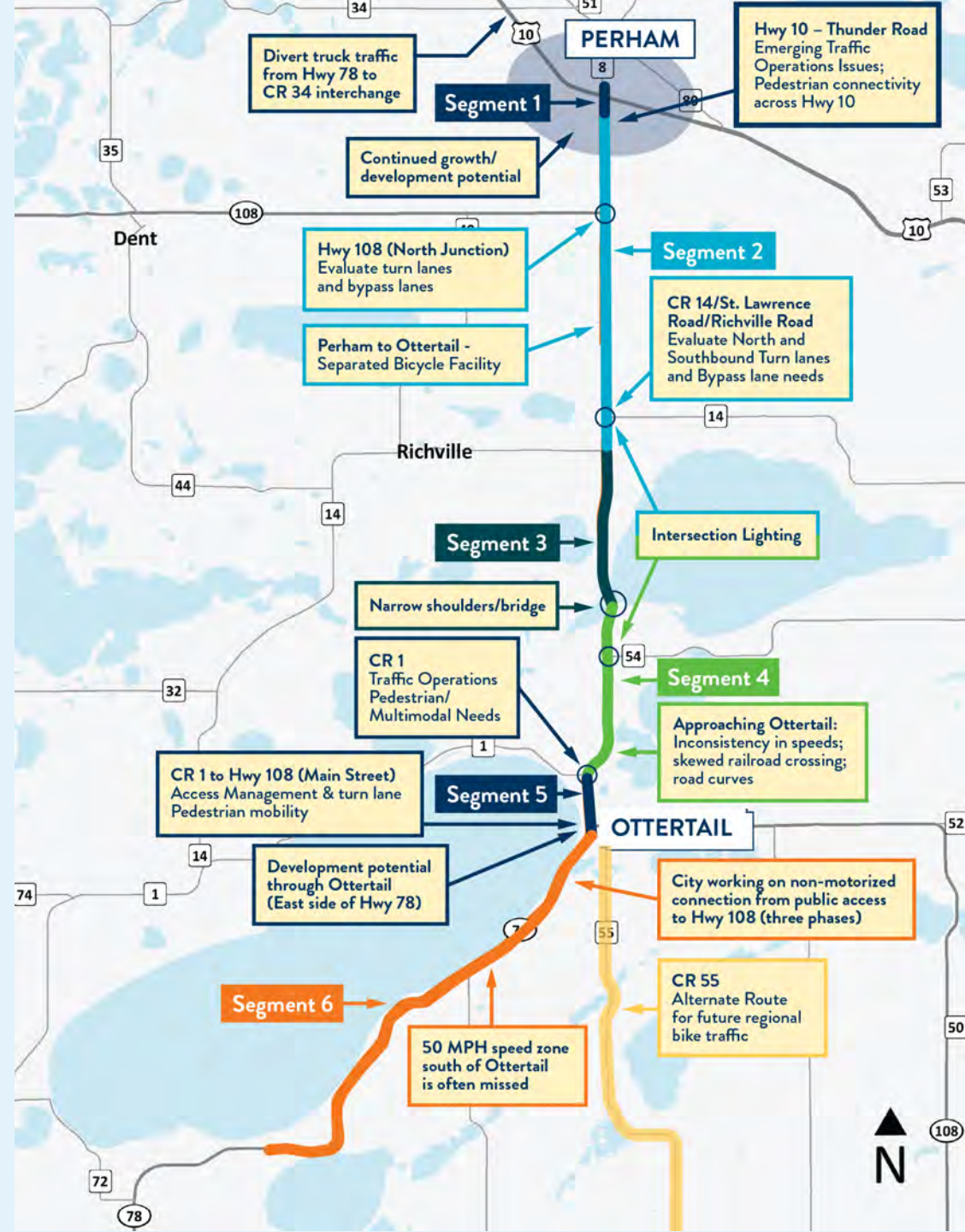
Participants ranked the Ottertail Segment as having the most needs.



Project Overview

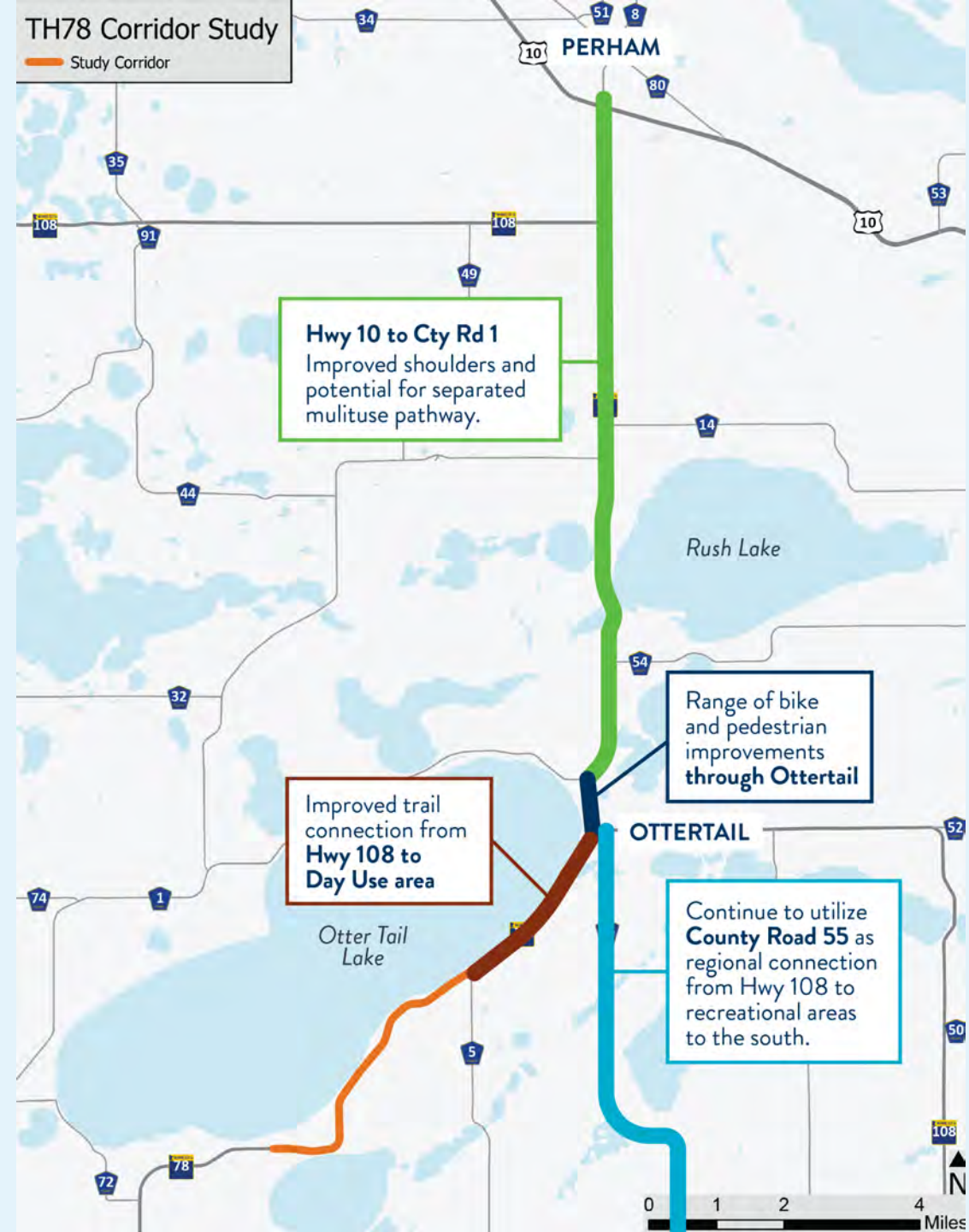
Issues Map

Early Public Issues



Project Overview

Multimodal Concepts



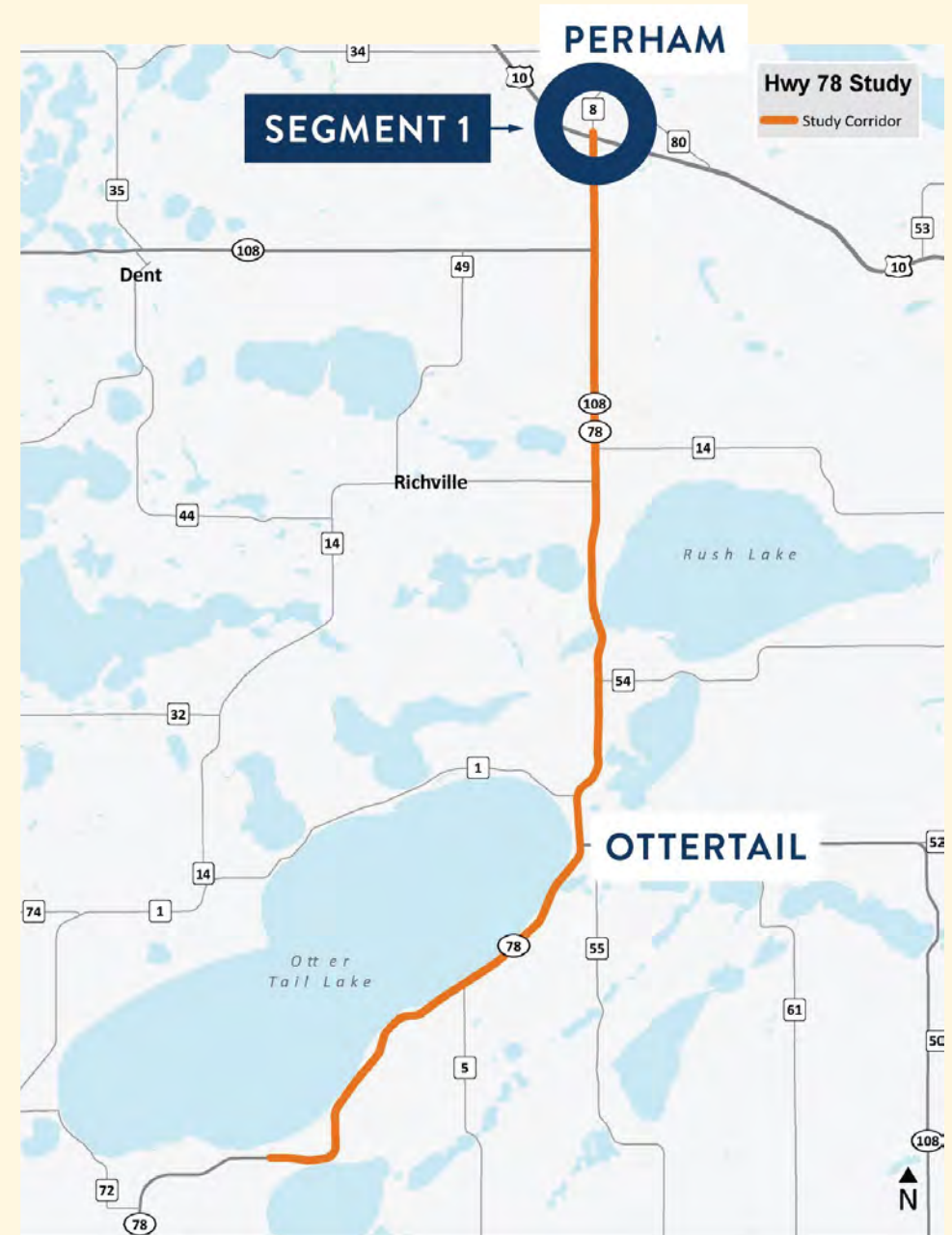
Overview

Segment 1

Segment 1 includes the area around the Hwy 78 and Hwy 10 Interchange.

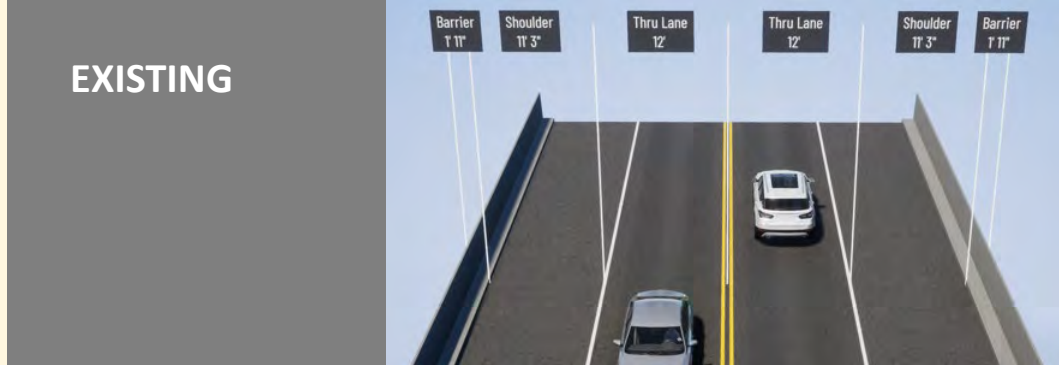


There are some relatively **high frequency crash areas** in this segment.

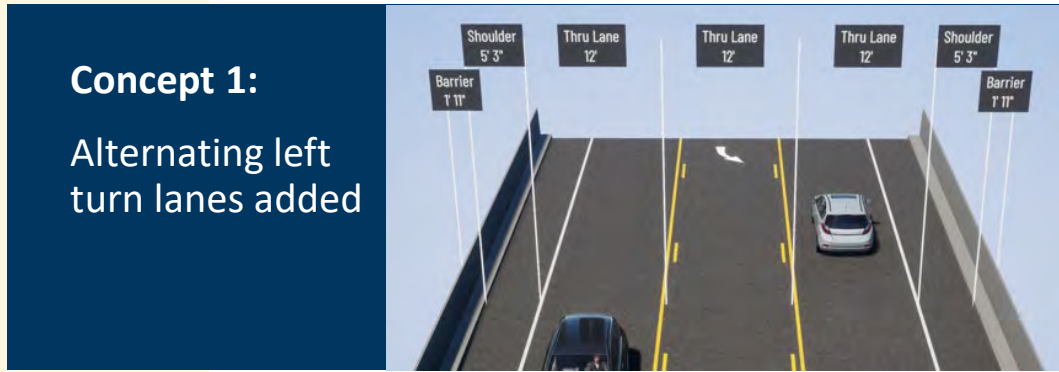


SEGMENT 1

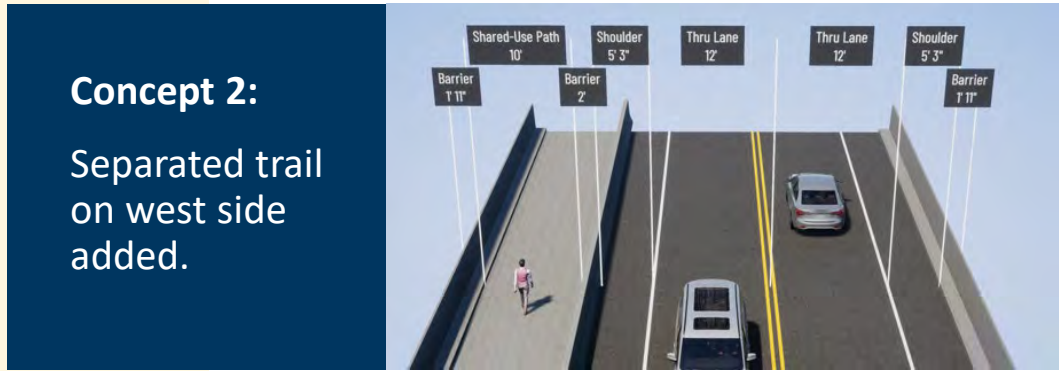
Hwy 10 Bridge Concepts



Pros	Cons
Low Cost	Operations Safety Aging bridge Poor bicycle/ pedestrian facilities



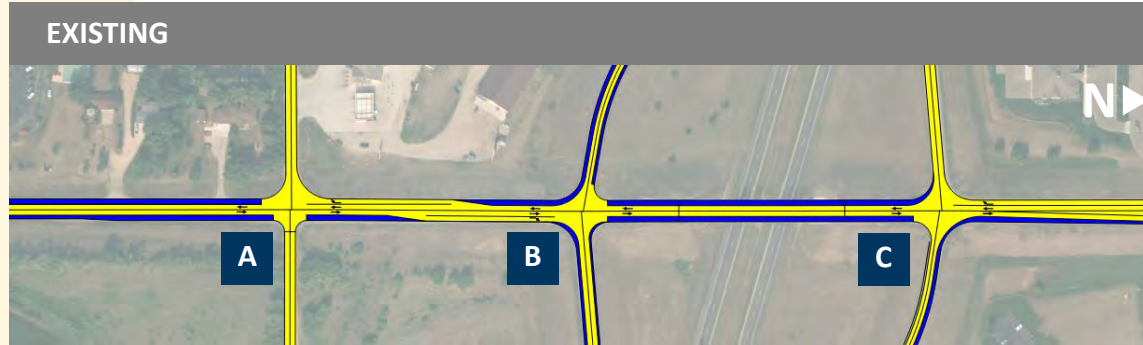
Pros	Cons
Limited/No bridge impacts Safety Operations	R/W cost, slope grading (if combined with roundabouts) Limited space for bicycle/pedestrian



Pros	Cons
Limited/No bridge impacts Bicycle/pedestrian Safety Operations	R/W cost, slope grading (if combined with roundabouts) Does not address vehicle safety

SEGMENT 1

Hwy 10/ Ft Thunder Road Intersection Concepts



Pros	Cons
Low Cost	Operations Safety Aging bridge Poor bicycle/pedestrian facilities

Concept 1: Roundabouts



A: Ft Thunder Road and Hwy 78



B: Hwy 10 Entrance/Exit — South



C: Hwy 10 Entrance/Exit — North

Pros	Cons
No bridge impacts Safety for all Reduced Speeds Operations	Right of Way cost Slope Grading

SEE ALSO FOR THIS SEGMENT

Concept 2: Traffic Signals and Turn Lane

Concept 3: Side Street Stop with Turn Lanes

SEGMENT 1

Hwy 10/ Ft Thunder Road Intersection Concepts



Pros	Cons
Low Cost	Operations Safety Aging bridge Poor bicycle/pedestrian facilities

Concept 2: Traffic Signals and Turn Lanes



A: Ft Thunder Road and Hwy 78



B: Hwy 10 Entrance/Exit — South



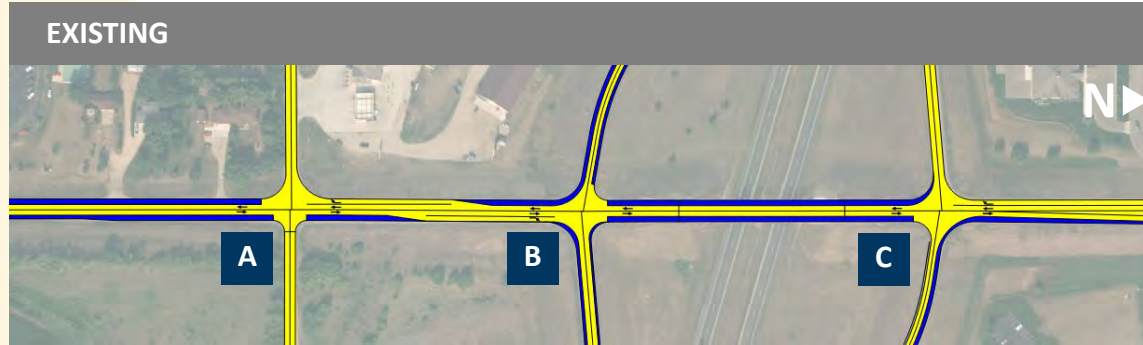
C: Hwy 10 Entrance/Exit — North

Pros	Cons
Operations and Safety Improvement	Bridge Widening for bike and pedestrians

SEE ALSO FOR THIS SEGMENT
 Concept 1: Roundabouts
 Concept 3: Side Street Stop with Turn Lanes

SEGMENT 1

Hwy 10/ Ft Thunder Road Intersection Concepts



Pros	Cons
Low Cost	Operations Safety Aging bridge Poor bicycle/pedestrian facilities

Concept 3: Side Street Stop with Turn Lanes



A: Ft Thunder Road and Hwy 78



B: Hwy 10 Entrance/Exit — South



C: Hwy 10 Entrance/Exit — North

Pros	Cons
Operations and Safety Improvement	Bridge widening for bike and pedestrians

SEE ALSO FOR THIS SEGMENT
 Concept 1: Roundabouts
 Concept 2: Traffic Signals and Turn Lane

Overview

Segment 2

Segment 2 spans from Fort Thunder Road to the south junction of Co. Hwy 14.

Some issues in this segment include:

High speed traffic (60 mph)

Lack of Intersection

Lighting (except Hwy 108)

Lack of pedestrian connectivity (no shoulders)

Shoulders dropped to Right Turn Lanes

Steep recovery slopes

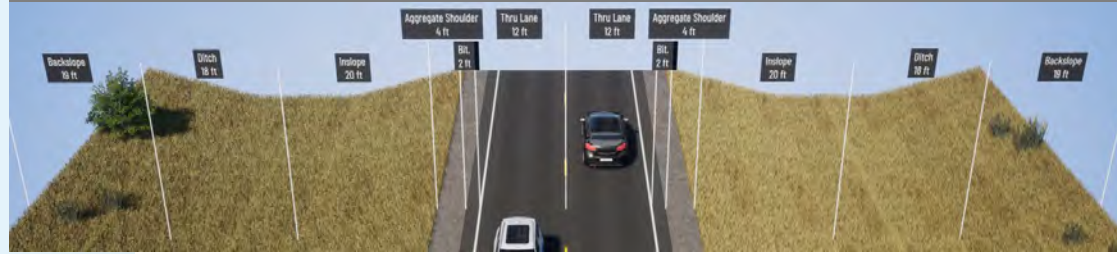


SEGMENT 2

Roadway Concepts

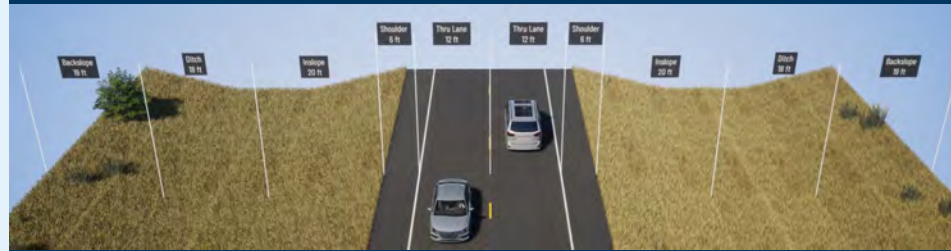


EXISTING



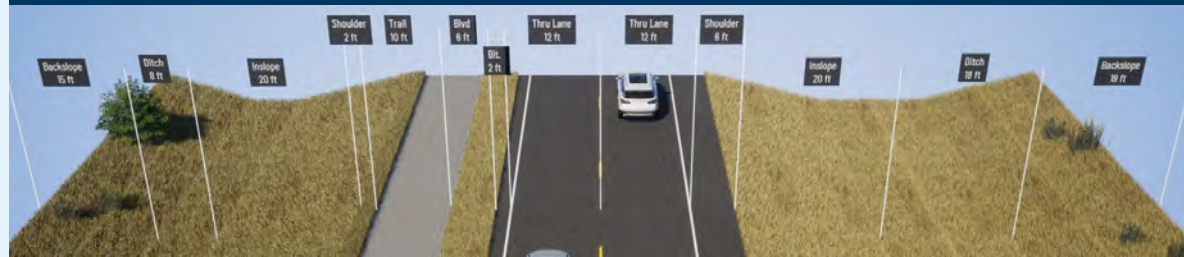
Pros	Cons
No/low cost	Not safe for bike and peds

Shoulder Widening



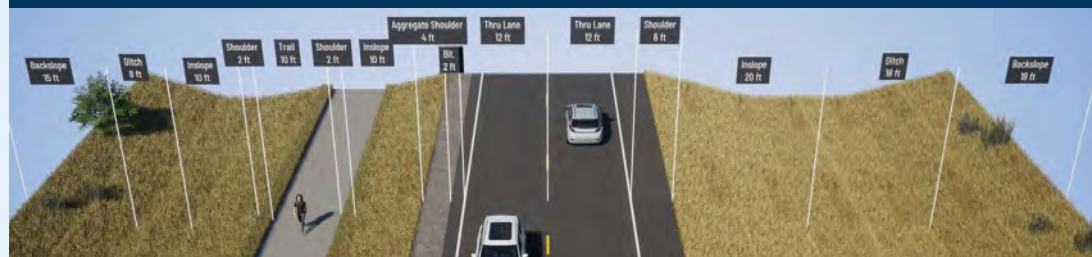
Pros	Cons
Low cost Improved bike and ped safety	Bike and peds still on the roadway

Add trail on West Side (8' offset), Widen East Shoulder



Pros	Cons
Higher bike and ped safety Reduced Impacts	Higher cost

Add trail on West Side (18' offset), Widen East Shoulder



Pros	Cons
Highest bike and ped safety	Highest Cost Most Impactful

SEGMENT 2

Hwy 108 and Hwy 78, North Junction Intersection



EXISTING



Pros	Cons
No/low cost	No NB left turn lane

Remove bypass lane and add NB left turn lane

Pros	Cons
Safety	No major operational issue to solve



SEGMENT 2 Co. Hwy 14 and Hwy 78, North Junction Intersection

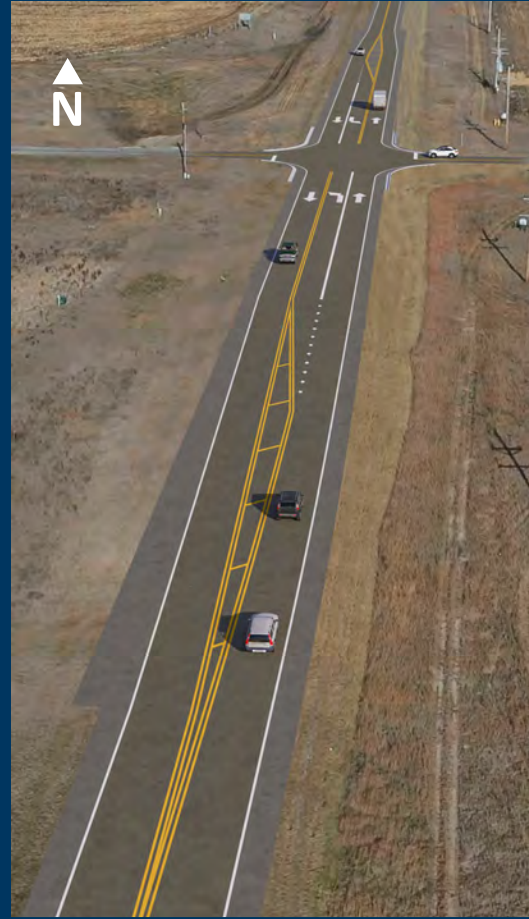


EXISTING



Pros	Cons
No/low cost	No SB left turn lane SB right turn lane is narrow and short

Convert right turn lanes to left turn lanes



Pros	Cons	Comments
Safety	No major operational issue to solve	Consider lighting

Keep right turn lanes and add left turn lanes



Pros	Cons	Comments
Safety	No major operational issue to solve Higher cost Minor crossing movements lengthened	Consider lighting

SEGMENT 2

Hwy 14 South Junction Intersection



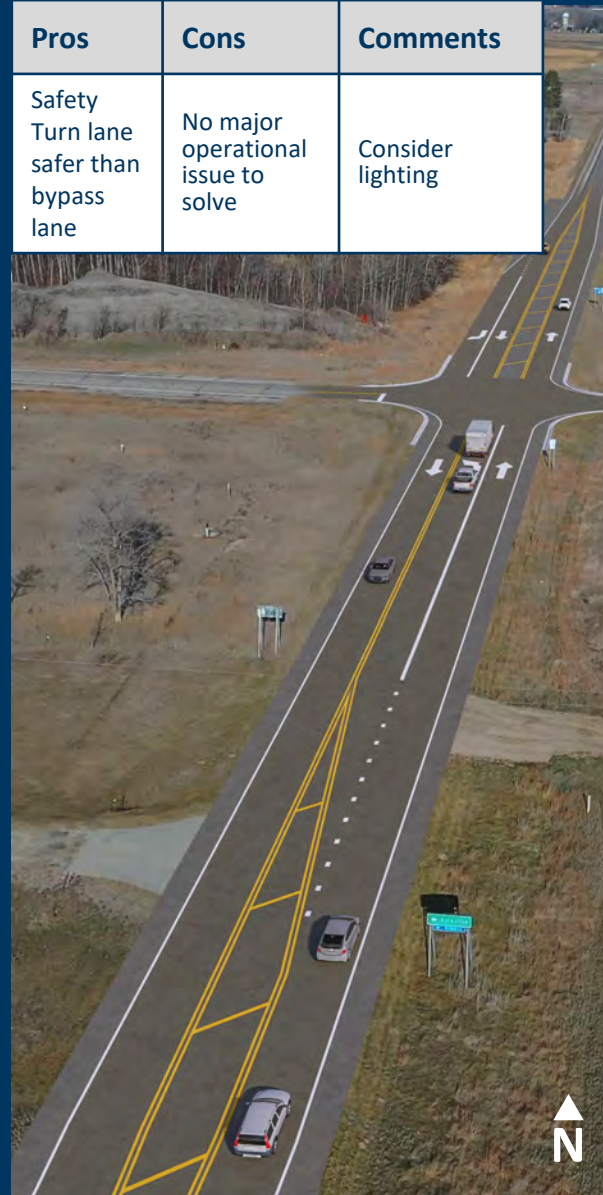
EXISTING



Pros	Cons
Low Cost	No left lanes

Northbound Left Turn Lane

Pros	Cons	Comments
Safety Turn lane safer than bypass lane	No major operational issue to solve	Consider lighting



Northbound Bypass Lane

Pros	Cons	Comments
Safety	No major operational issue to solve	Consider lighting



Overview

Segment 3

Segment 3 is the area west of Rush Lake.

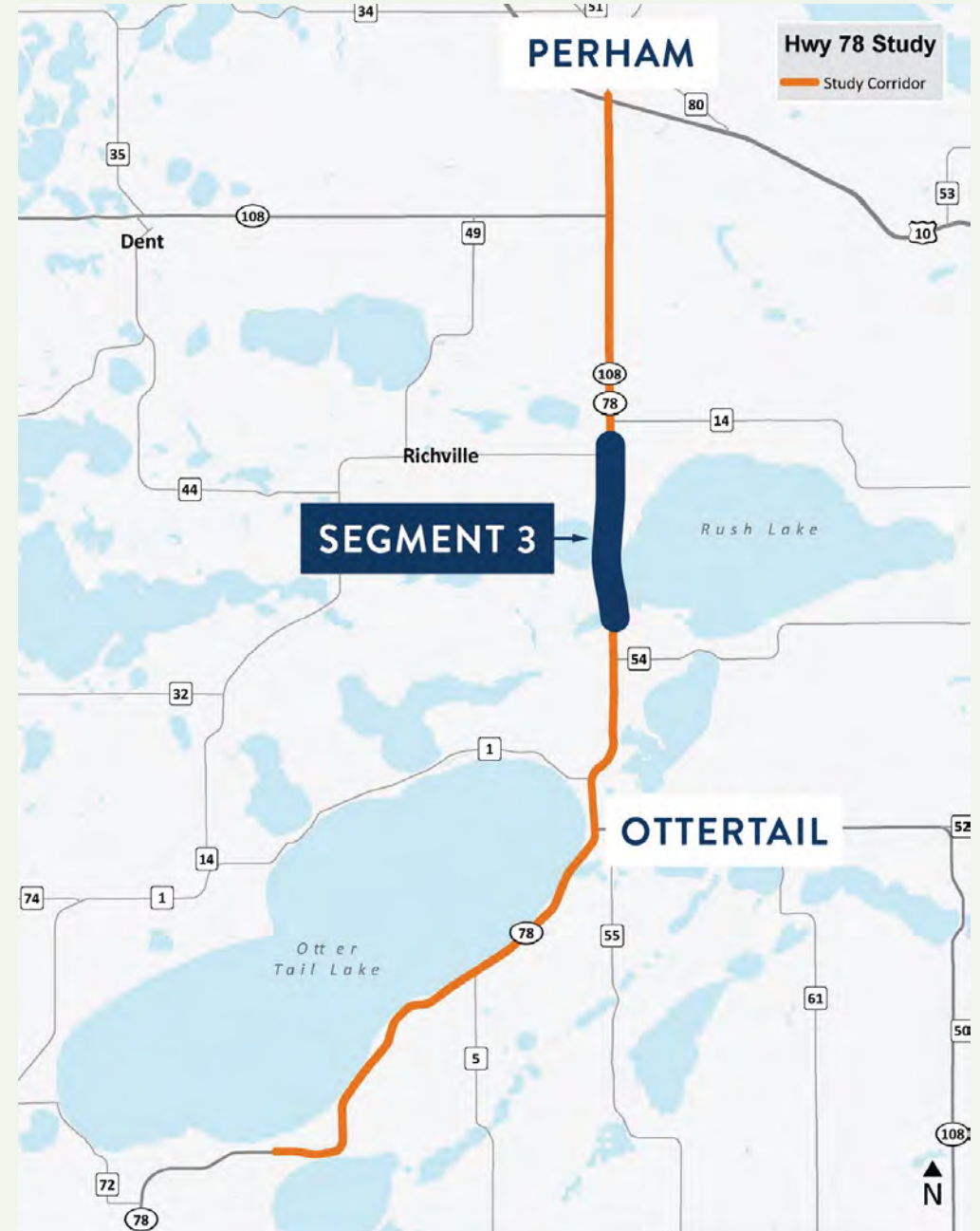
Some issues in this segment include:

Potential Areas of Archaeological Significance

Otter Tail River State River Trail Crossing

High Access Density

Fatalities

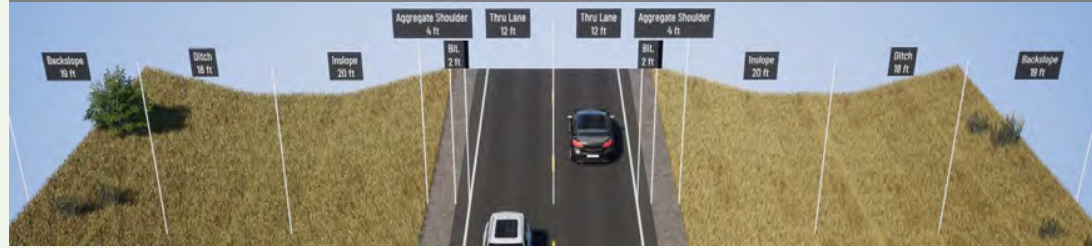


SEGMENT 3

Roadway Concepts



EXISTING



Pros	Cons
No/low cost	Not safe for bike and peds

Widen Shoulders



Pros	Cons
Low cost Improved bike and ped safety	Bike and peds still on the roadway

Add trail on West Side (8' offset), Widen East Shoulder



Pros	Cons
Higher bike and ped safety Reduced Impacts	Higher cost

Add trail on West Side (18' offset), Widen East Shoulder



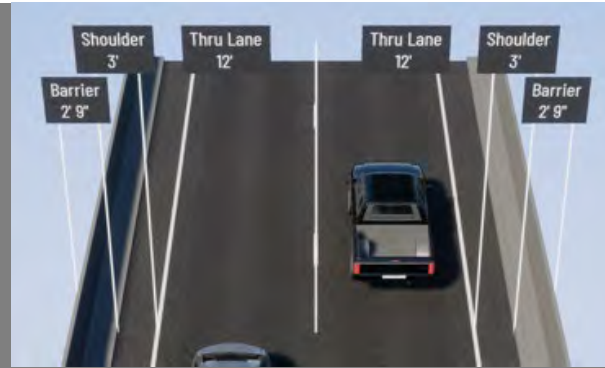
Pros	Cons
Highest bike and ped safety	Highest Cost Most Impactful

SEGMENT 3

Rush Lake Bridge Concepts



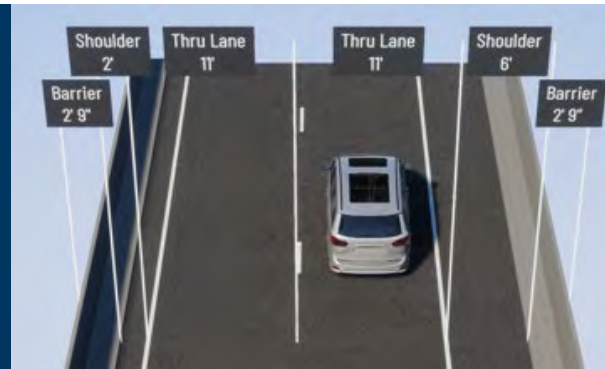
EXISTING



Pros	Cons
Low Cost	Not safe for bike and peds

Concept 1

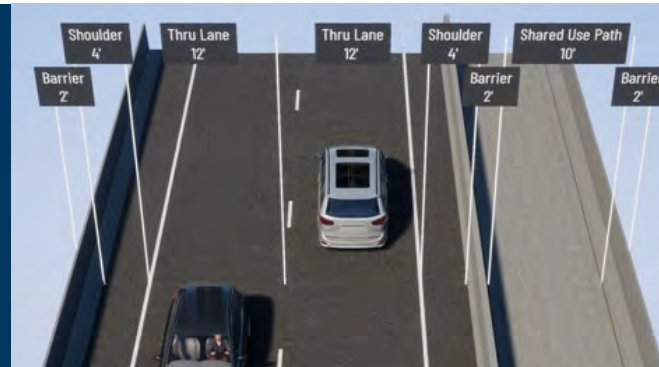
Add 6' walkable shoulder on East Side



Pros	Cons
Improved bike and ped safety	Bike and peds still on the roadway

Concept 2

Add separated trail on East Side



Pros	Cons
Highest bike and ped safety	Replace bridge / High Cost

Overview

Segment 4

Segment 4 is the area from the south end of Rush Lake to the County Road 1 Junction.

Some issues in this segment include:

Potential Areas of Archaeological Significance

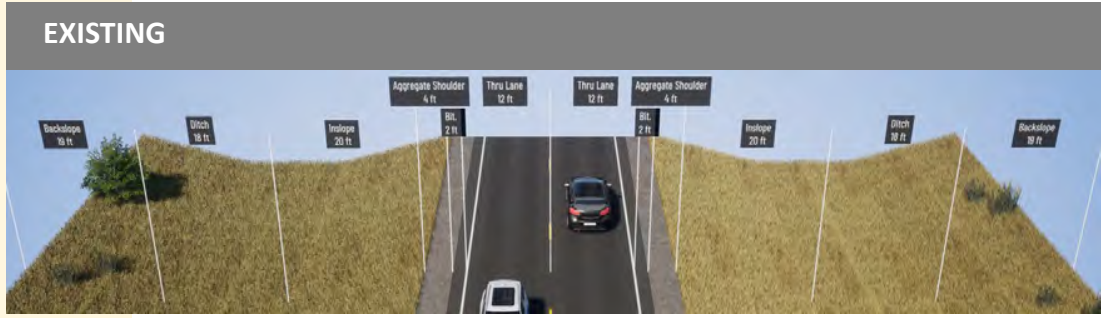
Railroad Crossing

Wetlands



SEGMENT 4

Roadway Concepts



Pros	Cons
No/low cost	Not safe for bike and peds



Pros	Cons
Low cost Improved bike and ped safety	Bike and peds still on the roadway



Pros	Cons
Safer for bike / ped Reduced Impacts	Higher cost



Pros	Cons
Highest bike and ped safety	Highest Cost Most Impactful

Overview

Segment 5

Segment 5 is the area in the Ottertail community.

Key features include intersection with County Road 1, access options through Ottertail and the intersection at Hwy 108.

Some issues in this segment include:

Potential Areas of Archaeological Significance

Relative High Frequency Crash Areas

High Access Density



SEGMENT 5

County Road 1 Intersection

Note: Concepts focus on roadway geometrics. Bike/pedestrian improvements will be evaluated with future concepts.



EXISTING



Pros	Cons
No Cost	Poor intersection sight lines Intersection skew angles

Northbound Left Turn Lane



Pros	Cons
Low Cost Improved Safety	

Northbound Left Turn Lane with Two Way Left Turn Lane



Pros	Cons
Improved Safety	Higher Cost No Pedestrian Refuge

Roundabout with Two Way Left Turn Lane



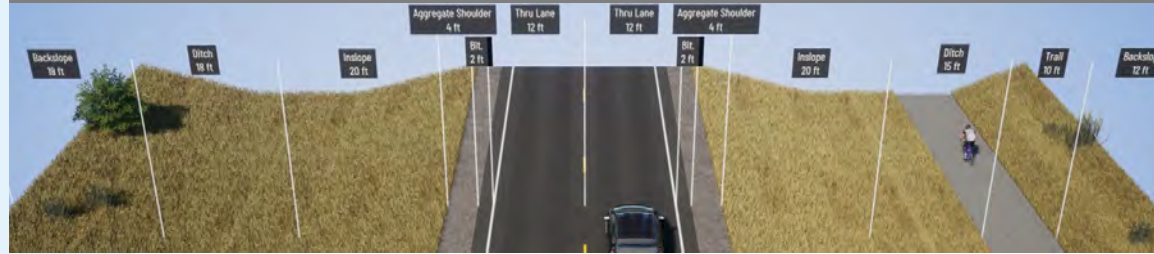
Pros	Cons
Best Safety Reduced speeds Increased opportunity for enhanced pedestrian refuges	Highest Cost

SEGMENT 5

County Road 1 Intersection Concepts

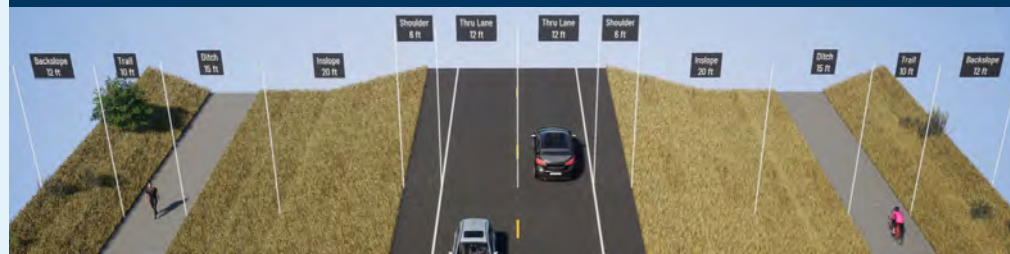


EXISTING



Pros	Cons
No Cost	No Improvements

Widen Shoulders, Add West Trail



Pros	Cons
Improved bike and pedestrian opportunity	Cost Could Increase Traffic Speed

Two Way Left Turn Lane, Widen Shoulders, Add West Trail



Pros	Cons
Bicycle/pedestrian opportunity Safer for left turns	Cost Could Increase Traffic Speed Increased pedestrian crossing distance

Frontage Road, Widen Shoulders, add West Trail, Realign East Trail



Pros	Cons
Access consolidation Improved bicycle and pedestrian safety	Cost Could increase traffic speed Minimizes trail crossings No left turn lanes

SEGMENT 5

Ottertail Concepts



EXISTING



Pros	Cons
No cost	High access density

Two-Way Mainline with Frontage Roads and Crosswalk



Pros	Cons
Access consolidation Improved bike/ped safety	Cost Could increase traffic speeds Minimizes trail crossings No left turn lanes

Two-Way Mainline with Crosswalk



Pros	Cons
Pros	Cons

Two-Way Left Turn Lane with Crosswalk



Pros	Cons
Pros	Cons

SEGMENT 5

Ottertall Concepts Continued



EXISTING



Pros	Cons
No cost	High access density

Roundabouts



Pros	Cons
Best safety Increased opportunity for pedestrian refuges	Cost

SEGMENT 5

Hwy 108 — South Intersection Concepts



EXISTING

Pros	Cons
No Cost	

Southbound Left Turn Lane

Pros	Cons
Traffic Safety Median refuge for pedestrian crossing	Minor Cultural Resources Safety concern without N/S right turn lanes

Southbound Left Turn Lane and Northbound Right Turn Lane

Pros	Cons
Traffic Safety Median refuge for pedestrian crossing	Cultural Resources Safety concern without southbound right turn lanes

Overview

Segment 6

Segment 6 is the area from the south side of Ottertail to the south side of Otter Tail Lake.

Some issues in this segment include:

Potential Areas of Archaeological Significance

Conservation Easements

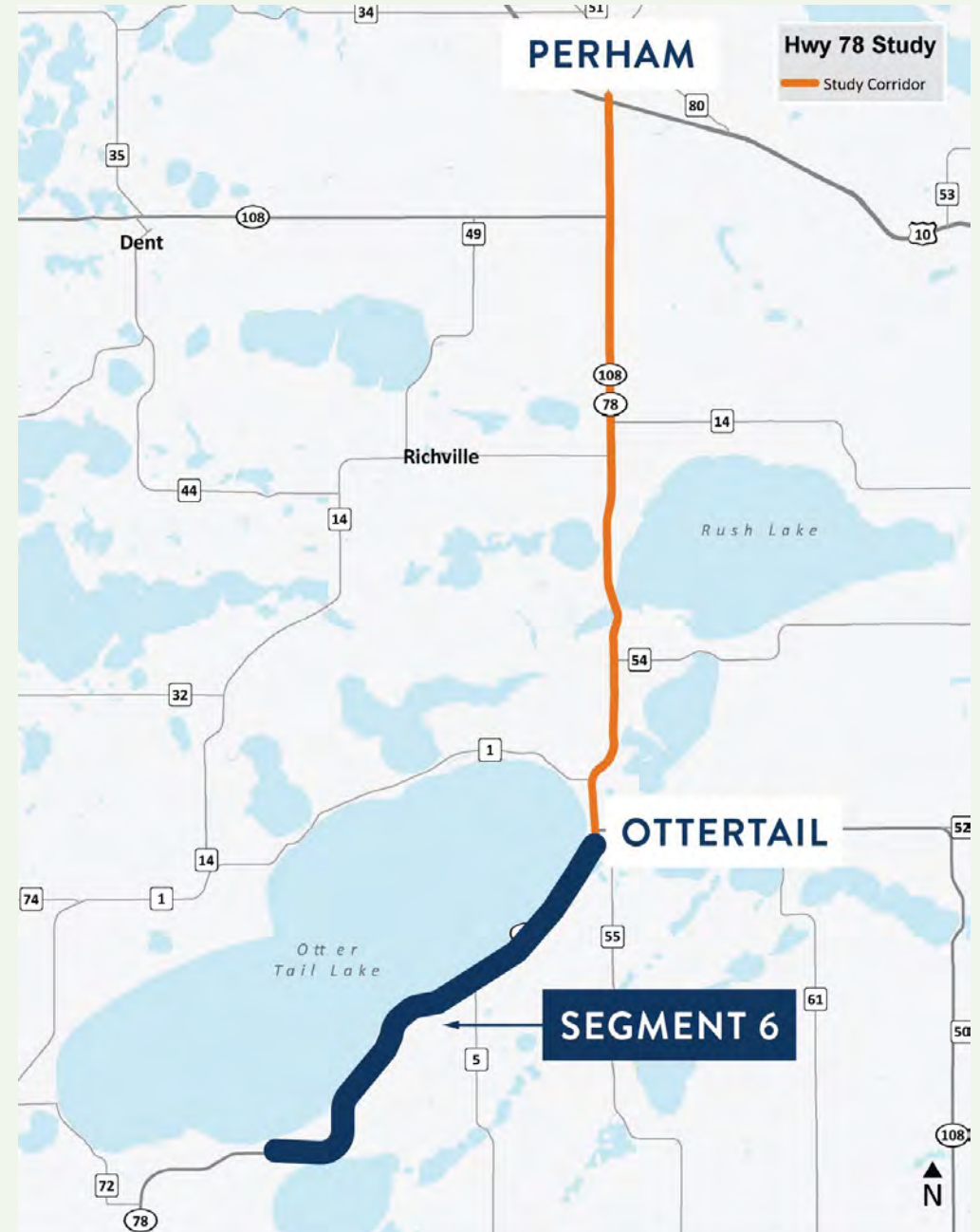
Right of Way Encroachments

No Left Turn Lane into Boat Launch

Lacking Lighting

Rest Area seasonal Congestion/Conflicts

No Pedestrian and Bicycle Facilities



SEGMENT 6

Roadway Concepts



Existing

Pros	Cons
No Cost	Not safe for bikes and peds

Widen Shoulders, add East Trail (8' Offset)

Pros	Cons
Improved Bike and Ped Safety	Cost Wetland Impacts

Widen Shoulders

Pros	Cons
Low Cost	Bike and Ped on Roadway

Widen Shoulders, Add West Trail (26' offset)

Pros	Cons
Highest Bike and Ped Safety	Highest Cost Wetland Impacts

Widen Shoulders, add West Trail (8' Offset)

Pros	Cons
Improved Bike and Ped Safety	Cost Wetland Impacts

Widen Shoulders, add East Trail (26' offset)

Pros	Cons
Highest Bike and Ped Safety	Highest Cost Wetland Impacts

SEGMENT 6

Boat Launch Intersection Concepts



EXISTING

A north arrow is located in the top right corner of the aerial image.

Pros	Cons
Low Cost	Lack of Northbound left turn lane potential safety hazard

Northbound Bypass Lane

A north arrow is located in the bottom right corner of the aerial image.

Pros	Cons
Improves Safety	Cost Still potential for rear ends

Northbound Left Turn Lane

A north arrow is located in the bottom right corner of the aerial image.

Pros	Cons
Safety	Highest Cost

SEGMENT 6

Hwy 5 Realignment Concepts



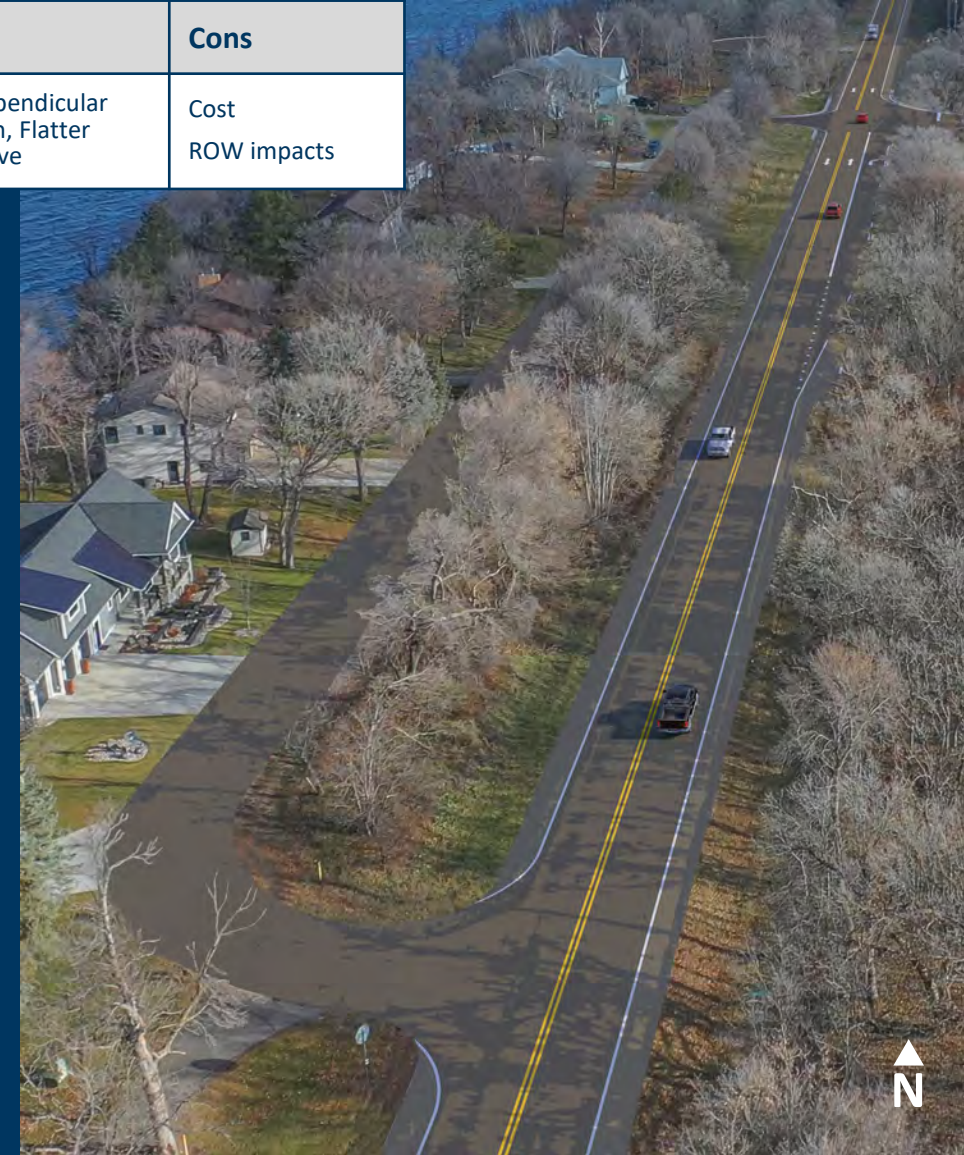
EXISTING



Pros	Cons
Low Cost	Skewed intersection Intersection sits in a sag creating vertical sight issues

Realignment with Frontage Road

Pros	Cons
Safety: Perpendicular intersection, Flatter vertical curve	Cost ROW impacts



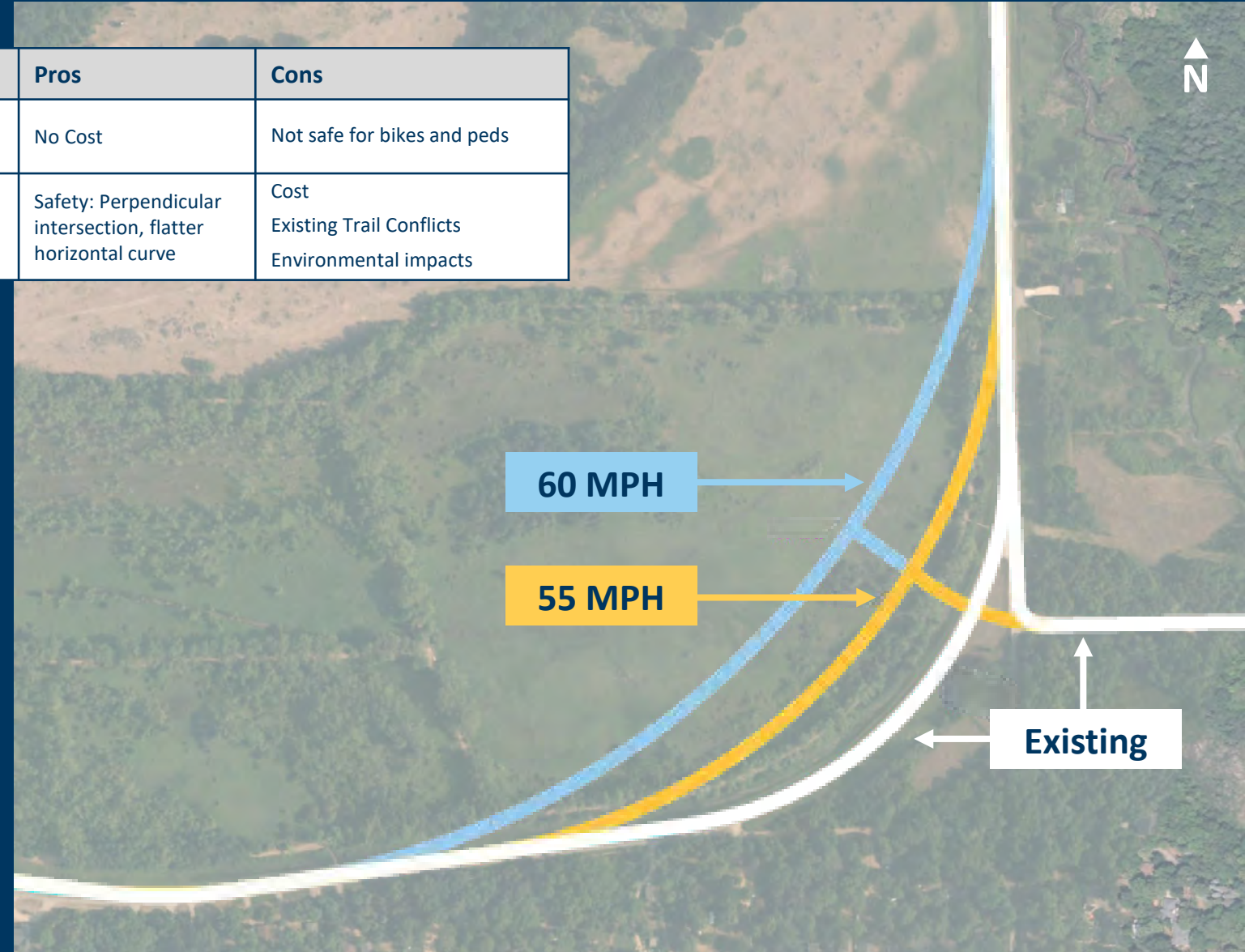
SEGMENT 6

Blanche Creek Rd. Intersection



Realignment Options

	Pros	Cons
Existing	No Cost	Not safe for bikes and peds
Realignment	Safety: Perpendicular intersection, flatter horizontal curve	Cost Existing Trail Conflicts Environmental impacts



Questions?

Thank you!