



TECHNICAL MEMORANDUM

TO: Molly McCartney
MnDOT Project Manager

FROM: Mark Benson, P.E.
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DATE: October 12, 2012

RE: Trunk Highway 13 Corridor Study Update – Study Purpose, Goals, and Corridor Vision
SEH No. 121799

TH 13 Corridor Background

The Minnesota Department of Transportation (MnDOT), in cooperation with Dakota County, Scott County, the City of Burnsville and the City of Savage, has initiated a study to update the Trunk Highway (TH) 13 Corridor Study from TH 13/TH 101 in Savage to Nicollet Avenue in Burnsville. This technical memorandum documents the purpose of the TH 13 Corridor Study Update and the Corridor Vision.

Since the initial TH 13 Corridor Study was completed in 2000, significant investments have been made and the project partners have achieved success in advancing their shared vision for the corridor. However, the study was conducted more than a decade ago, and economic forecasts and growth trends have shifted from what was once predicted. In addition, there has been a decrease in transportation funding both at the state and federal levels. Because of this, a thorough review of the corridor and future needs is not only appropriate, but necessary to ensure continued investments truly reflect the maximum return on investment in the way of improved safety, mobility, and economic vitality along the corridor.

Current Corridor Characteristics

TH 13

- 2009 AADT: 18,400 – 57,000
- 2009 HCADT: 640 – 4,500
- Number of lanes: 4
- Part of the National Highway System (NHS)
- Key highway connections: Interstate-35W, U.S. Highway 169, TH 77, TH 101

Public Transit

- Burnsville Transit Center (1,300 spaces)
- Heart of the City Park and Ride (370 spaces)
- Savage Park and Ride (195 spaces)

Rail

- Union Pacific Railroad parallels the TH 13 corridor and accesses the Savage Ports
- Canadian Pacific Railroad crosses over TH 13 in Savage
- A crossing of the Minnesota River exists to the north of TH 13 near Vernon Avenue

Freight

- Ports of Savage intermodal facility services seven (7) river terminals on the Minnesota River, with two primary access points from TH 13
- Yellow Freight Truck Transfer Station

Study Purpose

The primary purpose of the Study is to provide updated guidance for transportation improvements along TH 13 through Savage and western Burnsville. The study will identify investments needs and show how they: 1) address system performance on TH 13; 2) improve the safety of the corridor for motorists and pedestrians and/or 3) support local economic and community development along the TH 13. Corridor Concept alternatives will be developed with a focus on lower cost/high benefit solutions that target mitigation of the highest risk areas addressing safety and mobility of passenger vehicles, transit, heavy truck movements, and pedestrians/bicyclists.

Study Goals & Strategies

The transportation related issues shown on Figure 1 were identified based on an assessment of the existing conditions as well as from input received from the project partners. The study goals and strategies must respond to the key issues along the corridor and within the study area. The following goals and strategies were originally generated as part of the 2000 TH 13 Corridor Study and have been modified by the project partners for inclusion in the TH 13 Corridor Study Update.

Goal 1: Identify Alternatives to Improve Mobility of Vehicular Transportation and Freight Operations on TH 13.

Strategies:

- Develop and analyze future traffic conditions with the completed and programmed improvements to determine additional alternatives improving through traffic movement in the corridor.
- Evaluate frontage/backage road extensions along the corridor.
- Further study the need for intersection traffic control at key intersections (Dakota Avenue, Chowen Avenue/Glenhurst Avenue, Nicollet Avenue).
- Study the need for and impact of access modifications (access relocation, consolidation, closure).

Goal 2: Identify Alternatives that Improve Safety for Vehicular Transportation and Freight Operations.

Strategies:

- Assess safety conditions and evaluate strategies that could improve safety throughout the study area without compromising the function of TH 13 and other critical roadways (e.g. improved design geometrics, turning movement restrictions, traffic signal modifications, etc.).
- Assess improvements that will efficiently and safely accommodate increased heavy truck traffic along the corridor.
- Research the needs and identify opportunities for improving intersection operations associated with trucks queuing/staging on the highway corridor.
- Ensure that alternatives shall study special design considerations for truck operations/movements.

Goal 3: Identify Alternatives to Supply Adequate Access to Businesses.

Strategies:

- Understand how businesses, customers and suppliers use access on TH 13.
- Study the need for and impact of access modifications (access relocation, consolidation, closure).
- Evaluate frontage/backage road extensions along the corridor.

Goal 4: Identify Options to Improve the Multimodal Transportation System.

Strategies:

- Evaluate the possibilities for new multi-use trails for pedestrians and bicyclists adjacent to TH 13 and throughout the study area, including the Minnesota River Greenway Trail.
- Identify opportunities to enhance connections with existing pedestrian facilities.
- Identify safe pedestrian crossings of TH 13.
- Coordinate with area transit providers (i.e. Minnesota Valley Transit Authority, Smart Link, Blue Xpress, Shakopee Mdewakanton Sioux Community shuttle services) to determine appropriate transit accommodations in the TH 13 corridor, including park and ride opportunities.
- Envision the impact of a potential future commuter rail line in the CP rail corridor.

Goal 5: Create a Practical Plan

Strategies:

- Identify social and natural environmental impacts associated with each alternative, including the No-Build Alternate.

- The TH 13 Corridor Study Update shall provide continuous opportunities for public and agency review and comment.
- The recommendations shall recognize MnDOT's Corridor Investment Management Strategy (CIMS) initiative, which is largely designed to apply a series of lower cost, high benefit investment strategies that address safety, access and mobility.
- Provide a list of recommended improvements with cost estimates and likely funding sources.

Corridor Vision

TH 13 is a critical east-west transportation corridor in northern Dakota and Scott Counties connecting Interstate-35W and U.S. Highway 169, as well as two major river crossings, namely the U.S. Highway 169/Bloomington Ferry Bridge and I-35W. The corridor serves local residents, businesses, and transit, and is an interregional commerce route carrying high volumes of freight traffic. While the TH 13 Corridor Study Update will focus on the roadway segment from TH 101 (on the west) and Nicollet Avenue (on the east), regional needs beyond the study limits will play a large factor in revisiting short- and long-term strategies that will complement investments recently completed and/or programmed for construction that improve mobility, safety, and support the economic vitality of the area.

Work programmed, underway or completed along the study corridor (see Figure 2) includes:

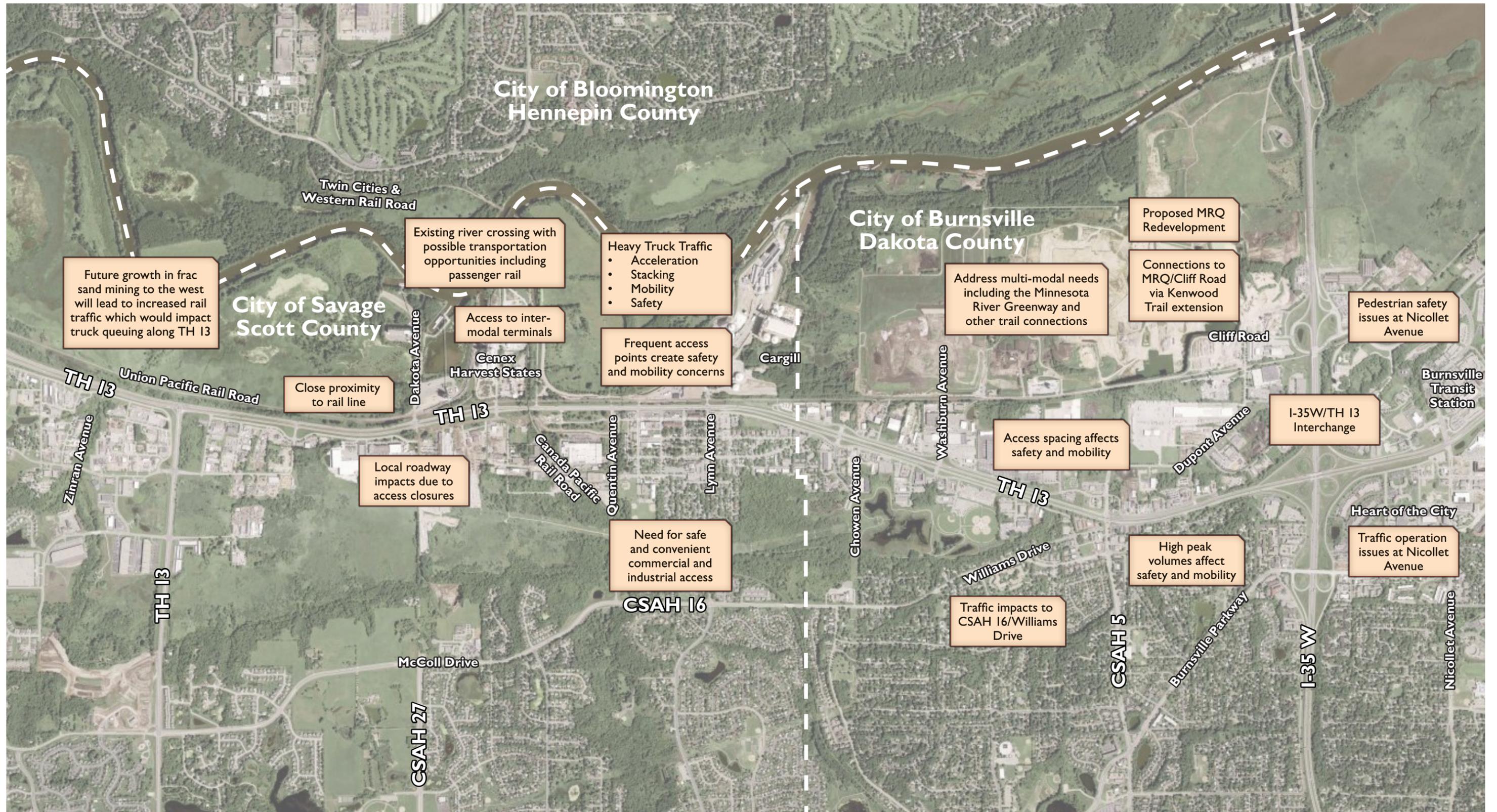
- TH 13/TH 101 Interchange in Savage: Grade separated bridge improvements and roadway widening allow for continuous east- and west-bound movements, local roadway access to TH 13 has either been eliminated (at Rhode Island Avenue and Louisiana Avenue) or modified to include right-in access (at Zinran Avenue). Construction is complete.
- TH 13/Quentin Avenue Improvements in Savage: Traffic signal installation and frontage road improvements at Quentin Avenue; replacement of the traffic signal at Lynn Avenue; closure of local roadway access points (Princeton Avenue, Ottawa Avenue, and Natchez Avenue). Construction is near completion.
- TH 13 South Frontage Road Improvements: Construction of a continuous frontage road from Yosemite Avenue to Quentin Avenue; closure of the Toledo Avenue access to TH 13.
- TH 13/County State Aid Highway (CSAH) 5 Interchange in Burnsville: Construction of the new interchange is expected to begin this fall; the design involves an overpass at this intersection to include reconstruction of frontage roads, full access in all directions, acceleration and deceleration lanes, signal timing optimization, noise walls, and sidewalks and trails. This interchange was the number one priority identified in the 2000 TH 13 Corridor Study.

Areas of the TH 13 Corridor that have been previously studied and/or will be further studied (or re-evaluated) include, but are not limited to, the following: (also see Figure 3)

- TH 13/Dakota Avenue in Savage: Previous studies have suggested the installation of a traffic signal and frontage road to provide a continuous east-west route for local traffic

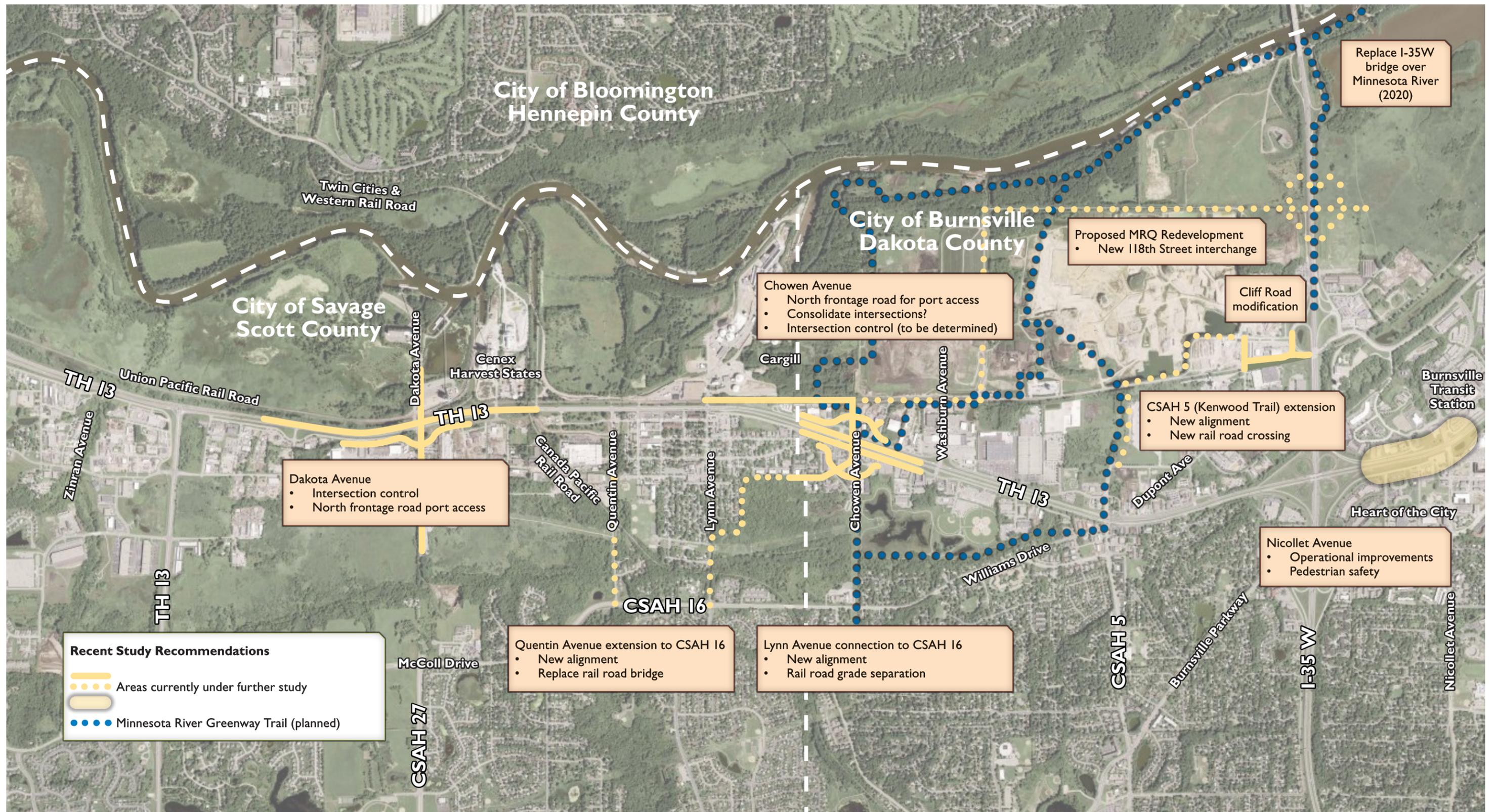
and port access. Extension of Dakota Avenue south to CSAH 16 has been studied extensively as it relates to the Savage Fen.

- Link TH 13/Chowen Avenue and CSAH 16 in Savage: Previous studies have suggested the construct a roadway link to the south from a reconstructed Chowen/TH 13 intersection southwesterly toward CSAH 16. The new route would continue in a southerly direction to intersect CSAH 16 along the Lynn Avenue alignment. Currently, there exists a two lane underpass of the CP Railroad bridge south of 129th Street.
- Link TH 13/Quentin Avenue and CSAH 16 in Savage: Currently there exists a single land underpass of the CP Railroad bridge.
- CSAH 5 (Kenwood Trail) Extension in Burnsville: An improved local roadway alignment linking the new TH 13/CSAH 5 interchange with the Interstate-35W/Cliff Road interchange has been proposed. This extension/improved roadway would be the main access roadway into and through the future Minnesota River Quadrant (MRQ) redevelopment area.
- Nicollet Avenue and TH 13 in Burnsville: Signal design and geometric modifications have been researched for the intersection that would include the addition of dual left turn lanes for the northbound approach.



Highway 13

Corridor Issues



Highway 13

Recommended Improvements From Past Studies