

Carver County River Crossing Study

Purpose and Need

Project Purpose

The primary purpose of this project is to:

- Effectively serve existing and future local, regional, and heavy truck traffic demands in the Watertown area.
- Relieve the traffic demands on CSAH 10 Crow River bridge crossing.
- Rehabilitate or replace the existing structurally deficient CSAH 10 bridge over the Crow River.
- Provide an additional east-west connection that serves demands to cross the Crow River.
- Construct a critical segment of the ultimate vision of a beltway around the community.

The secondary purpose of this project is to:

- Minimize disruption to the community during the rehabilitation / replacement of the CSAH 10 bridge over the Crow River.
- Provide an additional east-west connection that serves demands to cross the Crow River elevated above the 100-year floodplain.
- Improve the minor arterial network in this region of the county.

Project Need

River Crossing Capacity / Demand

- Existing CSAH 10 bridge is 38 feet wide, accommodating two 12 ft travel lanes, 3 ft shoulders, and a 6 ft walkway on the south side.
- Existing average daily traffic (ADT) volumes (2010) are 9,850.
- The 2035 river crossing demand is forecasted at 32,100 ADT.
- Increased traffic volumes cannot be served with the existing geometry on the bridge.

Traffic Volumes with Second Crossing

- With the addition of a continuous east-west connection that serves demands to cross the Crow River on the south side of the community, the traffic volumes are better accommodated as demands are shared on both river crossings.
- The 2035 forecast of the CSAH 10 river crossing lowers to 17,700.
- The proposed river crossing will carry an estimated 15,700 ADT in 2035.
- Construction of this link will reduce the demands at the existing river crossing and allow some regional traffic to avoid the congestion in downtown Watertown.

Downtown Vitality

- To preserve the downtown area of the community, all modes of traffic should be efficiently served.
- Today, the intersection of Lewis Avenue and CSAH 10 is congested and forecasted to fail during peak hours with minimal growth in the community.
- If CSAH 10 were to be expanded to accommodate the forecasted demands, it would require a four or six lane roadway which would cause much disruption to the community, eliminate many homes and businesses, and would be cost prohibitive.

Previous Plans

The County and City have been working together to identify needed improvements in the region. Below is a listing of recent plans and studies that have previously identified improvements needed that are included as part of the current study.

- ***Watertown Comprehensive Transportation Planning Study (2003)***
- ***City of Watertown 2030 Comprehensive Plan - Transportation (2009)***
- ***City of Watertown 2030 Comprehensive Plan – Land Use (2009)***
- ***Carver County Roadway Systems Plan (2010)***
- ***Carver County Construction Improvement Plan (2010)***

Flooding

- The elevation of the CSAH 10 bridge deck is 938.93 ft.
- The bottom of the bridge is at an elevation of 935.18, which is lower than the 100-year floodplain elevation of 936 ft.
- The bridge may be closed when water is 2' below the bottom of the bridge and must be closed when the water is 1' below the bottom of the bridge.
- The bridge may reopen after it is inspected for scour. The bridge is on spread footings which are endangered by scour.
- A continuous east-west connection above the 100-year floodplain elevation should be provided in the community.

CSAH 10 River Bridge Structural Condition

- Existing CSAH 10 bridge over the Crow River needs rehabilitation or replacement.
- Bridge constructed in 1939 on spread footings.
- Bridge eligible for the National Register.
- Sufficiency rating of the bridge is 32.3 and is classified as structurally deficient.
- The bridge is load posted at 40 tons.

Construction Staging

- The CSAH 10 bridge is the only river crossing in the community.
- Construction of the improvements on the CSAH 10 bridge will cause a significant disruption to the community during construction.
- CSAH 10 bridge crossing will be closed for a construction season while improvements are being completed.
- Alternatives to detour traffic through the construction on TH 7 add 12 miles and on TH 12 add 17 miles per trip.
- Emergency response times will be affected during construction that requires closure of the only river crossing.