

Scott County Delivers
Highway Safety, Mobility and Economic Impacts
May 18, 2021



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Results Map:

- Safe: Citizens can travel and move about safely
- Safe: Neighbors feel safe, know their neighbors, children play outside, and all feel part of the larger community
- Healthy: Access to quality local health care services, facilities, and providers
- Healthy: Active lifestyles for all ages through opportunities and education
- Livable: Range of quality jobs and thriving local economy
- Livable: Good system of trails, parks, and open spaces
- Livable: Reliable roads, trails, sidewalks, and transit options are available to all citizens

Community Indicator(s):

Healthy: Access to Exercise Opportunities: Percentage of population with access to physical activity

- KPI - Citizens' Rating of Trail and Bikeway Connectivity

Livable: Access to Destinations: Average # of Jobs within 30 minutes by Public Transit or Walking

- KPI – CH 42/CH 17 Speed Performance

Safe: Number of crashes on the system per 100,000 vehicle miles traveled

- KPI - Crash Rate/Before After Infrastructure
- KPI - Number of Crashes in Work Zone
- KPI - Pavement Quality Index

Scott County Board Objective/Strategy:

- Community Safety & Well-being: Through strategic partnerships, residents will have convenient and reliable access to necessary and important services and activities
 - Strategy: Promote & expand services that help residents lead healthy, active lives
- Infrastructure: Private and public partners collaborate to develop a foundation promoting economic and employment opportunities
 - Strategy: Create a more sustainable, resilient system of regional infrastructure

Introduction:

Successful planning, project delivery, and operations support a resilient system of highway infrastructure contributing to a safe, healthy, and livable communities. Scott County invests significant funding into highway infrastructure each year to build and maintain highway facilities. The following information will look at some of these highway investments and what are some outcomes from these investments.

After analyzing a series of roadway projects for this presentation, 4 projects stood out that enhanced safety, mobility, and economic development:

CH 17 Corridor

TH 13 and CH 21

TH 13 and CH 21

US 169/ TH 41 and CH 78

Background:

Infrastructure projects are programmed in the County's Transportation Improvement Program. Needs are identified in the County's Transportation Plan and the Transportation Tax Sales Implementation Plan. These plans include policies to guide the development of the County's Transportation System and set parameters for local system development. Criteria for selecting projects include safety, structural or geometric deficiencies, multi-modal elements, funding partners, and ability to deliver projects. Projects are prioritized based on safety capacity needs, system connections and project readiness.

Projects first go through a planning and design phase of project development and then a construction phase of project delivery. The construction and the product are the most visible part of the process. During the construction process, the County invests a considerable amount of funding and staff efforts towards work zone safety for employees, contractors, and the public. Decisions to detour traffic around work sites or maintain traffic through a construction zone are based on project duration, reasonable detour routes, and local access needs for residents and businesses.

Once constructed, corridors and intersections are managed and operated for safety and efficiency. Pavements are managed for life-cycle effectiveness. Each segment of roadway is tested every two years and given a qualitative score called a Pavement Quality Index (PQI). Roadways can then be managed with preventative and preservation measures to improve roadway quality and safety. This index is also used to make life-cycle investment decisions for timing of major repairs or reconstruction. Effective snow and ice control methods have an impact on roadway safety and mobility.

Scott County residents are surveyed every three years to determine satisfaction with pavement quality and snow plowing efforts.

While Scott County has been tracking performance measures of project effectiveness related to safety and mobility. Data related to impact of transportation investments on economic development can be more difficult to access and analyze. The County continues to examine potential data sets which could measure and illustrate more clearly how investments impact economic development.

Infrastructure Investments

Making strategic investments in the County's transportation system can improve mobility, safety and enhance economic development opportunities. The projects not only benefit vehicle traffic but have benefits to transit and bike and pedestrian movements. Thoughtful planning and implementation of these projects promote the development of safe, healthy, and livable communities. The County is gathering data on completed projects from the last several years, including:

- CH 17 expansion from CH 42 to CH 16
- CH 42 at TH 13 intersection

- CH 21 at TH 13 intersection
- TH 169/41/CH 78 intersection and CH 14 overpass/frontage roads

Safety of our transportation system is a top priority for all public agencies. Providing the right intersection traffic control and lane geometry is important to balance the functions of the roadways it serves. Stop signs, traffic signals, roundabouts, message signing, access controls, and pedestrian amenities provide a safe roadway environment for vehicles and pedestrians.

Mobility along roadways ensures the efficient and safe movement of people and goods. Mobility is measured by indicators such as travel time over a length of corridor. Elimination of access points, spacing of access points, intersection control types and efficient operations, inclusion of turn lanes, and roadway geometry all play a role in improving mobility, especially during peak traffic. A high-volume mobility corridor like CH 42 serves a different function than a local neighborhood street that is built to service low-volume and low speeds.

Mobility is often used as an economic development indicator; growth of a community impacts access to transportation options which in turn impacts mobility. In Scott County, we continue to strive to improve mobility for our residents by tracking indicators such as removal of access or travel time delay. Tracking these indicators allows us to monitor our investments and study the impacts not only on the one segment or intersection but the entire roadway network.

Economic Impacts: Transportation investments with model options help support community development, employment growth and stability. A mobility investment on a corridor can improve accessibility to the regional system providing time savings for the movement of freight or improved access to the labor market for business. Transportation system improvements facilitate adjacent land development and investment that often leads to increased property values; additional residential, commercial, and industrial development; and/or improved occupancy rates in commercial/industrial areas. Such private investment provides a stable or increasing property tax base for communities. Examining travel time improvements and level of land development adjacent to transportation infrastructure projects provide a good gauge of the contribution that project has on the local economy.

COVID 19 Impacts

The 2020 COVID-19 outbreak has impacted the transportation networks throughout the State and in Scott County. The County did not take traffic counts in 2020 per guidance by the State as volumes were down statewide due to the pandemic. The State will be updating vehicle miles travelled (VMT) in 2021 and we will update our KPI's related to traffic volumes and crashes. There were 372 fewer crashes county-wide in 2020 compared to 2019 including 98 fewer on the County system.

The County's river crossings also saw a decline in vehicle use. The river crossing of I-35 and TH 169 had the most significant drop in 2020.

All modes of transportation have been impacted by changing transportation patterns due to COVID-19, with express and high commuter corridors like TH 169 and I-35W seeing the most significant decline in usage. The MVTA Express service into downtown Minneapolis from the Eagle Creek, Southbridge, and Marshall Road Transit Station park and rides have also seen a historic decline in usage. MVTA reduced express service from Savage, Shakopee, and Prior Lake during the pandemic. Ridership can be shown in the MVTA Ridership measure (Transit-1). With the rise in teleworking during the pandemic and the unknown long-term effects on work habits, analyzing the transit service and travel patterns will be critical to understand new travel trends and better adapt service post-COVID-19.

The County's dial-a-ride and non-emergency medical transportation service also had reduced ridership, as shown in the Transit Number of Rides per Month (Transit-3). While there was a steep reduction in the ridership numbers, those numbers stabilized and residents who depended on the service continued to use it for their mobility needs.

Although the data represents just a snapshot in time, local, regional, and statewide travel patterns by mode should be continually evaluated after the pandemic impacts subside to determine if travel patterns return to normal operating levels. Due to the unknown nature of the pandemic's long-term effects, service changes due to COVID-19 will continue to be monitored.

What's working well and why?

- Elected official and staff engagement in regional and state planning, programming, and project activities to position the County for funding.
- Annual 10-year Transportation Improvement Program review helps guide investment.
- Completed projects show positive results for safety, mobility, and economic impacts
- Approved corridor plans had helped provide guidance and vision for communities.
- Investment alignment with the Board's highest priorities based on data helps reduce congestion and improve safety.
- Effective Public Involvement to listen and get feedback from residents and business owners.
- Proactive safety measures such as signage, safety checklists for construction projects, striping and lighting, etc. help reduce the likelihood of crashes.
- Increased collaboration with other departments in Scott County.
- Development, implementation, and updating of the County Highway Safety Plan.
- Projects that support local transit such as MVTA 495 route and CH 21 reconstruction in downtown Prior Lake.

What's not working well and why?

- Accuracy of crash data records is uncertain. Crash location and specifics may not be reliable.
- Unknown nature of the pandemic's long-term impacts on County highway safety and mobility investment priorities.
- Long term pandemic impact on transit use is unknown.
- Premature land development can result in system gaps, timing issues and financing responsibility challenges

Next Steps / Future Program Development and why?

The following data and best practices will support program goals.

- Data to Support Program:
 - Up to date traffic safety, congestion, and operations performance data.
 - Accurate project cost estimates.
 - Continue to monitor post-COVID travel and work trends.
 - Continue to monitor and develop Economic Development measures.
 - County and local agency alignment of programs and projects.
 - Asset management data and maintenance operations.
 - Coordinated land use and transportation planning for the 2040 Comprehensive Plan Update.

Funding Description

Explanation of Funding Information

The Priority Based Budgeting (PBB) sheets for programs that relate to the topics covered in this presentation are included in the packet. These profile sheets include both program revenue from outside sources, levy contributions to the program, and program costs. It is important to note that the PBB model includes administrative and management expenses not included in the operating statements as these expenses are allocated across the PBB programs through a standard allocation process. In addition, the program description on the form includes the following:

- Direct: is the total of Personnel costs + Non-Personnel costs
- Total: is Direct + Admin
- Personnel: direct program staff allocated to the program and support staff allocated by FTE
- Non-Personnel: Any expenses that are not direct staff costs
- Admin: management costs allocated by FTE that may not be reflected in the program operating statement
- Revenue: is program revenue from state, federal, or other grant sources
- Levy: is county levy costs associated with the cost of running this program

Resources:

Infrastructure Investments		
Resource Type	Title	Location
CI	Number of Crashes on System Per Million Vehicle Miles Traveled	2021 Board Measures, KPI 94 & 95 (Past 96, 97, 100)
KPI	Average County Pavement Quality Index (PQI)	2021 Board Measures, KPI 46
KPI	CH 42 Travel Speeds (MPH)	2021 Board Measures, KPI 96 (no projection)
Snapshot	CH 17 Corridor Improvements from CH 78 to CH 42: New Construction by Year	2021 Board Measures, CH 17-2 MAP Economic
Map	2013-2020 New Construction CH 17 from CH 42 to CH 78	2021 Board Measures, CH 17-2 MAP Economic
Snapshot	CH 17 Traffic Volumes and Number of Crashes	2021 Board Measures, SS#41C-17
Snapshot	CH 17 Traffic Volumes & Number of Crashes Segments with Improvements Completed	2021 Board Measures, SS#41C-16
Snapshot	Severity Rates on CH 17	2021 Board Measures, SS#41B
Snapshot	CH 17 Crash Rate	2021 Board Measures, SS#41A-17
Snapshot	CH 17 Access Management	2021 Board Measures, 98A
Snapshot	CH 42 Traffic Volumes and Number of Crashes	2021 Board Measures, SS#51B
Snapshot	CH 42 Crash Rates	2021 Board Measures; SS#51A
Snapshot	Severity Rates on CH 42	2021 Board Measures, SS#42B
Snapshot	CH 42 Access Management	2021 Board Measures, 98B
Snapshot	TH 13 & CH 42 Intersection Crash Rate	2021 Board Measures, 13 & 42 Crashes
Snapshot	TH 13/CH 42 Annual User Cost Savings	2021 Board Measures, TH13_CH 42 Mobility
Snapshot	CH 21 Crash Rates	2021 Board Measures, SS#49A
Snapshot	CH 21 Traffic Volumes and Number of Crashes	2021 Board Measures, SS#49B
Snapshot	Th 13 & CH 21 Intersection Crash Rate	2021 Board Measures, 13 & 21 Crashes
Snapshot	TH 13/CH 21 Annual User Cost Savings	2021 Board Measures, TH 13_CH 21 Mobility

Infrastructure Investments		
Resource Type	Title	Location
Snapshot	US 169/ TH 41/ CH 78 Annual User Cost Savings	2021 Board Measures, US 169 TH 41 Mobility
Snapshot	Before and After: TH 169 Average Speeds	2021 Board Measures, US 169 TH 41 Mobility (2)
Snapshot	TH 13 & CH 101 Intersection Crash Rate	2021 Board Measures, 13 & 101 Crashes
Snapshot	Work Zone Crashes in Scott County	2021 Board Measures, Work Zone 1
Snapshot	Work Zone Crashes on the County System	2021 Board Measures, Work Zone 2
Snapshot	Work Zone Map	2021 Board Measures, Work Zone Map
Covid-19 Measures		
Resource Type	Title	Location
Snapshot	River Crossings Traffic Volumes: Pre COVID to Present	2021 Board Measures, Covid-3
Snapshot	Council Ridership- Year End 2020	2021 Board Measures, Transit-1
Snapshot	MVTA Ridership	2021 Board Measures, Transit-2
Snapshot	SMARTLINK Transit Rides Per Month	2021 Board Measures, Transit-3

Related Program Profile Sheet:

[Use the [Reporting Services report](#) to find your program numbers.]

Program Number	Program Name
43	Smartlink Dial a Ride Bus Service
44	Smartlink Medical Assistance Transportation
50	Traffic Control and Operations
92	Transportation Project Development and Design
95	Intersection Safety and Corridor Management