

# 6

## Highway Safety Strategies and Signage

### Introduction

The Byway passes through thirteen counties, using portions of U.S. Highways, State Highways, County State Aid Highways (CSAH), County Roads and Township Roads. The designated route also has several official Alternative Routes, of which approximately 50 miles are graveled surfaces. These routes usually run near or parallel to the paved route, but offer access to some unique or distinctive characteristic along the River. Most often, the Byway winds along paved surfaces through farmland and rivertowns, posting an average speed limit of 55 M.P.H., except within town limits.

Most roadways can accomodate motorcoach traffic during spring and summer, having a 10 ton limit during these times. Safety concerns are generally around such issues as shoulder widths, high traffic counts, roadway conditions around bridges and trestles, and proposed traffic reconfigurations.

Concerning traffic counts, the counts vary tremendously along the 287 mile length of the byway and present problems only along sections of Highway 169 and in areas near Mankato. Generally speaking, volumes are low (i.e., < 2000 ADT) along most of the byway, as would be expected for rural farm roads and small villages.



*A typical paved rural road along the byway*



### **Important Feeder Routes to the Byway**

#### North/South Feeder Routes

- Interstate 29 near Browns Valley
- US 75 at Ortonville
- US 59 near Montevideo
- US 71 at Redwood Falls
- US 169 near Belle Plaine
- US 169 at Mankato
- MN 23 at Granite Falls

#### East/West Feeder Routes

- MN 28 at Browns Valley
- US 12 entering at Ortonville
- MN 7 at Montevideo
- US 212 at Granite Falls and Montevideo
- MN 19 at Henderson and Morton
- US 14 at Mankato and New Ulm
- MN 60 at Mankato

Many of these roads are regularly traveled routes east and west to South Dakota and the Black Hills (east/west) or to north and south to Canada, Sioux Falls and Omaha.

This chapter is intended to provide an overview of the highway safety and signage issues that should be addressed during implementation. The discussion is at a policy level and is not intended to delve into specific highway engineering issues.

Please see the maps in the Map Appendix for the official byway route and the alternate routes.

## **Issues and Challenges**

### **Surface Conditions and Safety Concerns**

The Byway incorporates national, state, and county roads which are paved, and limited gravel county and township roadways. There are approximately 50 miles of gravel-surfaced roadway regularly maintained year round. These routes currently handle a combination of heavy commercial, agricultural and standard passenger vehicles and most could handle commercial motor coaches, although there are few wayside areas large enough at this time to accommodate motor coach parking. The roadways generally have paved or gravel shoulders ranging from 2 to 10 feet in width. As the Byway travels through metropolitan areas, roadways are paved with curb and gutter along most downtown areas.

A general survey was conducted with the District Offices of the Minnesota Department of Transportation that serve the segments of the Byway. In addition, the Phase I Plan reviewed the roads between Mankato and Granite Falls. The following roads merited comments from engineers and planners regarding road conditions, applicability to tourism and bus traffic and other general issues. These comments are not based on field surveys by the engineers and are intended only to highlight areas that should be examined in more detail.

- MN 93: From Henderson to the junction TH 169: No general safety concerns. Suitable for tour buses in spring, summer and fall. Not suitable for bicyclists.
- MN 93:/US 169 from 93 to junction TH 93: No general safety concerns. Suitable for tour buses in spring, summer and fall. Fair suitability for bicyclists.
- MN 93: US 169 south to junction of MN 93: No shoulder under railroad trestle. Restricted sight distance. Suitable for tour buses in spring, summer and fall. Unsatisfactory suitability for bicyclists.



- MN 93: US 169 south to junction of MN 112: No general safety concerns. Suitable for tour buses in spring and summer. Fair suitability for bicyclists.
- MN 112 in LeSueur from MN 93 to CSAH 36 in LeSueur: Some safety concerns if the mall is removed and open to two way traffic. Suitable for tour buses. Unsatisfactory for bicyclists.
- MN 99: CSAH 23 to the W end of Br 4930/Minn River: No general safety concerns. Tour buses OK throughout year. Fair bicycling suitability.
- MN99: W End Br 4930/Minn River to N JCT TH 169: No safety concerns. Tour buses OK throughout year. Fair cyclist suitability.
- US 169: N JCT TH 99 to Jefferson St: No safety concerns. Tour buses OK throughout year. Cycling is fair on adjacent street.
- US 169: from Jefferston Str to Jct TH 22: No safety concerns. Tour buses OK throughout year. Cycling is fair on adjacent street.
- MN 22: Juct TH 169 to NW end BR 4770: No safety concerns. Tour buses OK throughout year. This segment has a detached cycling trail.
- MN 22: S Jct TH 169 to the NW End CR 40002: No safety concerns. Tour buses OK throughout year. This segment has a detached cycling trail.
- MN 22: NW end BR 40002 to CSAH 21: No safety concerns. Tour buses OK throughout year. Fair cyclist suitability.
- Bridge #19/12 on the Alternate Route is single lane and cannot accommodate all vehicles.
- Gravel routes are generally not suitable for road bicycles; even mountain bikes will have problems in some areas. Shoulders are poor or nonexistent in many cases.
- Highly curved roads in Nicollet (e.g., CSAH 21) and Renville (e.g., CSAH 15) Counties may merit additional signage to ensure safety for visitors and for farmers and residents along the roads.
- MN119: from MN 40 to LQPCSAH 34: No safety concerns. Tour buses OK throughout year. Good cyclist suitability. Section just south of Appleton widened to accommodate bike path.
- MN 7: from Big Stone Township T-156 to US 75: No safety concerns. Tour buses OK throughout year. Fair cyclist suitability. Cycling is OK due to low traffic levels and broad shoulder width. Some problems with increasing traffic counts and composite shoulders.



*The variety of roads along the byway route.*



- US 75: from CSAH 38 to US 12 in Ortonville: No safety concerns. Tour buses OK throughout year. Poor cyclist suitability. Paving shoulder would help cyclists.
- US12: CSAH 37 to Ortonville City limits: No safety concerns. Tour buses OK throughout year. Fair cyclist suitability.
- MN7: Northwest of Ortonville to Beardsley city limits: No safety concerns. Tour buses OK throughout year. Poor cyclist suitability due to narrow shoulders.
- MN7/MN28 West Beardsley to East Browns Valley: No safety concerns. Tour buses OK throughout year. Fair cyclist suitability except for gravel shoulders.
- MN7/MN28: West of Browns Valley to South Dakota border: No safety concerns. Tour buses OK throughout year. Fair cyclist suitability but shoulders are not paved.

### Commercial and Farm Traffic

The byway provides segments that have little commercial traffic and segments that run directly on heavily used state and county highways. Of most importance for this byway is the need to alert and educate byway travelers to the presence of farm machinery. Visitors need to understand the importance of driving with courtesy along the back roads of the Minnesota Valley. Programs should be developed to encourage visitors to understand more about farming and avoid situations that cause hazard to visitors or irritation to farmers. With such a program, this byway will have few commercial traffic conflicts.

The other important commercial traffic concern is heavy machinery associated with sand and gravel extraction. Care should be taken to alert visitors to this traffic.

### Rail

Minnesota Valley Regional Railroad Authority (MVRRA) is a unit of local government in Minnesota controlled by the counties (Carver, Sibley, Redwood, Renville and Yellow Medicine) in which its rail line is located. The rail line is 94 miles long running generally westerly from Norwood-Young America to Hanley Falls, MN. The railroad has been out of service since early August 2000. The rail line connects with the privately owned Twin Cities & Western Rail Company (TC&W) at its east end and the Burlington Northern Santa Fe on its west end. Within the Valley, consideration is being given to how this line should be used in the future.



## Group Tour Buses

As reviewed above, the majority of the byway is accessible for tour buses. There are a limited number of bridges and road segments that are not suitable due to seasonal or tonnage limitations. There are many towns and lodging facilities along the byway that already cater to the group market and therefore the byway is well positioned to take even greater advantage of this market.



## Bicycling

Generally, the Byway's roadways are not conducive to quality bicycling because of the width and unpacked composition of the shoulders and the presence of high traffic and truck activity. Stretches of roadways south of Appleton have been widened specifically to better accommodate bicycle traffic. There are many miles of adjacent county and township roads that have little traffic and would make tremendous bicycling loop routes. Many of these roadways pass through open farmland, alongside farmsteads, farmers and their equipment working in the fields, and grazing livestock. Given these types of road conditions, the need for a regional network of trails that mixes roadside riding with trail riding is quite evident.

## Signage and Outdoor Advertising

In compliance with ISTEA billboard requirements, no billboards have been erected along Federal Aid Primary roads on the nominated route since its partial designations in 1995 and extension of designation in 1996. Billboards are more frequent along the eastern end of the Byway. There are several community gateways that have an abundance of billboard signs, all of which are in the commercially zoned districts.

Many of the tourism-related businesses located off the state highways participate in the Specific Service Sign Program, provided by the Department of Transportation. With this program, service-oriented businesses can have a uniform, blue sign erected and maintained by MNDOT which identifies the businesses name and provides directional information and mileage at the appropriate intersection. This program is paid for by the individual business owners who enter into a ten year contract.

The Byway will comply with the National Scenic Byway Program's billboard requirements. Communities will be encouraged to explore appropriate off-site signage regulations depending on their circumstances. Commercial and industrial zoning along the route



exists in Ortonville, Montevideo, Granite Falls, Redwood Falls, New Ulm, Mankato, St. Peter, and Le Sueur and as such, modifications may need to be made in the formal byway designation to allow for appropriate signage.

There are a number of state and county-erected historical markers and monuments along the Byway. Few have adequate safety conditions to pull-off, park and read the signage.

## Action Summary

The Alliance is working with the Minnesota Department of Transportation, including all three District Offices, the Office of Environmental Safety, and engineers from each of the thirteen county highway departments to take actions that reduce the impact the Byway will have on safety through traffic management practices.

There is no need for major highway construction to accommodate Byway visitor traffic at this time. Future highway needs may depend on the increase of visitation and traffic counts experienced along stretches of the road. The Alliance will work with the Department of Transportation and County Highway Departments to consider the following management strategies.

### Action 21: Alliance Works with State and County Highway Project Planning Teams to Incorporate Byway Issues

A variety of road improvements are planned along the corridor, although none are needed specifically for short-term tourism demand. The Alliance should take an active role in reviewing annual transportation improvement project lists to ensure that Alliance input is given relative to planned projects. The Alliance should seek to more directly involve county and state engineers in byway planning so that roadside amenities and road edge site planning are aligned with byway objectives. A once-a-year Engineers' Lunch on the Byway should be held to bring the region's highway engineers and planners together to review planned projects and identify potential problems that are arising between byway goals and highway safety objectives.

***Bring highway engineers into an active partnership with the byway.***



## Action 22: Maintain the Character of Rural Roads

The character of the rural roads along this byway is a function of both the abutting landscape and the roads' layout and alignment. Generally speaking, the gravel routes provide an unusual experience for most travelers. The question of whether gravel roads should be paved must be dealt with on a case-by-case basis depending on the circumstances along each section of the byway. The needs of residents and commercial traffic will largely determine this issue. With that said, it should also be stated that maintaining as much gravel road experience as possible is an important objective for this byway in order to maintain this aspect of the byway's character.

Bridges are also important rural road features. Any improvements should seek to enhance pedestrian/bike crossings as well as vehicle movement. See-through railings should be used to allow views of the river and any historic or period details should be retained. Access to the river should also be created during bridge construction or rehabilitation.

Related to the issue of bridge materials and design is that of guardrail selection and design. The Alliance is working with MNDOT on TH67 to find guardrails that will preserve the rural character of the road. State and county engineers should collaborate to find acceptable and safe guardrail designs that can be used along the entire byway.

Multi-use trail facilities should be developed along rural roads in a manner that protects the character of the road while providing for safe trail use. For example, trails along wide-shouldered rural roads can fit in easily whereas it may not be preferred to pave gravel shoulders in an attempt to create a parallel bike trail.

## Action 23: Create More Bicycling Facilities

Many of the communities are working on off-road trails that might eventually be linked together to form a continuous network of trails from one end of the Valley to the other. This is a critical project in order to provide more ways for visitors to explore the back roads and countryside of the byway in a more intimate fashion. As noted above in Chapter 5, the Watershed Comprehensive Recreational Guidance Document and Trail Corridor Concept Plan already provides a good framework for this action. Byway funding should be sought to move aspects of the trail system forward.

***Maintain safety, but also protect the character of roads, bridges and other transportation infrastructure.***

***Bicycling infrastructure is an important investment for residents and visitors.***



***Bicycling events drive use and use drives new public investment.***

#### **Action 24: Create More Bicycling Events**

Organized bicycle rides, where large biking groups work with local authorities to provide safety support and traffic mitigation should be considered as another strategy to promote the area to bicycle enthusiasts. Several popular bicycling events are staged along the Byway, including The Ride Across Minnesota (TRAM) Tour, suggesting that there is a growing potential for bicycling in this area. A cycling committee should be formed as a subcommittee to the Alliance. The group should bring together club representatives and cycle shop owners to work in cooperation with the Alliance on the creation of one or two more cycling events each year.

***Encourage visitors to look at and understand the landscape.***

#### **Action 25: Create a Farm Equipment ID Game**

Various state DOT's across the country (e.g., Maryland) have been quite successful in creating in-the-car game sets for visitors that allow children to pass the time by trying to identify features and sites of interest in the state (e.g., "Find the seagull on the top of the tallest building in the city.", etc, etc.) The Alliance should work with a college or university art/graphics program to develop a set of sillouettes of farm machinery similar to the sillouette books for bird identification. This will help families be more aware and interested in farm machinery and create a hook for farm-related interpretation. Antique farm equipment already "turned out to pasture" and prominently sited near the highway could be included in the game as part of a series of fixed identification goals.

***Signage is a critical need and improvements are called for in state sign policies. Be an advocate.***

#### **Action 26: Act as a Facilitator of Signage Policy and Action**

Traffic safety standards along the Byway will be managed through the Minnesota Department of Transportation's District Offices and County Highway Departments and Engineers. The Alliance will, however, work as an information provider and facilitator for signage policy changes that mesh with the Byway's mission and goals. The Alliance will work closely with the state and with counties to ensure safety and to create a distinctive and useful signage system along the Byway. The Alliance also understands the importance of advertising for some businesses and supports sign control management strategies that work for both businesses and for the traveling public.



### **Action 27: Develop a Written Set of Guidelines for Information, Signage and Interpretative Facilities**

As the Byway adds new informational and interpretive elements along the route, there should be consistency in the design of these areas. The Alliance should seek funding to develop a set of guidelines or standards to shape all new roadside investments. For example, such a document should cover sight distances, signage policy, parking standards, tour bus standards, information kiosk design and other similar topics. Close cooperation with MNDOT and county highway departments will be critical.

***Create byway-specific guidelines.***

### **Action 28: Erect and Maintain More Byway Directional and Logo Signs**

The Byway has created an attractive, easily recognizable logo with its bright pink background and distinctive flying eagle. This logo has been reproduced as road signs and placed at most but not all intersections along the Byway. This lack of signage along parts of the Byway makes it somewhat confusing when users are asked to travel over 60 different roadways from end-to-end. Efforts should be made to ensure that these signs are installed in a more comprehensive manner. Both advance warning signs with arrows and then “reassurance signs” are needed at each intersection to reassure the traveler that they are continuing along the appropriate route. Funding is an obvious need to accomplish this task.

***The byway is difficult to follow without logo and trailmarking signs.***

### **Action 29: Erect Points-of-Interest Signs.**

As travelers enjoy driving the Byway, there are many historic, cultural, natural and scenic sites and attractions that they will appreciate. Proper signage is needed to announce these points-of-interest to travelers in a safe manner. Many of these points-of-interest require that travelers turn into roadside parking areas and exit their vehicles to read the interpretive panel, historic marker or experience the resources on foot. These point-of-interest signs should be erected from both directions incorporating proper safety standards determined by the Minnesota Department of Transportation. In addition, there are archeological sites that have little to offer in the way of interpretation or facilities, but markers indicating the sites will be of interest to many travelers. Care must be taken to erect such signage only in places where there is no threat of vandalism to the resource.

***The byway is long; points of interest signs help guide visitors through the experience.***



***Take those responsible  
for decisionmaking out  
onto the byway.***

### **Action 30: Sponsor Annual Signage, Safety and Improvement Tours**

The Alliance should sponsor an annual tour of the Byway for the appropriate county and state transportation officials to determine necessary roadway signage and safety improvements, particularly along tourism traffic centers and at key tourism sites and attractions.

