

## **APPENDIX B TRANSPORTATION FINDINGS AND RECOMMENDATIONS**

### **Background**

Renville County maintains approximately 712 miles of roadway. Of these miles, 445 miles are on the County State Aid Highway (CSAH) system, with the remaining miles on the County Road system. The primary difference in designation between a CSAH route and a County Road relates to its function and funding. The County State Aid Highway System originated to provide an integrated network of secondary roads serving the state's rural transportation needs. Routes qualifying as, or designated as, CSAHs are eligible to receive state funding for maintenance and construction activities.

Approximately 400 miles of roadway in the County system are paved, and approximately 312 miles are gravel roadways. The economy of Renville County is based predominantly on agriculture; therefore, this system of roads is critical to maintain access to farm markets, agricultural processing facilities, and regional centers of business.

### **Goals and Policies**

The following policies appear on page 43 under **Goal 1**:

1. Ensure that roadways are classified appropriately according to function and are appropriately spaced to provide Countywide connectivity.
2. Design road improvements, control access and manage traffic to emphasize mobility on higher functional corridors and access on lower functioning roadways.

This policy appears on page 44 under **Goal 2**:

1. Investigate opportunities for jurisdictional reassignment based on system designation guidelines.

The following discusses the background for functional classification, access management, and jurisdiction, and provides a recommended functional classification plan and recommendations for potential changes to jurisdiction.

## Existing Functional Classification System

A review of Renville County’s functional classification system was conducted as part of the Comprehensive Plan development process. If a transportation network is to function adequately, then the roads that comprise it must be adequate to serve their purpose. Recreational areas, major agricultural-products processing centers, and other types of traffic generators, should be served by roadways with higher functional classifications such as arterial highways. In so doing, the function of the roadway can be preserved by ensuring that it is built to modern standards, that it qualifies for certain types of funding, and by limiting access as necessary. Other areas where most traffic is comprised of local trips, such as shopping, trips to school or other access to farm fields, should have roadways of lower classification such as collectors or local roadways. By linking surrounding land uses to the roadways that serve them, the most efficient investment in both private development and public works infrastructure is made.

A functional classification plan is a means to organize a transportation network into a hierarchical system of roads so that all types of travel needs are met. Some roadways function to primarily serve mobility needs (the need to travel longer distances at greater speeds) while others function to serve access needs (primarily to carry local trips shorter distances). At the higher end of this spectrum are principal arterial highways, such as TH 212, where access to the roadway may be limited. At the other end of the spectrum would be a cul-de-sac street in a housing development. In between these two extremes there is a need for a range of different roadway types to distribute traffic safely and efficiently.

### Functional Classification Guidelines

The Federal Highway Administration (FHWA) has established mileage targets for these various types of highways. A comparison of the Renville County system to these guidelines is shown in the table below.

<b>Functional Classification</b>	<b>FHWA Guidelines</b>	<b>Miles on Roads within Renville County limits</b>	<b>Miles on Roads under County Jurisdiction</b>
Principal Arterials	2 – 4 %	4%	0 miles
Minor Arterials	4 – 8 %	3%	0 miles
Major Collectors	20 – 25%	23%	270 miles
Minor Collectors			170 miles
Local <sup>(1)</sup>	65 – 75 %	70%	248 miles

The current system of roadways in Renville County seems reasonably distributed within the current FHWA guidelines. No arterial routes are currently designated as part of the County’s jurisdiction. This is not unexpected based on the rural nature of Renville County.

## Principal Arterials

Principal arterials are the highest roadway classification and provide high-speed mobility connecting regional population centers and other principal and minor arterial routes. They carry the longest trips and emphasize mobility rather than land access. Spacing guidelines for principal arterials are a minimum of 2 to 3 miles in fully-developed areas and about 10 miles in rural areas. However, spacing in rural areas may be greater based on the location of major population centers and travel patterns.

Principal arterials are generally constructed as either limited access freeways (in an urbanized area), as multi-lane divided highways, or as two-lane highways. Existing principal arterials in Renville County include TH 212 that spans the county from east to west, TH 71 providing north-south connectivity, and TH 23 that borders the western County boundary. These routes play an important role in connecting the area to centers like Willmar, Marshall, and the Twin Cities.

## Minor Arterials

Minor arterial routes supplement the principal arterial system. They provide for intra-regional connectivity between regional centers and business concentrations. They should serve medium-length and short trips and emphasize mobility over land access. Renville County is served by two minor arterial routes: TH 19 passing through the southeastern portion of the County, and TH 4 providing a north-south through route in the eastern portion of the County.

## Major Collectors

Collector routes supplement the principal and minor arterial routes. They provide direct east-west or north-south cross-County access, linking to the principal arterial routes and connecting urban service areas with towns inside and outside the region. They should serve medium-length and short trips and emphasize mobility over land access. Spacing for major collectors are recommended at every five to six miles in rural areas.

In Renville County, existing major collectors include CSAHs 11, 4, and 2 provided east-west, cross-county access and CSAHs 10, 6, 21, 1, 5, 16, 8 and 20 providing north-south access.

## Minor Collectors

Minor collectors provide supplementary connections serving less developed rural areas and connecting with major collector routes and principal arterial routes. Their emphasis is on land access. Consequently, because of their location, they are lower-volume roads than arterial or major collector routes.

## Local

Roads that function almost exclusively to provide access to property are usually the lowest volume roads. Local routes in Renville County provide supplementary connections to minor and major collectors, as well as to principal arterial routes in the county. Recommended route spacing within the County for local routes is from one to two miles.

### **Recommended Functional Classification Changes**

As described in the previous section of this chapter, roadway functional classification seeks to ensure that a hierarchy of roads is established sufficient to meet all trip types providing for adequate levels of regional and local mobility. Four major considerations are given when assigning functional classification and when evaluating the adequacy of an existing classification. These are:

- 1) The ability of the roadway to provide for connectivity,
- 2) Existing roadway volumes of traffic,
- 3) The level of regional center that it connects, and
- 4) The spacing of the roadway to another roadway of similar classification.

The figure on the following page depicts the future functional classification of roads in Renville County.

### **Access and Corridor Protection**

Access control is one of the tools for maintaining the appropriate functioning of the system by balancing property access, safety and mobility concerns. By protecting continuous routes and important corridors, goods and people are moved in a safe and efficient manner. At the same time, excessive protection can adversely affect property owners and potential new development.

By law, reasonable access must be provided to each parcel. Coordination between land development regulation and road improvement and management is needed to achieve the objective of an efficiently operating road network.

The table on page 6 presents rural and developing area access spacing guidelines. These should be considered as guidelines only in recognition of the range of access situations that will occur. It is important to be flexible in how the roadway system is managed and individual property concerns are addressed.

### **Potential Jurisdictional Transfers**

A review of jurisdiction over roads in Renville County was conducted as part of the Comprehensive Plan development process. The jurisdiction of roads is important because it affects a number of critical organizational functions and obligations (regulatory, maintenance, construction, and financial). The primary goal in reviewing jurisdiction is to match the function of the roadway with the organizational level that is best suited to handle the route's function.

Insert Figure – Functional Classification Plan.

## RURAL AND DEVELOPING AREAS ACCESS SPACING GUIDELINES

Type of Access Requested	Type of Roadway and ADT Affected by Access <sup>(1)(8)</sup>			
	Multi-Lane Divided Arterial or Collector Over 10,000	Two-Lane Arterial or Collector 2,000-10,000	Two-Lane Arterial or Collector Less than 2,000	Two-Lane Local Road
<b>Field Access</b>	No Direct Access <sup>(4)</sup>	Spacing based on other criteria <sup>(5)</sup> (1 per 40 acre or ¼ spacing)	Spacing based on other criteria <sup>(5)</sup> (1 per 40 acre or ¼ spacing)	Spacing based on other criteria <sup>(5)</sup> (1 per 40 acre or 1/8 spacing)
<b>Private Residential or Business Access</b>	No Direct Access <sup>(4)</sup>	¼-mile spacing <sup>(6)</sup>	1/8-mile spacing <sup>(7)</sup>	1/16-mile spacing, minimum; proper lot layout, shared driveways and internal circulation plans shall be promoted where possible
<b>Low-Volume, Non-Continuous Streets or Shared Driveways</b> <sup>(2) (3)</sup>	½-mile spacing with no median opening <sup>(4)</sup>	¼-mile spacing with turn lanes <sup>(6)</sup>	1/8-mile spacing <sup>(7)</sup>	1/8-mile spacing
<b>Medium-Volume Non-Continuous Streets</b> <sup>(2) (3)</sup>	1-mile spacing with signals and turn lanes	½-mile spacing with turn lanes	¼-mile spacing with turn lanes	1/8-mile spacing with turn lanes
<b>Low and Medium-Volume Through Streets</b> <sup>(2)</sup>	1-mile spacing with signals and turn lanes	½-mile spacing with signals and turn lanes	½-mile spacing with turn lanes	¼-mile spacing with turn lanes
<b>Medium- &amp; High-Volume Through Streets</b> <sup>(2)</sup>	2-mile spacing with signals and turn lanes	1-mile spacing with signals and turn lanes	1-mile spacing with signals and turn lanes	½-mile spacing with signals and turn lanes
<b>High-Volume Arterials &amp; Expressways</b> <sup>(2)</sup>	5+-mile spacing with signals and turn lanes	2-mile spacing with signals and turn lanes	1- 2-mile spacing with signals and turn lanes	1- 2-mile spacing with signals and turn lanes

**NOTES:**

- <sup>(1)</sup> Rural and developing area access guidelines and applicable to Mn/DOT, County and City roads.
- <sup>(2)</sup> All volumes represent 20-year forecasts. “Low Volume”<2,000; “Medium Volume”=2,000 to 10,000; and “High Volume”> 10,000.
- <sup>(3)</sup>“Non-continuous streets” refers to cul-de-sac or short length local streets (less than ½ mile) which do not necessarily cross the roadway in question.
- <sup>(4)</sup>Additional access may be permitted in the form of right-in/right-out (1/2 mile spacing) if there is no other feasible local road access point.
- <sup>(5)</sup>Access criteria should be based on factors such as stopping sight distance, drainage, and spacing and alignment with other access points.
- <sup>(6)</sup>Access spacing may be reduced on County facilities to 1/8 mile.
- <sup>(7)</sup>Local land access off of collector and arterial streets should be minimized.
- <sup>(8)</sup>All access locations should have adequate stopping sight distance, drainage, spacing from adjacent access and alignment.

## Jurisdictional Transfer Guidelines

Issues and factors that must be considered when determining potential jurisdictional changes include: historical practices, type of trips served (purpose and length), volume of traffic, access controls, functional classification, legal requirements, and funding and maintenance issues. The following guidelines are proposed to provide a basis to review the routes in Renville County for potential jurisdictional transfers. These guidelines will not determine if the jurisdictional transfers are feasible or politically acceptable, nor do they establish a time frame under which transfers may occur. Instead, the guidelines define a common sense approach for arriving at logical jurisdictional designations. Once there is agreement on how the jurisdictional designations should be established, an on-going jurisdictional transfer process will need to be developed. This process should address issues such as the financial implications for construction and maintenance of the facility, operational implications (perceived level of service, ability to maintain), perceived fairness in the distribution of route responsibilities, and timing of transfer.

It is not anticipated that all guidelines must be met in order for a jurisdictional designation to be recommended. However, the more criteria a route meets, the stronger the case for recommending the route designation.

### State Jurisdiction

Normally, state jurisdiction (U.S Highway, Trunk Highway) is focused on routes that can be characterized as follows:

- They are classified as either a principal or minor arterial.
- They are typically longer routes that provide for statewide and interstate travel, serving longer regional trips that connect larger population and business centers.
- They are spaced at intervals that are consistent with population density, such that all developed areas of the state are within reasonable distance of an arterial. (As a guide, rural arterial routes are considered to “serve” a community if it is within 10 miles or 20 minutes travel time on a minor arterial.)
- They typically have higher design features (such as properly spaced access points), which are intended to promote higher travel speeds. They also accommodate more truck movements.
- They typically carry the major portion of trips entering and leaving urban areas as well as the majority of trips bypassing central cities.

### County Jurisdiction

Typically, in rural areas, County jurisdiction (County State Aid Highways and County Roads) is focused on routes that can be characterized as follows:

- They are functionally classified as a minor arterial, major collectors or minor collectors.

- They provide essential connections and links not served by the principal and other minor arterial routes. They serve adjacent larger towns that are not directly served by principal and minor arterial routes, and they provide service to major traffic generators and have intra-county importance.
- They are spaced at intervals that are consistent with population density so as to provide reasonable access to arterial or collector routes in developed areas.
- They may provide links between local traffic generators and outlying rural areas.

### Local Jurisdiction

Collectors and local streets that provide property access and local traffic circulation are normally under local jurisdiction (city or township). These streets typically constitute 65 to 80 percent of the entire system mileage and can be characterized as follows:

- They are shorter in length (less than 1.5 miles) and carry low to medium volumes of traffic.
- They provide land access and traffic circulation to residential neighborhoods, and to commercial and industrial areas (high access/low mobility functions).
- They may divide homogeneous residential neighborhoods to distribute trips to arterial street systems or their final trip destination.

### **Candidates for Potential Jurisdictional Transfer**

Based upon the guidelines above, the following routes are recommended to be considered for reassignment from County to local jurisdiction:

- CR 55, from the northern county boundary to TH 212, is currently classified as local. It does not connect to any town or major traffic generator and access is already well provided by CSAH 10 and CR 60. Current (1999) ADT for this segment of CR 55 is 35.
- CR 58, from its intersection with TH 212 north to its intersection with 880 Avenue, is currently classified as local. It does not connect to any town or major traffic generator and access is already provided by CSAH 12 and CSAH 9. Current (1999) ADT for CR 58 is 30.
- CR 65, from its western origin a mile west of CSAH 1 to the City of Olivia, is currently classified as local. Access to TH 71 is already provided by CSAH 11. The segment of CR 65 within the Olivia limits is being turned back to the City of Olivia. Current (1999) ADT for this segment of CR 65 is 40.
- CR 57, from the northern county boundary to its terminus with CR 70, is currently classified as local. It does not provide access to any town or major traffic generator. Current (1999) ADT for CR 57 is 25.



- CR 71, from its northern intersection with CSAH 2 to its intersection with CSAH 3, is classified as local. This segment of CR 71 is relatively discontinuous and does not connect any towns or major traffic generators. Current (1999) ADT for CR 71 is 60.
- CR 63, from its intersection with CR 70 to its terminus one mile north of CSAH 11, is currently classified as local. It does not connect to any town or major traffic generator and access is already well provided by TH 4 and CSAH 16. Current (1999) ADT for CR 63 is 90.
- CR 60, from its intersection with TH 212 to the northern County boundary, is currently classified as local. It does not connect to any town or major traffic generator and access is already well provided by CSAH 37 and CSAH 10. Current (1999) ADT for CR 60 is 60.
- CR 72, from its northern origin at CSAH 4 to its terminus at CSAH 19, is currently classified as local. It passes through the hamlet of Bechyn (estimated 1996 population: 40). Access is provided one mile away by CSAH 1. Current (1999) ADT for CR 72 is 105.
- CR 66, from its northern origin at TH 212 and its terminus at CSAH 3, is currently classified as local. It does not connect any towns. Access is provided by TH 212 and CSAH 3. Current (1999) ADT for CR 66 is 85.
- CR 69, from its northern origin at CSAH 11 and its intersection with CR 70, is currently classified as local. This segment of CR 69 does not connect to any town or major traffic generator and access is already well provided by CSAH 37 and CSAH 10. Current (1999) ADT for CR 69 is 50.

The County and Townships would need to enter into an agreed-upon process to consider any potential jurisdictional changes. Such a process would involve:

- A non-binding schedule with a target time frame.
- An understanding of the receiving agency's ability to use funding from turnback accounts for maintenance and improvements.
- Understanding of relevant statutory requirements including the requirement that a route that reverts to the Township requires a public hearing, completion of repair or improvements to meet standards for comparable roadways in the township, and continue maintenance for a two year period before the date of revocation, as well as other limitation of the establishment, alteration, vacation or revocation of County highways.
- The allocation of funds that will be available from the transferring agency to the receiving agency.
- The responsibility for operational and maintenance requirements, including utility permitting, driveway access permits, changes to traffic controls and signing, and level of routine regular maintenance.