



Functional Classification Guidelines

Concepts, Criteria and Procedures

An introduction prepared for the
Functional Classification System Update Advisory Committee

July 14, 2005

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Concepts, Criteria and Procedures

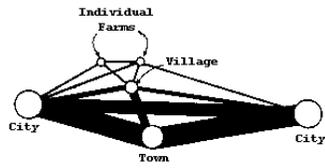
- Concept
- Definitions
- System Characteristics
- Procedures
 - Rural
 - Urban
 - Urbanized

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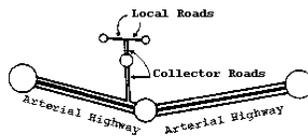
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Concept

Figure II-1
Channelization of Trips



(A) Desire Lines of Travel



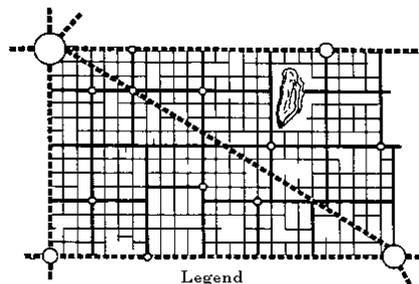
(B) Road Network provided

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Concept

Figure II-2
Schematic Illustration of a Functionally Classified Rural Highway Network



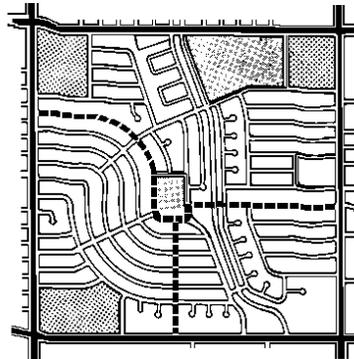
- Legend
- City and Town, and Village
 - Arterials
 - Collectors
 - Locals

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Concept

Figure II-3
Schematic of a Portion
of an
Urban Street Network



Legend

 Arterial street	 Collector street
 Commercial	 Public

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Definitions

- Urbanized: densely populated area with population over 50,000 (MPOs)
- Urban: densely populated areas with population over 5,000 and not Urbanized (coincidentally State Aid size)
- Rural: any area not Urbanized or Urban

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System Characteristics - Rural

System	Range (Percent)	
	VMT	Miles
Principal arterial system	30 - 55	2 - 4
Principal arterial plus minor arterial road system	45 - 75	6 - 12
Collector road system	20 - 35	20 - 25
Local road system	5 - 20	65 - 75

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System Characteristics – Urban(ized)

System	Range (Percent)	
	VMT	Miles
Principal arterial system	40 - 65	5 - 10
Principal arterial plus minor arterial street system	65 - 80	15 - 25
Collector street system	5 - 10	5 - 10
Local street system	10 - 30	65 - 80

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Procedure

Consider Competing Criteria

- Service to travel generators
- System continuity
- Land use
- Route spacing
- Trip length
- Traffic volume
- Control of access

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Rural Procedure

- Identify and group travel generators
- Map travel generators
- Map all routes
- Delineate principal and minor arterials
 - Connect major travel generators
- Delineate collectors
 - Connect other travel generators
- Check mileage totals

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Rural Procedure

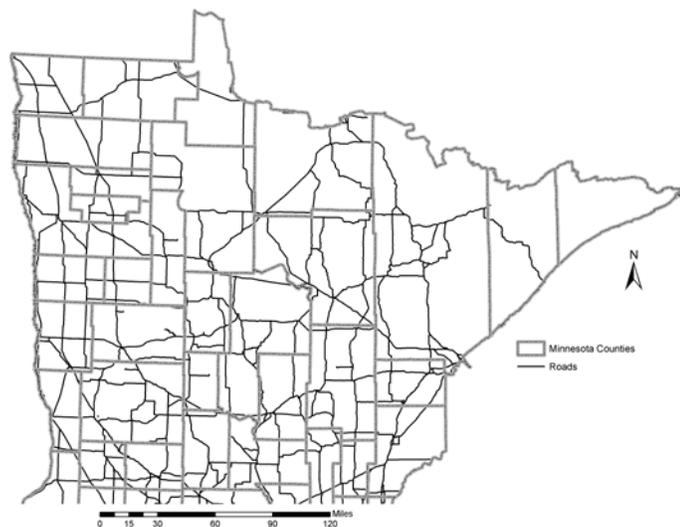
Data Needs

- Population centers/commercial/industrial
- Heavily traveled routes
- Major recreation centers/parks
- Out-of-state travel generators
- County seats
- Freeway interchanges/river crossings
- Reservations

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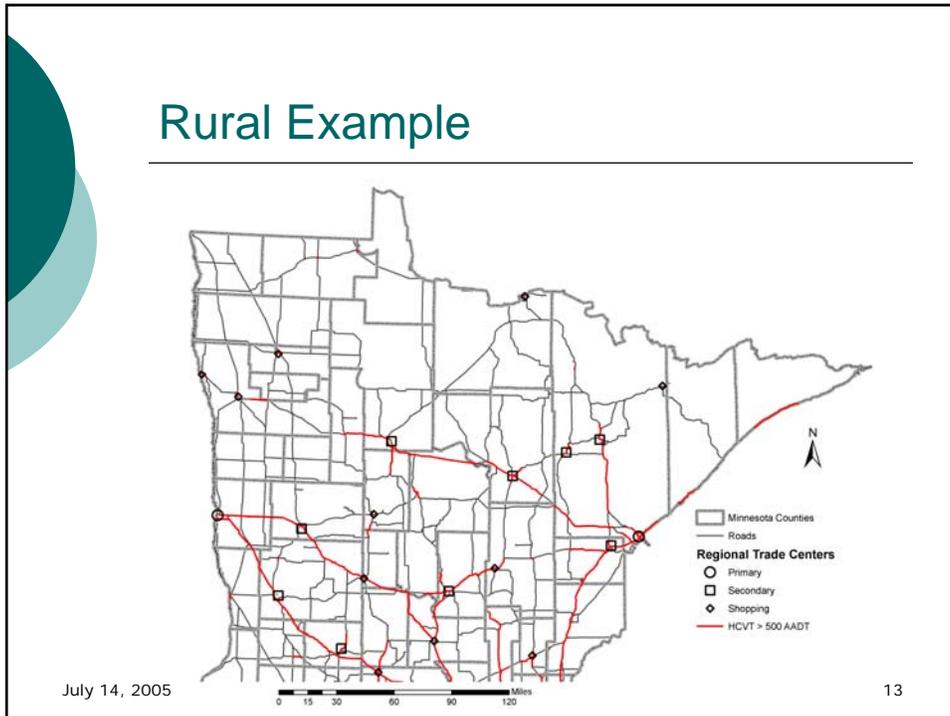
Rural Example



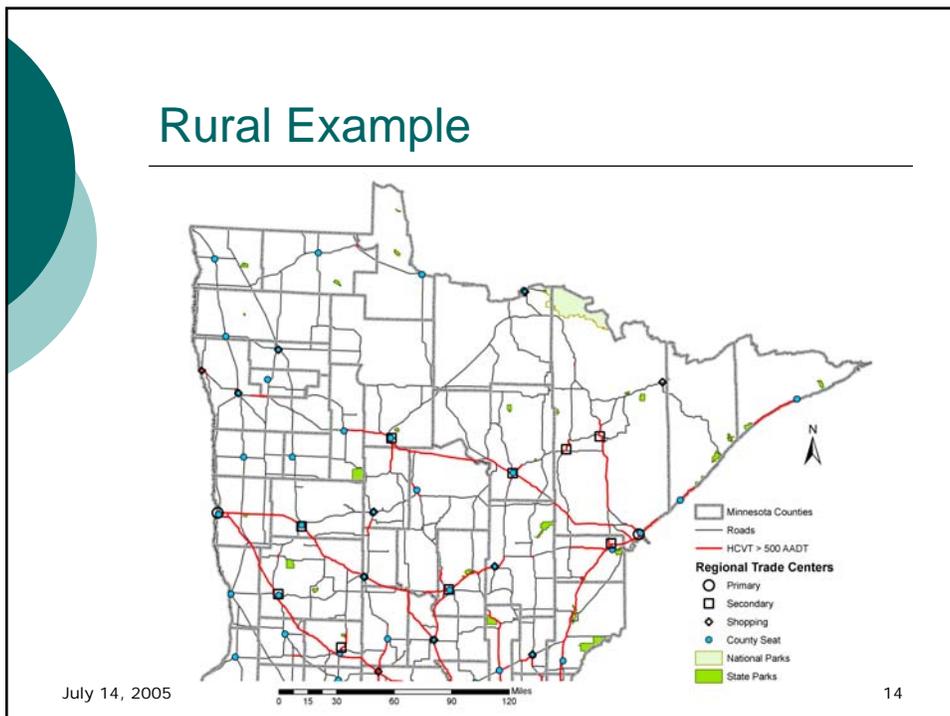
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Rural Example



Rural Example





Urban(ized) Procedure

- Map Urban boundary, routes, travel generators
- Map central business district, urban, suburban areas
- Delineate principal and minor arterials
 - Continuity from rural to urban(ized)
 - Provide access to major travel generators
 - Do not penetrate neighborhoods
- Delineate collectors
- Check mileage totals

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Urban Procedure

Data Needs

- Rural road interception points
- Major traffic generators
- Activity centers of regional importance
- Demarcation of central business district, urban core, suburban area

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Urbanized Procedure

Data Needs

- Rural road interception points
- Major traffic generators/sites of regional importance
 - Large airports
 - Regional shopping malls
 - Large colleges
 - Large hospitals
 - Transportation terminals
 - Major industry
 - High-density residential

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Urbanized Procedure

Data Needs (continued)

- Road types
 - High volume
 - Longer trip
 - Controlled access
- Demarcation of central business district, urban core, suburban area, low-density exurban area

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Summary

- Gather data
- Stakeholder input
- Evaluate/assign Rural, Urban, and Urbanized systems
- Stakeholder input
- Refine Rural, Urban, and Urbanized systems
- Adopt new system