CR 83-109

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CERTIFICATE

State of Wisconsin)
) ss.
Department of Transportation)

TO ALL TO WHOM THESE PRESENTS SHALL COME, GREETINGS:

I, Lowell B. Jackson, P.E., Secretary of the Wisconsin Department of Transportation and custodian of the official records of the Department, do hereby certify that the annexed rules relating to local transportation aids and to the functional classification of public highways, streets and roads were duly approved and adopted by this Department on October 12th, 1983.

I further certify that the annexed copy has been compared by me with the original on file in this Department and that the same is a true copy thereof and of the whole of such original.

IN TESTIMONY WHEREOF, I have hereonto set my hand and affixed the official seal of the Department of Transportation, in the City of Madison, Wisconsin, this 12th day of October, 1983.

Lowell B. Jackson

LOWELL B. JACKSON, P.E.
Secretary
Wisconsin Department of
Transportation

1-1-84

STATE OF WISCONSIN DEPARTMENT OF TRANSPORTATION

OFFICE OF THE SECRETARY

IN THE MATTER OF THE RENUMBERING OF CH. Hy 35, WIS. ADMIN. CODE, TO BECOME CH. TRANS 76, WIS. ADMIN. CODE, AND OF THE AMENDMENT, CREATION, REPEAL AND RECREATION OF CH. TRANS 76, WIS. ADMIN. CODE, RELATING TO LOCAL TRANSPORTATION AIDS AND TO THE FUNCTIONAL CLASSIFICATION OF PUBLIC HIGHWAYS, STREETS AND ROADS	:	ORDER ADOPTING RULES

Analysis Prepared by the Department of Transportation

General summary of proposed rule. This rule modifies DOT administrative rules describing the criteria for establishing the functional classification of highways, streets and roads. Functional classification is a factor in the distribution formula for local transportation aids. The more significant rule modifications include:

- Removal of the "parallel to a principal arterial" and "interchange with a freeway" language from the supplemental criteria for rural minor arterials;
- Removal of parenthetical traffic volumes for rural principal and for rural minor arterials;
- Addition of a provision providing that the highest functional classification which can be assigned to rural loop routes and stub-end routes of less than 5 miles in length is the minor collector classification;
- Addition of criteria for determining where a penetrating route into an urban area increases in functional classification. Previously the point of classification change was the intersection of the penetrating route with the urban area boundary; this, however, often was not where the traffic characteristics changed;
- Adjustment of the rural population density figures to reflect the latest Department of Administration population estimates which are based on the 1980 census. The only consequence of the reanalysis of population densities is that St. Croix County will now be considered a high density county and thus must meet the higher criteria thresholds.

Minor changes are made in the supplemental criteria for urban minor arterials and collectors and are made in several phrases to state more accurately the intended usage of the functional classification criteria.

Authority for rule. Section 86.301(3), Stats., provides the DOT with the authority to promulgate rules to implement s. 86.30, Stats.

Fiscal estimate. The exact mileages and fiscal impacts of the rule modifications are unknown at this time and can not be fully assessed until the rule modifications have been applied to the entire 108,000 miles of highways, streets and roads in the state. Total local transportation aids will not be

affected, but the distribution will be changed, though only slightly. Since the distribution is made by formula on a revenue-sharing basis, a loss in aids for one governmental unit results in an equal gain in funds available for distribution to all other units of government (approximately 1950 units). The Department of Transportation anticipates that the biggest impact will be on those county governments in counties containing arterials that will be reclassified as collectors under the rule modifications.

Pursuant to authority vested in the Wisconsin Department of Transportation by ss. 86.301(3), 86.302(2) and 86.303(5), Stats., the Department proposes to renumber, amend, create, repeal and recreate rules interpreting s. 86.30, Stats., as follows:

TEXT OF PROPOSED RULE

SECTION 1. Chapter Hy 35 is renumbered ch. TRANS 76.

SECTION 2. TRANS 76.032(title), as renumbered, is created to read:

TRANS 76.032 URBAN LAND USE DEFINITIONS.

SECTION 3. TRANS 76.05(1) (figure entitled "Channelization of Trips"), as renumbered, is labeled to read:

Figure 1.

SECTION 4. TRANS 76.05(2) (figure bearing no title), as renumbered, is labeled to read:

Figure 2.

SECTION 5. TRANS 76.05(2)(a)1.c., as renumbered, is amended to read:

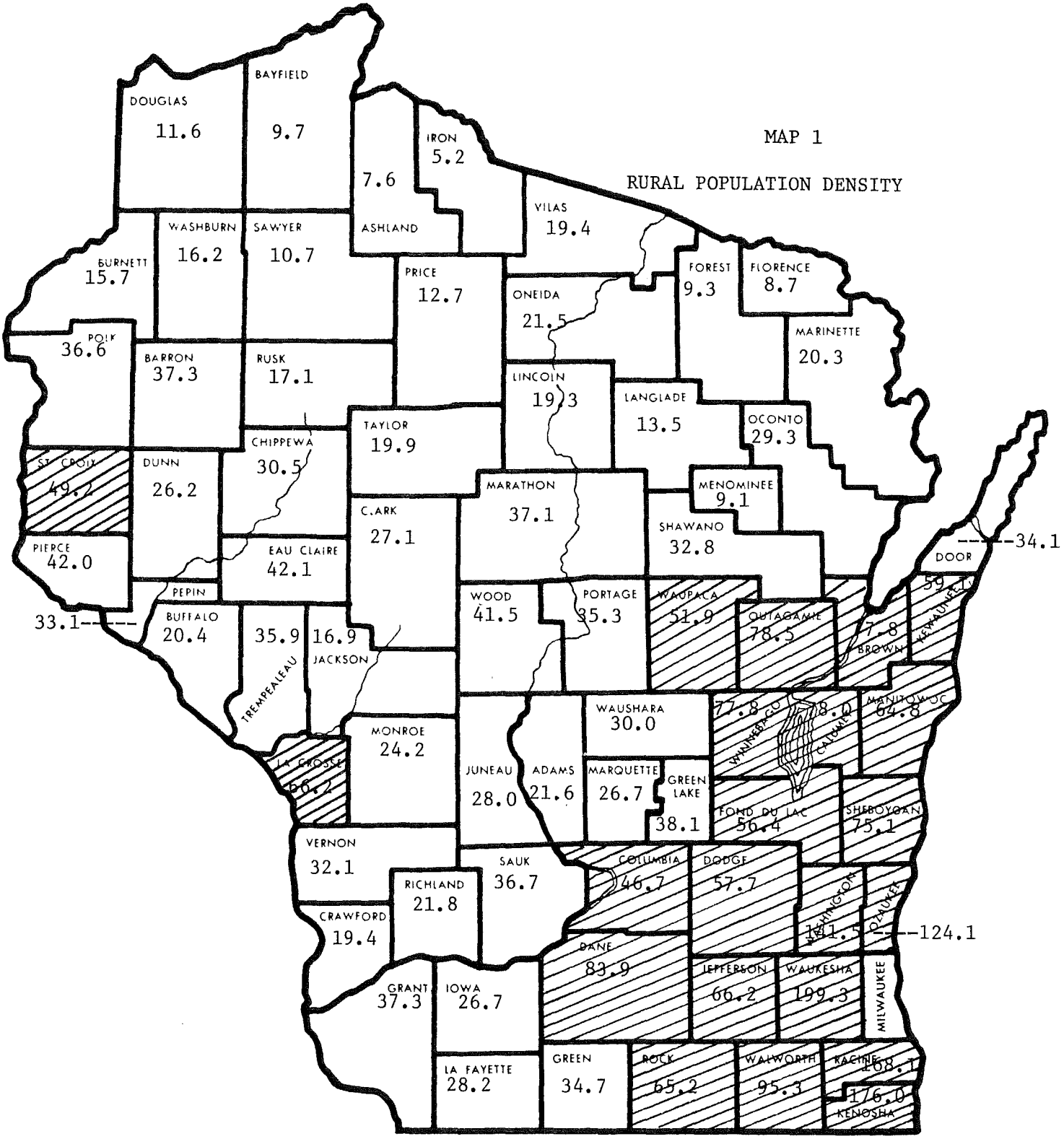
TRANS 76.05(2)(a)1.c. Under these principles, only those routes actually serving the major traffic interchange between communities should be considered under the basic population service criteria. Remote arterial connections~~, arterial connections between two communities when the obvious main arterial connection is to a nearby larger community,~~ or arterial connections which are obviously made by another, more direct arterial should not be made under the basic population service criteria.

SECTION 6. TRANS 76.05(2)(a)2, as renumbered, is amended and renumbered to read:

TRANS 76.05(2)(a)2. Land use service. a. In many instances, important traffic generators are found outside established population centers. In order to provide service to these generators, a second basic criterion--land use service--is employed. The land use criterion is divided into two areas. One specifically provides for arterial service to important ~~recreational--areas~~ traffic generating activities. The second aspect of the land use service criterion involves collector service to significant recreational, commercial-industrial, and institutional land uses, as well as small or seasonal population concentrations. Each land use facility is assigned a point value as shown in Table 1. The sum of the land use point values along a route segment is called the "land use service index," which is used for the classification of major and minor collectors, as shown in chart B. The accumulation of land use points is restricted to counting the occurrence of a particular facility type only once within one-half mile, regardless of the actual number of the facility type within the one-half mile segment. In using the land use service index, any land use facility within one-half mile of an arterial or collector is considered served by that arterial or collector.

b. Due to differences in rural population densities of the counties, two levels of point values of the land use service index are used in justifying a collector. As shown in chart B, for those counties with a rural population density of ~~40~~ 43 or more persons per square mile, one point total is used. For those counties with a rural population density less than ~~40~~ 43 persons per square mile, a different point total is used. Map 1 shows the rural population density for each county.

SECTION 7. TRANS 76.05(2)(a)2 (Map 1 entitled "Rural Population Density"), as renumbered, is repealed and recreated to read:


MAP 1
RURAL POPULATION DENSITY
DOUGLAS 11.6
BAYFIELD 9.7
IRON 5.2
7.6
ASHLAND
VILAS 19.4
WASHBURN 16.2
SAWYER 10.7
BURNETT 15.7
PRICE 12.7
FOREST 9.3
FLORENCE 8.7
ONEIDA 21.5
MARINETTE 20.3
POLK 36.6
BARRON 37.3
RUSK 17.1
LINCOLN 19.3
LANGLADE 13.5
OCONTO 29.3
TAYLOR 19.9
CHIPPEWA 30.5
ST. CROIX 49.2
DUNN 26.2
MARATHON 37.1
MENOMINEE 9.1
C.ARK 27.1
SHAWANO 32.8
34.1
DOOR
PIERCE 42.0
EAU CLAIRE 42.1
PEPIN
WOOD 41.5
PORTAGE 35.3
WAUPACA 51.9
OUTAGAMIE 78.5
7.8
BROWN
59.1
KEWAUNEE
33.1
BUFFALO 20.4
35.9
16.9
JACKSON
TREMPEALEAU
WAUSHARA 30.0
77.8
WINNEBAGO
78.0
CALUMET
64.8
MANITOWOC
MONROE 24.2
LA CROSSE 86.2
JUNEAU 28.0
ADAMS 21.6
MARQUETTE 26.7
GREEN LAKE 38.1
FOND DU LAC 56.4
SHEBOYGAN 75.1
VERNON 32.1
SAUK 36.7
COLUMBIA 46.7
DODGE 57.7
WASHINGTON
141.5
OZAUKEE
124.1
RICHLAND 21.8
CRAWFORD 19.4
DANE 83.9
GRANT 37.3
IOWA 26.7
JEFFERSON 66.2
WAUKESHA 199.3
MILWAUKEE
LA FAYETTE 28.2
GREEN 34.7
ROCK 65.2
WALWORTH 95.3
RACINE 168.1
176.0
KENOSHA

SECTION 8. TRANS 76.05(2)(a)4, as renumbered, is amended to read:

TRANS 76.05(2)(a)4. Average daily traffic volume. a. The fourth basic criterion in rural functional classification is the current (latest available) average daily traffic (ADT) volume. Traffic volume provides a measure of the importance of the travel interchange between population centers or the importance of the traffic generation of various land use facilities served by a particular route. For a route segment to qualify as a particular functional classification under the basic criterion of traffic volume, the route segment should meet the current traffic volumes stated in charts A or B when averaged over the length-of-the-route segment. As with the land use service criterion, the traffic volume criterion has been stratified by population density, with those counties with a rural population density of ~~40~~ 43 or more persons per square mile requiring the higher traffic volumes.

SECTION 9. TRANS 76.05(2)(b), as renumbered, is amended to read:

TRANS 76.05(2)(b) Supplemental criteria. ~~Supplemental criteria may be applied if the basic criteria fail to yield a functional system system in the appropriate percent of system ranges.~~ The basic criteria shall provide an initial functional system. The system shall be refined by the supplemental criteria to achieve a system within the system mileage percentages. Two of the following supplemental criteria, plus 90% of the appropriate current traffic volume criteria, ~~must~~ shall be met to justify a minor arterial or collector route segment. The traffic volume will determine the appropriate ~~arterial or~~ collector classification when the supplemental criteria are met.

1. Alternate population connection: In many instances, several routes provide important connections between the same two population centers. One route can usually be identified as the most important connection and classified under the basic criteria. However, the alternate connections should be

considered under the supplemental criteria. An alternate population connection meets one supplemental criterion for a minor arterial or collector.

2. Major river crossing or restrictive topography: A river crossing which ~~prevents~~ avoids a travel indirection of 10 miles or greater, ~~meets one supplemental criterion~~ or a route which avoids a travel indirection of 10 miles or greater due to a topographic barrier meets one supplemental criterion for a minor arterial and for a collector. For a minor arterial, when both a major river crossing and a restrictive topographic barrier are present, they in combination shall meet only one criterion. The bridge providing the crossing ~~must~~ shall have a design rating of H 15 or greater and may not be posted for weight restrictions.

~~3. Restrictive topography: A route which prevents a travel indirection of 10 miles or greater due to a topographic barrier meets one supplemental criterion.~~

43. Route parallels a principal arterial: A route which parallels a principal arterial oftentimes keeps the shorter trips off the principal arterial. As such, a route paralleling a principal arterial meets one supplemental criterion for a collector.

~~5~~4. Route interchanges with a freeway: A route which presently interchanges with a freeway meets one supplemental criterion for a collector.

SECTION 10. TRANS 76.05(3)(a)1, as renumbered, is amended to read:

TRANS 76.05(3)(a)1. Under the basic population service criteria shown in chart A, principal arterials should connect places greater than 50,000 with all other places greater than 50,000, and connect places greater than 5,000 with those places greater than 50,000. A place is considered served by a principal; arterial if the principal arterial either penetrates its boundary or comes

within 10 miles of the center of the place~~,~~ and penetrating service is provided by a minor arterial.

SECTION 11. TRANS 76.05(3)(a)4, as renumbered, is amended to read:

TRANS 76.05(3)(a)4. Under the basic traffic volume criteria shown in chart A, principal arterials in counties of rural population density equal to ~~40~~ 43 or more persons per square mile should have current average daily traffic volumes greater than 3,000. Principal arterials in counties of rural population density less than ~~40~~ 43 persons per square mile should have current average daily traffic volumes greater than 1,000.

SECTION 12. TRANS 76.05(3)(a)5 and 6, as renumbered, are repealed.

SECTION 13. TRANS 76.05(3)(a)7, as renumbered, is renumbered TRANS 76.05 (3)(a)5.

SECTION 14. TRANS 76.05(3)(a)8, as renumbered, is renumbered TRANS 76.05 (3)(a)6.

SECTION 15. TRANS 76.05(3)(b)1, as renumbered, is amended to read:

TRANS 76.05(3)(b)1. Under the basic population service criteria shown in chart A, minor arterials should connect places greater than 5,000 with other places greater than 5,000, and connect places greater than 1,000 with places greater than 5,000. A place is considered served by a minor arterial if the minor arterial either penetrates its boundary or comes within 2 miles of the center of the place~~,~~ and penetrating service is provided by a major collector.

SECTION 16. TRANS 76.05(3)(b)2, as renumbered, is amended to read:

TRANS 76.05(3)(b)2. Under the basic land use service criteria shown in chart A, minor arterials ~~should~~ shall serve all ~~recreational attractions~~ traffic generating activities with an annual visitation greater than 300,000. A ~~recreational attraction~~ traffic generating activity is considered served by a minor arterial if the main entrance is within 2 miles of the minor arterial.

SECTION 17. TRANS 76.05(3)(b)4, as renumbered, is amended to read:

TRANS 76.05(3)(b)4. Under the basic traffic volume criteria shown in chart A, minor arterials in counties of rural population density equal to ~~40~~ 43 or more persons per square mile should have current average daily traffic volumes greater than 1,000. Minor arterials in counties of rural population density less than ~~40~~ 43 persons per square mile should have current average daily traffic volumes greater than 500.

SECTION 18. TRANS 76.05(3)(b)5, as renumbered, is repealed.

SECTION 19. TRANS 76.05(3)(b)6, as renumbered, is renumbered TRANS 76.05 (3)(b)5, and as so renumbered is amended to read:

TRANS 76.05(3)(b)5. Additional minor arterials may be classified, if justified under ~~two of~~ the supplemental criteria and 90% of the appropriate current traffic volume shown in chart A.

SECTION 20. TRANS 76.05(3)(b)7 and 8, as renumbered, are renumbered TRANS 76.05(3)(b)6 and 7.

SECTION 21. TRANS 76.05(3)(c)2, as renumbered, is amended to read:

TRANS 76.05(3)(c)2. Under the basic land use service criteria shown in chart B, a route segment may be classified as a major collector in counties of rural population density equal to ~~40~~ 43 or more persons per square mile if it serves concentrations or strip development of facilities along the route segment having a cumulative point value equal to 16 or more. Similarly, a route segment may be classified a major collector in counties of rural population densities less than ~~40~~ 43 persons per square mile if it serves concentrations or strip development of facilities along the route segment having a cumulative point value equal to 12 or more.

SECTION 22. TRANS 76.05(3)(c)4 and 5, as renumbered, are amended to read:

TRANS 76.05(3)(c)4. Under the basic traffic volume criteria shown in chart B, major collectors in counties of rural population density equal to ~~40~~ 43 or more persons per square mile should have current average daily traffic volumes greater than 500 vehicles. Similarly, major collectors in counties of rural population density less than ~~40~~ 43 persons per square mile should have a current average daily traffic volume greater than 200 vehicles.

TRANS 76.05(3)(c)5. Using the traffic volumes shown in parentheses in chart B as the sole justification, a route segment may be classified a major collector in counties of rural population equal to ~~40~~ 43 or more persons per square mile if the current average daily traffic volume exceeds 2,000 vehicles. Similarly, a route segment may be classified a major collector in counties of rural population density less than ~~40~~ 43 persons per square mile if the average daily traffic volume exceeds 800 vehicles.

SECTION 23. TRANS 76.05(3)(c)8, as renumbered, is renumbered TRANS 76.05 (3)(c)9.

SECTION 24. TRANS 76.05(3)(c)8 is created to read:

TRANS 76.05(3)(c)8. Loop routes and stub-ended routes less than 5 miles long and meeting the criteria for a major collector shall be limited to a minor collector classification because of the trip characteristics normally associated with these routes.

SECTION 25. TRANS 76.05(3)(d)2, as renumbered, is amended to read:

TRANS 76.05(3)(d)2. Under the basic land use service criteria shown in chart B, a route segment may be classified a minor collector in counties of rural population density equal to ~~40~~ 43 or more persons per square mile if it serves concentrations or strip development of facilities along the route segment having a cumulative point value equal to 8 or more. Similarly, a route segment may be classified a minor collector in counties of rural population

density less than ~~40~~ 43 persons per square mile if it serves concentrations or strip development of facilities along the route segment having a cumulative point value equal to 5 or more.

SECTION 26. TRANS 76.05(3)(d)4 and 5, as renumbered are amended to read:

TRANS 76.05(3)(d)4. Under the basic traffic volume criteria shown in chart B, minor collectors in counties of rural population density equal to ~~40~~ 43 or more persons per square mile should have a current average daily traffic volume greater than 200 vehicles. Similarly, minor collectors in counties of rural population density less than ~~40~~ 43 persons per square mile should have a current average daily traffic volume greater than 100 vehicles.

TRANS 76.05(3)(d)5. Using the traffic volume shown in parentheses in chart B as the sole justification, a route segment may be classified a minor collector in counties of rural population density equal to ~~40~~ 43 or more persons per square mile if the current average daily traffic volume exceeds 800 vehicles. Similarly, a route segment may be classified a minor collector in counties of rural population less than ~~40~~ 43 persons per square mile if the average daily traffic volume exceeds 400 vehicles.

SECTION 27. Chapter TRANS 76 (Chart A entitled "Arterials"), as renumbered, is repealed and recreated to read:

CHART A - ARTERIALS

Functional System	County Population Density (Rural)	Basic Criteria: Must Meet Any 2 of These				Supplemental Criteria: OR Must Meet Both of These Plus 90% of Traffic Volume	Mileage Percent of System Range
		Population Service	Land Use Serv.	Spacing	Traffic Volume		
Principal Arterial	≥ 43	Connect places > 50,000 with other places >50,000. Connect places > 5,000 with places >50,000.	Provide area access to major recreational areas of the state.	Maximum 30 Miles	>3,000		2.0-4.0% Statewide
	< 43				>1,000		
Minor Arterial	≥ 43	Connect places > 5,000 with other places >5,000. Connect places > 1,000 with places >5,000 or with principal arterials.	Serve all traffic generating activities with an annual visitation >300,000 if not served by a principal arterial.	Maximum 30 Miles	>1,000	1. Alternate pop. connection. 2. Major river crossing/restrictive topography.	4.0-8.0% Statewide
	< 43				>500		

SECTION 28. Chapter TRANS 76 (Chart B entitled "Collectors and Locals), as renumbered, is repealed and recreated to read:

CHART B - COLLECTORS AND LOCALS

Functional System	County Population Density (Rural)	Basic Criteria: Must Meet Any 2 of These OR the Parenthetical Traffic Volume Alone				Supplemental Criteria: OR Must Meet 2 of These Plus 90% of Traffic Volume	Mileage Percent of System Range
		Population Service	Land Use Serv.	Spacing	Traffic Volume		
Major * Collector	≥ 43	Connect places >1,000 with other places >1,000. Connect places >500 with places >1,000 or higher function route. Connect places >500 with other places >500 or higher function route. Connect places >100 with places >500 or or higher function route.	Land Use Service Index ≥16.	Maximum 10 Miles	>500 (>2,000)	1. Alternate pop. connection. 2. Major river crossing 3. Restrictive topography. 4. Interchange w/freeway. 5. Parallel to a principal arterial.	5.0-18.0% Countywide
	< 43		Land Use Service Index ≥12.		> 200 (>800)		With Most Counties 7.0-14.0%
Minor * Collector	≥ 43	Connect places >100 with other places >100. Connect places> 50 with places >100 or higher function route.	Land Use Service Index ≥8.	Maximum 10 Miles	>200 (>800)	1. Alternate pop. connection. 2. Major river crossing. 3. Restrictive topography. 4. Interchange w/freeway 5. Parallel to a principal arterial.	5.0-10.0% Countywide
	< 43		Land Use Service Index ≥5.		>100 (>400)		
Local	All Public roads not classified as arterials or collectors.						65.0-75.0% Countywide With Most Counties 68.0-72.0%

* Loop routes and stub-ended routes less than 5 miles long and meeting the basic criteria for a major collector shall be limited to a minor collector classification.

SECTION 29. TRANS 76.10(1)(a)1a, as renumbered, is amended to read:

TRANS 76.10(1)(a)1a. Principal arterials serve the major economic activity centers of the urban area, the highest traffic volume corridors, and regional and intra-urban trip length desires. In every urban area, the longest trip lengths and highest traffic volumes are characteristic of the main entrance and exit routes of the urban area. ~~These routes are the extensions of the rural arterials.~~ They connect the urban area to other urban areas and a rural hinterland on a regional or statewide basis. Thus, because they have the longest trip lengths, highest volumes, and are generally extensions of the highest rural functional routes, ~~all~~ such routes should be principal arterials. Principal arterial trip lengths are indicative of the rural-oriented traffic entering and exiting the urban area on the rural arterial system, as well as the longest trans-urban area travel demands.

SECTION 30. TRANS 76.10(2)(a)(intro.), as renumbered, is amended to read:

TRANS 76.10(2)(a)(intro.) Basic criteria: As shown in charts D, E~~,~~ and F, there are four basic determinants of functional classification: system continuity, land use service, spacing~~,~~ and current traffic volume. For ~~a~~ an arterial route to be justified as a particular functional classification under the basic criteria, it must meet the system continuity criteria or the appropriate traffic volume criterion and either the ~~system continuity,~~ land use service~~,~~ or spacing criteria. Meeting the ~~traffic volume~~ system continuity criterion assures that there is sufficient interchange between the rural area and the CBD on that route, ~~or~~ and meeting the traffic volume criteria assures that there is sufficient traffic generation by the various land uses. For a collector route to be justified under the basic criteria, the route shall meet the appropriate traffic volume criteria and either the system continuity or the land use service or spacing criteria.

SECTION 31. TRANS 76.10(2)(a)1, as renumbered, is amended to read:

TRANS 76.10(2)(a)1. System continuity criteria. a. System continuity ensures the proper continuity and connectivity of routes within the urban area, and between the rural and urban routes. In every urban area, the longest trip lengths and highest traffic volumes are characteristic of the main entrance and exit routes of the urban area. These routes are generally the extensions of the rural arterials. They connect the urban area to other urban areas and a rural hinterland on a regional or statewide basis. Thus, because they have the longest trip lengths, highest volumes, and are extensions of the highest rural functional routes, ~~all--such~~ these routes shall be classified as principal arterials in accordance with the criteria set forth in chart D. One alternate connection of a rural arterial to the CBD may be classified a minor arterial or collector, provided it meets the current traffic volume criteria ~~for-that-lower function~~. The alternate connection must be shorter than the main connection.

b. Similarly, the next longest trip lengths and the next lowest traffic volumes are characteristic of the urban extensions of the rural collectors. These extensions are justified~~,--therefore,~~ as minor arterials in accordance with chart E. In this way, the urban and rural functional systems are integrated into one continuous system.

SECTION 32. TRANS 76.10(2)(b)(intro.), as renumbered, is amended to read;

TRANS 76.10(2)(b)(intro.) Supplemental criteria: Supplemental criteria may be used to classify minor arterials or collectors ~~if--the--basic--criteria fail~~ to yield a functional system in the appropriate percent of system ranges. Two of the following supplemental criteria, plus 90% of the current traffic volume, must be met to justify a route. The traffic volume will determine the appropriate arterial or collector classification when 2 supplemental criteria are met.

SECTION 33. TRANS 76.10(2)(b)4 and 5 are created to read:

TRANS 76.10(2)(b)4. 'Interchange with a freeway': A route that interchanges with a freeway meets one supplemental criterion.

TRANS 76.10(2)(b)5. 'Major river crossing or restrictive topography': A river crossing or a route that avoids travel indirection due to a topographic barrier meets one supplemental criterion. When both a major river crossing and a restrictive topographic barrier are present, they in combination shall meet only one criterion. The bridge providing the crossing shall have a design rating of H15 or greater and may not be posted for weight restrictions.

SECTION 34. TRANS 76.10(3)(a)1, as renumbered, is amended to read:

TRANS 76.10(3)(a)1. One of the most important aspects of system continuity is integration of the rural and urban functional systems. Most principal arterials carry the major portion of trips entering and exiting the urban area, as well as those wishing to bypass the central city. These traits are similar to the rural arterials. Therefore, ~~all~~ urban extensions of the rural arterials shall be classified as urban principal arterials in accordance with the criteria set forth in chart D. These routes should connect the rural system together in such a manner as to serve those trips destined for the central business district, as well as those desiring to pass entirely through the urban area.

SECTION 35. TRANS 76.10(3)(a)4, as renumbered, is amended to read:

TRANS 76.10(3)(a)4. While principal arterials carry the highest volumes of traffic in any particular urban area, the actual magnitude of volume can vary considerably from one urban area to another, depending on the population. Therefore, current traffic volume criteria have been established for the three population categories. As indicated in chart D, the minimum current traffic

volumes for principal arterials meeting the ~~system--continuity,~~ land use~~,~~ or spacing criteria range from 2,500 to 6,000 vehicles per weekday.

SECTION 36. TRANS 76.10(3)(a)8, as renumbered, is amended to read:

TRANS 76.10(3)(a)8. Connecting Link Identification: Under the national functional classification system, ~~Any~~ any principal arterial which serves as an urban extension of a rural arterial shall be identified as a "connecting link of a rural principal arterial" or a "connecting link of a rural minor arterial," whichever is appropriate. The connecting links provide an integrated and continuous system which allows for regional and statewide traffic movements destined for the CBD or to points through and beyond that particular urban area. All other principal arterials are important primarily for internal movements within the urban area and are identified as non-connecting links.

SECTION 37. TRANS 76.10(3)(b), as renumbered, is amended to read:

TRANS 76.10(3)(b) Minor arterials. 1. Minor arterial system continuity involves integration with the urban extensions of the rural collector systems. Therefore, ~~all~~ urban extensions of the rural collectors shall be classified as urban minor arterials in accordance with the criteria set forth in chart E. These urban extensions should serve to connect the rural routes to the CBD of the urban area in the most direct manner representative of traffic movements. In many instances, the CBD connection will be provided by connecting the urban extensions of the rural collectors to an urban principal arterial. In urban areas in the 5,000-25,000 population category, most minor arterial land uses will generally be in the CBD or within one-half mile of a principal arterial, or an urban extension of a rural collector. However, some urban areas in the 5,000-25,000 category may require other minor arterials in addition to the urban extensions of the rural collectors to ensure all minor arterial land uses are within the defined service distance (one-half mile). The areal

disbursement of minor arterial land uses in urban areas greater than 25,000 population will usually require additional minor arterials over and above those providing the urban extensions of the rural collectors.

2. a. Under the basic land use service criteria shown in chart E, the following land uses should be served by a minor arterial, if not already served by a principal arterial: CBD's of all satellite communities in the urban area, type 3, 4 and 5 airports (existing system classification),community shopping centers, junior or community colleges, large individual industrial plants, high schools, large office complexes, community hospitals, clinics, sub-community parks, golf courses, and fire stations.

b. A particular land use is considered served by a minor arterial if that land use is accessible within one-half mile of the minor arterial. Further, the route serving the land use must be linked to other minor arterials or principal arterials to provide service in a reasonable manner in all directions for which the appropriate travel demand exists. In addition, all non-principal arterial streets with continuous commercial retail strip development over one-quarter mile in length ~~should~~ shall be classified as minor arterials. Furthermore, routes connecting a main urban area CBD with a satellite community CBD shall be classified as minor arterials.

3. Under the basic spacing criteria shown in chart ~~F~~ E, the distance between minor arterials, or a combination with principal arterials, should not exceed one-half mile in the central business district, or 2 miles outside the central business district.

4. a. As with principal arterials, the actual magnitude of traffic volumes on minor arterials can vary considerably due to the population of the urban area. Therefore, this criterion has been stratified by population size of the urban area. As indicated in chart E, the current traffic volumes for

minor arterials meeting the ~~system continuity,~~ land use~~,~~ or spacing criteria range from 1,000 to 3,000 vehicles per weekday.

b. The values in parentheses in chart E indicate minimum volumes sufficient to justify a minor arterial solely on the basis of traffic volume. These minimum values range from 4,000 to 10,000 vehicles per weekday, depending on the population category of the urban area. To meet any of the traffic volume warrants for minor arterials, the volumes may be combined on one-way streets acting as pairs.

5. Additional minor arterials may be classified if justified under two of the supplemental criteria plus 90% of the current traffic volume as shown in chart E.

6. Using the route continuity criteria, additional route segments may be classified as minor arterials.

7. Under the mileage percent of system criteria, minor arterials should comprise 10.0 to 15.0% of the total certified mileage in each urban area.

SECTION 38. Chapter TRANS 76 (chart D entitled "Urban Principal Arterials"), as renumbered, is repealed and recreated to read:

CHART D - URBAN PRINCIPAL ARTERIALS

Functional System	Urban Area Population	Basic Criteria					Mileage Percent of System Range
		System Continuity (Rural - Urban Interface)		Must Meet Land Use Service or Spacing plus Traffic Volume OR the Paranthetical Traffic Volume Alone			
		A rural minor arterial remains an urban minor arterial until it meets one of the following:		LAND USE SERVICE	SPACING	TRAFFIC VOLUME	
		Traffic Volume Alone	Intersects with an urban arterial plus traffic volume				
Principal Arterial	5,000 to 25,000	>4,000	>2,500	A principal arterial should be within one mile of the following land uses: a. Main CBD of the urban area b. Type 1 & 2 airports c. Regional shopping centers d. Major colleges and universities e. Community/regional parks f. Industrial parks g. Large stadia, arenas, or civic centers	MAXIMUM CBD = 1 Mile Other = 3-5 Miles	>2,500 (>10,000)	5.0% to 10.0%
	25,000 to 50,000	> 7,000	>4,000			>4,000 (>15,000)	
	Over 50,000	>10,000	>6,000			>6,000 (>20,000)	

SECTION 39. Chapter TRANS 76 (chart E entitled "Urban Minor Arterials:), as renumbered, is repealed and recreated to read:

CHART E - URBAN MINOR ARTERIALS

Functional System	Urban Area Population	Basic Criteria					Suppl. Criteria	Mileage Percent of System Range
		System Continuity (Rural - Urban Interface)		Must Meet Land Use Service or Spacing plus Traffic Volume OR the Paranthetical Traffic Volume Alone			Must Meet 2 of These Plus 90% of Traffic Volume	
		A rural collector remains an urban collector until it meets one of the following:		LAND USE SERVICE	SPACING	TRAFFIC VOLUME		
		Traffic Volume Alone	Intersects with an urban collector or arterial + traffic volume					
Minor Arterial	5,000 to 25,000	>2,000	>1,000	A minor arterial should be within ½ mile of the following land uses: a. CBD's of each satellite comm. b. Type 3, 4, & 5 airports c. Comm. shopping centers d. Junior or comm. colleges e. Large industrial plants f. High schools g. Large office buildings h. Comm. hospitals i. Clinics j. Sub-comm. parks k. Golf courses All commercial retail strip development over 1/4 mile in length not on a principal arterial. Interconnection of main CBD with satellite community CBD's.	MAXIMUM CBD = ½ Mile Other = 2 Miles	>1,000 (>4,000)	1. Bus route 2. Official truck routes 3. Signalization 4. Interchange w/a freeway 5. Major river crossing/ restrictive topography	10.0%
	25,000 to 50,000	>4,000	>2,000			>2,000 (>7,000)		to 15.0%
	Over 50,000	>6,000	>3,000			>3,000 (>10,000)		

SECTION 40. Chapter TRANS 76 (chart F entitled "Urban Collectors and Locals"), as renumbered, is repealed and recreated to read:

CHART F - URBAN COLLECTORS AND LOCALS

Functional System	Urban Area Population	Basic Criteria: Must Meet ONE of these Plus Traffic Volume OR the Parenthetical Traffic Volume Alone				Supplemental Criteria: OR Must Meet 2 of These Plus 90% of Traffic Volume	Mileage Percent of System Range
		System Continuity	Land Use Serv.	Spacing	Traffic Volume*		
Collector	5,000-25,000	May penetrate each residential neighborhood and connect to nearby arterial. May include the logical street system for traffic circulation in the CBD.	A collector should be within ¼ mile of one of the following land uses: a. Elementary and middle schools b. Small industrial plants c. Large warehousing d. Neighborhood shopping centers e. Small office buildings f. Neighborhood parks g. Marinas	Maximum CBD=¼ Mile Other= 1 Mile	>500 (>2,000)	1. Bus route 2. Official truck route 3. Signalization 4. Interchange w/freeway 5. Major river crossing/restrictive topography	5.0-10.0%
	25,000-50,000				>1,000 (>4,000)		With Most Counties 7.0-14.0%
	Over 50,000				>1,500 (>6,000)		
Local	All public streets not classified as arterials or collectors.						65.0-80.0% With Most Urban Areas 68.0-73.0%

* See text for special satellite municipality traffic volume provisions.

(End)

This rule shall take effect upon publication as provided in s. 227.026 (1)(intro.), Stats.

Dated at Madison, Wisconsin, this 12th day of October, 1983.

Lowell B. Jackson, P.E.
Secretary
Wisconsin Department of Transportation