

Functional Classification System Revisions

Two years after the Nation’s Census that is taken every decade, urban area boundaries are adjusted according to the growth and future growth of the areas. There might be some urban areas dropped or added onto the system. This is based off the data received from the Bureau of Census as a result of the last census taken. Afterwards, the Oklahoma Department of Transportation (ODOT) and officials of each urban areas have the opportunity to adjust these urban area boundaries. The Federal Highway Administration (FHWA) must approve any new adjustments to urban area boundaries.

Once the urban area boundaries have been approved by the FHWA, the officials of both urban areas and counties will be given the opportunity to revised their functional classification system. During the next ten years, it is possible to revise the functional classification system, but with tighter restrictions. Any part of the functional classification system that needs to be revised must be approved by the FHWA.

Revisions to the functional classification system must be made through ODOT by using the electronic application FC-FORM 121U for the Urban System or FC-FORM 121 for the Rural System. These applications are obtain by either calling 405-521-3385 or email ghowell@odot.org. ODOT will review each application for revision and conduct an on-site review of any proposed addition to the system. After ODOT’s concurrence, application for revision well be sent to FHWA for approval or disapproval. ODOT will send notification to the local officials of FHWA action.

The following requirements must be observed while making a revision application. Classified routes must begin and end at a higher or equal classified route in order to ensure connectivity. A stub route is permissible if it terminates at a major traffic generator. This could include any recreational facility providing there is a direct public access, an industrial area, military base, or any other areas that would generate heavy volume of traffic may qualify as a stub route. No proposed routes, except where the proposed roadway will definitely be constructed within three years.

Other than the period of adjusting urban boundaries, the following requirements must be observed while making a revision application: The applicant must remove within their area an equal or greater portion of an existing classified route which is of the same or higher class to the classified route to be added.

QUICK DEFINITIONS:

Small Urban Areas are defined as having a population between 5,000 and 49,999.

Urbanized Areas are designated by the Census Bureau as having a population of 50,000 or more.

Rural areas are all areas located outside of urbanized areas and small urban areas.

Bibliography:

Highway Functional Classification - Concepts, Criteria and Procedures 2012 Edition (DRAFT). U.S. Department of Transportation, Federal Highway Administration, Revised December 2012, 67pp. http://planning.transportation.org/documents/Draft_Functional_Classification_Guidelines_Dec-2012.pdf

Policy Information, Guidelines for the Functional Classification of Highways (updated). U.S. Department of Transportation, Federal Highway Administration, October 14th, 2008, <http://www.fhwa.dot.gov/policy/ohpi/hpms/fchgguidance.cfm>.

Highway Functional Classification - Concepts, Criteria and Procedures. U.S. Department of Transportation, Federal Highway Administration, Publication Number FHWA-ED-90-006, Revised March, 1989, 53 pp; Electronically scanned, April, 2000, <http://www.fhwa.dot.gov/planning/fctoc.htm>

Highway Functional Classification - A Management Tool. U.S. Department of Transportation, Federal Highway Administration, Program Management Division, November, 1982,46 pp.

Completed by the State Highway/Transportation Agencies, A Report to the Congress on the Results of the Highway Functional Reclassification. Washington, D.C.: U.S. Department of Transportation, Federal Highway Administration, December, 1993, 14 pp.

Title 23- Code of Federal Regulations, Part 470 - Highway Systems, Subpart A - Federal-Aid Highway Systems.

Title 69 of the Oklahoma State Statues, Subsection 654 - County Primary Road System.

Title 730 of the Oklahoma Administrative Code, Chapter 15 - Highway Planning, Section 1-4 - Highway Functional Classification.

For More Information

To learn more about Functional Classification or to obtain electronic forms, please contact:

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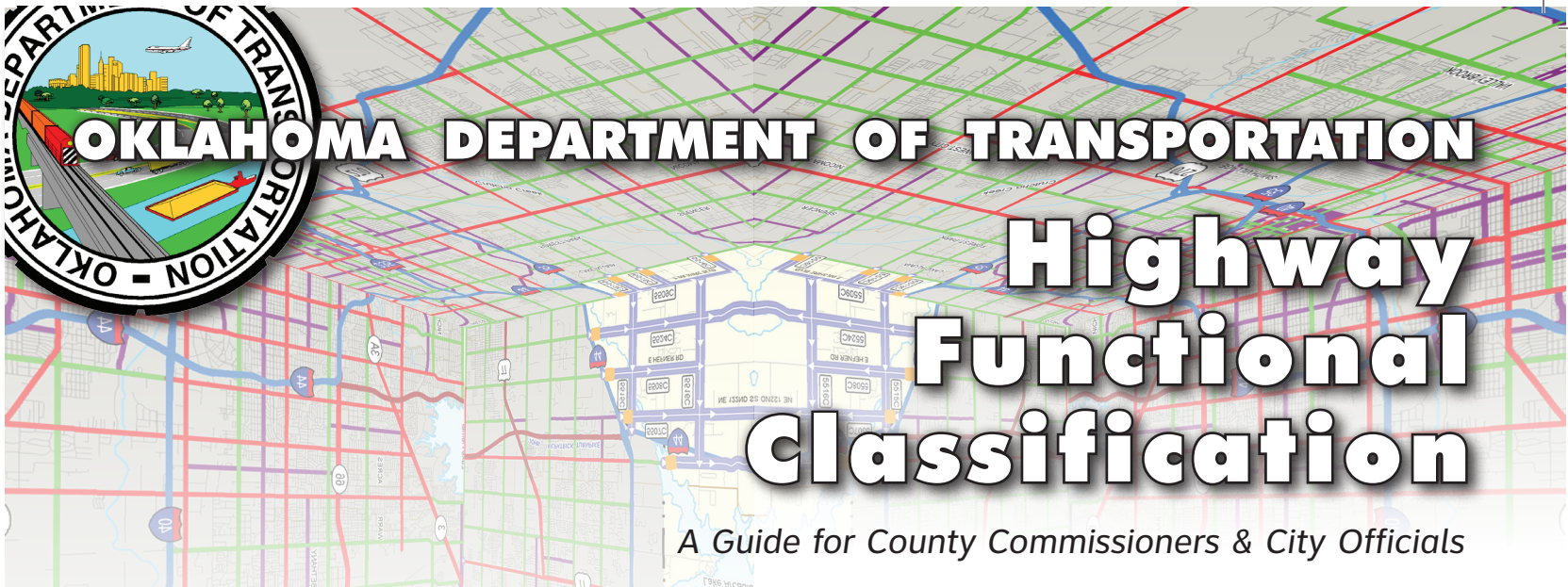
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OKLAHOMA DEPARTMENT OF TRANSPORTATION

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What Is Functional Classification?

The functional classification system has been helpful for many years as a management tool in a variety of areas pertaining to highways. Federal, State and local governments use this tool to assign jurisdictional responsibility, allocate funds, and establish design standards. It is the process by which streets and highways are grouped into classes according to the character of service they are intended to provide. Cities, towns, businesses, farms, homes, schools, recreation areas and other places generate or attract trips which involve movement of vehicles through a network of roads. It becomes necessary to determine how travel movement can be channelized within a limited road network in a logical and efficient manner. The heavy travel movements are directly served by major channels, and the lesser trips are channeled into somewhat indirect paths.

History

The National Highway Functional Classification study was mandated by the Congress in the 1968 Federal-Aid Highway Act. The study revealed that Federal-aid highway system classification had become inconsistent with the function of roads and streets and adjustments in this system was necessary.

The Federal-Aid Highway Act of 1973 required the use of an updated functional highway classification to modify the Federal-aid highway system by July 1, 1976. After the 1976 federally mandated functional classification of highways was completed, States had routinely updated this functional classification to meet Federal-aid highway programs classification requirements. However, these adjustments resulted in the national functional classification of highways being no longer consistent among the States.

Through legislation of the Intermodal Surface Transportation Efficiency Act (ISTEA) of 1991, the U.S. Department of Transportation recommended that a reclassification study be completed prior to designation of the National Highway System to provide an interconnected system of principal arterial routes that serve major population centers, intermodal transportation facilities, and major travel destinations.

In 1993, the functional reclassification was completed, and the National Highway System was established in November, 1995. The functional classification of 1993 has been routinely updated and is still of benefit today as an useful management tool.

Classification Hierarchy






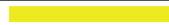

Functional Classification Codes		
	Interstate	1
	Other Freeway & Expressway	2
	Other Principal Arterial	3
	Minor Arterial	4
	Major Collector	5
	Minor Collector	6
	Local	7

Figure 1

The characteristic differences in rural and urban routes are the nature and intensity of the development within the areas. Route characteristics for urbanized areas are generally applicable to small urban areas. The basic difference is that many small urban areas will not generate internal travel warranting principal arterial service.

The **Proportion of Service** provided by each functionally classified category is illustrated in **Figure 2**. Arterial networks emphasize a high level of mobility for through traffic movements. Local facilities emphasize more on the land access function. Collectors offer a compromise between both functions of land access and mobility.

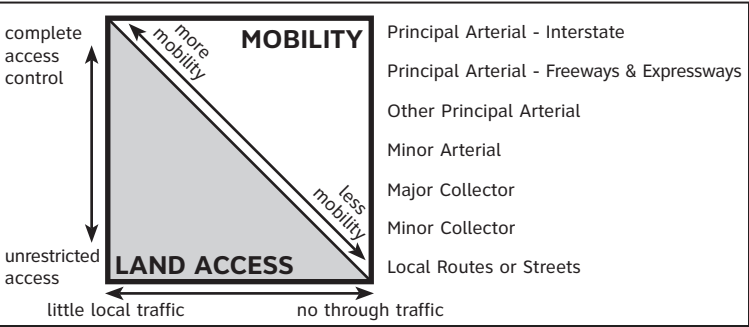


Figure 2



Principal Arterial Routes

Principal Arterial Routes within rural areas consist of a connected rural network of continuous routes having the following characteristics:

1. Highways having high density of intrastate and interstate travel.
2. Highways that serve urbanized areas and the majority of small urban areas. The rural principal arterial routes serve urban areas if the routes either penetrate urban boundaries or come within 10 miles.
3. Provide an integrated network without stub connections except where unusual geographic or traffic flow conditions dictate otherwise.

The following are characteristics of principal arterial routes within urbanized and small urban areas:

1. Serves the major traffic movements within urbanized areas connecting central business districts, outlying residential areas, major intercity communities, and major suburban centers.
2. Serves a major portion of the trips entering and leaving the urban area, as well as the majority of through traffic desiring to bypass the central city.
3. Provides continuity for all rural arterials which intercept the urban area.

No firm spacing rule can be established that will apply in all, or even most circumstances. The spacing of principal arterial routes in larger urban areas may vary from less than one mile in the highly developed central business areas to five miles or more in the sparsely developed locations.

Service to abutting land for principal arterial routes should be subordinate to the provision of travel service with major traffic movements. Only facilities within the other principal arterial routes are capable of providing any direct access to adjacent land, and such service should be purely incidental to the primary functional responsibility of these routes.



Minor Arterial Routes

Requirements for minor arterial routes within the rural areas are as follows:

1. Link cities and larger towns and other traffic generators that are capable of attracting travel over long distances and form an integrated network providing interstate and intercounty service. Minor arterial routes within rural areas serves an urban area if the route either penetrates or comes within 2 miles of the urban boundary.
2. Routes are spaced at intervals consistent with population density so that all developed areas of the State are within a reasonable distance of an arterial highway.
3. Provide service to roads with trip length and travel density greater than those served by collectors or local routes. Minor arterial routes have relatively high overall travel speeds and minimum interference to through traffic.

Minor Arterial Routes within urban areas contain facilities that place more emphasis on land access. Requirements for minor arterial routes within the urban areas are as follows:

1. Serves trips of moderate length at a lower level of travel mobility than principal arterial routes.
2. Provides access to geographic areas smaller than those served by principal arterial routes.
3. Provides intracommunity continuity, but does not penetrate identifiable neighborhoods.
4. The spacing of minor arterials in urban areas vary from 0.125 to 0.5 mile in the central business district to 2 to 3 miles in suburban locations, but should not be more than 1 mile in fully developed areas.



Local Routes

Characteristics of local routes within rural areas:

1. Serves primarily to provide access to adjacent land.
2. Provides service to travel over short distances. Local routes will constitute the rural mileage not classified as part of the principal arterial, minor arterial, or collector routes.

Characteristics of local routes within urban areas:

1. Comprises all facilities not on any of the higher routes.
2. Provides direct access to land and to higher routes.
3. Through traffic usage is discouraged.



Major Collector Routes

Characteristics within rural areas:

1. Provides service to any county seat not on an arterial route, to other traffic generators of equivalent intracounty importance, such as consolidated schools, shipping points, county parks, important mining and agricultural areas, etc.
2. Link the above traffic generators with larger towns, cities, or with routes of higher classification.
3. Serves the more important intracounty travel.

Characteristics within urban areas:

1. Collects traffic from local streets in residential neighborhoods and channels it into an arterial route.
2. Provides both land access service and traffic circulation within commercial areas, industrial areas, and residential neighborhoods.
3. Operating characteristics include higher speeds and more signalized intersections.



Minor Collector Routes

Characteristics within rural areas:

1. Be spaced at intervals, consistent with population density, to collect traffic from local roads and streets and bring all developed areas within a reasonable distance of a collector route.
2. Provides service to the remaining smaller communities not served by a higher class facility.

Characteristics within urban areas:

1. Serve both land access and traffic circulation in lower density residential and commercial/industrial areas.
2. Penetrate residential neighborhoods, often only for a short distance.
3. Distribute and channel trips between Local Roads and Arterials, usually over a distance of less than 3/4 mile.
4. Operating characteristics include lower speeds and fewer signalized intersections.

Principal Arterial - Interstate	
Lane Width	12 feet
Inside Shoulder width	4 feet - 12 feet
Outside Shoulder Width	10 feet - 128 feet
AADT ¹ (Rural)	12,000 - 34,000
AADT ¹ (Urban)	35,000 - 129,000
Divided/Undivided	Divided
Access	Fully Controlled

Principal Arterial - Other Freeways & Expressway	
Lane Width	11 feet - 12 feet
Inside Shoulder width	0 feet - 6 feet
Outside Shoulder Width	8 feet - 12 feet
AADT ¹ (Rural)	4,000 - 18,500 ²
AADT ¹ (Urban)	13,000 - 55,000 ²
Divided/Undivided	Undivided/Divided
Access	Partially/Fully Controlled

Principal Arterial - Other Principal Arterial	
Lane Width	11 feet - 12 feet
Inside Shoulder width	0 feet
Outside Shoulder Width	8 feet - 12 feet
AADT ¹ (Rural)	2,000 - 8,500 ²
AADT ¹ (Urban)	7,000 - 27,000 ²
Divided/Undivided	Undivided/Divided
Access	Uncontrolled

Minor Arterial	
Lane Width	10 feet - 12 feet
Inside Shoulder width	0 feet
Outside Shoulder Width	4 feet - 8 feet
AADT ¹ (Rural)	1,500 - 6,000
AADT ¹ (Urban)	3,000 - 14,000
Divided/Undivided	Undivided
Access	Uncontrolled

Major Collector	
Lane Width	10 feet - 12 feet
Inside Shoulder width	0 feet
Outside Shoulder Width	1 feet - 6 feet
AADT ¹ (Rural)	300 - 2,600
AADT ¹ (Urban)	1,100 - 6,300 ²
Divided/Undivided	Undivided
Access	Uncontrolled

Minor Collector	
Lane Width	10 feet - 11 feet
Inside Shoulder width	0 feet
Outside Shoulder Width	1 feet - 4 feet
AADT ¹ (Rural)	150 - 1,110
AADT ¹ (Urban)	1,100 - 6,300 ²
Divided/Undivided	Undivided
Access	Uncontrolled

Local Route	
Lane Width	8 feet - 10 feet
Inside Shoulder width	0 feet
Outside Shoulder Width	0 feet - 2 feet
AADT ¹ (Rural)	15 - 400
AADT ¹ (Urban)	80 - 700
Divided/Undivided	Undivided
Access	Uncontrolled

1. AADT Ranges are the actual 20th and 80th Percentile AADTs reported in the HPMS 2008 Universe database by/for the functional classifications in place at that time. Note: AADT values of 0 were filtered out of this analysis as these represent values not coded.
2. These values were obtained from the 2008 HPMS sample database since Access Control is not available in the Universe database.