Oregon 2010 Census Review

Guidelines for Updating Federal Aid Urban Boundaries and Functional Classification

January 2014

Oregon Department of Transportation
Transportation Development Division
Transportation Data Section
Road Inventory and Classification Services Unit
http://www.oregon.gov/ODOT/TD/TDATA/Pages/rics/2010FCReview.aspx

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Table of Contents

Introduction

After each decennial census, the Federal Highway Administration (FHWA) requires state DOTs to use census data to review and update all Federal Aid Urban Boundaries (FAUB) and the corresponding Federal Functional Classification (FC) of public roads (Title 23, Section 103, USC).

Federal Aid Urban Boundaries (FAUB) are boundaries that FHWA uses to distinguish between urban and rural for FHWA programs, including Federal Functional Classification (FC). To help simplify the required update process for local agencies, this guide presents an Oregon summary of the FHWA concepts and criteria. Local agencies should use this guide in conjunction with local Transportation System Plans (TSP) to identify needed Federal Aid Urban Area boundary and Federal Functional Classification updates.

If needed, more detail is available in the larger FHWA guide located at:
http://www.fhwa.dot.gov/planning/processes/statewide/related/highwayfunctionalclassifications/

While there is an emphasis on updating FC at the same time as the FAUB's are updated, adjustments to FC should be made any time there are major changes in the road system or the local TSP. Doing so will greatly reduce the amount of work required to complete the next Census Review.

Copies of this document, FC maps, boundary files and links to Federal web sites are available online at:
http://www.oregon.gov/ODOT/TD/TDATA/Pages/rics/2010FCReview.aspx

ODOT Contacts for Statewide FAUB and Functional Classification Review

Road Inventory and Classification Services (RICS) Unit Contacts

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Overview of Process to Update FAUB and Functional Classification

Who	Responsibility
Local Government Officials	Recommend updated FAUB and FC in Small Urban (population over 5,000) and Rural Areas.
MPO	Recommend updated FAUB and FC in Urbanized Areas
ODOT Staff	Review recommended changes for consistency with local, regional, and state TSP's and compliance with Federal Guidelines
FHWA	Final Approval of updated FAUB and FC

1. The ODOT RICS Unit will deliver maps and instructions to ODOT region planners for distribution to local agencies.
2. ODOT region planners deliver map packets and instructions to local agencies. RICS staff is available to assist planners and help guide local agencies with questions and concerns.
3. Local agencies review the draft FAUB boundary to determine if the boundary needs to be adjusted further.
4. Local agencies review and update the Federal Functional Classification
5. If needed, local agencies evaluate the NHS status of roads in their area.
6. After the boundary has been adjusted and the FC updated, the local agency returns the packets/files to the ODOT Region office.
7. The ODOT region planner reviews proposed boundaries and FC for consistency with adopted plans and federal guidelines and then forwards the revised materials to the ODOT RICS Unit in Salem for review.
8. The ODOT RICS Unit reviews the maps and data and meets with FHWA to determine provisional approval of changes.
9. The ODOT RICS Unit updates final map products and distributes them via the web.

Since each agency may have different computer tools available to them, the process is described for those using paper maps to conduct their review. ODOT encourages local governments to do as much of this work as possible in a GIS or other computer environment. If you plan to submit your map changes electronically, please contact B McConnell at (503) 986-4386 or email charles.h.mcconnell@odot.state.or.us before you begin to ensure data formats are compatible.

Timeline for Review

Timeframe	Activity
July-December 2013	Communication, develop materials and processes
Jan-March 2014	Maps and instructions delivered to region planners
Jan-June 2014	RICS and FHWA meet regularly as needed to provisionally approve changes as they come in.
August 2014	All draft changes delivered to RICS
July-Dec 2014	RICS and FHWA continue to meet regularly as needed to provisionally approve changes that have accumulated.
December 31, 2014	FHWA Division approval of all changes.
December 31, 2014	FHWA Headquarters approval of all NHS changes
April 2015	All maps and databases updated to reflect changes
June 2015	Updated data is included in Oregon's mandated 2014 Highway Performance Monitoring System (HPMS) submittal

Checklist for Urban and Urbanized Boundary Updates

(2010 Census Area Population over 5,000)

- ❑ Review the draft boundary on the web map or paper map provided by your ODOT Region representative, or download your boundary shapefile from the FC Review web site at: http://www.oregon.gov/ODOT/TD/TDATA/Pages/rics/2010FCReview.aspx
- ❑ Use the guidelines on the following pages to determine needed changes to your draft FAUB.
- ❑ Use a highlighter to draw your requested FAUB changes on the paper map or edit your boundary shapefile (see footnote on Page 5 for shapefile instructions)
- ❑ Proceed to next step of reviewing Functional Classification before submitting boundary changes.

Checklist for Functional Class Review

- ❑ Review the Federal Functional Classification using the web map or paper map provided by your ODOT Region representative.
    - Functional Classification should be in accordance with the local Transportation System Plan and the information in this guide. It is important to think in complete systems, not just by jurisdiction.
    - Areas with an up-to-date FC system may not need many FC changes.
    - Roads that will require the most attention are in new urban areas (census boundary population over 5,000) and areas that have seen major growth over the past ten years.
    - Review FC at the new proposed urban boundary and suggest changes at logical intersections. (FC should not change at the boundary.)
    - Review urban major collectors to determine if they more appropriately fit the new urban minor collector classification.
    - Make sure all proposed (unbuilt) functionally classed roads (both newly proposed and those already on the map) are identified in STIP projects that will be completed within the next four years.
    - Work with other road agencies where FC roads change jurisdiction to ensure a consistent FC designation through the network.
    - If desired, evaluate principal arterials that were added to the NHS under MAP-21 to verify the function of the facility. Fill out separate NHS change request form to describe needed NHS changes.
- ❑ Describe requested FC changes on the FC Change Request Form. Note an associated change number on the map.
- ❑ Return the following information to your ODOT Region representative:
    1. Maps showing updated FAUB and proposed FC/NHS changes
    2. FC Change Request form (numbered to correspond to map changes)
    3. NHS Change Request form (numbered to correspond to map changes)

State of Oregon Transportation Federal Aid Urban Areas Designated by 2010 U.S. Census

Urbanized Areas (Population 50,000+)
(Based upon U.S. Census Urban Cluster Boundary)

Cluster Name	Cluster Population (Total for Both States)	Cluster Name	Cluster Population (Total for Both States)
Albany*	56,997	Longview, WA-OR	2,354 (63,952)
Bend	83,794	Medford	154,081
Corvallis	62,433	Portland, OR-WA	1,490,336 (1,849,898)
Eugene	247,421	Salem	236,632
Grants Pass*	50,520	**Walla Walla, WA-OR***	8,825 (55,805)

Small Urban Areas (Population 5,000 – 49,999)
(Based upon U.S. Census Urban Cluster Boundary)

Cluster Name	Cluster Population (Total for Both States)	Cluster Name	Cluster Population (Total for Both States)
Astoria	14,115	Newberg	27,001
Baker City	9,518	Newport	11,188
Brookings	10,915	Ontario, OR-ID	12,569 (25,539)
Canby	17,119	Pendleton	17,216
Coos Bay/North Bend	31,386	Prineville	10,905
Cottage Grove	11,007	Redmond	27,685
Creswell**	6,320	Roseburg	41,700
Dallas	15,340	Sandy	9,954
Florence	10,177	Seaside	8,489
Hermiston	27,790	**Sheridan****	8,468
Hood River, OR-WA	10,687 (14,653)	Silverton	9,614
Junction City**	5,966	St. Helens	25,650
Klamath Falls	41,434	Stayton	10,291
La Grande	14,909	Sutherlin	8,653
Lebanon	19,744	Sweet Home	9,569
Lincoln City	10,526	The Dalles, OR-WA	16,876 (17,665)
Madras	8,010	**Tillamook****	7,675
McMinnville	38,970	**Tri-City Myrtle Creek****	8,492
Molalla	8,752	**Veneta****	5,979
Monmouth/Independence	18,167	**Weiser, ID-OR****	108 (5,659)
		Woodburn	32,943

* = New Urbanized Areas
** = New Small Urban Areas
Information compiled from: http://www.census.gov/geo/www/ua/2010urbanruralclass.html
Draft Federal Aid Urban Boudary files are available for download at: http://www.oregon.gov/ODOT/TD/TDATA/Pages/rics/2010FCReview.aspx

Federal Aid Urban Boundary Smoothing Rules

Many Federal transportation programs rely on a well-documented distinction between urban and rural areas. Urban clusters are defined by the Census Bureau. However the census boundaries don't always work well for transportation planning. Because of this, States have the option of using census-defined urban boundaries as is, or they may adjust, or smooth, the census boundaries to be consistent with transportation needs. For at least the last three census cycles, Oregon has adjusted the census boundaries to at least include the current UGB or MPO boundary as well as other adjustments to take in entire transportation facilities.

For statewide consistency, and as an attempt to reduce the burden on local agencies, ODOT has prepared draft "smoothed" FAUB boundaries for Local review. The ODOT smoothing process began with the 2010 Census cluster boundary as the federally-required minimum. ODOT also included the broadest extent of each of the following layers in the smoothed boundaries:

- City Limits
- Urban Growth Boundary (DLCD 2009)
- MPO (most recent version available)
- 2000 FAUB (the urban boundary that is being replaced.)

Although not required, incorporating the UGB and MPO boundaries brings the FAUB into alignment with local Transportation System Plans, and may help to minimize confusion and provide consistency for planning and communication purposes.

Each urban area is different and should be looked at individually by the local planning agency. What may work for one urban area may not be the right solution in another. Local and Regional TSP plans should be reviewed so that the new boundary reflects expectations for the upcoming decade. The guidelines below should be reviewed and applied by those with more local knowledge of each of the urban areas.

Prior to the 2010 census, States had a choice to use either the Urban Place or the Urban Cluster definition as the starting point[1]. ODOT had historically used the Urban Place definition; however current rules require the use of the Urban Clusters. To minimize 2010 changes in the FAUB, ODOT chose to match the 2000 FAUB during the smoothing process, where applicable. This is a suggested boundary only. If desired, local governments may request that the draft boundary be trimmed back or expanded. The FAUB cannot be smaller than the Urban Cluster.

All functional classifications except Rural Minor Collectors and Local roads are eligible for Federal Aid.

Additional ODOT smoothing steps are used to make sure the proposed boundaries encompass a single contiguous area without holes or discontinuities and meet the following FHWA guidelines:

The boundary will encompass a single contiguous area without holes or discontinuities.

The FAUB should be adjusted to include the following:

- Terminals and their access roads, if such terminals lie within a reasonable distance of the urban area (e.g. airports, seaports).
- All large traffic generators that are within a reasonable distance from the urban area (e.g., fringe area public parks, large places of assembly, large industrial plants, etc.).
- The physical location is easy to discern in the field from data shown on the map. Whenever possible, if the boundary is going to deviate from political jurisdictional boundaries, it should follow physical features (e.g., rivers, streams, irrigation canals, transmission lines, railroads, streets or highways). In instances where physical features are lacking, the boundary should cross at roadway intersections which are readily identifiable in the field.
- If the boundary follows a physical feature such as a stream or river, any bridge structure that would be divided by the boundary must clearly be entirely inside or outside the boundary.
- If the boundary follows a road, it shall be clearly identified which side of the road it runs along. Peripheral roadways should not snake in and out of the boundary.
- A boundary should not be drawn in the middle of a divided highway. The divided highway should be either completely in or completely out of the urban area boundary.
- If access controlled roadways are used to define the boundary, all ramps and interchanges should be either included or excluded and interchanges should not be divided by the boundary.
- Transit service routes (e.g., bus route, passenger rail line) should be considered in the placement of a boundary location. However, their inclusion should not unduly distort the shape or composition of the original census-defined urban area boundary.

After the adjusted urban area boundary has been defined using all the factors previously listed, remaining boundary irregularities should be minimized to avoid the confusion that irregular boundaries can create.

[1]A note on the differences between the 2000 and 2010 Census boundary definition; In 2000, States were allowed to use the Census Urban Place as the starting point for the adjusted FAUB. For the 2010 boundary, the Urban Place is no longer available and the Urban Cluster boundary must be used instead. The cluster rules allow for 'hops' and 'jumps', which were not applied in past urban boundary definitions. The result, in most urban areas, is a larger base to start adjusting from.

Federal Functional Classification

Federal Functional Classification (FC) groups streets and roadways by similar characteristics of mobility and/or land access. This federally-mandated classification technique recognizes that individual roads and streets are dependent on each other. FC carries with it expectations about roadway design, including its speed, capacity and relationship to existing and future land use development. Federal legislation uses FC to determine eligibility for funding for most FHWA funding categories, including Federal Aid.

In 2008, FHWA issued updated guidance for the functional classification coding scheme. For statewide consistency, Oregon chose to wait until the 2010 Census review to implement this change. The new guidance consolidates rural and urban FC designations and allows some functional classifications that previously existed in only one area-type to now be recognized in all area-types.

New FC	Map Color	Description	Old FC
1		Interstate	01, 11
2		Other Freeway & Expressway	12
3		Other Principal Arterial	02, 14
4		Minor Arterial	06, 16
5		Major Collector	07, 17
6		Minor Collector	08
7		Local	09, 19

Another 2008 guidance change was a change to the FC rules at urban boundaries. The rules now state that functional classification should be assigned based on actual functional criteria, rather than the location of an urban/rural boundary. This means that functional classification should not change when roads cross the boundary between a rural and urban area. Instead, changes should occur at a logical place such as an intersection.

In 2013, FHWA released a new version of the Highway Functional Classification Concepts, Criteria and Procedures document. This long-awaited update clarifies rules that were previously open to interpretation. Following is a summary of the general guidelines for determining the functional classification of roadways based on the new 2013 FHWA document.

Characteristics of Urban and Rural Arterials

Interstates – Roadways in this functional classification are officially designated as Interstates by the US Secretary of Transportation.

Other Freeways & Expressways – Roadways in this functional classification have directional travel lanes usually separated by some type of physical barrier, and their access and egress points are limited to on and off-ramp locations or a very limited number of at-grade intersections. They are designed and constructed to maximize their mobility function, and abutting land uses are not directly served by them.

Other Principal Arterials – These roadways serve major centers of metropolitan areas, provide a high degree of mobility and can also provide mobility through rural areas. Abutting land uses can be served directly and forms of access include driveways to specific parcels and at-grade intersections with other roadways.

Urban	Rural
• Serve major activity centers, highest traffic volume corridors and longest trip demands. • Carry high proportion of total urban travel on minimum of mileage • Interconnect and provide continuity for major rural corridors to accommodate trips entering and leaving the urban area and movements through the urban area • Serve demand for intra-area travel between the central business district and outlying residential areas	• Serve statewide or interstate travel corridor movements and density characteristics • Connect all or nearly all Urbanized Areas and a large majority of Urban Clusters with 25,000 and over population • Provide an integrated network of continuous FC routes without stub connections (dead ends)

In addition, in urban areas, Principal Arterials typically serve:

- Activity centers, from central business districts to larger town centers
- Important air, rail, bus and truck terminals
- Regional shopping centers
- Large colleges, medical complexes, military bases, and other institutional facilities
- Major industrial and commerce centers
- Important recreational areas

Note: On October 1, 2012, Congress approved the new Highway funding bill, MAP-21. Under MAP-21, the National Highway System (NHS) was automatically expanded to include the Principal Arterials in place as of 10/1/2012. This one-time event did not create an ongoing automatic link between NHS and Principal Arterials. Changing the functional classification of a Principal Arterial does not automatically change the NHS.

Characteristics of Rural and Urban Minor Arterials

Minor Arterials provide service for trips of moderate length, serve geographic areas that are smaller than their Principal Arterial counterparts, and offer connectivity to the Principal Arterial system. In an urban context, Minor Arterials interconnect and augment the Principal Arterial system, provide intra-community continuity and may carry local bus routes.

In rural settings, Minor Arterials should be identified and spaced at intervals consistent with population density. Additionally, Minor Arterials in rural areas are typically designed to provide relatively high overall travel speeds, with minimum interferences to through movement.

The spacing of Urban Minor Arterial streets may typically vary from 1/8 to 1/2 mile in the central business district (CBD) and 2 to 3 miles in the suburban fringes. Normally, the spacing should not exceed 1 mile in fully developed areas.

Urban	Rural
• Interconnect and augment the higher-level Arterials • Serve trips of moderate length at a somewhat lower level of travel mobility than Principal Arterials • Distribute traffic to smaller geographic areas than those served by higher-level Arterials • Provide more land access than Principal Arterials without penetrating identifiable neighborhoods • Provide urban connectivity for Rural Collectors	• Link cities and larger towns (and other major destinations such as resorts capable of attracting travel over long distances) and form an integrated network providing interstate and inter-county service • Be spaced at intervals, consistent with population density, so that all developed areas within the State are within a reasonable distance of an Arterial roadway • Provide service to corridors with trip lengths and travel density greater than those served by Rural Collectors and Local Roads and with relatively high travel speeds and minimum interference to through movement

Characteristics of Rural and Urban Major and Minor Collectors

Collectors serve a critical role in the roadway network by gathering traffic from Local Roads and funneling them to the Arterial network. All Collectors, regardless of whether they are within a rural area or an urban area, may be sub-stratified into *Major* and *Minor* categories. (Note: Minor Collectors located outside of federal aid urban areas are not federal-aid eligible.)

In the rural environment, Collectors generally serve intra-county travel (rather than statewide), have shorter travel distances, and may have lower speeds. The distinctions between Major and Minor Collectors are often subtle. Generally, Major Collector routes are longer in length; have lower connecting driveway densities; have higher speed limits; are spaced at greater intervals; have higher annual average traffic volumes; and may have more travel lanes than their Minor Collector counterparts. Careful consideration should be given to these factors when assigning a Major and Minor Collector designation. In rural areas, AADT and spacing may be the most significant designation factors. This means that Major Collectors offer more mobility and Minor Collectors offer more access.

MAJOR COLLECTORS	
Urban	Rural
• Serve both land access and traffic circulation in higher density residential, and commercial/industrial areas • Penetrate residential neighborhoods, often for significant distances • Distribute and channel trips between Local Roads and Arterials • Operating characteristics include higher speeds and more signalized intersections	• Provide service to county seats not on an Arterial route, to the larger towns not directly served by the higher systems and to other traffic generators of equivalent intra-county importance such as consolidated schools, park and ride lots, shipping points, county parks and important mining and agriculture areas • Link these places with nearby larger towns and cities or with Arterial routes • Serve the most important intra-county travel corridors
MINOR COLLECTORS	
Urban	Rural
• Serve both land access and traffic circulation in lower density residential, and commercial/industrial areas • Penetrate residential neighborhoods, usually for a short distance • Distribute and channel trips between Local Roads and Arterials, usually over a distance of less than three-	• Be spaced at intervals, consistent with population density, to collect traffic from Local Roads and bring all developed areas within reasonable distance of a Collector • Provide service to smaller communities not served by a higher class facility

quarters of a mile • Operating characteristics include lower speeds and fewer signalized intersections	• Link locally important traffic generators with their rural hinterlands • Not Federal Aid eligible

Characteristics of Rural and Urban Local Roads

Locally classified roads account for the largest percentage of all roadways in terms of mileage. They are not intended for use in long distance travel, except at the origin or destination end of the trip. They are often designed to discourage through traffic. Bus routes generally do not run on Local Roads.

Local roads are classified by default. In other words, once all Arterial and Collector roadways have been identified, all remaining roadways are classified as Local Roads.

Urban	Rural
• Provide direct access to adjacent land • Provide access to higher systems • Carry no through traffic movement • Constitute the mileage not classified as part of the Arterial and Collector systems • Not Federal Aid eligible	• Serve primarily to provide access to adjacent land • Provide service to travel over short distances as compared to higher classification categories • Constitute the mileage not classified as part of the Arterial and Collector systems • Not Federal Aid eligible

How Does State Highway Classification Compare to FC?

The Oregon Highway Plan (OHP) contains a roadway classification system called the State Highway Classification (SCS) system. The four (4) levels of SCS are:

- Interstate
- Statewide
- Regional
- District

A general description of the current relationship between FC and SCS is shown below. While SCS and FC are similar in many respects, SCS is a long-range planning tool and FC describes how a road is being used today. Because of this difference, there is no solid rule for determining FC based on SCS or vise versa.

State Classification System (SCS)	Description	Corresponding Functional Classifications
Interstate Highways	Connections to major cities or regions, or other states. Regional trips within metro areas.	• Urban or Rural Interstate
Statewide Highways	Provide connection to larger urban areas, ports and recreational areas that are not directly served by interstate highways.	• Urban Principal Arterial-Other Freeway Expressway • Urban or Rural Other Principal Arterial
Regional Highways	Provide links to regional centers, statewide or interstate highways, or economic or activity centers of regional significance.	• Urban or Rural Minor Arterial
District Highways	Facilities of county-wide significance function largely as county and city arterials or collectors.	• Urban or Rural Minor Arterial • Urban or Rural Major Collector • Urban or Rural Minor Collector

Appendix A: VMT and Mileage Guidelines by Functional Classifications

VMT and Mileage Guidelines by Functional Classifications - Arterials

	Arterials			
	Interstate	**Other Freeways & Expressway**	**Other Principal Arterial**	**Minor Arterial**
Typical Characteristics				
Lane Width	12 feet	11 - 12 feet	11 - 12 feet	10 feet - 12 feet
Inside Shoulder Width	4 feet - 12 feet	0 feet - 6 feet	0 feet	0 feet
Outside Shoulder Width	10 feet - 12 feet	8 feet - 12 feet	8 feet - 12 feet	4 feet - 8 feet
AADT[1] (Rural)	12,000 - 34,000	4,000 - 18,500[2]	2,000 - 8,500[2]	1,500 - 6,000
AADT[1] (Urban)	35,000 - 129,000	13,000 - 55,000[2]	7,000 - 27,000[2]	3,000 - 14,000
Divided/Undivided	Divided	Undivided/Divided	Undivided/Divided	Undivided
Access	Fully Controlled	Partially/Fully Controlled	Partially/Uncontrolled	Uncontrolled
Mileage/VMT Extent (Percentage Ranges)[1]				
Rural System				
Mileage Extent for Rural States[2]	1% - 3%	0% - 2%	2% - 6%	2% - 6%
Mileage Extent for Urban States	1% - 2%	0% - 2%	2% - 5%	3% - 7%
Oregon Mileage 2012	**1%**	**0%**	**6%**	**5%**
Mileage Extent for All States	1% - 2%	0% - 2%	2% - 6%	3% - 7%
VMT Extent for Rural States[2]	18% - 38%	0% - 7%	15% - 31%	9% - 20%
VMT Extent for Urban States	18% - 34%	0% - 8%	12% - 29%	12% - 19%
Oregon VMT 2012	**28%**	**0%**	**30%**	**14%**
VMT Extent for All States	20% - 38%	0% - 8%	14% - 30%	11% - 20%
Urban System				
Mileage Extent for Rural States[2]	1% - 3%	0% - 2%	4% - 9%	7% - 14%
Mileage Extent for Urban States	1% - 2%	0% - 2%	4% - 5%	7% - 12%
Oregon Mileage 2012	**1%**	**0%**	**6%**	**9%**
Mileage Extent for All States	1% - 3%	0% - 2%	4% - 5%	7% - 14%
VMT Extent for Rural States[2]	17% - 31%	0% - 12%	16% - 33%	14% - 27%
VMT Extent for Urban States	17% - 30%	3% - 18%	17% - 29%	15% - 22%
Oregon VMT 2012	**24%**	**7%**	**26%**	**20%**
VMT Extent for All States	17% - 31%	0% - 17%	16% - 31%	14% - 25%
Qualitative Description (Urban)	▮ Serve major activity centers, highest traffic volume corridors, and longest trip ▮ Carry high proportion of total urban travel on minimum of mileage ▮ Interconnect and provide continuity for major rural corridors to accommodate trips entering and leaving urban area and movements through the urban area ▮ Serve demand for intra-area travel between the central business district and outlying residential areas			▮ Interconnect with and augment the principal arterials ▮ Serve trips of moderate length at a somewhat lower level of travel mobility than principal arterials ▮ Distribute traffic to smaller geographic areas than those served by principal arterials ▮ Provide more land access than principal arterials without penetrating identifiable neighborhoods ▮ Provide urban connections for rural collectors
Qualitative Description (Rural)	▮ Serve corridor movements having trip length and travel density characteristics indicative of substantial statewide or interstate travel ▮ Serve all or nearly all urbanized areas and a large majority of urban clusters areas with 25,000 and over population ▮ Provide an integrated network of continuous routes without stub connections (dead ends)			▮ Link cities and larger towns (and other major destinations such as resorts capable of attracting travel over long distances) and form an integrated network providing interstate and inter-county service ▮ Spaced at intervals, consistent with population density, so that all developed areas within the State are within a reasonable distance of an arterial roadway ▮ Provide service to corridors with trip lengths and travel density greater than those served by rural collectors and local roads and with relatively high travel speeds and minimum interference to through movement

1- Ranges in this table are derived from 2011 HPMS data.

2- For this table, Rural States are defined as those with a maximum of 75 percent of their population in urban centers.
Oregon had 74.94% of its population in the 2010 census in urban areas

VMT and Mileage Guidelines by Functional Class- Collectors and Locals

	Collectors		Local
	Major Collector[2]	Minor Collector[2]	
Typical Characteristics			
Lane Width	10 feet - 12 feet	10 - 11 feet	8 feet - 10 feet
Inside Shoulder Width	0 feet	0 feet	0 feet
Outside Shoulder Width	1 feet - 6 feet	1 feet - 4 feet	0 feet - 2 feet
AADT[1] (Rural)	300 - 2,600	150 - 1,110	15 - 400
AADT[1] (Urban)	1,100 - 6,300[2]		80 - 700
Divided/Undivided	Undivided	Undivided	Undivided
Access	Uncontrolled	Uncontrolled	Uncontrolled
Mileage/VMT Extent (Percentage Ranges)[1]			
Rural System			
Mileage Extent for Rural States[3]	8% - 19%	3% - 15%	62% - 74%
Mileage Extent for Urban States	10% - 17%	5% - 13%	66% - 74%
Oregon Mileage 2012	**18%**	**16%**	**54%**
Mileage Extent for All States	9% - 19%	4% - 15%	64% - 75%
VMT Extent for Rural States[3]	10% - 23%	1% - 8%	8% - 23%
VMT Extent for Urban States	12% - 24%	3% - 10%	7% - 20%
Oregon VMT 2012	**14%**	**3%**	**10%**
VMT Extent for All States	12% - 23%	2% - 9%	8% - 23%
Urban System			
Mileage Extent for Rural States[3]	3% - 16%	3% - 16%[2]	62% - 74%
Mileage Extent for Urban States	7% - 13%	7% - 13%[2]	67% - 76%
Oregon Mileage 2012	**15%**	**0%**	**69%**
Mileage Extent for All States	7% - 15%	7% - 15%[2]	63% - 75%
VMT Extent for Rural States[3]	2% - 13%	2% - 12%[2]	9% - 25%
VMT Extent for Urban States	7% - 13%	7% - 13%[2]	6% - 24%
Oregon VMT 2012	**12%**	**0%**	**11%**
VMT Extent for All States	5% - 13%	5% - 13%[2]	6% - 25%
Qualitative Description (Urban)	▮ Serve both land access and traffic circulation in higher density residential, and commercial/industrial areas ▮ Penetrate residential neighborhoods, often for significant distances ▮ Distribute and channel trips between local streets and arterials, usually over a distance of greater than three-quarters of a mile	▮ Serve both land access and traffic circulation in lower density residential, and commercial/industrial areas ▮ Penetrate residential neighborhoods, often only for a short distance ▮ Distribute and channel trips between local streets and arterials, usually over a distance of less than three-quarters of a mile	▮ Provide direct access to adjacent land ▮ Provide access to higher systems ▮ Carry no through traffic movement
Qualitative Description (Rural)	▮ Provide service to any county seat not on an arterial route, to the larger towns not directly served by the higher systems, and to other traffic generators of equivalent intra- county importance such as consolidated schools, shipping points, county parks, important ▮ Link these places with nearby larger towns and cities or with arterial routes ▮ Serve the most important intra-county travel corridors	▮ Be spaced at intervals, consistent with population density, to collect traffic from local roads and bring all developed areas within reasonable distance of a minor collector ▮ Provide service to smaller communities not served by a higher class facility ▮ Link locally important traffic generators with their rural hinterlands	▮ Serve primarily to provide access to adjacent land ▮ Provide service to travel over short distances as compared to higher classification categories ▮ Constitute the mileage not classified as part of the arterial and collectors systems

1- Ranges in this table are derived from 2011 HPMS data.

2- Information for Urban Major and Minor Collectors is approximate, based on a small number of States reporting.

3- For this table, Rural States are defined as those with a maximum of 75 percent of their population in urban centers.