

Appendix 9-E: Functional Classification

Oxford Region and PennDOT Categories and Road Design Standards

Roadway Functional Guidelines

Description	Land Use Context: CCPC Functional Class: PennDOT (Smart Trans.): Traffic Volumes (Average Daily Traffic)	Designated Growth Area (including Town Center, Town Residential, Village Center, Village, Commerce, and Suburban)					Alley
		All	Principal Arterial	Minor Arterial	Major Collector	Minor Collector	
	Expressway						
	Expressway						
	15,000-100,000+		10,000-60,000	8,000-20,000	4,000-10,000	1,000-5,000	Less than 1,500
Mobility	Strict priority to moving vehicles	Mobility more critical than property access	Mobility more critical than property access	Mobility more critical than property access	Even priority to mobility and access	Even priority to mobility and access	No priority to mobility
Access	Only provided at interchanges	Strict access control, shared access for commercial preferred	Strict access control, shared access for commercial preferred	Strict access control, shared access for commercial preferred	Strict access control, shared access for commercial preferred	Strict access control, shared access for commercial preferred	Priority is given to property access, bike/ped
Corridor Length	Over 15 miles	Over 15 miles	Over 10 miles	Over 10 miles	4-16 miles	2-10 miles	Less than 4 miles
Through Traffic	Over 50%	Over 50%	Over 50%	Over 50%	25-50%	25-35%	Less than 10%
Truck Traffic	High-speed truck mobility	High truck mobility	High truck mobility	Moderate truck mobility	Moderate truck mobility	Minimal truck mobility	Local delivery only
Desired Operating Speed	55-65 MPH, 40 MPH minimum	39-55 MPH	39-55 MPH	25-55 MPH	25-55 MPH	25-30 MPH	15-20 MPH
Travel Lane	12'-14"	10' to 12' depending on number of lanes, bike lanes, shoulders, etc.	4-9' (if no bike lane or shoulder) 8-10' in suburban commercial contexts	4-9' (if no bike lane or shoulder) Recommended in urban landscape, evaluate feasibility in suburban (7-8' parallel)	9-11'	9-11'	8'-10'
Shoulder	8'-10"	8'-10" (if no bike lane or shoulder)	8'-10" (if no bike lane or shoulder)	8'-10" (if no bike lane or shoulder)	4-9' (if no bike lane or shoulder)	4-9' (if no bike lane or shoulder)	N/A
Parking lane (7-8' parallel)	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	Prohibited	N/A
Bicycle Access	Evaluate separate facilities	Evaluate separate facilities	Evaluate separate facilities	Evaluate separate facilities	Evaluate separate facilities	Evaluate separate facilities	Evaluate separate facilities
Else/Lanes: 5-8' width within road shoulder							
Shared Roadway: 14' minimum lane width							
Sidewalks (4-8')	Na	Na	Na	Na	Recommended (4-8')	Recommended (4-8')	N/A
Access Management (See Access Management Handbook, Reference C)	N/A	Strict access control, especially in commercial corridors	Strict access control, especially in commercial corridors	Moderate access control	Moderate access control	Moderate access control	N/A
Traffic Calming (See Traffic Calming Handbook, Reference D)	N/A	Treatments include: gateway treatments, reduced travel lanes/widths, medians, street trees	Treatments include: gateway treatments, reduced travel lanes/widths, medians, street trees	Treatments include: on-street parking, crosswalk treatments, and strategies for Arterials	Treatments include: on-street parking, crosswalk treatments, and strategies for Arterials	Treatments include: speed tables/curbs, and strategies for Arterials and Collectors	N/A
Network Design/Connectivity	N/A	High degree of connectivity/grid-like pattern, avoid cul-de-sacs, construct stub segments for future connections	High degree of connectivity/grid-like pattern, avoid cul-de-sacs, construct stub segments for future connections	High degree of connectivity/grid-like pattern, avoid cul-de-sacs, construct stub segments for future connections	High degree of connectivity/grid-like pattern, avoid cul-de-sacs, construct stub segments for future connections	High degree of connectivity/grid-like pattern, avoid cul-de-sacs, construct stub segments for future connections	N/A
Transit	N/A	Bus shelters, pull-offs, sidewalks crossings, and connections to adjacent land uses	Bus shelters, pull-offs, sidewalks crossings, and connections to adjacent land uses	Bus shelters, pull-offs, sidewalks crossings, and connections to adjacent land uses	Bus shelters, pull-offs, sidewalks crossings, and connections to adjacent land uses	Bus shelters, pull-offs, sidewalks crossings, and connections to adjacent land uses	N/A

*The Village Preservation category is an exception. Despite being located in the Resource Protection area, from a transportation design standpoint "growth area" standards are applicable for this land use category.

Sources/References

- A) Smart Transportation Guidebook: PennDOT/JCOT: <http://www.smarttransportation.com>
- B) PennDOT Design Manual (DM-2): <http://dot.state.pa.us/public/Bureau/design/PUB13M/Chapters/Chap01.pdf>
- C) PennDOT Access Management Handbook: <http://dot.state.pa.us/public/PublicForms/Publications/PUB%20574.pdf>
- D) PennDOT Traffic Calming Handbook: <http://dot.state.pa.us/public/pdf/TrafficCalming/TrafficCalmingHandbook2001.pdf>
- E) Chester County Planning Commission Recommended Bicycle Functional Classification: http://dot.state.pa.us/public/pdf/Map_gallery_maps/bike-network.pdf

