

Chapter 8

Traffic Control and Lighting

8.1 Signs

All traffic signs must conform to the MUTCD, as adopted by the State of Washington pursuant to WAC 468-95-010. All traffic signs within the County right-of-way shall be installed in accordance with the requirements of the County Engineer.

8-1.1 Stop Signs

Stop signs shall be installed by the proponent on all unsignalized local public road approaches to County arterials or State highways, all private road approaches to County arterial roads, and at other locations determined by the County Engineer as soon as the road approach is opened to vehicular use. The stop sign for a private road approach must be maintained by the property owner(s) that have legal access to the private road. Stop sign construction and location must be in accordance with the Pierce County *Standard Drawings*.

8-1.2 Street Name Signs

Street name signs for private roads or driveway approaches shall be installed by the proponent. Street name signs for private roads and driveway approaches shall be maintained by the property owner(s) that have legal access to the road or approach. Street name signs for public roads will be installed and maintained by the County Engineer. Street name sign construction and location must be in accordance with the Pierce County *Standard Drawings*. Street names and/or numbers shall be in accordance with Title 10.44 PCC. Street name signs for private roads and driveway approaches shall be installed prior to the final inspection.

8-1.3 “No Parking” Signs in Urban Infill Subdivisions

“No Parking” signs shall be installed by the County pursuant to the requirements of PCC Section 10.24.055 within developments constructed to the *Urban Infill Design Standards* in Chapter 18J.17 PCC when the road under constructions is accepted for County sign maintenance. All “No Parking” signs in County right-of-way will be provided by the County Engineer consistent with approved road construction plans.

8-1.4 Payment for Traffic Signs

With the exception of Stop signs required by Section 8-1.1 above, traffic signs for public roads, such as street name signs, “No Parking” signs, “Dead End”, speed limit, and other needed signs, will be provided and installed by the County Engineer. The proponent shall pay for such signing as a part of the fees per linear foot for formal plat (public) roads and offsite public road improvements pursuant to PCC Chapter 2.05.090.

8.2 Pavement Markings

Pavement markings are required on all County arterials and roadways having channelization, consistent with the requirements of the County Engineer. Roadway striping, raised pavement markers (RPMs) or other traffic delineators shall be installed in accordance with the approved plans, the MUTCD, and the *Standard Drawings*.

RPMs can only be used along the right edge line at locations where an engineering study has determined the markers are essential to preserving pedestrian, bicycle, and motor vehicle safety. At the initiation of the engineering study, local bicycling organizations, the regional member of the State Bicycling Advisory Committee, or the WSDOT Bicycle and Pedestrian Program Manager shall be notified of the study for review and comment.

The County Engineer reserves the right to do all striping, buttoning, and delineation work. Reimbursement to the Department shall be made before the County accepts the overall project for dedication or maintenance and before the County releases the financial guarantee. The Engineer will indicate on the approved road construction plans that the County Traffic Engineer shall be contacted prior to construction to confirm the County's intent to do the work and charge the proponent or, if not feasible, require the proponent to do the work. If the County Engineer elects to do the work, the proponent will be required to submit a financial guarantee to the County in an amount established by the County before the work starts. Before any pavement marking work takes place, the Engineer and/or Contractor shall contact the Pierce County Traffic Operations Center. An onsite meeting may be required to preview the work, markings, layout, and method of construction.

8-3 Signals

Design of traffic signals, when required, shall be coordinated with the County Engineer in order to receive specific design direction and parameters.

8.4 Illumination

Many factors go into determining the need to provide lighting, the type of lighting configuration to be used in any given condition, and the placement of the street lighting supports and fixtures; thus, street lighting should not be placed indiscriminately along the roadway and the determination to provide street lighting should be coordinated with the County Engineer.

All design plans for street lighting that will be operated by the County on arterial roads shall be specifically approved by the County Engineer prior to the beginning of construction.

For pedestrian and/or light standards that will be operated by others (e.g., franchised utilities), the proposed pedestrian and/or light standards locations shall be shown on the roadway plans for review of compliance with any development requirements or conditions. The party responsible for operating the pedestrian and/or roadway illumination system shall be identified on the plans.

Pedestrian and/or roadway illumination systems for public roadways that will be operated by parties other than the County or franchised utilities shall be located outside of the public road right-of-way.

Light Standards shall be placed such that the nearest face of the pole is a minimum of 6 feet back from the edge of traveled way when a curbed section is used. In no event shall the pole be placed closer than 2 feet from face of curb, such as when a paved shoulder or a parking lane is provided. When no curb is used, the nearest face of the pole shall be placed a minimum of 10 feet back from the edge of traveled way, but in no event shall the structure be placed closer than 0.5 feet from the back of shoulder. The light standard shall not be placed within any shoulder, sidewalk, walkway, or shared-use path. Additionally, light standards used within County right-of-way shall not conflict with overhead utilities, traffic control devices, sight distance or visibility requirements, and the base (subsurface) portion of the structure shall be flush with the surrounding ground elevation and shall not conflict with underground utilities, pavement, curbs, sidewalks, walkways, shared-use paths, or storm drainage facilities. Any overhead utilities shall be behind the light standards and not in contact with the light standards. For overhead utilities that are above the entirety of the light standard, this does not apply.

Acceptable pedestrian light standard locations in the Towne Center, Urban Corridor, Neighborhood Corridor, or Employment Corridor zones are provided in the *Standard Drawings* and the following standards shall apply:

Lighting shall be designed to prevent light trespass into the sky and adjacent properties through methods such as light shielding, downward directional lighting, or specialized fixture optics.

8-4.1 Locations

Street lighting is provided as a means of further enhancing traffic safety at the following qualifying locations:

- A. Signalized locations.
- B. When raised median channelization is installed within the traveled way to separate opposing directions of traffic and guide or prohibit left turning traffic.

- C. As a part of roadway construction or reconstruction projects, continuous street lighting on all major, secondary, and collector arterials that are:
 - 1. Located in areas with a highly dense concentration of urban commercial development, and in areas that have a significant concentration of both commercial and high-density multi-family development. Typical locations would be those areas adjacent to the County road system that are designated as Major Urban Centers or Community Centers by the County Comprehensive Plan, or
 - 2. More than two continuous lanes in width (excluding isolated turn pockets) and located in an urban growth area, or
 - 3. More than two lanes in width and located in rural areas that exhibit an urban growth pattern and urban density and are specifically identified and authorized by the County Council, or
 - 4. Currently providing lighting infrastructure that is owned/ operated by an entity other than Pierce County. In this case, the existing lighting infrastructure shall be removed and replaced with lighting that meets Pierce County standards and that will be owned and operated by Pierce County.

- D. Arterial locations having high reported accident histories in which a significantly large proportion of those accidents occurred at night.

- E. Arterial locations that meet 8-4.1 (A), (B), or (C), but do not currently have Pierce County lighting installed and where an adjacent parcel will be undergoing improvements or development.

- F. Intersections that have been identified for future signalization where lighting can be economically installed on a short-term basis.

- G. Locations that are identified, authorized, and funded by the Pierce County Council for traffic and pedestrian safety in the following areas:
 - 1. Established walking routes to a specific public school.
 - 2. Walking routes to a specific public park.
 - 3. Other locations determined in consultation with a school district or law enforcement agency for student safety purposes.

8-4.2 Lighting Standards

Where street lighting is required on roads, the following minimum requirements shall apply:

A. Lighting design levels shall be consistent with the guidelines set forth in the most current versions of the following:

1. “Roadway Lighting Design Guide”, published by AASHTO.
2. “The Lighting Library – Lighting for Exteriors” IES Standards for lighting, published by the Illuminating Engineering Society.

The minimum light levels shall meet the following:

Light Level and Uniformity Ratio Chart

Location	Minimum Average Maintained Horizontal Light Level (fc)	Minimum Light Level (fc)	Maximum Uniformity (avg/min)
Arterial Roadway*	0.8 to 1.2	0.2	3 : 1
Signalized Intersection*	2.0 to 2.4	0.2	3 : 1
Roundabout*	1.8 to 2.4	0.2	3 : 1
Midblock RRFB*	1.8 to 2.4	0.2	4 : 1
Sidewalks Along An Arterial Roadway	0.4	0.2	4 : 1
Sidewalk Pedestrian Lighting (TCTR, UCOR, ECPR, & NCOR)	1.0	0.5	4 : 1

* Contact Traffic Engineering to determine actual design Average Light Level

B. For local road intersections and Local Road Cul-de-sacs within urban residential subdivisions, the minimum average maintained lighting level shall be 4 lux (0.4 footcandles) with an average to minimum uniformity ratio of 6:1. The typical lamp used should not exceed 150 watt or equivalent, for energy efficient lighting such as LED or other approved options. Total downward luminaire efficiency should be at least 50 percent.

For arterials and arterial intersections, lighting design levels will be provided by the Office of County Engineer.

8-4.3 Street Lighting in Developments

Street lighting is required in all new urban developments located in urban growth areas of Pierce County at the following locations:

- A. Signalized intersections.
- B. Intersections controlled by a “Stop” or “Yield” sign.
- C. Uncontrolled intersections.
- D. The end of any cul-de-sac.

8-4.4 Option for lighting at Non-County designated locations

At other locations, franchised electrical utilities are allowed to own, operate, and maintain street or area lights within the County right-of-way under the provisions of their franchise agreement with Pierce County. Private individuals or homeowner associations are not granted permission to install lights within the County right-of-way. Privately owned and maintained lighting shall be located on private property.

8.5 Traffic Calming

8-5.1 Speed Humps

The installation of speed humps is limited to the Local Road System (reference Section 2-1.3.4).

Speed hump design and construction shall be in conformance with the latest version of the *Pierce County Standard Drawings*. Locations of speed humps in public right of way must be coordinated with the County Engineer.