

Chapter 15

Street Lighting

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Chapter 15

Street Lighting

15.1 General

15.1.1 This chapter sets forth the design and technical criteria to be used in the preparation of all street lighting plans. Where design information is not provided herein, the following standards (most current edition) shall be used:

1. National Electrical Safety Code (NESC)
2. National Electrical Code (NEC)
3. City of Huron Design Standards, Supplemental Specifications, and Standard Detail Plates
4. Requirements and Standards of the State of South Dakota
5. City of Huron Electrical Code

15.1.2 Where a conflict occurs between the above standards, the most restrictive requirement shall apply.

15.1.3 Street lights shall be placed on lot/property lines that are perpendicular to street centerline where applicable.

15.1.4 Street lighting on cul-de-sacs must terminate with a street light on the lot line nearest where the turnaround begins.

15.1.5 Street lights, junction boxes, meter pedestals, and conduit shall be free and clear of any permanent obstructions, which would impair the ability of future maintenance operations by Huron Traffic Department. Layout of street lighting must also consider vertical and horizontal alignment with respect to other utilities that might conflict with the installation of the street lighting system.

15.1.6 Street lighting wires will be furnished by the City of Huron. Payment for street wire shall be paid by the Developer or through a City Capital Improvements project. Wire installation will be completed by the contractor with wiring terminations and connections completed by Huron Traffic Department.

- 15.1.7** Design of street lighting systems will typically consist of installation of street lights in areas that have concrete curb and gutter installed. If concrete curb and gutter has not been installed, a street lighting system will not necessarily be required. City of Huron Engineering Department will evaluate each project before final design is complete.
- 15.1.8** If necessary, removal of street lights shall be coordinated with City of Huron Traffic Department. All materials removed will become the property of City of Huron unless otherwise noted.

15.2 Street Light Locations and Spacing

- 15.2.1** Street lights shall be installed as indicated in Chapter 4 of the *City of Huron Design Standards for Public Improvements* or as specified below.
- 15.2.2** Residential lighting shall be spaced 175–250 feet apart with a nonstaggered pattern and located at intersections.
- 15.2.3** Local, Collector, or Arterial (minor) lighting shall be spaced 200-275 feet apart with a nonstaggered pattern and located at intersections.
- 15.2.4** Commercial lighting, or Arterial (major), shall be spaced 175–250 feet apart located at intersections and with a staggered pattern if possible.
- 15.2.5** Historical District lighting in residential locations within the boundaries of the City of Huron city limits shall be installed with three lights per block located at intersections and with a staggered pattern if possible. Maps of Historical District boundaries are available by contacting City of Huron Planner.
- 15.2.6** Historical District lighting in pedestrian locations within the boundaries of 13th Street to Fourth Street and Minnesota Avenue to Second Avenue shall be installed with four to five lights per block located at intersections and with a staggered pattern.
- 15.2.7** Generally, street lights will be located within the public right-of-way 2 feet from the back of curb unless otherwise noted. Street lights shall be located on a lot line whenever possible. Streets that have sidewalks installed behind the curb and gutter will require street lights to be installed behind the sidewalk but still within the public right-of-way. If street lights cannot be installed within the public right-of-way, a utility easement will be required.

- 15.2.8** When street light locations are being considered, overhead obstructions must be evaluated prior to placement location. In general, street lights shall maintain a minimum clear distance of 8 feet from any overhead electrical power lines. Other overhead obstructions such as trees, cable television lines, communications lines, etc., shall be evaluated on a case-by-case basis.

15.3 Junction Boxes

- 15.3.1** Junction boxes shall be spaced a maximum of 275 feet from the furthest street light or junction box.
- 15.3.2** Standard size junction box is 18 inches in diameter and is constructed of 16 gauge corrugated galvanized steel, contractor to furnish and install. If a greater size junction box is needed, City of Huron Traffic Department will assist in the determination of such junction box.
- 15.3.3** Generally, junction boxes will be located within the public right-of-way 2 feet from the back of curb, unless otherwise noted, and on a lot line whenever possible.
- 15.3.4** Junction boxes shall generally be located such that they will not be in driveways.
- 15.3.5** Reference City of Huron Standard Detail Plates for specific details in regards to junction box specifications.
- 15.3.6** Maximum number of conduits entering into a junction box shall not exceed six and the minimum number of conduits shall not be less than two into an 18-inch junction box.
- 15.3.7** All street light junction box lids shall be labeled "Electric."

15.4 Conduits

- 15.4.1** All street lighting conduit shall be 2-inch diameter, schedule 40 PVC unless otherwise specified, contractor to furnish and install.
- 15.4.2** Conduit shall have a minimum depth of bury of 24 inches from finished grade.
- 15.4.3** All conduit installation shall be in compliance with City of Huron Electrical Inspector regulations and the National Electrical Code.

- 15.4.4** Generally, conduit will be located within the public right-of-way 2 feet from the back of curb unless otherwise noted.
- 15.4.5** When bends are required on any conduit run, no more than four 90° bends will be allowed in one given conduit run.
- 15.4.6** For conduit stubs less than 10 feet in length, ends shall be capped. No street light wire, tracer wire, or locator ball is required. For conduit stubs greater than 10 feet, a tracer wire and locator ball is required.
- 15.4.7** Conduits or direct buried wire must have 18 inches of horizontal clearance from fire hydrants, inlets, cable boxes etc.
- 15.4.8** Street light conduit and traffic conduit may be buried in the same trench.

15.5 Concrete Street Light Footings

- 15.5.1** Generally, street light footings will be located within the public right-of-way 2 feet behind the back of curb unless otherwise noted and on a lot line whenever possible. Streets that have sidewalks installed behind the curb and gutter will require street light footings to be installed behind the sidewalk, but still within the public right-of-way. If streetlight footings cannot be installed within the public right-of-way, a utility easement will be required.
- 15.5.2** The maximum number of conduits within a streetlight footing shall not exceed four. Included in the total number of conduits will be one spare conduit that will generally be installed facing away from the curb for future lighting needs.
- 15.5.3** Types of footings will be based on the desired location and the physical constraints which are encountered during design of the footing. Typically, the standard street light footing will be sufficient; however, specialty footings shall be used when necessary. Specialty footings consist of spread footings, historical footings, special footings for 25-foot brown fiberglass poles, and post top footings. The specialty footings are detailed in the City of Huron Standard Detail Plates.
- 15.5.4** When street lighting is installed near a location of pedestrian traffic, ADA clearance requirements will need to be met.

15.6 Direct Bury Street Lights

- 15.6.1** Generally, direct bury street lighting may be used for lighting at the beginning and end of construction projects through the transition zones. Locations are dependent on each specific project; however, standard locations shall be utilized whenever possible. Typical wire depth for direct bury lighting systems shall be a minimum of 24 inches from finished grade.
- 15.6.2** Direct bury streetlights are used for all new residential areas and are designed in partnership with other electrical utilities.

15.7 Meters and Meter Pedestals

- 15.7.1** Electrical meters will be furnished and installed by City of Huron Traffic Department when they provide the power supply. Meters will be installed on an approved pedestal.
- 15.7.2** When necessary, pedestals shall be installed at a location as determined by the City of Huron Traffic Department. The contractor will be required to furnish and install an engineer-approved pedestal. In addition to the pedestal, the contractor will be required to install an approved meter socket (see Standard Detail Plate).

15.8 Power Supply

- 15.8.1** All street lighting plans shall indicate a designated power supply feed point. The power supply shall be installed from the designated supply point to a meter pedestal, if required.
- 15.8.2** The design engineer will be required to determine which power company will be utilized to supply power for street lighting. If necessary, power supply location assistance will be given by City of Huron Traffic Department.
- 15.8.3** Power supply lines will need to be installed in 2-inch schedule 80 PVC conduit up power pole within 2 feet of secondary wire. Additionally, the power supply lines will need to be installed in 2-inch conduit from the power supply source to the meter pedestal.
- 15.8.4** Power supplies shall be centrally located within project boundaries for street lighting layouts whenever possible.

15.9 Material Specifications

15.9.1 Material specifications are included in the Supplemental Standard Specifications for Public Works Improvement Projects.

15.9.2 Materials supplied by City of Huron Traffic Department and paid for by a Developer or City Capital Improvements Project include:

Poles

T-Base

Complete Light Shaft

Luminaire

Photo eye and Bulb

Wire

Anchor bolts and Templates

15.10 Manufactured Home Parks and Private Streets

15.10.1 Manufactured home parks generally require private street lighting that will not be operated, maintained, or administered by City of Huron Traffic Department.

15.10.2 Private streets require private street lighting that will not be operated, maintained, or administered by City of Huron Traffic Department.

15.11 Easements

15.11.1 Lighting and power easements shall be obtained for all lighting and power lines located on private and public property. Lighting and power easements shall have a minimum width of 10 feet. In addition, temporary easements may be required for construction. Lighting and power easements shall be accessible for City maintenance workers to maintain the lighting and power system. The most current version of the lighting and power easement forms shall be used and obtained from the City Engineer's Office.