

## **SECTION 9 STREET LIGHTING**

### **9.1 Street Lighting.**

Decorative street lighting is required on all public and private streets. Any variation from this requirement must have approval of the Public Works Director. Street lights shall be installed concurrently with underground utilities. Street lighting will be decorative in character, unless otherwise approved by the City Council. Decorative lights shall include Hadco model CP2316-14-J poles (green in color), or an approved equal, and Hadco model C2316-50-HPS-J-240V luminaries (with an acrylic globe and full top with house side reflector), or an approved equal, with other features such as photo control, wattage, lighting layout and electrical design to be approved by the Public Works Director. All decorative street lights must be compliant with the City's outdoor lighting standards (section 11-3-25 of the Whitefish City Code). Lighting Standard Details 47a thru 47h must be included for lighting plans to be in compliance with the Whitefish Engineering Standards.

The following specifications are to be used when installing street lighting systems:

### **9.2 Conduits and Ground Boxes.**

- 1) All conduit work completed by General Contractors is to be inspected by the licensed electrical contractor prior to burial.
- 2) Minimum size conduit to be used is 1 ¼" Schedule 40 PVC buried at a depth of not less than 18". Conduit runs from power source to service assembly shall be 3-inch schedule 40 PVC conduit.
- 3) Conduit shall follow behind curb on boulevard side where practical. Conduit shall be placed no more than 6" from curb.
- 4) Conduit where entering and exiting light bases and ground boxes shall be sealed from dirt, debris and rodents (dux seal, perma seal, etc.).
- 5) Ground boxes shall be of concrete material, Type I or II, and installed flush with finished grade, or no more than 1" below finished grade. Ground boxes shall not be installed higher than finished grade. Ground boxes shall be arranged to drain (gravel bottom etc.).

### **9.3 Wiring Methods.**

- 1) Wire installed in conduit runs shall not be smaller than #8 THHN copper stranded conductor.

- 2) Wire installed in poles from base to luminaire shall be #10 THHN copper stranded conductor.
- 3) Color code for wiring shall be consistent throughout installation.
- 4) Ground box splices shall be made water tight.

#### **9.4 Pole Installation and Wiring.**

- 1) Poles shall be installed plumb and level.
- 2) Anchoring bolts and nuts shall be corrosion resistant and installed with an anti sieze compound on threads.
- 3) After installation, pole bases shall be grouted solid to concrete standard.
- 4) Poles shall be left clean and touchup paint should be applied as needed. Paint numbers are as follows:
  - a. Western Building, BEHR #8830, hunter green
  - b. Hadco 9589458
  - c. Sherwin Williams 5160-9589458
- 5) Each luminaire shall have 2 water tight break away fuse holders with dual element 3 Amp midget fuses. Homac fuse holder #SLK-MD, or equal with Bussman fuse #FNM-3 or equal.
- 6) Fuse holder shall be installed at base of pole with a minimum of 12" free conductor (for future maintenance and in case of pole damage).
- 7) Lamp shall be G.E. #LU50/D/MED (or equal).

#### **9.5 Spacing of Lights on Residential Streets.**

Decorative lights shall be spaced every 150 to 180 feet along residential streets. If necessary the spacing may extend in some areas to 200 feet. The light location should alternate from side to side of the street. Lights shall be placed a minimum of 3 feet from the back of curb. Lights shall be placed a minimum of 5 feet from driveways or water and sewer services. The lighting plan sheet must be done to scale and show the location of the lights in relation to water and sewer services.