

## **ORDINANCE NO. 1104**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF GIG HARBOR, WASHINGTON, RELATING TO PUBLIC WORKS STANDARDS FOR NEW DEVELOPMENT IN THE CITY, AMENDING THE STANDARDS FOR DECORATIVE SIGNAL POLES AND STREETLIGHTS TO LIMIT THE SITUATIONS IN WHICH DECORATIVE SIGNAL POLES AND STREETLIGHTS MAY BE CONSTRUCTED, ESTABLISH THE DIMENSIONAL STANDARDS OF DECORATIVE SIGNAL POLES AND STREETLIGHTS, DESCRIBE THE REQUIREMENTS FOR MAINTENANCE; REPEALING SECTIONS 2E.020 AND 2F.020 OF THE CITY'S PUBLIC WORKS STANDARDS, AS ADOPTED BY ORDINANCE NO. 712; AND ADOPTING NEW SECTIONS 2E.020 AND 2F.020 TO THE CITY'S PUBLIC WORKS STANDARDS.**

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WHEREAS, the City adopted the Public Works Standards in Ordinance No.712 ;  
and

WHEREAS, the Public Works Standards currently include standards allowing for  
the installation of traffic signal poles; and

WHEREAS, the City installs new street lights with a decorative style, which is  
similar to the original street lights from the 1940 Narrows Bridge; and

WHEREAS, decorative traffic signal poles, including decorative bases, and  
decorative street lights, help in further defining the character and limits of the City; and

WHEREAS, the Public Works Standards require Developers to install streetlights  
when a development is required to provide illumination in the City's right of way ; and

WHEREAS, this ordinance is categorically exempt from SEPA under WAC  
197.11.800(20); and

WHEREAS, the City Council held a public hearing and considered this Ordinance  
during its regular City Council meeting of September 24, 2007 ; Now, Therefore,

THE CITY COUNCIL OF THE CITY OF GIG HARBOR, WASHINGTON,  
ORDAINS AS FOLLOWS:

Section 1. Sections 2E.010 and 2E.020 of the City's Public Works Standards as adopted by Ordinance No. 712, and amended by Ordinances 782, 832, and 858, are hereby repealed.

Section 2. Two new Sections 2E.010 and 2E.020 are hereby added to the City of Gig Harbor Public Works Standards as adopted by Ordinance No. 712, and amended by Ordinances 858, 832, and 782.

#### 2E.010 General

Street lights will be required on all public streets or as determined by the City Engineer.

#### 2E.020 Design Standards

A street lighting plan submitted by the applicant and approved by the Public Works Director shall be required for all street light installations. Type of installation shall be as set forth in WSDOT Standard Specifications and as directed by the City except where noted herein. Street lights shall be decorative in nature, meeting the requirements of these Standards.

All public street light designs shall be prepared by an engineering firm capable of performing such work. The engineer shall be licensed by the State of Washington. All developments shall submit the lighting plan on a separate sheet. After system design is completed and approved, a set of "record" mylars shall be submitted to the City as a permanent record.

Lights and associated foundations shall be designed in accordance with the Average Maintained Horizontal Illumination Table and related Public Works Standard Figures.

For the purposes of this section, area classes are determined by zoning as follows:

#### Commercial

C1      Commercial/Light Industrial

- B1 Retail, Limited
- B2 Retail, General

#### Intermediate

- RB1 Residential Business
- RB2 Residential/Business
- DB Downtown Business
- WC Waterfront Commercial
- WM Waterfront Millville

#### Residential

- R1 Single Family
- R2 Single Family/Duplex
- R3 Multifamily

As new zones are created, they will be classified for the design of illumination by the City Engineer. If road widths differ from those in the Illuminations Standards table, other illumination spacing will be determined by the City Engineer using the following criteria:

Average Maintained Horizontal Illumination (Foot Candles, fc)				
Road Class	Area Class			
	Residential	Intermediate	Industrial	Commercial
Local	0.4	0.6	N/A	0.89
Collector	0.6	0.8	1.0	1.2
Arterial	0.8	1.2	1.4	1.6
Boulevard	N/A	1.2	1.4	1.6

Uniformity ratio: 6.1 average – minimum for 0.6 fc and less  
4.1 average – minimum for 0.8 fc and greater

Dirt Factor = 0.85

Lamp lumen depreciation factor = 0.73

Weak Point Light = 0.2 fc except residential local road

Average illumination at intersections: 1.5 times the illumination required on the more highly illuminated street. Exception: In residential areas, local and collector streets intersecting other local and collector streets do not need 1.5 times the illumination provided a luminaire is placed at the intersection. These intersections shall meet the average maintained horizontal illumination for the highest road class at the intersection.

Line loss calculations shall show that no more than five percent voltage drop occurs in any circuit. Branch circuits shall serve a minimum of four luminaires.

## **GENERAL NOTES (Street Light Construction)**

1. All workmanship, materials and testing shall be in accordance with the most current edition of the WSDOT Standard Specifications, WSDOT Standard Plans, Manual on Uniform Traffic Control Devices (MUTCD), National Electrical Code (NEC), or City of Gig Harbor Public Works Standards unless otherwise specified below. In cases of conflict, the most stringent guideline shall apply.
2. Electrical permits and inspections are required for all street lighting installations within the City of Gig Harbor. The Contractor is responsible for obtaining said permits prior to any type of actual construction. These permits are available from the Washington State Department of Labor & Industries.
3. A clearly marked service disconnect shall be provided for every lighting circuit. The location and installation of the disconnect shall conform to NEC and City of Gig Harbor standards. The photo cell window shall face north unless otherwise directed by the City. The service disconnect shall not be mounted on the luminaire pole. The service disconnect shall be of a type equal to a Meyers MEUGL-M10OC-UM or Unicorn CP111B-01113A service, 120/240 VAC, 103W, Caltrans Type 3B with contactors, photo electric cell and test switch. All service disconnects shall be used to their fullest capacities, i.e., maximum number of luminaires per circuit.
4. All lighting wire shall be copper with a minimum size of #8. All wire shall be suitable for wet locations. All wire shall be installed in schedule 40 PVC conduit with a minimum diameter of 1-1/4 inches. A bushing or bell-end shall be used at the end of a conduit that terminates at a junction box or luminaire pole. Conductor identification shall be an integral part of the insulation of the conductors throughout the system i.e., color coded wire. Equipment grounding conductor shall be #8 copper. All splices or taps shall be made by approved methods utilizing epoxy kits rated at 600 volts (i.e., 3-M 82-A2). All splices shall be made with pressure type connectors (wire nuts will not be allowed). Direct burial wire will not be allowed. All other installations shall conform to NEC, WSDOT Standard Specifications and MUTCD standards.
5. Each luminaire pole shall have an in-line, fused, water-tight electrical disconnect located at the base of the pole. Access to these fused disconnects shall be through the hand-hole on the pole. The hand-hole shall be facing away from on-coming traffic. Additional conductor length shall be left inside the pole and pull or junction box equal to a loop having a diameter of one foot. Load side of in-line fuse to luminaire head shall be cable and pole bracket wire, 2 conductor, 19 strand copper #10 and shall be supported at the end of the luminaire arm by an approved means. Fuse size, disconnect installation and grounding in pole shall conform to NEC standards.

6. Approved pull boxes or junction boxes shall be installed when conduit runs are more than 200 feet. In addition, a pull box or junction box shall be located within 10 feet of each luminaire pole and at every road crossing. Boxes shall be clearly and indelibly marked as lighting boxes by the legend, "L.T." or "LIGHTING". See WSDOT Standard Plans for Road, Bridge, and Municipal Construction standard plan J-11a.
7. Mounting heights, arm length, power source, luminaire, and bolt patterns shall be as follows:
 

Mounting Height:	varies
Arm Length:	varies
Power Source:	240 VAC, Single Phase, 3 Wire
Luminaire Type:	250 Watt, Metal Halide (not included), ED 28 bulb, Mogul base. E.S. Type III Cut-off (asymmetrical). Sealsafe system, composed of brightened anodized aluminum hydroformed reflector, permanently assembled on a sag lens. Watertightness Ip66 rating.
Bolt Pattern:	4 Bolt, Diameter Bolt C.
8. Any modification to approved lighting plans shall be reviewed and approved by the City prior to installation.

Section 3. Section 2F.020 of the City's Public Works Standards as adopted by Ordinance No. 712, and amended by Ordinances 782, 832, and 858, is hereby repealed.

Section 4. A new Section 2F.020 is hereby added to the City of Gig Harbor Public Works Standards as adopted by Ordinance No. 712, and amended by Ordinances 858, 832, and 782.

#### 2F.020 Design Standards

Signal systems shall be designed in accordance with the most current edition of the WSDOT Standard Specifications, WSDOT Standard Plans, Manual on Uniform Traffic Control Devices (MUTCD), National Electrical Code (NEC), or City of Gig Harbor Public Works Standards unless otherwise specified, unless otherwise authorized by the City Engineer. Decorative signal poles shall also meet the requirements of these Standards.

All signal designs shall be prepared by an engineering firm capable of performing such work. The engineer shall be licensed by the State of Washington. All applicable requirements set forth in Section 2F.010 shall be included. "Figure 2-34" is hereby incorporated by this reference.

Decorative signal pole bases shall be in accordance with Figure 2-35 of these Standards. "Figure 2-35" is hereby incorporated by this reference.

All signal poles and bases located within the City's right-of-way shall be owned and maintained by the City.

Construction of decorative traffic signal poles, light poles, luminaires, and bases are the responsibility of the City for Capital Improvement Projects, and the private developer for private projects. Upon completion of the required improvements, the developer will be required to submit a statement to the City warranting that the improvements have been completed in accordance with the adopted standards and shall include a Maintenance Bond for a period of two years from the date of final acceptance.

Section 5. Severability. If any section, sentence, clause or phrase of this Ordinance is held to be invalid or unconstitutional by a court of competent jurisdiction, such invalidity or unconstitutionality shall not affect the validity or constitutionality of any other section, clause or phrase of this Ordinance.

Section 6. Effective Date. This ordinance shall take effect and be in full force five (5) days after passage and publication of an approved summary consisting of the title.

PASSED by the Council and approved by the Mayor of the City of Gig Harbor this 8th day of October, 2007.

CITY OF GIG HARBOR

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CHARLES L. HUNTER, MAYOR

ATTEST/AUTHENTICATED:

By: \_\_\_\_\_  
MOLLY TOWSLEE, CITY CLERK

APPROVED AS TO FORM:  
OFFICE OF THE CITY ATTORNEY:

By: \_\_\_\_\_  
CAROL A. MORRIS

FILED WITH THE CITY CLERK: 09/19/07  
PASSED BY THE CITY COUNCIL: 10/08/07  
PUBLISHED: 10/17/07  
EFFECTIVE DATE: 10/22/07  
ORDINANCE NO. 1104