



EXTERIOR SITE LIGHTING

DIVISION 16 – ELECTRICAL

This *Standard Notice* addresses the Procedure and Criteria to be considered during the design of site lighting upgrade contract.

INTRODUCTION

A lighting upgrade projects are focused on significantly improving the security of NYCHA Residents through the replacement of exterior lighting. The current NYCHA standards facilitate the exterior lighting upgrades direction and provide integration between the various components, which are outlined below:

- *Pedestrian Post Light* on 12 foot high pole/foundation, used in seating and play areas and adjacent to walkways.
- *Cobra Head* fixture on 18 foot high pole/foundation with 4 to 6 foot extension arm, usually used in parking and vehicular circulation/maintenance areas and sports courts.
- *Flood Light* on 20 foot high pole/foundation with either 4 to 6 foot extension arm or quadruple/double/single fixture mounted on top of pole, used in maintenance and high security areas and possible use in sports courts and parking areas.
- *Entrance Light* fixture mounted on the façade adjacent to the means of egress/entrance to the buildings, used to illuminate and designate the building entrance.
- *Wall Pack* fixture mounted to the façade of the buildings with exposed conduit used to illuminate areas adjacent to the buildings including maintenance entrances, planted areas and walkways.
- All wall pack conduits shall be routed to avoid wrapping the buildings with conduit. Conduit shall be vertical to the basement and run within any basement area if possible.

The following Code references apply:

- 2011 NYC Electrical Code
- 2014 NYC Energy Conservation Code
- 2014 NYC Building Code

DESIGN APPROACH

NYCHA is requesting the following recommended Light Levels of:

- Walkways, Seating Areas, Play/Sport Areas – minimum 1 fc
- Parking Lots, Vehicular Circulation and Exterior Compactor/Maintenance Areas - minimum 2 fc.
- All Means of Egress/Entrances – minimum 4 fc, extending 10 feet out from the entrance door.
- Sports Courts – minimum 10 fc from dusk to 10:00 p.m. then dimming to minimum 1 fc.
- Light Levels shall be the maximum without violating the Energy Code and Dark-Sky compliant.

LED Lights shall CONFORM TO THE FOLLOWING CRITERIA:

- Easily installed and maintained, be readily replaced (available and affordable), be certified to LM-79 or other solid state Lighting certification and be vandal resistant with a life-time repair or replacement of any fixture damaged due to vandalism.
- Lighting Facts Label
- A minimum 7 year warranty on the driver and LED engine
- A uniformity ratio of 4:1
- A CRI of more than 75
- BUG rating must be submitted for comparison, Zero up light
- Color Rendering of 4,000 to 5,000 Kelvin
- Be fully shielded or have Full Cut Off and be Dark-Sky compliant
- Meet the most current NYC Energy Code

All exterior site lighting shall utilize shut off controls consisting of a photocell mounted on the northern-most façade of the building in addition to photocells mounted on each post-type fixture (pedestrian, cobraheads and floodlights) as well as a timer adjacent to the source electrical panel in the building.

Lighting at Sports Courts (mainly Basketball Courts) should be on a separate timer/controller and circuit from the remainder of the Development so that usage of the facility is limited.

Note that the use of wall pack fixtures shall be minimized and that Pedestrian Post Lights shall be utilized to achieve the foot candle minimums adjacent to the Development buildings. Light trespass into the residential buildings and to adjacent properties is of paramount concern.

- The consultant needs to coordinate the design with existing conditions, including underground utilities, to minimize unforeseen condition problems during the construction phase.
- Grounds must be restored to original conditions as found prior to the Work, including pavement and landscaping. The Final Design documents must describe the required landscaping portion of the work.
- The Consultant shall be responsible for providing professional quality (2,400 pixels wide by 3,000 pixels high, with a resolution of 300 pixels per inch) before-and-after photos, both during the day and night and in various areas of each development to best illustrate the changes and improvements to the site lighting resulting from this project. The digital files of the photos shall be conveyed by DVD/CD, three copies to the Office of Design.

The following are photos of lighting indicating general look of suggested lights.



Cobra head



Floodlight



Pedestrian Post Light



Wall pack



Entrance Light
(Horizontal mounted under canopy)



Entrance light
(Wall mounted)

*****End of Standard Notice #2016008*****