

# 10

## LIGHTING

Retail-oriented corridors such as Manchester Road require effective lighting in order to enhance safety for pedestrians, bicyclists, and motorists. Communities around the country have also used lighting design and placement in order to help to create a specific image or look for particular corridors. The existing lighting infrastructure along Manchester Road does not serve these goals and has resulted from uncoordinated planning for lighting over many years. The following highlights some of the key lighting issues along Manchester Road.

## **Visibility:**

- Motorists and pedestrians along Manchester Road experience excessive glare because most of the luminaries that light individual parcels along the street do not include shields.
- The use of lower color temperate lights (yellow lights) derived from high pressure sodium sources decreases visibility for drivers.

## **Aesthetics:**

- In general, the communities along the corridor and MoDOT have applied inconsistent design practices over the years, creating confusion and decreasing aesthetic quality along Manchester Road.
- The presence of overhead utility power lines, and associated requirements for utility clearances, limits the ability of the cities to place street lights using ideal spacings for a corridor of this type. Therefore, street light placement along Manchester Road is currently irregular and contributes to a lower quality aesthetic appearance.

## **Impacts to Adjacent Properties:**

- A few luminaries for pedestrians are in place along select sections of Manchester Road, but these facilities have not provided sufficient lighting for pedestrians and shoppers along the corridor.
- The existing overhead lighting at most car dealerships along Manchester Road uses too much light. In addition, many of the lights from car dealerships are directed toward motorists along the street, thus creating potential safety hazards for motorists.

## **Design:**

- In general, lighting design along Manchester Road does not meet best practices used around the country.
- Many sections of Manchester Road are only lit from one side, and many areas along the road do not have any lights. In general, the corridor features many areas that are either lit too brightly (from car dealerships) or are too dark (and do not feature any lights).

The following goals guided the formation of lighting recommendations for the Manchester Road corridor:

- Create a sense of timelessness using appropriate lighting equipment and layout
- Use good quality, current and future technologies when selecting lighting equipment
- Provide a safe, secure nighttime environment and establish visual identity
- Minimize glare and light pollution
- Aid vehicular and pedestrian circulation with a quality lighted environment
- Complement the character of particular segments along the corridor
- Avoid visual clutter
- Provide a comfortable, well defined environment by night and day

- Provide only the minimum amount of street light in less intensely developed areas
- Provide continuous lighting in town center areas
- Provide pedestrian lighting along pedestrian corridors

## Key Recommendations for Lighting

- Successful lighting design will employ layers of light. Lighting should provide uniform lighting on the street for vehicular traffic and strong vertical light at crosswalks and intersections for pedestrian detection. Additional pedestrian lighting assemblies, combined with signage, monuments, and markers, should help to provide sufficient lighting for pedestrians and bicyclists.
- MoDOT does not typically provide continuous lighting along state routes such as Manchester Road, and instead normally leaves this responsibility to local communities. The Manchester Road Great Streets Master Plan recommends that the five communities work together with MoDOT to coordinate lighting strategies and to reach agreements across jurisdictions and organizations concerning design standards for lighting.
- Lighting systems along Manchester Road should minimize impacts on adjacent or nearby properties, wildlife, and the night sky and therefore minimize light pollution.
- Luminaire aesthetics should complement the character of particular districts along the corridor. Luminaires within each town, for example, can reflect the style of the particular town. The Appendix contains technical specifications for recommended luminaire types for the Manchester Road corridor.
- The placement of equipment along any street in the corridor area should provide the lighting necessary for safe vehicular navigation and pedestrian circulation. The lighting equipment must also provide information and visual cues as to the nature of the road and upcoming hazards. The lighting system can provide for effective layout and placement in the following ways:
  - Emphasize the intersection by increasing the quantity of luminaires and/or different pole placement. For example, the cities may use median-mounted poles along the road between intersections and use corner-mounted poles at the intersections.
  - Utilize medians for equipment placement, thus providing uncluttered views to businesses and storefronts.
  - Provide a visually organized, hierarchical and easily understandable lighting system.
  - Integrate the lighting equipment with the surrounding landscape.
  - Reduce clutter by combining functions, such as lighting poles used for signage and banners
  - Transition from one district or transect along the corridor to another by reducing lighting layers in the transition zones.
- The communities should use lighting controls to reduce energy use during peak demand periods and to adapt the lighting system to environmental conditions such as snow. The Appendix contains detailed technical specifications for lighting systems along the Manchester Road corridor.

