

simplify the development of the lighting design, the architectural lighting photometry should be ignored until the entire roadway lighting plan is developed. This step requires the roadway lighting plan to provide the required illumination at intersections without including the supplemental illumination provided by the architectural lights.

- Lighting designers that intend architectural lighting to enhance pedestrian movement at intersections should carefully choose the location of the poles. Poles should be placed such that they do not block the driver's view of the crosswalk.
- Creating an environment of contrast between the pedestrian and the roadway will enhance visibility near the crosswalk. Examples of creating positive contrast at crosswalks are presented in the RP-8 section, Design Guides and Examples.
- The lighting plan should consider providing sufficient levels of vertical illumination along sidewalks and multi-purpose trails. The primary concern in vertical illumination is providing facial recognition. Unlike roadway lighting criteria, vertical illumination is concerned with providing sufficient light striking the subject 5-feet above ground level, or at chest level. In Streetscape #1 shown above, there is insufficient light to recognize the man's face. Streetscape #2 allows the observer full recognition of the individuals. This subject is covered in detail in the RP-8 section, Pedestrian and Bikeway Design Criteria.

### 3.11.2 Architectural Roadway Lighting

A lighting plan that utilizes only architectural lighting to illuminate the roadway should carefully consider the issue of glare. Architectural lighting is notorious for creating unacceptable levels of veiling luminance.

- The typical lamp wattage is 150-watt or 250-watt, but can be as low as 70-watt along a residential street or 2-lane roadway through a small town. The 400-watt lamp at the low mounting height will blind the driver.
- Increasing the luminaire mounting height greatly enhances the veiling luminance ratio and results in a more comfortable driving experience.
- Many times, however, the municipality is very limited in their choice of poles. In this case, the pole spacing must be decreased to improve the level of glare. Of course, decreased pole spacing will incur higher installation costs and more obstacles for drivers.
- Reducing the lamp wattage will reduce the level of glare, but will require shorter pole spacing, and increased installation costs.
- The designer must recognize the operational cost of the system. This issue is best addressed by considering the factor of "watts-per-mile". Reducing the luminaire