

Turnpike Lighting & Electrical Design Guidance

Light Poles and Luminaires

Light Poles:

- Conventional roadway lighting luminaires should be pole-top style for Turnpike facilities.
 - Mainline - conventional lighting should be mounted within the right of way beyond the outside shoulders.
 - Ramps and auxiliary lanes - outside shoulder mounting is preferred.
- Where roadside lighting exists or is proposed near tolling facilities, it must be reviewed for compliance with current lighting criteria and the *General Tolling Requirements (GTR)*.
- Locate light poles (and surrounding infrastructure) to provide a minimum of 1 foot between the light poles and the design high water elevations of the locations.

Luminaires:

- Evaluate the use of luminaire shielding for all areas of the roadway adjacent to residential, highly urbanized, or environmentally sensitive locations where potential light pollution may be perceived.
- Include photometric analysis using luminaires with the manufacturer's shield option in the *Lighting Design Analysis Report (LDAR)*. Coordinate with other applicable Turnpike technical disciplines for the review of areas of concern.

Underdeck Lighting:

- Provide underdeck light fixture mounting details in the plans.
 - Do not show lighting equipment/associated conduit attached to mechanically stabilized earth (MSE) wall panels.
 - Attachment of lighting equipment/associated conduit to MSE copings is acceptable.
 - Attachment of lighting equipment/associated conduit to other bridge elements must conform to the ***FDOT Structures Design Guidelines*** - Appendix 1A.

Daytime Supplemental Underdeck Lighting:

- Design dedicated circuits for daytime supplemental underdeck lighting.
- Design daytime dedicated circuits in separate conduits from roadway lighting circuits.
- Where conduits with dedicated circuits are designed to be run in the same trench with roadway lighting conduits, show separation of these conduits in the pull boxes. In the pull boxes:
 - Provide instructions to the Contractor to wrap dedicated daytime lighting circuit conduits with electrical hazard tape.
 - Provide instructions to the Contractor to identify dedicated daytime lighting circuit conductors with an additional tag that states that daytime conductors may be energized during the day.

Temporary Lighting:

- Temporary lighting must meet the criteria shown in ***FDM Table 231.2.1***.
- Temporary lighting design may require Department review and must be coordinated through the Turnpike Project Manager to open a project-specific pay item.
- Photometrics, details, quantities, and layout of temporary lighting should be included in the Temporary Traffic Control Plan (TTCP) for specific construction phases.
- See ***FDOT Basis of Estimates*** for additional information regarding temporary lighting requirements.