

- Luminaires mounted on the inside of a short radius curve require closer spacing in order to produce adequate pavement brightness on the curved section, but are a preferred placement over the outside of a short curve.
- Poles should be placed behind guardrail at a distance that will allow ample clearance for guardrail deflection upon impact. Refer to [TEDM Section V – Roadway Lighting, Chapter 3, 3.5](#) for a more detailed discussion of this subject.
- Pole offset and luminaire placement should be uniform. Inconsistencies in the luminaire positioning over the roadway, and the distance from the shoulder to the base of the pole, can be a source of distraction to the driver.
- Areas requiring higher light levels are discussed in RP-8 under the heading, [Situations Requiring Special Consideration](#). These locations include areas that are complicated by pedestrians or decision points such as a gore area. Typically, reducing the pole spacing without changing the lamp wattage, luminaire mounting height or optical distribution can increase the light level.
- When streetlights are installed in conjunction with traffic signals, the lights should be installed on the same poles as the traffic signals (i.e., VDOT Standard Combination Signal Pole, MP-1 as shown in the [VDOT Road and Bridge Standards, Section 1300](#)). In some cases, these luminaires are powered by the same electrical service providing power for the signal. However, it is not unusual for these luminaires to be powered from a separate source. In this case, the lighting designer should coordinate with the Signal Designer for the location of junction boxes and signal conduits, and the position of the luminaires and bracket arms.
- Light pole placement should consider maintenance issues. Bucket trucks must be nearly level to operate and are limited in the height and distance from the roadway that the bucket can reach. Different types of trucks may have different working ranges. The lighting designer should verify with the VDOT District Maintenance section as to the availability and attributes of their bucket trucks.

### 3.5 CLEAR ZONE AND THE BREAKAWAY BASE

Clear zone requirements can be found in the [VDOT Road Design Manual, Section A-2 – Clear Zone Guidelines](#). Poles should always be placed outside the clear zone. Poles placed within the clear zone should be fitted with a breakaway base.

Where poles are placed behind guardrail, they must be located outside the deflection zone of the guardrail and should **not** be fitted with a breakaway base. The guardrail deflection zone can be found in the [VDOT Road & Bridge Standards, Section 500](#) under the GuardRail Installation Criteria.