

**DATE:** August 26, 2022

**SUBJECT:** LED Border Lit Signs

**TO:** District Executives

**FROM:** Michael C. Keiser, P.E. *Michael C. Keiser, P.E.*  
Acting Deputy Secretary for Highway Administration

This Strike-off Letter (SOL) is time and resource increasing and establishes policy for LED Border Lit Signs in Pennsylvania. This policy will be incorporated into Publication 149, *Traffic Signal Design Handbook*, as part of a future change to the publication.

LED Border Lit Signs are considered a type of Flashing Warning Device, and Flashing Warning Devices are a type of traffic signal. Therefore, approval authority, installation, maintenance, and operation are subject to the requirements for traffic signals in Title 67 Pa. Code Chapter 212. Applications for LED Border Lit Signs shall be submitted using Form TE-160, and permits shall be issued using Form TE-670.

Prior to installing a permanent LED Border Lit Sign, the following countermeasures should be considered, as applicable:

- Clearing vegetation
- Double placement of signs
- Conspicuity plaques (W16-102P) placed on signs
- Transverse rumble strips (should not be permitted in areas with residences and nearby businesses)
- Increasing sign size
- Placing and installing a retroreflective material to the sign support in compliance with the provisions of Section 2A.21 of the Manual on Uniform Traffic Control Devices (MUTCD)

Installation of a LED Border Sign shall only occur when warranted by a study which uses sound engineering judgment and data to substantiate the need for the LED Border Lit Sign. The following guidelines should be considered as part of an engineering and traffic study:

- Documented safety concerns – a minimum of one year of crash data, near-miss data, volume data, or other traffic data for a traffic safety evaluation
- Demonstrated and documented crash problem
  - For STOP and STOP AHEAD signs, consider installing a LED Border Lit Sign only if there were at least two documented crashes from failure to stop (running the stop sign) during a 12 month period
- Visibility Restrictions
- Unusual Geometrics
- Poor conspicuity (i.e., sign blending in with the environment)
- Engineering judgment

Although no quantitative warrants are established for use of LED Border Lit Signs, their use should be considered as an alternative to a flashing wig-wag supplementing the sign, and the use of the LED Border Lit Signs should be limited to locations where a flashing wig-wag would also be appropriate.

All LED Border Lit Signs shall comply with the specifications in Publication 408 and use a product listed on Bulletin 15. The specifications for LED Border Lit Signs are in Section 1103.03(k) of Publication 408, and are incorporated into sign specifications in Sections 935 and 936. Approved products are listed in Section 1103.03(g) to (n)-Electrically Power Traffic Signs in Bulletin 15. All LED Border Lit Signs shall also comply with all standards in the MUTCD. The sign size and layout shall be consistent with requirements in [Publication 236: Handbook of Approved Signs](#).

Should you have any questions, please contact Stephen Gault, P.E., PTOE, Chief, TSMO Arterials and Planning Section at (717) 787-6988 or [sgault@pa.gov](mailto:sgault@pa.gov).

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JRF Read File  
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