



Kansas LTAP Fact Sheet

A Service of The University of Kansas Transportation Center for Road & Bridge Agencies

Traffic Signal Technicians and Where to Find Them

By Lisa Harris

Traffic signal technicians are important contributors to transportation safety in a community. This article will outline the types of positions responsible for maintaining traffic signals, qualifications needed, where to obtain training in our area, and tips on where to find qualified signal technicians.

Positions and qualifications

According to John Hightower, traffic signal specialist for Overland Park, about 80 percent of the signal technicians in Kansas are certified by the International Municipal Signal Association, or IMSA. The Federal Highway Administration has guidelines for signal maintenance qualifications, and IMSA is specifically referenced in those. FHWA's guidelines include general tasks for different positions, plus recommended education, experience and physical requirements (see sidebar at right). More detailed job descriptions for Levels I and II can be found at this FHWA link: http://tmcops.gtri.gatech.edu/backgrounddocs/tmcpd/tmcpd_02.php.

Different levels of IMSA certification

IMSA offers three basic levels of signal maintenance certification (I, II and III), plus few specialty certifications, including signal inspection. Level II has four sub-specialties.

- Level I Signal Technician
- Level II — Bench
- Level II — Construction
- Level II — Design
- Level II — Field

Recommended Qualifications for Signal Maintenance Personnel

Requirement	Technician 1	Technician 2	Maintenance Supervisor
General Tasks	Replacement and repair of controllers, signals, wiring and other field equipment. Works under direction.	Skills include programming of traffic controllers, troubleshooting controllers and ancillary equipment. Requires minimal direction. Provides direction and training to Technician 1 level.	Full supervisory responsibility. Supervises Technician 1 and Technician 2 levels. Greater technical knowledge than Technician 2 is required. Administrative duties include ordering spares and supplies, contract administration, budgets, provision for training.
Education and Experience	<ul style="list-style-type: none"> • High school (minimum). • Knowledge of electrical standards, codes, practices and repair techniques. • Certification to IMSA Traffic Signal Level I within one year of employment. 	Minimum of 2 years as Technician 1 plus: <ul style="list-style-type: none"> • Certification to IMSA Traffic Signal Level II. • Minimum of two years experience as Technician 1. 	<ul style="list-style-type: none"> • Combination of training, education and experience for a total minimum of five years. • Certification to IMSA Traffic Signal Level II. • Additional training beyond IMSA Traffic Signal Level II.
Physical Requirements	<ul style="list-style-type: none"> • Must be able to work for long periods in inclement weather. • May be required to lift heavy objects, work from bucket trucks 	Same as Technician I.	

Source: Traffic Signal Operations and Maintenance Staffing Guidelines. FHWA. 2009.

- Level III
- Traffic signal inspection
- Electronics in traffic control signals
- Microprocessors in traffic signals

The IMSA website has detailed descriptions for tasks for these certifications. Go to <http://imsasafety.org>.

Certification training offered in KS

Hightower is the trainer for IMSA's Central Section that includes Kansas. Signal maintenance training is typically held once a year, in March, at the annual conference of the Central Section. However, if a community can assemble five or more people who wish to be certified, Hightower will travel to their location to provide training.

Hightower's classes typically have a mix of municipal and contractor attendees. Oftentimes the attendees are

experienced technicians who are not yet certified. Class size varies for the annual training; this year there were 10 registrants for Signals Level I and four registrants for Signals Level II.

Where to find a certified technician

If a community were looking for a certified technician, where would they look? Hightower suggests advertising for the position at the website for IMSA International. He said the City of Olathe has hired some people through that service. Currently about 20 positions are advertised on the site, a few of which are traffic signal technicians. Go to <http://www.imsasafety.org/jobs/jobopps.htm>. Two other options are the IMSA newsletter and the Kansas City Star, because there are many signal technicians in the metro area.



Is certification required in Kansas?

Hightower said there is no statewide requirement for certification; different agencies have different policies to address qualifications and liability. KDOT has a requirement for Level II field certification. Some cities require a Level II or III signal technician on the payroll, like Overland Park. Some communities contract-out their signal maintenance and specify certified technicians.

For more information

For more information, contact John Hightower at (913) 327-6670. The next IMSA Central Section annual certification training will be March 2015. Check the Central Section's website later this year for the location—
<http://www.central.imsasafety.org/>. ■

Reprinted from the Winter 2014 issue of the *Kansas LTAP Newsletter*, a publication of the Kansas Local Technical Assistance Program (LTAP) at the Kansas University Transportation Center.



Sources:

- Federal Highway Administration. Traffic Signal Operations and Maintenance Staffing Guidelines. March 2009. <http://ops.fhwa.dot.gov/publications/fhwahop09006/fhwahop09006.pdf>
- IMSA International Web site. <http://www.imsasafety.org/>
- Interview. John Hightower. February 27, 2014.