Section 6 – Roadway Lighting

- Major re-write from 2005 document (significant change)
- Document references the Transportation Association of Canada Guide for the Design of Roadway Lighting and Illuminating Engineering Society of North America Recommended Practice Documents
- For roadways the primary method of design is now luminance (light reflected from pavement to the driver eye). Illuminance is still the method of design for curved roads, intersections, crosswalks, roundabouts, sidewalks and walkways. Industry software allow for calculation of both
- Vertical illuminance is the measure at crosswalks as it have proven safety benefits.

Section 6 – Roadway Lighting

- Document defines criteria for undertaking a design. Levels in most cases selected from tables
- Recommended TAC Guide document be used as it explains methods in detail
- LED's covered however not in much detail
- Document references Canadian Electrical Code
- Also defines drawing requirements
- Document is current with national publications and standards

Section 6 – Traffic Signals

- 2005 document updated - Minor changes
- Accessible pedestrian signal requirements noted – (ref TAC Accessible Pedestrian Signal document)
- Left turn phasing updated
- New Sections – Power Distribution and Supply, Uninterruptable Power Supplies (UPS) and Signs added along with drawing requirements
- Signal checklist deleted

Sustainability Consideration
Lighting and Signals

- General – Focus on improved environment & energy use reduction
- Light Sources – LED focus and how to measure efficiency (Unit Power density – watts/area)
- Adaptive Lighting Controls – Provides guidelines
- Traffic Signal Coordination – Recommends a proven optimization process with delay reduction of 20-40%