Public Report

To:	Community and Operations Services Committee
From:	Kevin Alexander, Commissioner, Community and Operations Services Department
Report Number:	CO-25-18
Date of Report:	May 7, 2025
Date of Meeting:	May 12, 2025
Subject:	Proposed Revisions to Traffic Operations Quality Standards
Ward:	All Wards
File:	03-05

1.0 Purpose

The purpose of this Report is to obtain Council approval of certain Quality Standards for the Traffic Operations Division.

Attachment 1 provides two Quality Standards for the Traffic Operations Division that include proposed revisions.

2.0 Recommendation

That the Community and Operations Services Committee recommend to City Council:

That based on Report CO-25-18 dated May 7, 2025, the Quality Standards for Traffic Operations as set out in Attachment 1 to said Report be approved.

3.0 Input From Other Sources

- Legislative Services
- Legal Services
- Other Municipalities: Town of Whitby, Municipality of Clarington

4.0 Analysis

4.1 Background

The Community and Operations Services Department operates by adhering to City By-laws, Council and corporate policies, and safe work standards for health and safety, as well as applicable provincial and federal legislation.

A quality standard is a set of guidelines, specifications, and criteria that define the expected level of service delivery and performance to ensure consistent, high-quality experiences for customers or stakeholders. These standards establish measurable benchmarks for key aspects of service, including responsiveness, reliability, accuracy, and overall quality. By setting clear expectations and metrics, quality standards provide a framework for organizations to consistently meet or exceed defined service levels, drive continuous improvement, and deliver value to customers.

The City's current Quality Standards describe Council-approved levels of service and are directly linked to Operating Budgets. As such, over the years standards have been presented to Council for approval or amendment as required.

4.2 Review Process

City traffic staff conducted a jurisdictional review of other municipalities in Durham Region during the development of the updated Quality Standards.

Representatives of the above-mentioned municipalities (see Section 3.0) were consulted during the updating process in addition to a review of the current Ontario Minimum Maintenance Standards for Municipal Highways.

4.3 Proposed Quality Standards

Based on the review, it is recommended that the City align its maintenance program for Roadway and Pedestrian Lighting Devices with the specifications outlined in the Minimum Maintenance Standards for Municipal Highways. The City's current practice of installing only light-emitting diode ("L.E.D.") luminaires in place of high-pressure sodium, mercury vapour and incandescent luminaires has resulted in the increased reliability and longer lasting luminaires. This change in practice also allows longer time between outage inspections and checking once per calendar year instead of the old standard of once per calendar year on residential streets and twice a year on arterial, collector and bus route streets.

The Traffic Signal Control Devices also use light-emitting diode ("L.E.D.") bulbs that have a 5 year warranty and it is recommended by the Region of Durham, who provides our traffic signal maintenance, to change the bulbs once every five years. The previous standard for replacement was once every twelve months when incandescent signal lamps were used.

Attachment 1 contains two Quality Standards with staff recommended revisions. A description has been added to each of these standards to provide a high level summary of the proposed change(s). The following Quality Standards are included as Attachment 1:

- Q2-231-003 Traffic Signal Control Devices
- Q2-233-001 Roadway and Pedestrian Lighting Devices

5.0 Financial Implications

There are no financial implications associated with the recommendations of this report.

6.0 Relationship to the Oshawa Strategic Plan

This report responds to the Oshawa Strategic Plan Priority Area “Lead: Governance and Service Excellence” with the goal to embrace innovation and advance continuous improvement initiatives and actions.

Mike Harrington, P.Eng., PMP, Director,
Parks and Road Operations Services - Interim

Kevin Alexander, Commissioner,
Community and Operations Services Department

The Corporation of the City of Oshawa
Community and Operation Services Department

Quality Standards No: Q2-231-003

Department: Community and Operations Services	**Branch:** Parks and Roads Operations	**Division:** Traffic Operations
Program: Traffic Operations		
Activity: Traffic Signal Control Devices		
Approved By Council: May, 1999	**Revised by Council:**	
Description of Revision: Updated to reflect the replacement of incandescent signal lamps with light-emitting diode ("L.E.D.") lights in the traffic signal heads.		

Objective

- To provide special control or warning to traffic.
- To convey warnings at dangerous locations.
- To regulate traffic movements at street intersections or junctions.

Installation

Traffic Signal Control Devices shall be considered when the warrants as prescribed by the Ministry of Transportation are satisfied.

Traffic Signal Control Devices shall be installed in accordance with the specifications contained in the Ontario Traffic Manual – Book 12.

Level of Service

The minimum standard is to inspect, test, and maintain the following traffic control signal sub-systems every six months as per the manufacturer's recommendation.

- The display sub-system, consisting of traffic signal and pedestrian crossing heads, physical support structures, and support cables.
- The traffic control sub-system, including the traffic control signal cabinet and internal devices such as timer, detection devices, conflict monitor and associated hardware.
- The external detection sub-system, consisting of detection sensors for all vehicles, including emergency and railway vehicles and pedestrian pushbuttons.

The L.E.D. lights in the traffic signal heads shall be replaced once every five years.

If a traffic control signal system is defective in any way, as described below, the minimum standard is to deploy resources as soon as practicable after becoming aware of the defect to repair the defect or replace the defective component of the traffic control signal system. The following is a list of defects that this applies to:

- One or more displays show conflicting signal indications.
- The angle of a traffic control signal or pedestrian control indication has been changed in such a way that the traffic or pedestrian facing it does not have clear visibility of the information conveyed or that it conveys confusing information to traffic or pedestrians facing other directions.
- A phase required to allow a pedestrian or vehicle to safely travel through an intersection fails to occur.
- There are phase or cycle-timing errors interfering with the ability of a pedestrian or vehicle to safely travel through an intersection.
- There is a power failure in the traffic control signal system.
- The traffic control signal system cabinet has been displaced from its proper position.
- There is a failure of any of the traffic control signal support structures.
- A signal lamp or pedestrian control indication is not functioning.
- Signals are flashing when flashing mode is not a part of the normal signal operation.

The priority list of emergency calls is as follows:

Priority	**Max. Response Time**	**Type of Call**
High	30 minutes	• Accident • Signals out • Signals stuck • Signals in flash • Signal head hanging • Signal head or pedestrian head twisted • Conflicting indications • Indication out • Vehicle or pedestrian detectors not working • Signal timing faults • Equipment damaged by others • P.X.O. faults
Medium	As soon as practicable	• Minor signal damage • System calls • Opticom calls • Permanent vehicle or pedestrian calls
Low	End of next business day	• Other
Scheduled		• Locates • Relamping • Inspections • MMU/CMU tests

Quality Standards No: Q2-233-001

Department: Community and Operations Services	**Branch:** Parks and Roads Operations	**Division:** Traffic Operations
Program: Street Lighting		
Activity: Roadway and Pedestrian Lighting Devices		
Approved By Council: May, 1999	**Revised by Council:**	
Description of Revision: Updated to reflect the replacement of high pressure sodium, mercury vapour, and incandescent luminaires with more reliable, longer lasting light-emitting diode (“L.E.D.”) luminaires. Due to the increased reliability and longer lasting luminaires, it is recommended that Service Levels be reduced to align with Ontario Regulation 239/02, the Minimum Maintenance Standards (“M.M.S.”) for Municipal Highways.		

Objective

To provide a level of illumination to meet the minimum visibility requirements for safe and effective movement of pedestrian and vehicular traffic.

Installation

Roadway and pedestrian lighting devices shall be installed in accordance with the City’s Design Standards.

Level of Service

Luminaire Repairs

Individual lamp failures including defective or erratic photo controls shall be repaired following notification on a weekly program basis during regular working hours.

A group of 3 or more consecutive luminaires on the same side of the roadway will be treated as an emergency and repaired as per the M.M.S. specifications.

Luminaires reported out in sensitive locations where the public safety may be jeopardized or where the lighting is deemed a security measure shall be treated as an emergency and repaired as per the M.M.S. specifications.

Preventative Maintenance

As per the M.M.S. specifications, the frequency of inspecting all luminaires to check to see that they are functioning is once per calendar year, with each inspection not more than 16 months from the previous inspection. All repairs required shall be undertaken on a program basis during regular working hours or as dictated in emergency cases.

Site Maintenance

The growth of trees and shrubs within the vicinity of a lighting installation shall be controlled by means of a pruning program to avoid conflict with the light distribution.