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Licensing and Standards Committee - FW: \2009\Cluster B\MLS\L&S comittee\May\Sensor Controlles Lighting

From: "Brad Butt" <bradb@gtaaonline.com>
To: <lsc@toronto.ca>
Date: 5/6/2009 4:38 PM
Subject: FW: \2009\Cluster B\MLS\L&S comittee\May\Sensor Controlles Lighting
Attachments: O'Shanter - City of Toronto - 09-05-06 - Review Report 1.d..pdf

I think they wanted this sent to you for inclusion on tomorrow's agenda.

Brad Butt

From: Adam Krehm [mailto:krehma@oshanter.com]
Sent: May 6, 2009 4:32 PM
To: lfc@toronto.ca
Cc: Brad Butt ; jkrehm@look.ca; Jillan
Subject: P:\2009\Cluster B\MLS\L&S comittee\May\Sensor Controlles Lighting

Chairman of Licensing and Standards Committee Councillor Howard Moscoe

Sir

Other commitments keep me from attending tomorrow morning regarding the above referenced matter. The introduction of Sensor controlled lighting in the corridors of Toronto's Apartment buildings is long overdue. I applaud your Committee's intentions relating to this matter. However the bylaw in its present form as applied to existing buildings is impractical and will not result in widespread use in existing apartment buildings. Please defer making a decision on this matter giving the industry the opportunity to submit technical information for your consideration.

Yours truly



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Toronto Municipal Code Chapter 629, Property Standards, 629-36 REVIEW

May 4, 2009

Prepared for: Adam Krehm, O'Shanter Development Company Ltd.

FCS¹ has reviewed the Toronto Staff **Report**, April 20th, 2009, Motion Controlled Apartment Building Corridor Lighting Report and proposed amendment of the Toronto Municipal Code Chapter 629, Property Standards, 629-36 to permit owners of existing multiple residential apartment buildings to realize energy savings utilizing the installation and use of motion controlled switches.

The measures described in Ontario Building Code (OBC) section 12.2.2.1 permitting the use of motion sensor controlled lighting in common areas of apartment buildings has addressed safety and security considerations with respect to reducing the level of illumination which is present at all times. The redundant fail-safe measures are intended to protect life safety. The Ontario Building Code mandate is anticipated for the use of new buildings.

However, the additional measures required in existing buildings to add provisions to achieve a minimum of 10 lux in corridors to permit motion sensors would have a significant financial impact on the existing multi-residential industry. Although the 10 lux measurement is similar to retrofit requirements for emergency lighting, Section 12.2.2.1(3) disallows a motion sensor to be used on emergency lighting controls. Therefore most existing buildings would be required to add additional wiring and lighting to meet the OBC 10 lux requirement to achieve compliance with the proposed 629-36 Toronto Municipal Code.

In order to capitalize on the quantity of existing buildings that will successfully reduce energy consumption by implementing the new Toronto by-law, the number of buildings that will participate may be significantly increased if the committee considers amending the 10 lux requirement in existing buildings. Fail-safe considerations can be taken into account to sustain safety and security without requiring the 10 lux minimum. If the new sensor system is designed and maintained effectively the 10 lux measure becomes irrelevant.

¹ FCS Fire Consulting Services Ltd. is a Fire Code and Life Safety consulting firm specializing in multi-residential rental and condominium buildings and participants in multiple Code & Standard reviews.

Additional considerations in section H. should include:

- a) Be designed for fail-safe operation so that if the motion sensor controlled switch fails, the electrical fixture which it controls activates.
- b) Control an area that is not more than 240 square metres or 7.5 metres in any direction.
- c) **Provide each area with a minimum of two sensor controls to ensure if one switch fails a minimum of one sensor will activate.**
- d) Maintain the lights within its areas of control active for a minimum of 15 minutes after the activity that caused the light to activate has stopped or left its area of control.
- e) **The sensor system including controls, switches, lights be listed as a building feature within the Fire Safety Plan and maintained as per Section 2.7 of the Ontario Fire Code with records maintained as per 1.1.2. Records of Tests**

I believe the argument made is defensible as a properly designed, installed and maintained sensor system should remain fail-safe with or without the provision of 10 lux when the sensors are not activated.

Additionally,

The committee should consider extending the motion controlled energy savings to stairwells where stairwells are equipped with photoluminescent wayguidance systems as per the NRC (National Research Council of Canada) guide with timed illumination lighting to maintain the PLM as per the manufacturer's specifications.

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