

# TORONTO STAFF REPORT

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March 15, 2005

To: Toronto and East York Community Council

From: David C. Kaufman, Acting Commissioner, Works and Emergency Services  
William A. Stewart, Fire Chief and General Manager

Subject: Toronto Fire Services Comments Concerning Pavement Width Standards – Draft  
Regent Park Subdivision Plan

Purpose:

To seek Council's direction that pavement width standards recognize a minimum horizontal clearance of 6.0 metres excluding sidewalks to provide the required space to allow for fire fighting apparatus access and operations necessary for emergency responses in the Regent Park Revitalization Project.

Financial Implications and Impact Statement :

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

Recommendation:

It is recommended that:

- (1) the draft Regent Park Subdivision Plan only be approved on the condition that the Owner provide a minimum 6.0 m clear pavement width, with such width to not include any portion of the width required for on-street parking, for all public streets to be conveyed to the City to ensure that Toronto Fire Services can carry out emergency operations; and
- (2) in the interest of public safety, the owners give consideration to the inclusion of residential fire sprinklers meeting the requirements of the National Fire Protection Association Standards in this development.

Background:

Works and Emergency Services has reviewed the proposed plan of subdivision and provided comments to Urban Development Services in a staff report. Among 31 other conditions, we have requested that a condition of draft plan approval be included which states:

- “1. That as condition of approval of the draft plan of subdivision, the Owner:
- (a) Provide a minimum 6.0m clear pavement width, with such width to not include the width required for on-street parking, for all public streets to be conveyed to the City;

Since the Fire Protection and Prevention Act, 1997 Subsection 6(3) states “A Fire Chief is the person who is ultimately responsible to the Council of a municipality that appointed him or her for the delivery of fire protection services” and further, since the Fire Protection and Prevention Act 1997 Subsection 7(1) provides Council authority to pass by-laws regulating fire prevention, including the prevention of the spreading of fires, this report provides information to more fully explain this condition.

Comments:

Based on the interest of public safety, Toronto Fire Services recommends that public roadways for the proposed Regent Park redevelopment do not deviate from the 6.0 metre minimum clear width to provide the required space allowing for fire fighting apparatus access and operations necessary for emergency responses. While Toronto Fire Services has been very diligent in its pursuit of fire protection, there have been 152 fire deaths since the amalgamation of the City, and the need to maintain the minimum standard of access for fire vehicles to respond to emergencies is critical to public safety.

Documentation from the Office of the Ontario Fire Marshal, Deputy Fire Marshal Doug Crawford, M. Eng., clarifies the requirements for 6.0 metres of clear width in all circumstances for fire fighting operations (see attached letter in Appendix 1). The letter dated November 16, 2004, from the Deputy Fire Marshal states that fire department access requirements under Section 3.2.5.6. (1) of the OBC mandate immediate and unfettered availability in any consideration for clear width enabling Fire Department access. The Deputy Fire Marshal states, “This is essential for a timely response to a fire incident and any restrictions or obstructions to this width may result in a delayed response”.

**Proposed Widths for Different Types of Streets in Regent Park:**

In the report Toronto East York Community Report No.1, Clause No. 4, adopted by Council on February 16, 2005, “Final Report Application to Amend the Official Plan and the Zoning By-law Regent Park Revitalization Toronto Community Housing Corporation Application No. 04 117482 STE 28 OZ Ward 28 - Toronto Centre-Rosedale” dated January 4, 2005, on page 41-42 there are 3 proposed pavement widths for different types of streets, based on consultation with staff from Urban Development Services and other departments.

Both of the proposed pavement widths in (a) and (c) are helpful in assisting with access for fire fighting apparatus and operational needs as 6.0 metres clear width is maintained. The proposed width in (a) provides 8.5 metres with two-way traffic and one lane of on-street parking, which provides a clear width of 6.0 metres. The proposed width in (c) provides 6.0 metres with one-way traffic with no parking.

However, in proposed widths of (b) (to accommodate one-way traffic and one-lane of on-street parking) consideration of Planning staff to support 7.3 metre pavement widths (including sidewalks) does not meet the requirements of fire fighting operations requiring 6.0 m clear pavement width (free from parked cars, street furniture or other obstructions). The consideration of 7.3 metre pavement widths will compromise the ability of Toronto Fire Services to respond to emergencies in the new proposed redeveloped Regent Park.

The inclusion of rolled curbs and reinforced sidewalks does not meet the standard of immediate and unfettered clear access. The Deputy Fire Marshal states, "Where a sidewalk is being used as part of this clear width, we believe the potential exists for delay due to obstructions on the sidewalk, or even the potential of pedestrian traffic to impede fire department access and operations". At 7.3 metres less a 2.5 metre parking lane, the net available road width is 4.8 metres. The width of an aerial vehicle with its aerial outriggers for rescue or fire fighting operations deployed is 5.5 metres. The width of a pumper vehicle with hose deployed is 5 metres. The proposed design of the 7.3 metre road widths including street parking on one side, will in fact impede the deployment of fire apparatus, fire hose lines and fire fighting operations at the scene of an emergency.

The comment regarding the use of curbs and reinforced sidewalks as a viable option and acceptable to the Building Department is not acceptable to the Toronto Fire Services. The lack of consideration given to ice, snow, pedestrians, illegal parking and street furniture are all impediments during an emergency incident. The foregoing has a direct impact on public and Fire Fighter life safety.

### **Toronto Fire Services Concerns:**

It is Toronto Fire Services' experience that residents in any given area highly value a prompt emergency response and that Toronto Fire Services is held accountable for its response time to an emergency. In meeting the requirements for public safety we need to ensure that the current design is not based on century-old roads design models prior to the common use of automobiles and when Fire Services arrived by horse and wagon. Current codes and standards would never allow a new home or larger building to be erected utilizing century-old standards. Allowing roadways to be built to that standard may potentially expose the City to a major source of on-going risk.

Many streets in the subject area, some of the oldest in Toronto, are narrower than ideal. Year after year, Toronto Fire Services has dealt with the slow travel times as well as a proportionately increased number of minor and more significant traffic incidents and collisions that have occurred as a direct result of having to fit large vehicles through a road designed to accommodate

traffic realities encountered a century ago. To fight fires or perform rescues in this area, it is not uncommon for our staff to carry very heavy and cumbersome equipment on their backs up streets made impassable by snow banks, ice and illegally parked cars. This is a very time consuming and labour intense practice with severe life safety implications. Many of these obstacles to public safety can be reduced with the 6.0 metre clear width for the proposed streets in the Regent Park redevelopment. Further, we would recommend that in the interest of public safety that this complex include residential fire sprinklers meeting the requirement of the National Fire Protection Association Standards. The inclusion of residential fire sprinklers will assist in the reduction of the fire deaths and property damage caused by fire. As referred to in the documentation from the Office of the Ontario Fire Marshal, Deputy Fire Marshal Doug Crawford, M. Eng. (see Appendix 1), consideration of the installation of automatic sprinklers as a compensating measure due to concerns of impeded access will enhance public safety.

We should not lose sight that new standards for building construction have been developed to provide a current minimum standard of safety for occupants. Minimum standards for road widths must also be respected to protect and ensure the same type of minimum margin of life safety. The Ontario Building Code speaks to the issue of consulting with Fire Services in the consideration of Fire Department access routes for fire fighting apparatus and operations. In Appendix A 1, Section A 3, Fire Fighting Assumptions of the Ontario Building Code, the design and construction of fire department access routes involves the consideration of many variables, some of which are specified in the requirements in the Code. All these variables should be considered in relation to the type and size of fire department vehicles available in the municipality or area where the building will be constructed. It is appropriate, therefore, that the local fire department be consulted prior to the design and construction of access routes.

The Ontario Fire Code 2.5.1.3 states clearly that “Fire access routes shall be maintained so as to be immediately ready for use at all times by fire department vehicles”. Further the Fire Code 2.5.1.2. (1) Maintaining Access Free of Obstructions states, “Fire access routes and access panels or windows provided to facilitate access for fire fighting operations shall not be obstructed by vehicles, gates, fences, building materials, vegetation, signs or any other form of obstruction”.

Toronto Fire Services is well aware of the current and frequent obstructions to providing a prompt response in this area. Our obligation to public safety must recognize this current knowledge and provide for a road width of 6.0 clear metres minimum. Fire Services cannot condone or accept responsibility and risk for road design that requires a portion of a vehicle to overlap the sidewalk in order to complete a turn. This is an inherently faulty design idea which is bound to lead to vehicle and/or pedestrian incidents on the sidewalk. This design does not take into consideration serious and potential vehicle immobilizing obstructions, as noted above, and will force our large vehicles to encroach on sidewalks on a regular basis. The following photographs in Appendix 2 show the problems associated with narrow road widths.

This report has been written in consultation with Legal Services.

Conclusions :

Standards are created and exist to provide a uniform approach to safe design and use. In the case of pavement widths, we cannot ignore the minimum requirement and standards for proper fire access to provide the means to perform fire service emergency operations. Every second counts in the timely delivery of Emergency Services to provide the most effective response in saving or mitigating circumstances that could jeopardize the life of the residents we serve in the Regent Park area. Toronto Fire Services is encouraged to assist with the development of this new and exciting residential community for the citizens of Toronto.

Contact:

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William A. Stewart  
Fire Chief and General Manager  
Toronto Fire Services

David C. Kaufman, P.Eng  
Acting Commissioner  
Works and Emergency Services

List of Attachments:

Appendix 1 – Letter from the Office of the Ontario Fire Marshal dated November 16, 2004  
Appendix 2 – Photographs show the problems associated with Narrow Road Widths

Appendix 1

NOV-16-2004 TUE 12:09 PM OFFICE OF THE MARSHAL

FAX NO. 416 325 3119

P. 02/03

Ministry of  
Community Safety and  
Correctional Services

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Fire Marshal

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November 16, 2004

Mr. William Stewart, Fire Chief  
Toronto Fire Services  
4330 Dufferin Street, 3<sup>rd</sup> Floor,  
Toronto, Ontario M3H 5R9

Dear Bill:

This letter is to address your query regarding fire department access requirements under the Ontario Building Code. The Office of the Fire Marshal administers the Ontario Fire Code (OFC), which is a companion regulation to the Ontario Building Code (OBC). The Ministry of Municipal Affairs administers the OBC, and as such requests for interpretations of the OBC should be directed to that ministry. The authority within a municipality for the enforcement of the OBC rests with the Chief Building Official and the OFC rests with the fire service.

Your query relates to fire department access requirements under Sentence 3.2.5.6. (1) of the OBC. The issue appears to be a dispute over the interpretation of what constitutes acceptable 6-metre clear access width for fire department use.

As you are aware, from a fire service operations point of view, this requirement anticipates immediate and unfettered availability of this access route. This is essential for a timely response to a fire incident and any restrictions or obstructions to this width may result in a delayed response.

Where the 6 metres is provided by means other than a dedicated roadway any potential restrictions on this access must be considered along with the impact this may have on arrival times at the emergency scene. It is our expectation that, given the Fire Chief's role in providing fire protection services to the community and their knowledge of operational needs, any decision in this regard would be made after careful consideration of the Chief's opinion.

Based on our discussions with you, the Fire Department is requesting consideration be given to the installation of automatic sprinklers as a compensating measure due to concerns of impeded access. Where a sidewalk is being used as part of this clear width we believe the potential exists for delay due to obstructions on the sidewalk or even the potential of pedestrian traffic to impede fire department vehicle access and operations. It would be our position that due to this potential for a delay in response, other compensating measures to

Appendix 1

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slow or control fire growth are appropriate considerations and consistent with the language of Sentence 3.2.5.6. (1).

We also note that Article 2.5.1.3. of the OFC requires that fire access routes be immediately ready for use at all times by fire department vehicles. Consideration should be given to ensure this can be achieved.

Should you have any additional questions, please feel free to contact me.

Sincerely,



D.M. Crawford, P. Eng., M. Eng.  
Deputy Fire Marshal

c. R. Simpson  
D. Brezer  
B.A. Moyle

DMC/ma

**Appendix 2**

Narrow Road Widths- 7.3 metre roadway

Photo 1 – Opposite 330 Sackville St.



Narrow Road Widths- 7.3 metre roadway

Photo 2 – Turning off Carleton St. to Sumach St.





**Appendix 2**

Narrow Road Widths- 7.3 metre roadway

Photo 3 – Turning off Carleton St. to Sumach St.



Narrow Road Widths

Photo 4 – Metcalfe St.

(4.8 m travel lane plus parking, 6.9m curb-to-curb)



**Appendix 2**

Photo 5 – Metcalfe St.

(4.8 m travel lane plus parking, 6.9m curb-to-curb)



Narrow Road Widths

Photo 6 – Metcalfe St.

(4.8 m travel lane plus parking, 6.9m curb-to-curb)

