REGIONAL MUNICIPALITY OF OTTAWA-CARLETON MUNICIPALITÉ RÉGIONALE D'OTTAWA-CARLETON

Our File/N/Réf. Your File/V/Réf.	
DATE	19 November 1996
TO/DEST.	Co-ordinator, Community Services Committee
FROM/EXP.	Medical Officer of Health
SUBJECT/OBJET	FOLLOW-UP REPORT CONCERNING THE ONTARIO BUILDING CODE

DEPARTMENTAL RECOMMENDATION

That the Community Services Committee recommend Council authorize Health Department staff to submit a response in the appropriate format to the Ministry of Municipal Affairs and Housing concerning the proposed changes to the 1997 edition of the Ontario Building Code, as contained in this report.

PURPOSE

This report is in response to Councillor A. Munter's request at the 05 September 1996 Community Services Committee regarding changes to the <u>Ontario Building Code</u> (OBC). This report addresses changes to the <u>Ontario Building Code</u> concerning accessibility and stair safety for seniors and others with limited mobility.

BACKGROUND

Community Services Committee has recently received the following two reports relating to the <u>Back to Basics</u> document circulated by the Ministry of Municipal Affairs and Housing in preparation for the 1997 edition of the <u>Ontario Building Code</u>:

i) <u>Fall Prevention, Safety Recommendations, and Building Code</u> (provided at the 02 May 1996 Committee); and

ii) <u>Response To Inquiry No. 27 Re: Changes To The Ontario Building Code</u> (provided at the 05 September 1996 Committee meeting). Subsequent to receiving the technical document, Committee members asked staff to report back with specific recommendations for the Minister of Municipal Affairs. Proposed changes to the <u>Ontario Building Code</u> are contained in the *Technical Report* which was circulated by the Ministry of Municipal Affairs and Housing in September for public consultation. The last date for submissions on the proposals is 20 December 1996.

The following report provides a brief description of how the <u>Ontario Building Code</u> relates to federal and municipal mandates. Changes to the principles for the 1997 edition of OBC and an overview of the *Technical Report* recommendations concerning accessibility and stair safety are discussed. Recommendations for further changes are made.

Building Code Jurisdiction

Responsibility for matters relating to construction of buildings is shared by federal, provincial and municipal levels of government. At the federal level, the National Research Council publishes a single-model building regulation called the <u>National Building Code</u> (NBC) that must be adopted by provincial and territorial authorities to come into effect. Provinces and territories have responsibility for building regulations under the <u>British North America Act</u> and the <u>Constitution Act</u>. Each province adapts the NBC to satisfy its own particular needs. In Ontario, the <u>Building Code Act</u> enables the province to establish by regulation the <u>Ontario Building Code</u>, which is then jointly enforced by the province and local municipalities. Local municipal councils appoint chief building officials and inspectors for the enforcement of the <u>Ontario Building Code Act</u> within their jurisdiction. These By-laws are superseded by the <u>Ontario Building Code</u>. Note that this is a function of lower-tier municipalities. A chart summarising responsibilities at each level of government is provided in ANNEX A.

National Standard of Canada

Discussions about accessibility and barrier-free design frequently refer to Canadian Standards Association (CSA) standards. CSA is an independent, non-profit organisation that develops standards by consensus. CSA standards do not have the force of law, but they may be referenced, or "called up," in specific building codes. The CSA Barrier-Free Design standard, CAN/CSA-B651-M95 has been approved as a National Standard of Canada by the Standards Council of Canada. Designation as a National Standard of Canada means that the standard has met specific criteria laid out by the Standards Council of Canada (SCC).¹ National Standards of Canada for construction may be referenced in the National Building Code, or in provincial codes such as the Ontario Building Code.

¹ A Crown Corporation of the Government of Canada, SCC was formed in 1970 by an Act of Parliament with a mandate to foster and promote voluntary standardisation.

BACK TO BASICS CONSULTATION DOCUMENT

Early in 1996, as part of the process of preparing the 1997 edition of the <u>Ontario Building Code</u>, the Ministry of Municipal Affairs and Housing issued a consultation document entitled <u>Back to</u> <u>Basics</u>. The proposed principles contained in this document raised concern among stakeholder consumer groups representing the disabled and the elderly because they appeared to emphasise cost-effectiveness and increased economic activity at the expense of accessibility. The principles as revised following public consultation have addressed the concern about accessibility. The four original principles and the changes made following public consultation are shown in the table below.

	PRINCIPLES			
	Original Wording		Revised Wording	
1.	The Building Code should focus primarily on setting minimum standards which address health and safety.	1.	The Building Code should focus primarily on setting standards for the protection of consumers in areas which address health, safety and accessibility.	
2.	Significant Building Code provisions should be justified based on cost-effectiveness.	2.	Substantive <u>Ontario Building Code</u> provisions will be justified based on cost-effectiveness to the consumer.	
3.	For the 1997 Edition of the OBC, amendments which could lead to major increases in construction costs should be seriously questioned.	3.	The impact on construction costs, especially residential, will be a critical factor in determining amendments to the <u>Ontario</u> <u>Building Code</u> .	
4.	Ontario will harmonise with the National Building Code to the greatest extent possible, except where this is in conflict with other provincial goals.	4.	(Unchanged)	

Community response to this revision of the basic principles relating to accessibility has been positive. In this instance, public concern has been listened to and addressed through the public consultation process.

TECHNICAL REPORTS: RECOMMENDATIONS RELATING TO ACCESSIBILITY AND STAIR SAFETY

1. Accessibility

Technical Report Recommended Changes

Changes that relate to accessibility and barrier-free design are addressed in the <u>Ontario</u> <u>Building Code</u> Proposals (Part 3) of the *Technical Report*. Many of the changes were made in order to meet the minimum requirements of the <u>National Building Code</u>, published in 1995. These changes are mostly positive in that they are made to improve access and usability, e.g. allowing the use of electronically-activated, no-touch devices. Studies of safety and ergonomics are frequently cited in the changes proposed in the technical report. Other changes are made to allow construction workers as much flexibility as possible. Some of the Part 3 changes provide explanations on sections of the code which were not stated or which were unclear. Other changes have clarified sections of the code, and have made the code more readable. In summary, many positive changes are proposed. With the exception of the recommendations listed below, staff support the proposed changes to the OBC summarised in ANNEX B.

Comparison with CSA Barrier-Free Design

The Barrier-Free Design standard of CSA defines several areas that go beyond the OBC. For example, a key difference between the new OBC proposal concerning Barrier-Free Path of Travel (3.7.3.3) and the CSA standard is that the OBC has reduced the minimum space at doorways to 800 mm from 810 mm, raising concern among consumer groups. With respect to ramps, the OBC specifies a minimum distance between handrails that is less than the CSA standard. The CSA standards also specifies that ramp and landing surfaces should be slipresistant, a specification which is not in the OBC. Further, the CSA standards require ramps and landings to be designed so they will not accumulate water. Some of the provisions concerning washrooms in the CSA standard are more explicit than in the OBC.

Concerns expressed by Disabled Persons Community Resources (DPCR)

Concern has been expressed in the community about the emphasis on initial construction, without placing equal emphasis on responsibilities to the end user of the built environment. The Barrier-Free Environment Committee of DPCR, with membership from DPCR and other groups such as the Council on Aging and the Disability Issues Advisory Committee of the City of Ottawa, was pleased to see accessibility maintained in the principles. However, the committee expressed concern that the <u>Ontario Building Code</u> continues to place shorter-term financial gains ahead of longer-term thinking.

The long-term view would emphasise the consumer and societal costs over the life of a building, not just the initial construction costs. DPCR states three objectives with respect to the building code:

- i) The <u>Ontario Building Code</u> should when feasible harmonise with the CSA document "Barrier-Free Design CAN/CSA-B65-1-M95" and the National Building Code, by utilising the most progressive standards from each document;
- ii) The <u>Ontario Building Code</u> should be a document based on long term thinking and planning and not based on short term financial gains; and
- iii) The <u>Ontario Building Code</u> has a higher responsibility to the end user of the built environment than the provider of the built environment.

Recommendations to Ministry

The table below summarises the proposed recommendations concerning accessibility. Full details of the submission are shown in ANNEX D.

OBC Section	RMOC Recommendation
3.7.1.5. Controls	Height of controls remain at 1200 mm
3.7.2.1 Areas requiring Barrier-free Access	Designation of one elevator for evacuation
3.7.3.3. (1) Doorways and Doors	Retain width of 810 mm.
3.7.3.3. (13) Doorways and Doors	Opaque strip at 1500 mm on glass door
3.7.3.4 Ramps	Minimum width between handrails
	• Diameter of handrail < 40 mm
	• Handrail returns to wall top and bottom
	• Curb height 75 mm
	Slip-resistant ramp surface
	• Prevention of water accumulation on
	ramps and landings

2. Stair Safety

Technical Report Recommended Changes

Changes related to stair safety are covered in the <u>Ontario Building Code</u> Proposals Part 3 (Use and Occupancy), and Part 9 (Housing and Small Buildings). Changes to OBC related to stairs have been made on the basis of research, and in many cases, to align the <u>Ontario Building Code</u> with the <u>National Building Code</u>. Many of the changes are made in order to meet the minimum requirements of the <u>National Building Code</u>, published in 1995. These changes are mostly positive, many are made to increase safety. Studies of safety and ergonomics are frequently cited in the changes proposed in the technical report. In summary, many positive changes are being made, and none of the changes made are negative with respect to safety. Some of the changes relate to the dimensions of stairs, and to the nature of the surface. Handrails are another area of proposed changes. The changes relating to stair safety are summarised in ANNEX C.

Fall Prevention Coalition Concerns

In April 1996, Ottawa-Carleton Fall Prevention Coalition's Policy Change Subcommittee responded to the call for input regarding the preparation of the 1997 edition of the <u>Ontario</u> <u>Building Code</u>. The focus of the response was the need for changes to the code pertaining to stair construction. These changes were reported to Community Services Committee in May. A review of the technical report of the 1997 <u>Ontario Building Code</u> by the Ottawa-Carleton Fall Prevention Coalition with respect to stair safety shows that many of the requested changes have been incorporated into the new code. The Coalition would like to commend the Ministry of Municipal Affairs and Housing for changes made to improve the safety of stairs.

As indicated in its letter dated 03 April 1996, Coalition members are endorsing research recommendations listed in the 1995 <u>National Building Code</u> (NBC) standards. After reviewing the *Technical Report*, the Coalition is strongly recommending that further improvements be made to the Code to reduce injuries and related medical costs. These changes are consistent with those summarized in ANNEX D.

Recommendations to Ministry

The table below summarises the recommendations concerning stair safety. Full details of the submission are shown in ANNEX D.

OBC Section	RMOC Recommendation
3.4.6.1. Slip Resistance of Stairs and Ramps	Specify a coefficient of friction
3.4.6.1. Slip Resistance of Stairs and Ramps	Describe colour and texture contrast
3.4.6.4 (4) Handrails	Consistency in height of handrails.
9.8.3.2. Nosing or Backslope	Decrease abruptness of overhang.
9.8.7.3 (1) Termination of Handrails	Handrails to end at wall.

CONSULTATION

Three sectors were consulted with respect to the Technical Report: groups representing consumers; key health professionals who work with consumers; and representatives of the building owners and construction sectors.

Community Groups Representing Consumers

The Health Department works closely with the community on fall prevention for seniors. The department's recommendations concerning stair safety have been developed in partnership with the Fall Prevention Coalition. Similarly, the Department has consulted with community groups concerning accessibility. Disabled Persons Community Resources (DPCR) facilitates independence, participation and integration of persons with physical disabilities. The Barrier-Free Environment Committee of DPCR was consulted and has assisted with the development of this report, including the recommendations.

Professionals Who Work With Consumers

Information about the proposed changes and about codes in other jurisdictions was reviewed by occupational therapy and physiotherapy staff from the Home Care program. Their suggestions have been incorporated into the recommendations. The Discipline Leader of Occupational Therapy at the Regional Rehabilitation Centre was also contacted concerning changes to the OBC.

Building Owners and Construction Sectors

The Government Affairs Committee of the Building Owners and Managers Association (BOMA) of Ottawa reviewed draft documents and stated that while they support increased accessibility and safety in principle, they are concerned that in the current economic climate additional Code requirements would pose an additional economic burden related to specifications for many buildings e.g. entrances and landings on stairs.

The Joint Construction Council of Ontario reviewed the proposed additional changes related to safety and stated that, in general, they support the specifications outlined. Overall, they do not anticipate that the changes will add significant costs and there will be beneficial safety gains.

FINANCIAL IMPLICATIONS

There are no direct financial implications.

CONCLUSION

The 1997 edition of the <u>Ontario Building Code</u> will be finalised for implementation in 1998. The revision process allowed two opportunities for input, with the final submission due in December. Overall, the proposed changes with respect to accessibility and stair safety have been made to align the OBC with the National Building Code. Public input was instrumental in ensuring that accessibility remained in the basic principles. There remain several areas where further improvements would ensure that the interests of elderly and disabled end users of the built environment are more satisfactorily served throughout the life span of a building.

Approved by R.A. Cushman MD MBA FRCPC

Attach. (4)

REFERENCES

 Faranak Aminzadeh, M. Sc.N. Candidate, University of Ottawa, <u>Stair Falls Among Seniors:</u> <u>Hazards, Safety Recommendations, And Building Codes</u>, CHRU Discussion Paper DP96-2. 1996.

ANNEX A

JURISDICTION IN BUILDING CODES

	Federal	Provincial	Municipal
Building Code	National Building Code (NBC) of Canada (1995).	Ontario Building Code (OBC)	
Legislation	Jurisdiction established under British North America Act and the Constitution Act	Building Code Act enables the Province to establish by regulation a building code that is then jointly enforced by the Province and local municipalities.	Property Standards By- laws in each municipality. These by- laws are superseded by the Building Code.
Content	Provides a single model building regulation that must be adopted by an authority having jurisdiction to come into effect. Minimum requirements for safety and structural sufficiency. Applies to construction of new buildings, demolition, relocation and significant renovations of existing buildings. No retroactive requirements.	Basis for Ontario Code is the NBC. Modifications incorporate provincial priorities and public consultation.	Additional requirements can be adopted in Property Standards By- laws.
Revisions	Revised approximately every 5 years. Impetus for change comes from statistics, research findings and litigation. Standing committees listen to arguments that are supported by valid arguments. Public consultation happens twice during each period.	Revised every 5 years, next revision (1997) will be implemented in 1998. <u>Back to Basics</u> consultation document outlined principles to govern revision of OB Code. CDTT reviews NBC & obtains public input, prepares technical report, circulates report for public review. OBC (1997) Technical Report now out for public review, input to be received by December 20, 1996. Code revision proposal is submitted to Legislation Committee of Cabinet for legislative action.	
Responsible Group	Canadian Commission on Building and Fire Codes (CCBFC) with 40 standing committees. NBC published by National Research Council.	Code Development and Technical Training (CDTT) Department of Ministry of Municipal Affairs and Housing	Councils of municipalities. Chief building official and inspectors.

ANNEX B

Summary of Proposed Changes to the 1997 edition of the Ontario Building Code relating to Accessibility

Ontario Building Code Section	Reason for Change
Entrances 3.7.1.2	Provide more barrier-free entrances
Barrier Free Path of Travel 3.7.1.3	Prevent wheels getting stuck and reduce hazards for persons using canes or crutches.
Storeys served by escalators 3.7.1.4	Ensure person in wheelchairs have same freedom of access as other persons by requiring an elevator close to escalator.
Barrier Free Access 3.7.1.5	Require controls be operable with one hand.
Areas requiring Barrier Free Access 3.7.2.1.	Change will provide access to areas of the floor that are required to be barrier free and only excludes those areas which are deemed not to require barrier free access.
Exterior Walk 3.7.3.2.	Clarification of application to walkways that are part of barrier free paths.
Exterior Walk 3.7.3.2.	Clarify the requirements for exterior walkways to improve the quality of walks and permit curb ramps.
Doorways and Doors 3.7.3.3.	No need to specify two door sizes when barrier free access is 1060 mm.
Bathroom Doorways and Doors 3.7.3.3 2.	Provide a minimum doorway width for a door into a bathroom where barrier-free path of travel doesn't apply in residential suite within building.
Vision Panels of Doorways and Doors 3.7.3.3.	Change to meet fire protection rating.
Ramps 3.7.3.4	Clarify the requirements of handrails and guards on a barrier free ramp.
Doors Leading from Vestibule 3.7.3.5.	Improve the ease of manoeuvre through a power assisted door, thus improving accessibility into a building.
Spaces in Seating Area 3.7.3.6.	Increase the width of a wheelchair space thus ensuring locations have a clear view of the events taking place within the facility.
Water closet Stalls 3.7.3.8	Ensure adequate clearances beside the water closet.
Water Closet Stalls 3.7.3.8 (1) (d)(vii)	Improves a person's ability to grip.
Water Closet Stalls 3.7.3.8	Ensures that the coat hook is more useful.
Water Closet Stalls 3.7.3.8 (1) (g)	State location of a toilet paper dispenser
Water Closet Stalls 3.7.3.9.	Allow the option of no touch actuated valves to be used. Clarify what constitutes back support for toilets.
Urinals 3.7.3.10	Provide design requirements, including grab bar, for barrier-free urinals where
(currently non-existent).	none existed.
Lavatories 3.7.3.10	Add option of electronically controlled, no-touch actuated faucets. Ensure that mirror in a barrier free washroom can be used by a person in a wheelchair.
Special Washrooms	Clarify requirements beside a water closet.
3.7.3.11.	State a minimum dimension for a special washroom.
Drinking Fountains 3.7.3.15.	Allow use of electronically controlled no-touch actuated faucets.

ANNEX C

Summary of Proposed Changes to the 1997 edition of the Ontario Building Code relating to Stair Safety

Ontario Building Code	Reason for Change	
Section		
Slip Resistance of Stairs and	Improves safety by increasing colour contrast and decreasing	
Ramps 3.4.6.1.(1)	likelihood of slipping	
Landings 3.4.6.3 (5)	Clarifies that there must be a landing at the top and bottom of every	
	flight of stairs	
Handrails A.3.4.6.4.(3)	Provide more variation in shape and size.	
Handrails 3.4.6.4.(4)	Changes height requirements to prevent certain types of falls	
Stair Tread and Risers 3.4.6.7 (1) Changes to stair dimensions related to steepness. Cost of		
	contrasted with high medical costs of falls.	
Stair Treads and Risers	Provide a reasonable degree of safety on stairs for the majority of	
3.4.6.7.(2)	users.	
Stair Treads and Risers	Reduce problems with misplacement of feet on the treads.	
3.4.6.7.(4)		
Nosing or Backslope 9.8.3.2. (1)	Reduce the likelihood of sliding over the leading edge of the tread.	
Continuous Handrails 9.8.7.2.	Clarify requirements for handrails in dwelling units and other	
	buildings.	
Termination of Handrails 9.8.7.3	Include stairs serving only 1 dwelling unit in order to minimise the	
	hazard.	

ANNEX D

COPY OF SUBMISSION TO:

Code Development Unit, Housing Development and Building Branch,

Ministry of Municipal Affairs and Housing

FOR PROPOSED CHANGES TO:

The 1997 Edition Of The Ontario Building Code

Note: presented in numerical order

(Type or print neatly in ink) Please photocopy and use separate comment form for each proposed change.

Proposed Changes for the 1997 Ontario Building Code

Name Organisation Address	Dr. R. Cushman, Medical Officer of Health RMOC Health Department 495 Richmond Road	Change No. 3.4 - 10
City/Province Postal Code		Code Reference 3.4.6.1. (1)
I would support following alte	proposed change. ort the proposed change with the ration. (Must give reason) ort the proposed change. (Must give reason)	

Reason

The changes do not go far enough to ensure stair safety for the elderly and others with decreased mobility. Additional changes, as shown **in bold print**, are proposed to increase tactile feedback and visual perception.

- I. The surfaces of ramps, landings and treads
 - A. shall have a finish that is slip resistant (a coefficient of friction of a minimum of 0.3 cm for internal stairs and greater for external stairs).
 - B. if accessible to the public , shall have a distinctive colour contrast or texture contrast to demarcate the leading edge of the tread and the leading edge of the landing as well as the beginning and end of a ramp. Patterns (e.g. floral or marble) should be omitted because they do not provide sufficient contrast.

This standard should apply to all buildings, regardless of size. Use additional blank sheets as required

(Type or print neatly in ink) Please photocopy and use separate comment form for each proposed change.

Proposed Changes for the 1997 Ontario Building Code

Name Organisation	Dr. R. Cushman, Medical Officer of Health RMOC Health Department 495 Richmond Road	Change No.	_
Address		3.4 - 12	
City/Province		Code Reference	
Postal Code K2A 4A4		3.4.6.4. (3)	
I support the p	roposed change.		
	rt the proposed change with the ration. (Must give reason)	x	
I do not suppo	rt the proposed change. (Must give reason)		

Reason

The optimal shape for handrails is round. However, if other options are to be allowed, the recommendation of the Canadian Standards Association, i.e. oblong, is the only other acceptable shape. Additional recommended changes to **A-3.4.5.4.(3)** are shown **in bold print**.

Handrails should be continuously graspable along their entire length. A circular cross-section with an outside diameter of not less than 30 mm and not more than 50 mm is preferable. Another option is an oblong shape whose largest cross-sectional dimension is not more than 57 mm.

Additional Recommended Change not included in the Technical Report

To assist persons with visual impairment, handrails should have a tactile identification e.g. there should be a slight depression or other change in surface design to indicate that it is close to its end. The depression or change in surface design should also have a noticeable colour contrast to make it readily identifiable.

(Type or print neatly in ink) Please photocopy and use separate comment form for each proposed change.

Proposed Changes for the 1997 Ontario Building Code

Name Organization	Dr. R. Cushman, Medical Officer of Health RMOC Health Department	Change No.	
0	RMOC Health Department 495 Richmond Road	3.4 13	
City/Province		Code Reference	
Postal Code K2A 4A4		3.4.6.4. (4)	
I support the p	roposed change.		
	rt the proposed change with the ation. (Must give reason)	X	
I do not suppo	rt the proposed change. (Must give reason)		

Reason

Handrails should be of uniform height to prevent injuries e.g. falls in the elderly. To ensure consistency within any building, the following additional sentence, **shown in bold print** should be added:

Within a building, all handrails must be a consistent height.

(Type or print neatly in ink) Please photocopy and use separate comment form for each proposed change.

Proposed Changes for the 1997 Ontario Building Code

Name Organization	Dr R. Cushman, Medical Officer of Health RMOC Health Department	Change No.	
0	RMOC Health Department495 Richmond Road,Ottawa, ONK2A 4A4	3.7-04	
City/Province Postal Code		Code Reference	
Postal Code		3.7.1.5	
I support the p	roposed change.		
	rt the proposed change with the ration. (Must give reason)	X	
I do not suppo	rt the proposed change. (Must give reason)		

Reason

The height of controls should remain at 1200 mm. A change to 1400 will make it difficult for shorter than average individuals in wheelchairs to reach the controls.

Recommended Change to 3.7.1.5

(1) Except as provided in Article 3.7.3.5. for elevators, controls for the operation of *building* services or safety devices, including electrical switches, thermostats and intercom switches, intended to be operated by the occupant, and located in a *barrier-free* path of travel shall be accessible to a person in a wheelchair, operable with one hand and mounted at **not more than 1.2 m above the floor.**

(Type or print neatly in ink) Please photocopy and use separate comment form for each proposed change.

Proposed Changes for the 1997 Ontario Building Code

Name	Dr R. Cushman, Medical Officer of Health	Change No.	
0	RMOC Health Department 495 Richmond Road,	3.7-05	
City/Province Ottawa, ON Postal Code K2A 4A4		Code Reference	
		3.7.2.1	
I support the p	roposed change.		
	rt the proposed change with the ation. (Must give reason)	X	
I do not suppo	rt the proposed change. (Must give reason)		

Reason

This Article provides more access to floors other than the main floor, however no provision is made for evacuation of persons with physical disabilities in the event of a fire or other disaster.

Recommended Addition

Add a new sentence as follows:

If the building is provided with elevating devices, at least one elevating device shall be designated for the use of fire fighters and for the evacuation of persons with physical disabilities.

(Type or print neatly in ink) Please photocopy and use separate comment form for each proposed change.

Proposed Changes for the 1997 Ontario Building Code

Name Organisation	Dr R. Cushman, Medical Officer of Health RMOC Health Department 495 Richmond Road,	_	Change No.	
Address			3.7-09	
City/Province Ottawa, ON Postal Code K2A 4A4			Code Reference	
			3.7.3.3.(1)	
I support the p	roposed change.			
I would support the proposed change with the following alteration. (Must give reason)			X	
I do not support the proposed change. (Must give reason)				

Reason

The minimum doorway opening size should be 810 mm. The standard wheelchair width is 660 mm., allowing minimum space for grasping wheels. Users of oversize wheelchairs will have reduced ability to manoeuvre through doorways of 800 mm.

Recommended Change to 3.7.3.3. (1)

Every doorway that is located in a *barrier-free* path of travel shall have a clear width not less than **810 mm** when the door is in the open position.

(Type or print neatly in ink) Please photocopy and use separate comment form for each proposed change.

Proposed Changes for the 1997 Ontario Building Code

Name	Dr R. Cushman, Medical Officer of Health	Change No.
OrganisationRMOC Health DepartmentAddress495 Richmond Road,	3.7-13	
City/Province Ottawa, ON Postal Code K2A 4A4		Code Reference
		None
I support the p	proposed change.	
	rt the proposed change with the ration. (Must give reason)	X
I do not support the proposed change. (Must give reason)		

Reason

This addition adds an important visual cue that will reduce the incidence of accidents related to glass doors. One minor change is required to make the proposed sentence conform to the Barrier-free Design standard of CSA. This standard specifies that the continuous opaque strip should be 1500 mm from the floor. Consistency with this standard is important.

Recommended change

new Sentence **3.7.3.3.(13)** (c) should be altered to read

... be located across the width of the door at a height of 1500 mm above the finished floor, ...

(Type or print neatly in ink) Please photocopy and use separate comment form for each proposed change.

Proposed Changes for the 1997 Ontario Building Code

Name	Dr R. Cushman, Medical Officer of Health	Change No.	
Organisation Address	RMOC Health Department 495 Richmond Road,	3.6-14	
Audress	495 Kielinona Koad,	5.0-14	
City/Province Ottawa, ON Postal Code K2A 4A4		Code Reference	
		3.7.3.4	
I support the j	proposed change.		
I would suppo	ort the proposed change with the		
following alteration. (Must give reason)		Χ	
I do not support the proposed change. (Must give reason)			
Reason			

Three alterations are proposed to 3.7.3.4:

Re: **Handrails**: The proposed diameter is too large for small hands, so the maximum should be reduced to 40 mm. which conforms to CSA standard. Sentence (iii) is too vague, leaving it open to interpretation. The proposed change conforms to CSA.

3.7.3.4. (e) (i) ... outside diameter not less than 30 mm and not more than 40 mm,

3.7.3.4.(e) (iii) should read: be terminated by returning to the wall at top and bottom of the ramp.

Re: **Curbs**: The specified curb height does not provide sufficient protection to prevent wheelchairs from going over the curb.

3.7.3.4. (g) (i) and (ii) the cur height should be at 75 mm in height.

Proposed Additional Changes - conform to CSA standard:

- i) slip resistant surfaces for ramps, should be specified as in 37.32 for exterior walks.
- ii) ramps and landings should be constructed so they do not accumulate water.

(Type or print neatly in ink) Please photocopy and use separate comment form for each proposed change.

Proposed Changes for the 1997 Ontario Building Code

Name Organisation Address	Dr. R. Cushman, Medical Officer of Health RMOC Health Department 495 Richmond Road	Change No. 9.8 - 02
City/Province		Code Reference
Postal Code	K2A 4A4 [9.8.3.2
I support the p	roposed change.	
	rt the proposed change with the ation. (Must give reason)	X
I do not support the proposed change. (Must give reason)		

Reason

To reduce the likelihood of injury, nosing overhangs should not be abrupt. Nosings should not overhang more than 17.5 mm.

Recommended Additional Change

Change Article 9.8.3.2 (b) to read shall not, in any case, exceed 17.5 mm. horizontally.

(Type or print neatly in ink) Please photocopy and use separate comment form for each proposed change.

Proposed Changes for the 1997 Ontario Building Code

Name Organisation Address	Dr. R. Cushman, Medical Officer of Health RMOC Health Department 495 Richmond Road	Change No. 9.8 - 04
City/Province Postal Code		Code Reference 9.8.7.3.
I support the p	roposed change.	
following alter	rt the proposed change with the ration. (Must give reason) rt the proposed change. (Must give reason)	X

Reason

Handrails should be terminated in a manner that will not obstruct pedestrian travel or create a hazard.

Recommended Additional Change

The following new sentence should be added to Article 9.8.7.3. (1)

Handrail endings should return to the wall.