



## Planning and Land Use Committee Report For the Meeting of July 23, 2015

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**To:** Planning and Land Use Committee **Date:** July 9, 2015  
**From:** Adrian Brett, Heritage Planner, Community Planning  
**Subject:** Mandatory Seismic Upgrading Bylaw

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### RECOMMENDATION

That Council consider engaging with the Union of British Columbia Municipalities (UBCM) to advocate to the Provincial Government for the following:

1. Provincial policy changes that would support mandatory seismic upgrading of existing buildings within earthquake-prone regions.
2. Examination of policy impacts to ensure mandatory upgrade regulations do not create an excessive financial disincentive for property-owners to upgrade heritage and unreinforced structures.

### EXECUTIVE SUMMARY

Municipal mandatory seismic upgrading bylaws have been in place for buildings vulnerable to earthquake damage for several decades in American cities along the Pacific coast. Currently, such regulations do not exist in any municipality within British Columbia or Canada. This report highlights the use of mandatory seismic upgrading bylaws in a few major American coastal cities. It also examines the legal authority and capacity of municipalities in British Columbia, such as the City of Victoria, to enact similar regulations.

At this time, the exact quantity of buildings within Victoria vulnerable to seismic damage is unknown. The city does contain a substantial stock of heritage and unreinforced masonry type buildings, which do pose a significant risk to life safety in the event of an earthquake. Advocating for mandatory seismic upgrading powers from the Government of British Columbia is the only course of action that would guarantee lasting municipal authority to maintain the City's building stock to a certain level of seismic resistance. However, it should be noted that mandatory seismic upgrading bylaws may also create a major disincentive for property owners to redevelop heritage and other unreinforced structures.

Under the current provisions of the *Community Charter*, the City of Victoria does have the authority to enact a mandatory seismic upgrade bylaw. However, this power will be shortly nullified by the newly created *British Columbia Building Act*, which will come into effect in 2017. This short timeline is too restrictive and it would be impractical to expect property-owners to seismically upgrade in less than two years.

In the meantime, the City can continue with providing incentives for the seismic upgrading of heritage buildings through the City's Tax Incentive Program and the Victoria Civic Heritage Trust's Parapet Improvement Program. Further, the Downtown Heritage Buildings Seismic Upgrade Fund that was created as part of the Downtown Core Area bonus density system can be used in future to supplement other financial incentives for seismic upgrading of remaining heritage buildings once sufficient funds have accrued.

## **PURPOSE**

This report investigates the City's authority to require property owners to seismically upgrade their built structures. This is in response to the City's Strategic Plan, 2015-2018, within which Council identified a specific 2015 action under Objective 12: Plan for Emergencies Including Climate Change, Short and Long Term, as follows:

*Explore potential for City to require upgrades to heritage buildings for seismic protection even where use is not changed, combined with subsidy program.*

With respect to timing, the City of Victoria Operational Plan identified that the above action would be reported to Council in July 2015.

## **BACKGROUND**

Mandatory seismic upgrading bylaws are without precedent in British Columbia or the rest of Canada. However, they have been enacted or proposed by several municipalities in the United States, including Los Angeles, San Francisco, and Seattle. This report will highlight some relevant examples of mandatory seismic upgrading bylaws from cities along the Pacific coast of the United States. It will also provide a recommendation on a path of action Council may wish to explore for enacting similar bylaws within the limitations of municipal legislative authority in the Province of British Columbia.

It was not until the mid-1980's that modern science was able to clearly articulate the magnitude of risk for a significant seismic event within the Cascadia Subduction Zone (CSZ). The CSZ is home to many major cities along the Pacific Northwest coast of North America, including Victoria, Vancouver, Seattle and Portland. Current seismology studies estimate the risk of a major earthquake, approximately 9.0 magnitude or higher, at a 10-15% chance of occurrence within the next 50 years.

The British Columbia Building Code (BCBC) has contained seismic strengthening requirements since the 1950's. Since then, knowledge of our region's heightened seismic risk has grown and consequently the BCBC has evolved to include even more seismic enhancements over time. Unfortunately, much of the City of Victoria's building stock, especially construction prior to 1980, is not well prepared for a major earthquake. At present, the quantity of seismically vulnerable buildings within the city is unknown. However, previous earthquake preparedness studies have identified several significantly vulnerable areas of the city. In particular, areas containing large quantities of unreinforced masonry (URM) type buildings and timber frame construction are at a high risk of significant earthquake damage.

Currently, the BCBC requires property owners only to seismically upgrade upon the occurrence of a change of use or occupancy for their building(s). However, there is no existing legal requirement today that obligates owners of seismically vulnerable buildings to shore up their properties. Hence, many unreinforced buildings continue to exist in our city and pose a potential threat to life safety in the event of a major earthquake.



The City of Victoria also provides a property tax exemption incentive program to encourage property owners to seismically upgrade. It should be noted that this tax exemption program does not result in any revenue loss to the City. For every heritage building granted a tax exemption for seismic upgrading, all other properties across the city, within the same tax category, are marginally increased to compensate for the lost revenue to the City. The tax exemption program has proven to be a very successful vehicle for attracting private investment in heritage properties within Victoria. According to the Victoria Civic Heritage Trust Annual report for 2014, the program has attracted a total of \$222.27 million in private investment in heritage buildings since its launch in 1998.

Mandatory seismic upgrading bylaws for the City of Victoria would impact all property owners and obligate owners of vulnerable properties to upgrade within a strict timeline or face penalties. This report will highlight examples of seismic upgrading bylaws enacted by major cities along the Pacific coast of the United States. It will also examine the legislative framework of British Columbia and the associated legal limitations of the City's authority to enact a similar mandatory seismic upgrading bylaw.

### **Examples of Similar Bylaws in the United States**

#### Los Angeles

The City of Los Angeles enacted Division 88, a series of mandatory seismic upgrading bylaws for all unreinforced masonry (URM) buildings within its jurisdiction in 1981. The bylaw stratified buildings into high and low risk categories. High risk buildings required full compliance with the seismic requirements within 3 years; low risk buildings required full compliance within 7 years. While ultimately quite effective, the bylaw was fiercely contested and was debated by consecutive City Councils for over eight years (1973-1981).

With regards to the compliance rate of the program, the California Seismic Safety Commission (CSSC) provided the following figures in 2006.

<b>Total Unreinforced Masonry Bldgs.</b>	<b>Heritage Unreinforced Masonry Bldgs.</b>	<b>% Strengthened</b>	<b>% Demolished</b>	<b>% Non-Compliant</b>
9211	255	67%	21%	12%

#### San Francisco

The City of San Francisco passed bylaw 225-92 in 1992 which mandated seismic upgrades for approximately 2000 buildings. Similar to Los Angeles, timelines for compliance were shorter for high risk buildings than low risk buildings.

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1976	516	78%	8%	14%



Also, as of 2013, the City of San Francisco enacted an additional mandatory upgrading bylaw called The Mandatory Soft Story Retrofit Program (MSSP). The bylaw applies to wood-frame buildings of three or more storeys over a basement, containing five or more residential dwelling units and where the permit to construct was applied for prior to January 1, 1978.

Property owners can face stiff financial penalties for non-compliance. In addition, if property owners do not comply, the City may post on the building, and record against the property, a notice that states: "Earthquake Warning: This building is in violation of the requirements of the San Francisco Building Code regarding Earthquake Safety."

### Seattle

Recognizing the risks associated with unreinforced buildings, the City of Seattle passed bylaws requiring seismic upgrading of all unreinforced masonry buildings in 1973; however, the bylaws were repealed a couple of years later due to public opposition and administrative difficulties.

More recently, however, Seattle City Council has decided to move forward again on re-enacting mandatory seismic upgrading bylaws. A recent seismic risk survey completed by the City of Seattle in 2012 identified over 1200 buildings that were at a high risk of damage. The proposed bylaw, once passed, would require high risk buildings to comply with modern code standards within 10 years and medium-low risk buildings to comply within 13 years. Penalties for non-compliance are similar to those in San Francisco; they include public posting of non-compliance on the property, a freeze on any new permits, and quarterly fines of up to \$45,000.

### **Analysis of Municipal Legislative Authority in British Columbia**

In regards to obligating property owners within the City of Victoria to upgrade their older buildings to meet the current seismic requirements of the Building Code of British Columbia, the Building Code itself does not apply retrospectively to older buildings unless a change in use or occupancy or a repair or renovation triggers a requirement for compliance. Under Part 1 of the *Community Charter*, the power to regulate, prohibit and impose requirements in relation to buildings and other structures is worded in broad terms; however, any bylaw created by the City of Victoria that would establish standards that are additional to those set out in the BC Building Code would likely require ministerial approval.

The provincial interest in uniformity of building standards has been reinforced by the creation of the new *Building Act*, which is not yet in force. Under the *Building Act*, a "local building requirement" will have no effect to the extent that it relates to a matter subject to a requirement of the BC Building Code for a municipality or specified area. The *Building Act* defines a "local building requirement" very broadly as meaning a requirement in respect of building activities that is enacted by a local authority. This provision of the *Building Act* is stated to apply "despite" the *Community Charter*. In other words, and in contrast to the situation under the *Community Charter*, there would be no opportunity to circumvent the provincial restrictions or a provincial approval requirement even if the bylaw could be supported by another regulatory power, which section 9 of the *Charter* does allow at present.

The *Building Act* includes a transitional provision that states this section of the *Building Act* concerning local building requirements does not apply until 2 years after it comes into force, which is presumably to allow municipalities a period of time to either amend their bylaws or to make requests to the Province for more powers. During this transitional period, the City could make a request to the Minister to include provisions within the *Building Act* to allow for additional



powers regarding seismic compliance within the local authority of the City of Victoria. This opens up the potential for location (municipality) specific regulations, something the City may wish to explore, but it is of course difficult to predict how the Province would respond.

It should be noted that this report is limited to examining the legislative authority of the City to enact a mandatory seismic upgrading bylaw. The full financial and economic implication of such a regulation, both on the City and on affected property owners is unknown at this time. However, it can be assumed that a location (municipality) specific regulation for mandatory upgrades within the *Building Act* would put Victoria at a comparative disadvantage and potentially push developers to other BC municipalities without such regulations. In order to ensure such a regulation does not create a major disincentive for the redevelopment of heritage and other unreinforced buildings within Victoria, the City should work with the Union of British Columbia Municipalities (UBCM) to lobby for a mandatory seismic upgrading regulation that applies province wide; this will level the playing field across all municipalities within the earthquake prone region of BC. Also, in order to ensure these regulations do not create such a financial burden as to cause a major private-investment shift away from the redevelopment of heritage buildings, the Province should explore creating funding incentives and/or awards in tandem with the mandatory upgrade regulations.

## **OPTIONS AND IMPACTS**

### Option 1 – Work with the UBCM to Petition the Provincial Government for additional powers to enact mandatory seismic upgrade regulations (Recommended)

Council may choose to engage with the UBCM to lobby the province for additional powers for mandatory seismic upgrading for all British Columbian local governments. Such regulations should also be accompanied by a Provincial funding or cost-sharing program to ensure no major financial disincentive is created for the upgrading of heritage and other unreinforced buildings.

The impact of this course of action would be uncertain. Should such powers be granted by the Province, British Columbia would be setting a national precedent as the first Canadian jurisdiction to require mandatory seismic upgrades.

### Option 2 - Enact Mandatory Seismic Upgrading Bylaw without Ministerial Approval

Council may choose to enact a new mandatory seismic upgrading bylaw before the *Building Act* comes into effect. This bylaw may be contested and may not receive later ministerial approval; however, there is sufficient regulatory power granted to BC municipalities by the *Community Charter* to allow for the creation of such a bylaw before the *Building Act* comes into force.

In effect, this bylaw would likely have little to no practical impact on improving the number of seismically reinforced buildings within the City of Victoria. Within two years, the bylaw could be nullified by the *Building Act* and two years is a very restrictive time period within which to require affected property owners to seismically strengthen their buildings.

### Option 3 - Continue with Status Quo

At present, seismic upgrading is only triggered by a change in use or occupancy or a major repair or renovation. The City of Victoria currently utilizes a property tax exemption program as incentive for heritage buildings, which are usually of an unreinforced masonry type construction, to seismically upgrade. The City also currently operates a Downtown Heritage Buildings

Seismic Upgrade Fund, which is financed by a percentage of bonus density contributions from within the Downtown Core Area. Currently, this fund has accrued approximate \$19,000; no monies have yet been awarded to candidate properties from this fund since its commencement.

The major impact of this course of action would be that many unreinforced buildings would continue to exist within the city and continue to pose a threat to life safety in the event of a major earthquake. At this time, the quantity of seismically vulnerable buildings within the city is unknown, so the risk of not taking any action on mandating upgrades is also unknown.

## CONCLUSIONS

Engaging the UBCM to petition the Provincial Government for additional powers to enact mandatory seismic upgrading bylaws is the only course of action that would enable the City of Victoria to mandate a significant increase in seismic upgrades within the near future. Although it is unknown at this time if the Province would grant such powers to local governments, this is the only option that would guarantee lasting municipal authority to maintain the City's building stock to a certain level of seismic resistance. Also, in order to ensure such regulations do not create an undue financial burden on the development industry and cause a major shift away from the redevelopment of heritage buildings in general, the Province should consider creating funding incentives and/or awards in tandem with the upgrade regulations.

In the meantime, the City can continue with providing incentives for the seismic upgrading of heritage buildings through the City's Tax Incentive Program and Parapet Improvement Program, and supplement these with further grants from the Downtown Heritage Buildings Seismic Upgrade Fund once sufficient funds have accrued.

Respectfully submitted,



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**Report accepted and recommended by the City Manager:**

  
Jason Johnson

**Date:** July 17, 2015