

# City of Seattle

## Recommendations for an Unreinforced Masonry Policy

### **Background**

The City of Seattle's Department of Planning and Development (DPD) is considering a mandate for all unreinforced masonry (URM) buildings to undergo a seismic retrofit to reduce the risk of injury and loss of life in the case of an earthquake. Unreinforced masonry buildings are typically multi-story, red-brick structures found in many of the City's oldest neighborhoods and commercial centers. URM buildings are known to be unsafe in the case of an earthquake as they are built without steel reinforcement or sufficient structural connections between the building's walls and other structural elements. A seismic retrofit can significantly reduce a URM building's risk of collapse in the event of an earthquake. Collapsed buildings can endanger the lives of the building's occupants and nearby pedestrians, block public rights-of-way for emergency response, and delay overall recovery from the earthquake.

### **Why is a URM policy necessary?**

The primary reason the City of Seattle is pursuing a URM retrofit policy is public safety. Earthquakes in 1949 and 1965 significantly damaged URM buildings in the City of Seattle. The 2001 Nisqually earthquake again underscored the vulnerability of URM buildings, as two-thirds of the buildings the City determined unsafe after the earthquake were URM buildings. Seattle is the only city in the country to have experienced URM building damage from 3 different earthquakes in 73 years.

Experts believe the chance of a damaging earthquake in the Puget Sound region in the next thirty years is significant. In addition to a repeat of damaging ground earthquakes such as those experienced in 1949, 1965, and 2001, Seattle potentially faces much stronger shaking from shallow earthquakes originating from the Seattle fault. Damage from these ground motions could be considerably greater than deep earthquakes and could disproportionately affect seismically-weak structures, such as unreinforced masonry buildings.

Another objective of the URM policy is to preserve the historic and cultural character and the economic vitality of many of the City's most vibrant neighborhoods. Without proper protection, many of the historic buildings and landmarks that define a neighborhood or community are susceptible to damage from an earthquake. A neighborhood's economic recovery may be delayed by the cleanup of debris from earthquake-damaged buildings.

### **Status of Seattle's URM Buildings**

DPD estimates there are about 1,000 URM structures within the city limits. Although many buildings have likely been seismically retrofitted to improve safety to some degree, the exact number of buildings that would require some level of structural improvements under the proposed policy is unknown. At this time, URM buildings are used for a variety of purposes, from commercial real estate and warehouses to

multi-family apartment buildings and single-story residential housing. A preliminary list of existing URM buildings and their addresses can be found on the URM Policy [website](#). The list will be updated to add any URM buildings not included by the City's initial inventory.

### **Previous URM Policy Efforts**

Unreinforced masonry buildings are not a new issue facing the City. In the 1970s, the Seattle City Council passed several ordinances requiring all URM buildings to achieve a given structural standard. The ordinances were eventually repealed when talks between the City and building owners met an impasse due to the cost of implementing the upgrades. DPD resumed efforts at creating a citywide policy by forming URM policy and technical committees in 2008. The technical committee ultimately recommended adopting a modification of the Bolts Plus retrofit standard commonly used in California. The technical committee recommended the modification (described below) to better address life safety concerns. Policy committee discussions ultimately were unable to move forward to generate a recommendation primarily due to the cost of retrofits. At the time, the estimate for a retrofit ranged from \$5-40 per square foot.

### **Current City Retrofit Policy**

Currently, unbraced parapets on URM buildings are required to be abated or braced. If a developer or owner chooses to construct a major addition or alteration to their building, or if a building sustains major damage in an event, the City building code requires a seismic report to be submitted along with the building permit. If the report indicates the building is substantially out of compliance with current engineering standards for existing buildings, seismic retrofit will be required. There is currently no policy in place that requires a seismic retrofit of URM buildings that are not undergoing a major improvement or alteration.

### **URM Retrofit Standard**

The 2008 Technical Advisory Committee, comprised of engineers, architects, and building owners, worked closely with the Structural Engineers Association of Washington (SEAW) to produce a recommended technical standard for a future URM retrofit policy. The proposed standard – referred to as the URM Retrofit Standard in this document – is a modification of the Bolts Plus retrofit for qualifying URMs. It requires that:

- parapets be braced;
- floors and roofs be structurally connected to URM walls;
- framing be interconnected to strengthen floors and roofs;
- weak interior and exterior bearing walls be strengthened.

The technical committee recognized that the URM Retrofit Standard is not appropriate for all building configurations. Qualifying buildings would require a minimum amount of retrofit work to connect a building's walls to the floors and roof. URMs that do not qualify for the modified Bolts Plus standard would be required to meet a more rigorous standard with an engineered design. The standard is not stringent enough to prevent all URM buildings from being damaged or becoming uninhabitable due to an earthquake, but is proposed as the least intrusive method for retrofitting qualified URM buildings to improve life safety.

## 2012 URM Policy Committee Process

### Current Policy Committee

In 2011 at the request of City Councilmember Richard Conlin, DPD convened a new URM Policy Committee to recommend elements of a city-wide URM policy. The committee brought together URM property owners, geological and seismology experts, structural engineers, architects, housing and real estate development representatives, and historic preservation professionals. The committee's charge was clear: given that a mandatory seismic retrofit policy would be enacted by the City, develop recommendations that would contribute to the most effective policy possible. City staff will consider the recommendations after the Committee work is complete, and draft a URM retrofit policy for Council review in late 2013.

### Policy Committee Members

URM Policy Committee Members		
Name	Organization	Area of Expertise
Lynda Carey	Bellwether Housing	Residential building owner and property manager
Art Frankel	U.S. Geological Survey	Seismology
Bob Freitag	University of Washington	Urban planning
David Gonzalez	Degenkolb Engineers	Structural engineering
Mark Huppert	Preservation Green Lab	Historic buildings and financing
Edlira Kuka	Solid Ground	Rental housing
Terry Lundeen	Coughlin Porter Lundeen	Structural engineering
Paul Mar	Seattle Chinatown International District Preservation and Development Authority	Real estate development
Sean Martin	Rental Housing Association	Rental housing
Rachel Minnery	Environmental Works	Architect
Steve Moddemeyer	Collins Woerman	Sustainable development
Mark Pierepiekarz	MRP Engineering	Structural engineering
Michale Robinson	A.I.D. Development Group	Sustainable Design and Construction
Ryan Smith	Martin Smith Inc	Commercial building owner and developer
Craig Weaver	U.S. Geological Survey	Geophysics
Eugenia Woo	Historic Seattle	Historic building preservation

### Meeting Schedule

The URM Policy Committee was formed in February 2012, with monthly meetings from March – October 2012. All meetings were open to the public, with meeting agendas and materials posted on the Policy Committee website. Community members were able to ask questions and provide feedback at each

meeting as well as provide comments on the Committee’s recommendations through the program’s contact email: [DPD\\_URM\\_Policy\\_Committee\\_Comments@seattle.gov](mailto:DPD_URM_Policy_Committee_Comments@seattle.gov).

### Finance Sub-Committee

The Policy Committee elected to form a sub-committee to engage in a more detailed discussion of the financing options for URM retrofits. Several Policy Committee members were nominated for the sub-committee, along with relevant City and private financing professionals. The sub-committee met twice and developed a series of funding recommendations that were presented to the Policy Committee for consideration.

URM Finance Sub-Committee Members	
Name	Organization
Bob Freitag	University of Washington
John Gibson	Gibson Economics
Mark Huppert	Preservation Green Lab
Erika Lund	City of Seattle, Office of Emergency Management
Steve Moddemeyer	Collins Woerman
Michale Robinson	A.I.D. Development Group
Ken Takahashi	City of Seattle, Office of Economic Development

### URM Policy Goals and Objectives

The City of Seattle identified a primary policy goal for the URM retrofit program to improve life safety by reducing the risk of injury from collapse of URMs in the event of an earthquake. A seismic retrofit for Seattle’s URM buildings would enhance the safety of the structures and reduce the threat of injury or death in the case of an earthquake.

The City’s secondary goals for the program include:

- Preserving the City’s historic and culturally significant landmarks and structures
- Preventing the collapse of buildings deemed important to a neighborhood and the surrounding community to help preserve a neighborhood’s historic character
- Improving Seattle’s resiliency to earthquake events, allowing for a quick recovery and cleanup and thereby benefiting both the City and community
- Minimizing an outcome that results in demolished or vacant buildings

To achieve these goals identified by the City, the Policy Committee is recommending a URM program that will support several objectives. These include:

- Creating a program that is easy for building owners to understand and implement

- Encouraging building owners to retrofit beyond the program’s minimum requirements in order to enhance the probability that the URM building will remain standing in the event of an earthquake
- Encouraging early participation in the retrofit program
- Building broad-based support for the program
- Reducing the cost of retrofits to building owners by providing options for financial support

## **Policy Committee Recommendations**

The 2012 URM Policy Committee was tasked with developing a series of policy recommendations to DPD on a mandatory City of Seattle URM seismic retrofit program. Based on the work of the 2008 URM Technical Committee, the Committee assumed retrofits would be based on the URM Retrofit Standard. More information on the URM Technical Committee report can be found on the City of Seattle’s [website](#).

### **What buildings are subject to the retrofit requirement?**

The Policy Committee recommends that the URM retrofit program apply to all buildings that have unreinforced masonry bearing walls, including residential buildings with three or more units. The three-unit threshold is consistent with DPD’s classification for multi-family structures. Single-family and two-unit residences will be excluded from retrofit requirements, in part because many single- and double-unit residences are not URM buildings, and because these buildings generally have fewer occupants than multi-family structures. The City of Seattle also has additional programs that address seismic upgrades needed for single-family homes (e.g., the [Home Retrofit Program](#)). Brick veneer buildings are also excluded from the URM retrofit program.

### **How is building risk described?**

The Policy Committee recommends that buildings be classified into three different categories according to the degree of risk the building imposes to life safety. Those categories are:

- Critical-risk: schools and critical facilities (hospitals, fire stations, etc.)
- High-risk: buildings greater than 3 stories on poor soil or with more than 100 occupants
- Medium-risk: all other URM buildings

To inform this recommendation, the Policy Committee reviewed risk categories used in several California jurisdictions. The committee’s discussion on risk categories centered on the number of occupants each building is likely to hold, the use of the building, and whether the building sits in an area with soft soils, such as a liquefaction-prone area.

**Critical-risk:** Several committee members advocated for hospitals, first responders, and shelters to be within the critical-risk category because the City would be hindering its own recovery without these essential buildings. Educational facilities (housing children) were also determined to be particularly critical-risk buildings because of the age of the occupants.

**High-risk:** A number of URM buildings rest on soil that is vulnerable to liquefaction in the event of an earthquake, greatly increasing the risk of and likely extent of damage. Likewise, taller buildings are more

susceptible to collapse. With this in mind, the committee decided to include in the high-risk category any building with more than three stories in areas of poor soil condition or buildings that hold 100 or more occupants (regardless of underlying soil conditions).

Medium-risk: All other URM buildings are classified as medium-risk.

The Policy Committee did not identify a low-risk category because all URMs are at risk during seismic events.

### **What are the steps in completing a retrofit?**

The Policy Committee recommends a retrofit program that includes several steps.

1. **Notification.** The retrofit process should begin with DPD providing formal written notification to all owners of URM buildings that were preliminarily identified by DPD. This formal notification will state that their property is subject to the URM program, and should include a description of the URM program, information about the program's purpose and goals, an outline of the timeline for compliance and enforcement measures, and a description of funding sources and incentive programs. This formal notification will also include DPD's preliminary assignment of a risk category for the building and a corresponding timeline for complying with the URM policy.
2. **Assessment.** Following the notification, building owners will be responsible for commissioning a seismic assessment of the building. If the assessment confirms that the structure is a URM, it should note any seismic vulnerabilities of the building and identify what upgrades are necessary for the building. If the assessment indicates that DPD has erroneously assigned a building to a risk category, the building will be re-categorized and given a new timeline for compliance. Additionally, buildings determined by the assessment to not be unreinforced masonry will be removed from the City's Potential URM list.

The committee emphasizes the importance of the seismic assessment to the overall success of the retrofit program. It is recommended that DPD develop standard guidance for completing a building assessment to ensure consistent standards are met during this phase. Consistent standards will be beneficial to both building owners and the City in ensuring quality and setting clear expectations.

3. **Apply for permit.** Using information gained from the seismic assessment, building owners identify prescriptive steps that they will take to comply with minimum requirements of the URM Retrofit Standard and apply for a permit to complete the work. While this is an interim step in the overall retrofit process, it is important for building owners and DPD to have sufficient time to identify additional information needs, discuss questions, and/or make changes to the application.
4. **Approve permit.** After the City has reviewed the permit application, an approved permit for the retrofit work is granted. Building owners can begin the work to complete the retrofit under the permit.

5. **Retrofit completion.** Building owners complete the seismic retrofit and enhance the seismic safety of the building.

### What is the timeline for completing a URM retrofit?

The Policy Committee recommends that the overall time allowed for a building retrofit range from 7 to 13 years, based on the assigned risk category of the building. The committee discussed both shorter and longer timeframes, with some committee members suggesting that retrofits should happen as quickly as possible given the impact on life safety and unpredictability of earthquake events. However, other committee members cautioned that property owners could better fund retrofits if the policy timeline was in line with tenant turnover and real estate cycles (that is, the approximately 15 year up and down cycle of the real estate market and rental prices). This was deemed to be an important consideration.

The Policy Committee recommends the following compliance timeline:

<b>Timeline for URM Policy Compliance</b>			
	Critical-Risk URMs	High-Risk URMs	Medium-Risk URMs
Notification	year 0	year 0	year 0
Assessment	+1 year	+2 years	+3 years
Apply for permit	+1 year	+2 years	+2 years
Approve permit	+1 year	+1 year	+1 year
Retrofit completion	+4 years	+ 5 years	+ 7 years
<b>Total time allowed (notification to retrofit completion)</b>	<b>7 years</b>	<b>10 years</b>	<b>13 years</b>

In this table, Year 0 is the date the program takes effect and owners are notified. Each subsequent retrofit milestone is shown with the number of years to accomplish that milestone after the previous milestone has been met. For example, if the program takes effect in 2014, assessments for medium-risk URM buildings must be completed by 2017, permit applications submitted by 2019, permits approved by 2020 and retrofits completed by 2027. The total time shown is the sum of the times for all the milestones.

This timeline is fixed, regardless of whether building owners reach milestones in the process more quickly. For example, even if a building owner completes an assessment in less than three years, the clock for the permit application will not begin until three years have passed. Conversely, if the building owner is late in reaching a milestone, the total time to complete the retrofit does not change.

If a property changes ownership during the retrofit completion, the committee recommends that the overall timeline does not change. A new owner would be required to complete any remaining steps in the process in the overall time remaining.

The City should make every effort to notify building owners at the beginning of the URM program. However, if a URM building is not included on the City’s preliminary list, the building is still subject to the URM program and the owner is obligated to comply with the program requirements and timeline.

## What tools will make the policy more effective?

The Policy Committee identified a number of tools that could be used to make the URM policy more effective. These tools will make it easier for building owners to understand and comply with the URM policy and will help meet objectives of the policy, including:

- **Creating a policy that is easy for building owners to understand and implement.** The committee suggests tools that will make the policy easy to understand, easy to implement, and create clear expectations for building owners.
- **Encouraging building owners to retrofit beyond the policy’s minimum requirements in order to enhance the probability that the URM building will remain operational in the event of an earthquake.** Taking a building’s seismic retrofit beyond the mandated URM Retrofit Standard may strengthen the building to a level that not only increases life safety but may reduce the likelihood of damage or collapse in the case of a moderate earthquake.
- **Encouraging early participation in the retrofit policy.** The committee understands that retrofits should be completed as quickly as possible and recommends several tools to encourage building owners to move quickly through the program.
- **Building broad-based support for the policy.** The committee recognizes that there will be some opposition to the URM policy, and recommends several measures to generate support during policy review and enactment.
- **Reducing the cost of retrofits to building owners by providing options for financial support.** The committee recognizes that the greatest barrier for building owners is the cost of the retrofits, and that financial support must be provided in order for the policy to be successful.

Policy objective	Tool
<p><b>Easy for building owners to understand and implement</b></p>	<ul style="list-style-type: none"> <li>• Create a DPD liaison position to work with individual building owners to navigate the retrofit policy and process</li> <li>• Issue a master permit with an extended expiration date that would allow retrofits to be progressively implemented over an extended period of time as tenants move out of units within a building</li> <li>• Provide clear guidelines and standards for permit reviewers and inspectors, and limit the scope of what building inspectors are looking for</li> <li>• Develop a standardized assessment protocol</li> <li>• Post a vetted list of assessment consultants and contractors on the City’s website</li> <li>• Ensure a predictable and timely permit process</li> <li>• Provide two City-funded hours of permit pre-submittal coaching to help building owners navigate the technical aspects of permit submittal and retrofit requirements</li> <li>• Provide an interdepartmental and inter-agency permit facilitator to coordinate construction permit review and expedite historic landmark or Section 106<sup>1</sup> reviews</li> </ul>

<sup>1</sup> Section 106 of the National Historic Preservation Act of 1966 mandates that federal agencies must review and assess the effects of their actions on any historic resources or properties. In the case of the URM policy, the



	<ul style="list-style-type: none"> <li>• Decouple seismic retrofits from other code upgrades that may be necessary in a building</li> <li>• Provide a clear definition of the policy and the URM Retrofit Standard (Client Assistance Memo) that includes: (1) a description of how the URM Retrofit Standard applies to buildings, (2) the cost and benefits of the URM Retrofit Standard, and (3) a description of probable maximum loss (PML) and its correlation to potential loans</li> </ul>
<b>Encouraging retrofits beyond the policy's minimum requirements</b>	<ul style="list-style-type: none"> <li>• Capitalize on potential reduced insurance costs that may result from the building's increased seismic safety</li> <li>• Leverage increased future revenue if retrofits allow the building to be re-opened more quickly following an earthquake</li> <li>• Provide an opportunity to change the use and zoning requirements of buildings that have undergone a retrofit beyond the URM Retrofit Standard</li> <li>• Implement a rebate program modeled on the City's energy-efficiency partnership program (Community Power Works<sup>2</sup>)</li> </ul>
<b>Encouraging early participation</b>	<ul style="list-style-type: none"> <li>• Subsidize permitting fees associated with early participation in the program</li> <li>• Waive Americans with Disabilities Act (ADA) or new parking requirements for URM buildings with completed retrofits</li> <li>• Place an expiration date on certain funding sources or tools, such as waiving permit fees or parking requirements</li> </ul>
<b>Building broad-based support</b>	<ul style="list-style-type: none"> <li>• Conduct an economic impact analysis to understand the effect of the policy on private sector business, including benefits to life safety and increased resiliency to earthquakes. The City Council provided funding for this analysis in 2013.</li> <li>• Provide a clear definition of the policy's scope, cost, and life safety benefits</li> <li>• Provide comprehensive information about the policy on City's website specifically directed at industry and trade association members</li> <li>• Conduct an education and outreach campaign to URM owners and neighborhood representatives about the policy and its requirements</li> <li>• Publicly post information about buildings that have been successfully retrofitted</li> </ul>
<b>Minimizing the cost of retrofits</b>	<ul style="list-style-type: none"> <li>• Provide funding support options that property owners can access (see funding options recommendations on page 11)</li> </ul>

recommended incentive would only apply to buildings that are part of a federal undertaking or receiving federal funds, such as low-income housing that is receiving federal tax credits.

<sup>2</sup> Community Power Works, in partnership with the City of Seattle, is a rebate program geared towards increasing the energy efficiency of residential, commercial, and institutional buildings. The program is funded through federal stimulus funds and offers direct cost-savings to building owners, including a reduced-cost energy assessment and low-interest loans.

## How will the policy be enforced?

With each step in the retrofit program timeline, the Policy Committee recommends an enforcement mechanism to ensure compliance. In general, the committee recommends using DPD’s standard enforcement procedure, with a notice of violation given to non-compliant owners, followed by a series of fines. The idea of using non-compliance fines to help fund the City’s incentives and financing options was proposed but ultimately decided against as it could create a conflict of interest for DPD. For the policy, each step of compliance – assessment, permit application, permit approval, work completion – will have its own enforcement structure.

The Committee discussed the nature and quantity of fines to be levied, and discussed that fines may not be effective if lack of funding is the reason a building owner is not complying with the policy. To mitigate this, the committee suggests the creation of a DPD liaison who will work with building owners to navigate the policy and identify any unique financial hardship. Overall, the committee recommends a tiered fine system that will help underscore the importance of the policy.

Policy Step	Incentive and Enforcement
Assessment	<p><b>Tools to support compliance</b></p> <ul style="list-style-type: none"> <li>• DPD liaison position to work with individual building owners to navigate the retrofit policy and process</li> <li>• Reference to vetted list of assessment contractors on the City’s website</li> <li>• Standardized assessment protocol</li> <li>• Funding resources (see page 11)</li> </ul> <p><b>Enforcement for non-compliance</b></p> <ul style="list-style-type: none"> <li>• Notice of violation to owner with fine of \$500/quarter</li> <li>• Public posting of non-compliance on the City online database</li> <li>• Block on any new permits for the building</li> <li>• City contracts with a third party to conduct assessment and bills property owner for assessment fees and associated administrative costs</li> </ul>
Permit Application	<p><b>Tools to support compliance</b></p> <ul style="list-style-type: none"> <li>• DPD liaison position to work with individual building owners to navigate the retrofit policy and process</li> <li>• Two City-funded hours of pre-submittal coaching to help owners through technical aspects of the permit submittal process</li> <li>• Reference to vetted list of retrofit design engineers on the City’s website</li> <li>• Permit fees waived</li> <li>• Interdepartmental and inter-agency permit facilitator</li> </ul> <p><b>Enforcement for non-compliance</b></p> <ul style="list-style-type: none"> <li>• Notice of violation to owner with fine of \$1,000/quarter</li> </ul>

	<ul style="list-style-type: none"> <li>Public posting of non-compliance on the City online database</li> </ul>
<b>Permit Approval</b>	<p><b>Tools to support compliance</b></p> <ul style="list-style-type: none"> <li>Interdepartmental and inter-agency permit facilitator</li> </ul> <p><b>Enforcement for non-compliance</b></p> <ul style="list-style-type: none"> <li>Notice of violation to owner with fine of \$1,000/quarter</li> <li>Public posting of non-compliance at property</li> <li>Sunsetting of incentives, and permit fees are reinstated</li> </ul>
<b>Completed retrofit</b>	<p><b>Tools to support compliance</b></p> <ul style="list-style-type: none"> <li>Public disclosure of buildings that have been retrofitted</li> <li>Reference to vetted list of construction contractors on the City's website</li> <li>Available funding sources for retrofits</li> </ul> <p><b>Enforcement for non-compliance<sup>3</sup></b></p> <ul style="list-style-type: none"> <li>Notice of violation to owner with copy to tenants, with civil penalty of \$45,000/quarter</li> <li>Lien on property based on outstanding fines</li> <li>Public posting of non-compliance on-site</li> <li>Block on any new permits for the building</li> <li>Abatement of the property by the City</li> </ul>

### How will retrofits be funded?

From the beginning of the Policy Committee's discussions, it was clear that the greatest barrier to a successful URM policy is the cost of completing a seismic retrofit. The policy committee, along with considerable contributions from the finance sub-committee, generated an extensive list of potential funding sources to consider. This list was evaluated against a number of criteria, including:

- Is this a legal funding source?
- Does it provide a significant level of funding?
- Is this a new source of funding or does it instead redirect funds from another source?
- Is this easy for property owners to use?
- Is this easy for the City to administer (if applicable)?
- Do all building owners have equal access to this funding source?
- Are there factors to consider that will increase or decrease the impact of this funding source (e.g., is this dependent on tax revenue or subject to federal government funding cuts)?

The committee was also cognizant of the need to present funding options that are, at least in part, currently available instead of relying heavily on funding sources that *could* be developed in the future. For example, committee members discussed the possibility of low-interest loans from local banking institutions to building owners. Several suggested that once banks realize the market need, they might

<sup>3</sup> Enforcement measures may not all be applied at the same time.

provide the capital necessary for the required retrofits. Others suggested that there may be opportunities to partner with developers to generate funding for building retrofits. While these options may be viable in the future, they are not currently in place as funding sources.

The committee also recommends several funding options or tools to support compliance that would require expenditures from the City’s general fund (e.g., waiving permit fees or creating a DPD liaison position). The committee did not consider whether these funds were currently available.

In the end, the committee recommends a short list of funding options for buildings owned by public or non-profit entities, and a list of funding options for buildings in private ownership. The committee recognized that funding options may be more readily available for the public/non-profit sector. All options have had a cursory vetting with the City’s legal department and are legal, but have varying levels of ease for implementation.

<b>URM Funding Options</b>	
<b>Public/Non-Profit Ownership</b>	<b>Private Ownership</b>
Federal grants	
General obligation bonds	
Levy	
10% Federal rehabilitation tax credit	10% Federal rehabilitation tax credit
Tax abatement	Tax abatement
Revolving loan fund	Revolving loan fund
Transfers of Development Rights	Transfers of Development Rights
Architecture and Engineering grants & resources	Architecture and Engineering grants & resources
Building owner contribution	Building owner contribution
Education funding	Education funding

**The following three funding options are only available for public and non-profit property owners:**

**Federal grants** – Grants that can be used for the seismic retrofit of public and non-profit owned buildings are periodically available from the Federal Emergency Management Agency (FEMA) or the Community Development Block Grant (CDBG) program through the U.S Department of Housing and Urban Development. Grant funding for privately-owned buildings may be available under special circumstances. For example, the City received a one-time FEMA grant to fund the seismic strengthening of single-family, low- to moderate-income homes.

**General obligation bonds** – Unlimited tax general obligation bonds are voter-approved municipal bonds secured with the obligation of the City to use available resources, including tax revenue, to repay the debt. General obligation bonds could be used to fund a City-administered retrofit funding program. General obligation bonds must be approved by 60% of voters.

**Levy** – A levy consists of a voter-approved increase in the money collected annually from each property owner. The levy is based on a percentage of the value of home and privately-owned land, and only affects properties inside the city limits. Funds raised through a levy could be used for a City-administered retrofit funding program. A levy must be approved by 50% of voters.

**The following funding options are available to all types of property owners:**

**Tax abatement** – Tax abatement consists of the reduction or elimination of property taxes for a designated period of time. For the URM policy, URM buildings would be granted short-term property tax abatement and property owners could use those monies to help fund a seismic retrofit. This change would require a change in State law.

**Revolving loan fund** – A revolving loan fund creates a central fund through which multiple loans are made to borrowers. Through regular repayments of the original loan, borrowers replenish the central fund. A URM revolving loan fund could initially be funded through an endowment or through a partnership with lending institutions.

**Transfer of development rights (TDRs)** – This strategy allows buildings in designated areas to sell the potentially developable “air space” above the building to purchasers who can use the additional floor area to increase the density of their development in another area of the city. TDRs could help building owners generate funding for URM retrofits while maintaining their building’s historic character. This option would require amendments to the City’s Land Use Code.

**Architectural and engineering services grants and resources**– The City would provide funding for building owners to access architectural and engineering services in support of a building’s retrofit design.

**10% Federal rehabilitation tax credit** – This existing federal tax credit allows users to write off 10% of eligible construction costs for retrofits. The tax credit applies to any non-residential building built before 1936 and does not require a formal review process if the rehabilitation is for a non-historic building. The right to the tax credit can also be sold by the owner. A similar 20% tax credit is available to certified historic structures that are either listed or eligible for listing on the National Register of Historic Places or a contributing building to a National Register historic district. A certified historic structure may also be considered a Seattle landmark building.

**Education funding** – An educational program directed towards URM building owners and tenants, focused on the importance of a seismic retrofit for public safety, could be funded by the City. The program is intended to provide information on the potential consequences of not retrofitting a URM building and encourage building owner action, perhaps averting additional cleanup and disposal costs associated with a future disaster event.

**Building owner contribution** – In any retrofit, building owners will likely also use their own sources of capital, including low-interest loans from participating banking institutions, to pay for the cost of a building retrofit.

## **Demolition**

It is the intent of the Policy Committee to minimize the demolition of buildings. While jurisdictions in other states used demolition as a tool to address seismically vulnerable buildings, the Policy Committee does not recommend that demolition be considered a tool for the City of Seattle URM Policy except as a last resort when all other options have been exhausted. The Committee recommends that the policy be coupled with private sector incentives to prevent demolition. In many cases, buildings in historic districts cannot be demolished without approval from the City.

### **Next steps and things to consider**

The Policy Committee spent a great deal of time discussing the financial impact of the URM retrofit policy on building owners. The committee recommends that the City complete an economic analysis that determines the overall financial impact of the policy on property owners, both positive and negative. When complete, that analysis should be compared to the funding recommendations to ensure they are of comparable scale. Additionally, the outcome of the analysis may change some committee recommendations, such as criteria for classifying URM risk categories and prioritizing development of incentives.

During Policy Committee meetings, concerns were also raised that this policy could be especially onerous for small businesses or small property owners. It was suggested that the policy may result in a significant number of buildings transferring into the hands of developers, possibly leading to an increased rate of demolition and a decrease in local ownership of buildings. The City should carefully consider whether this is a desirable consequence of this policy.

All of the committee's work is based on the assumption that the URM buildings would be required to meet the URM Retrofit Standard proposed by the Technical Committee. Where possible, the committee attempted to incentivize retrofits that went beyond the URM Retrofit Standard, but did not go so far as to make any recommendation on the technical standard itself. If the City makes a policy decision to require retrofits to a standard beyond the URM Retrofit Standard, some of the recommendations of the committee will need to be revisited.

### **Conclusion**

The URM Policy Committee recognizes the importance of a retrofit policy to protect human life and preserve the historic character of Seattle neighborhoods. While there is a considerable financial impact of the policy requirements on building owners, it is important to also consider the value of these URM buildings from a historic and cultural perspective. The committee recognizes the need for a balanced policy that preserves human life and historic culture, while still making the policy fair for private and non-profit building owners. These recommendations attempt to achieve that balance.