City of Palo Alto Seismic Hazard Identification and Risk Management Program

Task A.2: Summary of Relevant Progress at the Local Level - Memorandum

Lead Author: Zahraa Saiyed

August 6, 2025 (Revised November 22, 2025)

1. Introduction

This memorandum builds on Section III of the 2016 *Seismic Risk Assessment Study* (Rutherford + Chekene, 2016) by updating Palo Alto's understanding of seismic retrofit programs through a comparative review of policies adopted in California jurisdictions since 2016. It supports Task A.2 of the City's seismic risk reduction effort by analyzing the development, implementation, and outcomes of mainly soft-story wood frame and nonductile concrete retrofit ordinances to inform Palo Alto's next steps and can be read in conjunction with the Task A.1 memorandum "City of Palo Alto Seismic Hazard Identification and Risk Management Program, Task A.1: Summarize Relevant State Laws – Memorandum" (Saiyed, 2025) that outlines relevant state level legislative changes and actions since 2016. Unreinforced masonry (URM) building ordinances have not been included in this study as the California Seismic Safety Commission has not published a comprehensive statewide status report in recent years; therefore, systematic tracking of local URM program updates since 2016 is not available. Drawing on official city documents, academic research, and legal precedent, the review extracts practical lessons related to scope, enforcement, phasing for compliance, equity, and financial support. The findings aim to guide local policy design and are presented alongside a summary matrix. Appendices include legal precedents, research on motivators for successful soft-story wood frame retrofit, and recommendations for concrete seismic risk reduction programs (based on San Francisco's stakeholder research) (City and County of San Francisco, 2024).

2. Executive Summary

California cities have adopted and implemented a variety of seismic retrofit ordinances since 2016, providing valuable lessons for crafting resource-conscious, housing-sensitive, equitable, and enforceable approaches to reduce seismic risk in the most vulnerable building types. The

following key themes, distilled from city experiences, are particularly relevant for developing seismic safety policy in Palo Alto:

Targeted scope based on risk: Most ordinances target soft-story, wood frame multifamily buildings constructed before the early 1980s, typically those with three or more units and two or three stories. These buildings often house renters and a life safety concern making them a priority in many retrofit programs.

Phasing: High-compliance programs generally start with a thorough building inventory or screening, followed by staggered retrofit deadlines based on risk factors such as size or occupancy. This multi-step process gives city staff and owners the opportunity to address the most seismically vulnerable buildings first, seek exemptions or funding, and manage workload.

Enforcement: Strong enforcement provisions are crucial for program success. Cities with high compliance, such as Fremont and Los Angeles, use measures like notices to comply, administrative citations, "unsafe" placarding, and, in some cases, occupancy restrictions. Voluntary programs have consistently produced lower retrofit rates. Credible and escalating enforcement with increasing degrees of penalty communicated clearly within the ordinance can facilitate timely compliance.

Tenant Protections: Cities balance seismic safety with housing stability by instituting tenant safeguards. These include exclusion of condominiums (to protect rental stock), caps on rent increases (e.g., Los Angeles' $38/month limit on cost pass-throughs), and requirements for tenant habitability plans during disruptive construction. Such protections help mitigate displacement and financial strain for affected renters while ensuring critical safety improvements are made. Tenant habitability plans outline how construction will impact tenants including potential disruptions and mitigation measures such as relocation during retrofit processes.

Incentives and Financing: Cities use a range of incentives such as streamlined permitting, technical guidance, and fee waivers. Partnerships with lenders, PACE financing, and access to

state programs (like California's Residential Mitigation Program) have also been leveraged. With fluctuations and uncertainty in future FEMA grant funding, cities recognize the importance of securing diverse, stable funding streams to support both owners and program longevity.

Implementation: Effective administration includes internal teams for tracking, permit review, outreach, and enforcement. Clear processes, annual progress reporting, transparent dashboard updates, and accessible communication channels are hallmarks of the more successful programs. Cities emphasize the value of transparent implementation roadmaps and ongoing public engagement to maintain compliance momentum and adapt to unforeseen challenges. Outreach and information to owners and tenants should be multi-lingual and accessible.

The above themes and key findings highlight that many successful seismic risk mitigation programs have focused on targeted scope, phased and risk-based timelines, firm yet equitable enforcement, robust tenant safeguards amidst housing shortages, diverse financing solutions, and strong program administration. Each element is essential to ensure that safety improvements can be achieved efficiently and fairly while minimizing burdens on residents, owners, and city resources and prioritizing community resilience.

3. Updates on Seismic Safety Ordinances (2016-2025)

The analysis proceeds geographically, starting with cities closest to Palo Alto, and then to the greater Bay Area. Following this, many California-based seismic retrofit ordinances are summarized. A summary matrix on key takeaways is provided after the overview of seismic ordinance updates. Where possible, the latest available public information for vulnerable building types and compliance data are provided. A soft story can occur in any structural system. Note that the term 'soft story' as used in this memorandum refers to wood frame buildings with ground floors that have insufficient lateral stiffness or strength compared to upper stories. While structural engineers distinguish between 'soft story' (insufficient stiffness) and 'weak story' (insufficient strength) conditions, both vulnerabilities typically occur together in the wood frame multifamily buildings targeted by retrofit ordinances.

3.1 Peninsula Cities

City of Mountain View – Soft-Story Seismic Risk Reduction

The City of Mountain View has recognized the seismic risk posed by soft-story buildings but has not yet passed a retrofit ordinance. A 2018 study identified 488 potential soft-story buildings (16% of the housing stock), and in 2019, the City Council held a study session which signaled support for a mandatory soft-story retrofit program (Association of Bay Area Governments, 2018a). Most of the potential soft-story buildings are wood framed residential structures built between 1950-1980. The scope of the proposed program would be pre-1980 wood frame buildings with three or more units and with open ground floors. As of January 2025, no ordinance has been adopted. However, Mountain View has conducted a thorough inventory, engaged stakeholders, and published a soft-story wood frame retrofit study with policy options. Currently, the city is working on ordinance language and ensuring adequate staff and resources are available for enforcement.

Lessons: Mountain View's cautious progress shows that developing a seismic ordinance may be a multi-year process. Council prioritization, community outreach, and alignment with budget cycles all affect timing. One notable aspect of Mountain View's seismic safety efforts is the characteristic building threshold for building typology under consideration: pre-1980 wood frame, 3+ units with open ground floor that exclude very small buildings. This targets the highest-risk structures while reducing impacts on small landlords.

City of San José – Soft-Story Wood Frame Retrofit Program

The City of San José enacted its soft-story wood frame retrofit ordinance in September of 2024, but the implementation was postponed until April 2026 (City of San José, 2024). This was a culmination of a multi-year effort beginning in 2018 when the City Council received a $4.6 million grant from FEMA to help property owners with the cost of retrofit. Since then, the housing department undertook a program overview, outreached to tenants, property owners, real estate groups and others regarding the prospect of the ordinance. In September of 2021, the City was awarded a grant from FEMA to develop an inventory of potential properties that may be considered soft-story buildings. It also included the development of a soft-story wood

frame retrofit ordinance with the establishment of a rebate pilot program to help defray the cost of retrofitting for building owners as well as outreach and engagement with property owners and tenants and included a compliance program. Another component is the Retrofit Financing Program which will be available during the ten-year compliance period. It will provide low-cost capital to housing providers with loans estimated to average $100,000 at a fixed interest rate of 4% or below for a 15-year term.

A consultant report including an inventory was completed in April 2024 (Bonowitz, 2024). In March of 2025, largely due to the loss of a $33 million FEMA grant for California to subsidize retrofit costs for owners, the City Council approved the delay the implementation of the ordinance to April 1, 2026.

The city estimates that there is a total of about 3,500 soft-story buildings, home to around 72,000 people. The recent ordinance targets an estimated 1,090 multifamily buildings that have three or more units of two or more stories and were constructed before 1990. Notices to owners and compliance timelines were similar to other cities including several years for permitting and a full seven years for full retrofit. The program focuses on equity and aims to protect low-income and rental housing and to prevent displacement. The FEMA-funded rebates are explicitly designed to help low-resourced owners and tenants comply with the mandatory program without excessive rent increases. The program achieves this by prioritizing affordable rental housing for low-income with rebate coverage varying by housing type (100% of allowed pass-through costs for eligible low-income tenants in affordable rental housing; 50% of owner's total retrofit cost for deed-restricted affordable housing; 20% of the owners' portion for owner-occupied housing). It also enacts a 5% cap for annual increases of costs to tenants under the City's Apartment Rent Ordinance. The city council discussed using San José's Measure E funds, which were initially intended for affordable housing development, to offset retrofit costs. However, this raised concerns about diverting resources from critical affordable housing initiatives and exacerbating the housing crisis for vulnerable tenants. As of mid-2025, San José is seeking alternate funds from state grants and local incentives for the April 1, 2026, effective date of the ordinance (Partner Engineering and Science, Inc., 2025).

Lessons: San José's process for their soft-story wood frame retrofit ordinance underscores the critical need for financing in seismic mandates. Although it could not have been predicted, the loss of FEMA funding led to a postponement of ordinance implementation and, therefore, highlights the need for multiple funding streams and financial incentives. San José also illustrates how larger cities approach policy with an equity lens, including retrofit requirements do not inadvertently displace vulnerable tenants. Measures that address equity issues may include loan programs or hardship extensions to balance seismic safety with housing stability and availability.

San José undertook dedicated research on the impact that this ordinance would have on tenants in soft-story buildings in the city and cross-referenced with data that tenants are currently already rent-burdened. This aligns with national and Bay Area focused data as well a 2020 national study by the Government Accountability Office (GAO) found that for every $100 increase per month of median rent, homelessness increases by 9%. A 2023 UCSF study on homelessness in California found that the cost of housing had become unsustainable with high rent costs as the primary cause of respondents' homelessness (U.S. Government Accountability Office, 2020; Mercury News, 2024). San José's experience suggests that engaging stakeholders and education is crucial for feedback, and comprehensive multilingual outreach early and continuously is important for buy-in and smoother implementation. Coordination with existing rent control/stabilization ordinances, exploring financial mechanisms that minimize rent increases, and ensuring clear tenant coordination plans during construction are important for protecting and considering tenants for displacement while retrofits occur. Securing grant funding from FEMA or state resources should prioritize allocation to support compliance with a mandatory program and focus on assisting those who need the most financial help to avoid displacement.

3.2 Greater Bay Area

City of San Francisco – Multiple Seismic Retrofit Programs

San Francisco's Mandatory Soft-Story Retrofit Ordinance passed in 2013 was one of California's earliest large-scale programs (San Francisco Department of Building Inspection, 2022). It

targeted pre-1978 wood frame buildings with five or more units and with soft-stories. All of the approximately 4,900 identified soft-story buildings were required to be retrofitted within seven years of notice with staggered deadlines by building size. As of 2025, targeting of the nearly 5,000 wood framed buildings housing 114,000 people, 94% achieved compliance. COVID delays may have played a role in some of the delays and extensions.

Additionally, it is important to note that three-to-four unit soft-story buildings were excluded from the 2013 ordinance and has left a large segment of the building stock unretrofitted. San Francisco's program demonstrates high compliance through mandatory deadlines, though a minority of owners are lagging and face penalties. As part of its Community Action Plan for Seismic Safety (CAPSS) (Community Action Plan for Seismic Safety, n.d.), San Francisco is moving onto its nonductile concrete building stock. In 2025, the Board of Supervisors approved an ordinance requiring owners of older concrete high-rises and concrete tilt-ups to conduct structural evaluations. Screenings began in October of 2025 with 18 months for completing the screening. Voluntary retrofit standards for owners who choose to make upgrades were adopted as part of the ordinance (OneSF, 2025).

The City of San Francisco also conducted stakeholder engagement for the concrete building program over a year long period (City and County of San Francisco, 2024). This Concrete Building Safety Program employs a phased approach to identify and prioritize retrofits for vulnerable concrete structures. Currently, the notification phase to owners is being planned and by Spring 2026, a study on financial opportunities and resources will be completed. San Francisco also evaluated private schools for seismic risk which are mostly concrete buildings but did not mandate retrofits due to owner opposition, financial burden concerns, and political sensitivity.

Lessons: A clear mandate with phased deadlines and consistent enforcement yields strong compliance. A small percentage of owners typically remain non-compliant, requiring a robust follow-up plan and some flexibility in the face of unforeseen delays (e.g., pandemic-related/legislation updates). Recommendations from the stakeholder engagement report

(2024) for the Concrete Building Safety Program that are also relevant to other building construction categories include (full report excerpt in Appendix D):

1. Developing a financing plan that includes existing and potential financing options for residential and commercial building *before* an ordinance is introduced.
2. Pursue Federal and State grants to support property owners in doing retrofits.
3. Create a communications plan for the ordinance that can be broken down into two communication plans – one focused on the legislative process leading up to the ordinance passage and another focused on the implementation of the program once it is passed.
4. Create a process that ensures residents and tenants are notified about retrofit construction before work begins and include information about retrofit timelines, tenant support, and tenant rights.
5. Provide guidance and informational resources for building owners and residents to understand the processes and rights related to relocation during retrofit.
6. Provide a communications packet helping building owners communicate with tenants about earthquake risk.
7. Include funding in legislation for a dedicated, full-time building inspection staff to support the administration of the program.
8. Coordinate requirements, timelines, and communications for alarms, sprinklers, and façade repairs.
9. Streamline sidewalk encroachment permits to reduce administrative burden to departments to make it easier for building owners to comply.

Additional feedback based on consultations found that while combining construction types like nonductile concrete with concrete tilt-up may be a practical grouping, it can also potentially delay the relatively simpler retrofits for tilt-ups while processing the more complicated and expensive nonductile concrete buildings. Therefore, considering separating retrofit timelines for different concrete sub-types should be considered. Further, PACE financing was underutilized for the soft-story program, and low-interest bank loans and equity were more common to finance soft-story retrofits. A key takeaway is that existing lenders' lack of familiarity or resistance to PACE should be addressed as these lenders must add on PACE financing as part of the loan if it is to be used for retrofitting purposes. FEMA BRIC funding for private-sector retrofits was not pursued due to department capacity constraints as the process for applying for and obtaining federal funding can be administratively heavy. Further, FEMA BRIC funding has been terminated as of April 2025.

City of Berkeley – Multiple Seismic Retrofit Programs

The City of Berkeley adopted a mandatory retrofit ordinance for soft-story apartments in 2005 (amended in 2014) (Seismic Ordinances, 2025b). Berkeley's Soft-Story Ordinance required wood frame buildings with five or more units, built pre-1978, to be retrofitted by 2018–2019. Berkeley identified approximately 400 soft story buildings with around 5,000 residential units. As of 2021, a 77% compliance rate was reported for buildings that had completed retrofit work; 17% of buildings were undergoing seismic upgrades; and 6% of buildings were out of compliance (City of Berkeley, 2021). While compliance was high, failure to meet deadlines resulted in a building being declared as a public nuisance. Berkeley also developed incentives for owners, including a transfer tax rebate on property sales for seismic upgrades. It developed a 100% pass-through of retrofit costs to tenants in rent-controlled units which could be applied over 8 years with a 5% discount rate and only to owners of up to 12-unit buildings. The pass-through also had a hardship provision for tenants.

In 2019, Berkeley expanded its scope to include a nonductile concrete seismic retrofit program. It conducted an inventory of older concrete buildings and provided technical guidelines and grants for voluntary retrofits. While not yet a mandatory concrete retrofit ordinance, Berkeley's approach has been to lay groundwork through identification and incentives. For example, one of the incentives included offering design cost grants up to $10,000 per project for concrete retrofit engineering. Berkeley won a FEMA grant that was used to subsidize voluntary seismic retrofits which covered up to 40% of the retrofit cost for concrete and tilt-up buildings. However, of the 750 eligible buildings, the City received only 41 applications and only 11 of those moved forward with the retrofit. The table below shows the various retrofit grants available based on building typology:

Figure 1. Berkeley Retrofit Grant Options

BUILDING TYPE	DESIGN GRANT MAXIMUM SIZE	CONSTRUCTION GRANT MAXIMUM SIZE
• Non-Ductile Concrete • Tilt-up and other RWFD	$10,000 (cap at 75% of Design Costs)	$25,000 to $150,000 (Cap at 40% of Construction Costs)
• Soft Story 5+ residential units, non-residential, and hotels/motels • Unreinforced Masonry	$5,000 (cap at 75% of Design Costs)	$25,000 to $150,000 (Cap at 40% of Construction Costs)
Soft Story 3-4 residential units	$5,000 (cap at 75% of Design Costs)	$15,000 to $40,000 (Cap at 40% of Construction Costs
Other Wood-Framed Buildings 5+ residential units	$10,000 (cap at 75% of Design Costs)	$25,000 to $150,000 (Cap at 40% of Construction Costs)
Other Wood-Framed Buildings 3-4 residential units	$5,000 (cap at 75% of Design Costs)	$15,000 to $60,000 (Cap at 40% of Construction Costs)

*The maximum Construction Grant size for any project cannot exceed 75% of the permit valuation or actual retrofit costs, whichever is lower. Grant maximums for each building type vary according to demand, occupancy, and square footage. If a seismic code enforcement case is open for the building, grants will be capped at $25,000.

Source: City of Berkeley. (2025). *Retrofit Grants.* Link.

Lessons: The City of Berkeley experience shows the value of combining mandates with incentives. Many homeowners claimed Berkeley's transfer-tax rebate fostered a citywide retrofit culture. Berkeley's phased strategy, which began with inventories, moving on to voluntary programs, then finally to mandates, may be considered as an effective path to retrofitting compliance. Importantly, the city's policies that declare noncompliant soft-story buildings as nuisances have been a viable tool for enforcement. However, the incentive to subsidize retrofit costs for voluntary retrofit of concrete and tilt-up buildings resulted in poor application and utilization of such an offer. Therefore, it should be reinforced that even with funding subsidy incentives with a voluntary program, mandatory frameworks with grant subsidies are more effective for compliance. The City of Berkeley had completed nearly all of its mandatory wood frame soft-story retrofits and offered up to $13,000 for soft-story retrofits through the FEMA grant. A key strength of Berkeley's approach was designating a single point of contact at city

staff level who was FEMA-trained. This individual guided owners through the FEMA sub-grant compliance steps, environmental and historic preservation reviews, permitting, and other federal procurement requirements, thereby expediting the retrofit process and improving program accessibility for less-informed property owners.

City of Oakland – Soft-Story Buildings

In 2009, Oakland required owners of certain multi-unit soft-story buildings to submit structural reports and photos, but no retrofitting was required at that time. This created a soft-story inventory which was useful for data-gathering. In 2017, the city tried to incentivize voluntary retrofit work through a FEMA grant that would cover 75% of the cost of voluntary retrofit work. Of the 1,400 buildings identified through prior screening, only about 200 owners applied which was more than the grant could cover with such a high subsidy. The city funded 37 retrofits with the $4.5 million FEMA grant with the CRMP earthquake soft-story criteria. This included the house being built before 2000; owner-occupied; house built on level ground or slight slope with wood frame construction; has a living space over the garage; no more than two stories; and without previously completed retrofit. Following receipt of grant, a permit also needed to be obtained and an environmental review along with procurement requirements for FEMA sub-grantees.

In 2019, Oakland adopted a mandatory soft-story wood frame retrofit ordinance which applies to wood frame buildings with two or more stories, five or more residential units, and built before 1991. The compliance tiers and deadlines were relatively aggressive: large apartment buildings (Tier 1) had until February 2023 to complete retrofits; smaller apartment buildings (Tier 3) until February 2025, with all buildings having a compliance deadline by early 2025 (City of Oakland, 2019a; 2019b). As of April 2025, Oakland reports high compliance in plan submissions and a steady pace of retrofitting. Notably, Oakland's mandatory program allows 70% of retrofit costs to be passed to tenants over 25 years with caps to protect tenants due to Oakland's rent control. The city also offered incentives such as a flat $250 permit fee for single-family seismic retrofits and waived plan review fees for soft-story retrofits.

Lessons: Oakland illustrates that a city with a delayed ordinance following inventory can be effective through a well-defined, mandatory policy with financial pathways for compliance. The 10-year gap between inventory and mandate did not necessarily inhibit seismic retrofit compliance. Oakland's experience confirmed that voluntary retrofit approaches are not as successful even with grant subsidies. Oakland's use of tenant cost-sharing and fee reductions helped with maintaining compliance; similar to Berkeley, grant usage within a mandatory program is more effective. An analysis of Oakland's construction data found that buildings with grant subsidies had higher construction costs – more than double – of those without subsidy which highlights the need for careful cost control measures like caps or cost reviews in grant programs. This case suggests that if political will for mandates comes later, it is still possible to implement a robust plan with multiple and tested financial pathways. These can include fee waivers, pass-throughs, and low-income loan programs, among others. Also, Oakland's enforcement underscores the need for clear consequences after each deadline, including for example, fines or loss of occupancy for non-compliance.

City of Alameda – Soft-Story Program

The City of Alameda has taken an incremental approach to its 2009 soft-story wood frame ordinance focused on mandatory evaluation and notification (Seismic Ordinances, 2025a). It considers wood frame residential buildings with five or more units, pre-1986, with tuck-under parking or open ground floors. Owners were required to submit an engineer's seismic evaluation report within 18 months of being ordered and to notify tenants of the building's soft story status. This ordinance did not require retrofit, but it instead relied on an owner's initiative with city-offered incentives for voluntary retrofit. The building must be retrofitted to be removed from City of Alameda's soft-story inventory list. Alameda's incentives include expedited permits and waived plan-check fees for voluntary retrofits. It also includes a 15-year exemption from any future retrofit mandate if owners completed the voluntary seismic retrofit.

The result thus far of the ordinance has been mixed relative to other cities. Many owners complied with the evaluation requirement, but the retrofits have continued slowly since these

were not required. Alameda updated its inventory to show approximately 63 remaining soft-story buildings that are unretrofitted since the ordinance was passed out of a total of approximately 209 soft-story wood frame buildings (~70% completed).

Lessons: Alameda's two-step strategy (first to identify and notify) is similar to what Palo Alto did for unreinforced masonry bearing wall buildings (URMs). The takeaway is that evaluation ordinances tend to have a limited effectiveness for risk reduction compared to mandatory retrofit programs. While they help expose the problem of vulnerable structures, they typically rely on voluntary action for retrofit thereafter. Alameda's experience suggests an initial evaluation program can be a useful first step but should be followed by clear requirements or strong incentives. Alameda also shows the importance of tenant awareness in that disclosure to tenants must also consider building public support for further retrofit actions.

3.3 Southern California

City of Los Angeles – Soft-Story and Nonductile Concrete Buildings

The City of Los Angeles introduced its seismic risk reduction ordinance in 2015. Los Angeles' law requires retrofit of two vulnerable building types citywide: pre-1978 soft-story wood frame buildings with four or more dwelling units (approximately 13,500 buildings), and pre-1977 nonductile concrete buildings (approximately 1,400 buildings). The soft-story ordinance took effect on November 22, 2015, and included deadlines phased by building size with requirements to comply issued in 2016. Owners generally had seven years from the order to complete retrofit (Los Angeles Department of Building Safety, 2023).

As of February 2024, the city reports approximately 9,377 soft-story buildings (76%) have completed retrofits, with about 2,970 still in progress but past their initial deadline. Compliance on prior steps was even higher, such as 95% compliance of buildings submitting the required plans. Noncompliant owners face fines and legal prosecution. The city has also provided technical support such as standard plans and some financial relief. Given Los Angeles' rent control, it allows owners to pass through 50% of retrofit costs to tenants over a 10-year period.

Nonductile concrete buildings have a significantly longer timeline: inventory and notification began in 2016/2017, with a required engineering evaluation within three years, permitting and plans submitted 10 years after notification date, and completion of retrofit 25 years after notice (Los Angeles Department of Building Safety, n.d.). Owners are also required to file a tenant habitability plan that identifies the scope of work and the methods that owners, contractors, and workers will use to mitigate potential impacts to tenants and tenants' personal property during the time seismic retrofit work is occurring in a tenant's unit or the subject building. Examples of mitigation measures include non-exposure to toxic or hazardous materials, interruptions of fire safety systems, inaccessibility, noise, and disruption of other tenant services. Many concrete buildings are still in the evaluation or permitting stage as of 2025.

Lessons: Los Angeles' seismic retrofit program highlights the use and need of clear mandates, phased deadlines, administrative transparency, and enforcement capacity for an effective retrofit policy. The online compliance tracking system has been essential for managing the scale of retrofits. However, implementation challenges persist particularly for nonductile concrete buildings. Based on consultations, many owners found the ordinance's terminology confusing, e.g., the distinction between submitting a "plan" versus "construction documents." Another challenge was the length of permit validity. Owners obtained a permit after detailed evaluations were complete at year 10 following notification, with permit validity lasting six months to a year. However, the retrofit timeline is 15 years following this point per the ordinance, causing confusion and scheduling issues for owners. The lack of a funding source for concrete buildings is especially challenging as some concrete structures require a $15 million retrofit.

Peer-reviewed research has shown that retrofit progress has been slower in low-income and majority-Black or Hispanic neighborhoods (Burton et al., 2023). While soft-story buildings saw a higher compliance rate citywide, vulnerable communities faced disproportionately lower completion rates due to financial barriers and weaker engagements. Some improvements have been observed through external programs like Earthquake Brace + Bolt, which nearly doubled retrofit rates in underserved areas. Finally, communication gaps with owners have been challenging especially in condominium buildings where legal complexity, shared governance,

and retrofit square footage encroachment among owner units have delayed compliance. Adaptive reuse projects have become a workaround in some cases with developers leveraging tax credits to address seismic upgrades. Overall, the Los Angeles ordinance has highlighted the need for sustained outreach, owner education, more inclusive financing options especially for complex ownership and underserved communities.

City of Santa Monica – Multiple Vulnerable Building Types

The City of Santa Monica adopted an extensive seismic retrofit program in 2017. It requires retrofits across five building types: unreinforced masonry (URM) bearing wall buildings, soft-story wood frame buildings, nonductile concrete buildings, pre-1994 steel moment-frame buildings, *and* pre-1998 tilt-up concrete buildings (see compliance timeframes for City of Santa Monica, Appendix B) (City of Santa Monica, 2021). Santa Monica had earlier ordinances after the 1994 Northridge Earthquake, but many of these buildings remained unretrofitted. The 2017 law updated standards and set deadlines additional deadlines for the nearly 2,000 commercial and multi-family residential buildings in the city identified as potentially vulnerable. For soft-story (~1,700 buildings)**,** owners were required to submit engineering evaluations within two years and complete retrofits within six years. The city extended all deadlines by two years for projects during COVID. For nonductile concrete (~70 buildings) and steel frame buildings, a 10-year timeline for completion is required of concrete retrofits and 20 years for steel frames. Santa Monica's enforcement for non-compliance leads to the building being labeled unsafe to occupy. The city has also made retrofit status public via an online map of inventoried buildings. Santa Monica has reported substantial progress, especially on soft-story wood frame structures yet has also encountered challenges with financing. In 2023, the city reported that 1,099 buildings (56%) identified as seismically vulnerable were now compliant with the retrofit law. With improved outreach and working with state financial programs, the city has brought many noncompliant owners into compliance after the COVID grace period. The city had been awarded a FEMA grant to reimburse owners for a portion of design and construction costs of soft-story retrofits. In 2017, the city estimated a cost of $5,000 to $10,000 per unit to retrofit a typical soft-story wood frame building and $50-$100/sq. ft. for nonductile concrete and steel buildings.

Lessons: Santa Monica's program is an example of a holistic ordinance that addresses multiple building types at once in a smaller city. It underscores the importance of staggering deadlines by priority: Santa Monica prioritized soft-story apartments with the highest collapse risk before other types. Santa Monica law requires owners to cover temporary tenant relocation expenses for retrofits. This case also highlights the need for continuous public communication. Some owners were confused or missed deadlines, but the public mapping of potentially vulnerable buildings helped maintain urgency and peer pressure/public scrutiny.

City of West Hollywood – Soft-Story Wood Frame, Nonductile Concrete, and Steel Moment Frame Buildings

West Hollywood passed a seismic retrofit ordinance in April 2017 focusing on soft-story wood frame and concrete buildings (City of West Hollywood, 2024). The mandatory ordinance requires retrofitting all pre-1978 soft-story wood frame multifamily buildings (~740 buildings identified) as well as pre-1976nonductile concrete or pre-Northridge steel moment frame buildings (~80 buildings identified). For soft-story structures, West Hollywood set phased notice and compliance timelines: Priority I, large apartments with 16 or more dwelling units, had 5 years to complete retrofits. Lower priority buildings with less than 16 units or other configurations had 5 years to comply. Nonductile concrete or pre-Northridge steel moment frame buildings had 20 years from city notice to owner to complete needed retrofitting. The city also provided design guidelines and a list of pre-qualified retrofit solutions to streamline compliances. West Hollywood also included in its 2018 ordinance a voluntary strengthening provision for cripple walls and sill plate anchorage in existing wood frame buildings. For nonductile concrete buildings, the compliance is split into two phases – one for evaluation (5 years for submitting plan) and the second permitting/construction or retrofit (20 years). As a small city with a large number of aging apartment buildings, West Hollywood placed emphasis on its tenant protections. This included temporary relocation assistance if tenants must vacate during retrofit along with a rent stabilization board overseeing any capital cost pass-through requests. In 2021, the City of West Hollywood was awarded a FEMA grant to offer design and

construction grants. By 2021, West Hollywood reported that a majority of soft-story wood frame buildings were in compliance or in the retrofit pipeline.

Lessons: West Hollywood illustrates how a small, dense city can implement a multi-typology seismic program. Notably, West Hollywood's scope included wood frame, soft- and/or weak-story with at least one unit; it is therefore more comprehensive coverage of soft-story buildings than other cities that often exempt smaller buildings with minimum thresholds (3+ or 5+ units). West Hollywood adopted a no-pass-through policy, meaning tenants do not automatically pay any portion of retrofit costs. However, property owners can apply for rent increases if they can demonstrate that retrofit expenses would reduce their net operating income below levels needed to maintain a fair return on their investment. This hardship process enables owners to petition for a rent increase if retrofit costs jeopardize the financial viability of their property under the city's 'fair return' threshold. Providing owners with standard design guidelines and technical assistance helped facilitate compliance. Condominium buildings need additional consideration due to fragmented ownership, necessary alternate financing pathways, and significant Homeowners Association (HOA) engagement during development and implementation of policies.

3.4 Other California Cities

Several smaller and mid-sized cities have adopted retrofit ordinances focused primarily on soft-story wood frame buildings. Pasadena's 2019 requires retrofits for soft-story residential buildings with five or more units that affect nearly 500 buildings. A unique feature was its phased notification by priority level and inclusion of historic buildings as a high priority building. Mill Valley and Albany implemented mandatory soft-story wood frame retrofit ordinances in 2023 (City of Mill Valley, 2023; City of Albany, n.d.) . Albany's program applies to approximately 150 pre-1981 multifamily buildings with three or more units amounting to 800 housing units, while Mill Valley's targets about 50 to 90 pre-1978 buildings but limits applicability to rental housing, explicitly excluding condominiums. This exclusion reflects concerns about implementation challenges in individually owned units, such as coordinating among

homeowners' associations and securing contractor interest. Both cities amended their tenant protection ordinances to prevent seismic retrofit work from being used as grounds for just cause eviction, aiming to protect tenants from displacement during mandatory construction. These ordinances were also supported by clear public communication and phased timelines that can help property owners understand requirements and access compliance support. Other California cities with seismic risk reduction programs not described in detail in this memorandum include the following for soft-story wood frame programs: Fremont, Beverly Hills, Burbank, Carpinteria, Culver City, Hayward, Long Beach, Richmond, and Torrance. Those for nonductile concrete structures include Beverly Hills and Burbank.

3.5 Cross-Cutting Lessons and Other Considerations

Based on additional considerations gleaned from consultations as part of the research in developing this memorandum, the list below can be considered for Palo Alto's seismic safety ordinance:

1. **Align seismic retrofit with electrification and energy efficiency upgrades:** Cities have noted the burden on property owners when seismic mandates and energy upgrades are layered without coordination. Where possible, Palo Alto should coordinate permitting and incentive structures across departments so that seismic retrofits can be done alongside electrification, water heater replacement, or other sustainability upgrades to reduce disruption and cost. Palo Alto will have new green building and energy reach codes that will become effective in January 2026 and January 2027.
2. **Consider smaller soft-story wood frame buildings:** Several jurisdictions including San Francisco that focused on three-to-four unit buildings in early ordinances did not include in their overall approach the smaller (under three unit) soft-story wood frame buildings. These properties still house vulnerable residents and should be considered in a phased plan to avoid long-term residual risk.
3. **Use rent programs as enforcement and outreach tools:** Rent stabilization programs can use existing housing programs to support notification to tenants and prospective renters when a building is known to be seismically vulnerable or on a soft-story inventory list.

4. **Leverage seismic risk for broader risk communication:** By connecting seismic retrofitting with climate adaptation, business continuity, and neighborhood preparedness, the ordinance and program can normalize investment in resilience while increasing awareness about broader climate and infrastructure risks.

4. Conclusions

California cities have developed a diverse set of seismic retrofit ordinances since 2016 which offer lessons for developing a resource- and housing-sensitive, equitable, and enforceable approach to seismic retrofitting the most vulnerable building types. Key themes that are relevant to Palo Alto's seismic risk mitigation ordinance include the building scope, phased timelines, enforcement, tenant protections, financial incentives, and implementation strategies.

Scope: Most cities have focused on soft-story wood frame multi-family residential buildings constructed before 1978-1981. Typical criteria for inclusion in the program are buildings with three or more or five or more units and two to three stories. These reflect life safety priorities and feasibility of retrofit compliance. Palo Alto's rental registry program currently collects data on all 3+ unit properties which should be examined for potential alignment to the scope of a future ordinance. Existing condominiums are often excluded or phased in later due to HOA governance barriers and financial challenges for retrofitting. Cities such as Mill Valley and Albany have excluded condominiums from their seismic retrofit ordinances, focusing exclusively on rental apartments to minimize impacts on housing affordability by preserving rental housing supply during the implementation period. This does not mean that condominiums are excluded permanently, but rather, the launch phase of these soft-story wood frame programs initially focus on rental apartments. This approach recognizes that condominium retrofits face unique challenges with ownership fragmentation, HOA governance, and financing, and that retrofit requirements might prompt some owners to convert rental properties to condominiums to avoid compliance. The sequencing does not necessarily incentivize rental-to-condo conversion because the retrofit obligation is with the building, sometimes bolstered by anti-conversion or anti-avoidance laws which require buildings to comply with deadlines and obligations regardless

of subsequent sale, transfer, or conversion to a common-interest development. A targeted and phased approach on rental buildings allows focus on tenant protections, seismic rehabilitation funding mechanisms for rental properties, and protection of a larger population of renters.

Phasing: Many programs with relatively high compliance rates followed a multi-step process, which began with an inventory or engineering screening which was then followed by staggered retrofit deadlines based on building size or risk. This allows for staff to adjust and adapt early in the program process and also for owners to engage and often file for exemptions and/or grant funding while addressing the most dangerous building firsts. A typical full compliance timeline for wood frame buildings is five to seven years, with larger buildings with more units facing earlier deadlines. The timeframe for concrete buildings can range from 10 to 25 years from notice of order for complete retrofit.

Enforcement: High compliance depends on clear mandates that are backed by strong enforcement. Cities like Fremont and Los Angeles have used orders, citations, tenant notification and placarding of 'unsafe' buildings, and occupancy restrictions to compel compliance. Voluntary programs have seen far lower retrofit rates. Enforcement mechanisms must be credible/influencing, escalating, and transparent from the outset.

Tenant Protections: Cities balance seismic safety with housing stability through comprehensive tenant safeguards. These protections include caps on rent increases, such as Los Angeles' restriction of cost pass-throughs to 50% of retrofit expenses, capped at $38 per month over 10 years, and mandatory tenant habitability plans that minimize construction disruption through advance notice, noise and hazard mitigation, and temporary relocation assistance when necessary. Additional measures include hardship petition processes for vulnerable households and anti-retaliation provisions preventing retrofit-related evictions.

Incentives and Financing: Local incentives include streamlined permitting, technical assistance, and fee waivers. Cities have also partnered with PACE financing and lending institutions and supported access to state programs such as California's Multifamily Seismic Retrofit Grant

Programs. With the uncertainty in FEMA grant funding in the future, other financial sources need to be determined for existing and future programs

Implementation: Administering retrofit programs requires coordinated tracking, plan review, outreach, communication, and monitoring of completion. Larger cities have developed internal teams to facilitate the implementation. Regional collaboration, annual progress reporting, and a clear implementation roadmap were common features of high compliance programs.

5. Moving Forward

Palo Alto can benefit from over a decade of seismic safety policy innovations in other California cities as it develops its approach to improving seismic safety. Many successful ordinances included a targeted seismic retrofit program focusing on its highest-risk buildings, with phased compliance deadlines and includes robust outreach efforts and well-defined enforcement measures. Any such program should be designed with care to protect tenants (for example, minimizing displacement or excessive rent increases). Programs should leverage incentives and funding support, such as state retrofit grant programs or financing partnerships with lenders, to help property owners undertake the needed upgrades. It would also be prudent to allocate adequate city staff resources and develop the necessary tools (for instance, an up-to-date, transparent public dashboard for tracking compliance) to implement the program effectively.

Table 1 highlights the key considerations and best practices from various cities that have past and ongoing seismic retrofit ordinances.

Table 1 Key Considerations and Best Practices from California Cities with Seismic Risk Reduction Programs

Program Design & Phasing	• Mandatory, phased retrofit ordinances, especially those prioritized by building risk and size, tend to achieve higher compliance. • Beginning with a thorough building inventory and screening process promotes transparency and early engagement. • Staggered deadlines (e.g., sooner for larger or riskier buildings) and differentiated timeframes for complex structures (such as concrete or steel moment-frame buildings) help manage workload and risk. For example, wood frame retrofits commonly have five-to-seven year

	timelines, while concrete structures are often given 10 to 25 years due to greater complexity.
Owner & Tenant Protections	• Many cities cap retrofit cost increases for tenants and provide hardship petition options to prevent displacement. • Multilingual outreach, education, and public-facing compliance tracking can support both transparency and informed participation.
Financial Support & Administration	• Linking owners to existing grant programs, financing options, and local incentives can reduce barriers to retrofit participation, particularly for smaller or lower-resourced buildings. • Streamlining permitting processes and prioritizing assistance to vulnerable neighborhoods have supported better outcomes.
Enforcement & Compliance	• Compliance rates rise when enforcement includes clear deadlines, escalating measures, and public accountability (such as compliance dashboards and occupancy restrictions or fines for enforcement). • Interim milestones ensure progress prior to final deadlines. This includes engineering reports and permit submission.
Communication & Equity	• Dual communication strategies, one for legislative adoption and one for implementation, ensure clarity at each program stage. • Flexible provisions for unique circumstances (e.g., affordable housing, condos, historic buildings, condominiums) help respond to local needs and minimize negative impacts. • A single point of contact at city staff level with FEMA training for sub-grantees greatly improves owner experience and facilitates awareness-to-retrofit completion process.

Experiences of peer cities show that such a comprehensive approach can significantly support risk reduction efforts while also safeguarding communities. This helps to ensure that the benefits of resilience are shared by all residents, not just those who can afford it. Palo Alto's policy will be tailored to local conditions, but the principles drawn from other leader cities and key considerations for successful development and implementation gleaned from other cities' programs can support definition of scope, enforcement, phasing for compliance, equity, and financial support will serve as critical elements for a robust seismic safety program.

Key Takeaways from Seismic Retrofit Programs in California

Table 2 highlights the various policies described in the memorandum and describes key takeaways for Palo Alto. These are non-exhaustive and do not include all cities with seismic retrofit programs targeting all typologies. The table highlights some of the major characteristics and lessons learned from seismic retrofit programs in California.

Table 2 Seismic Retrofit Programs in California Summary with Key Takeaways for the City of Palo Alto

City (Ordinance Year)	Policy and Scope	Notable Program Features	Key Takeaways for Palo Alto
San Francisco (2013)	Mandatory retrofit for pre-1978 soft-story wood frame multifamily buildings, defined as 3+ stories and 5+ units	The use of risk-based tiers was applied to soft-story buildings, e.g., large apartment buildings retrofitted first. Offered financing help through PACE loans and allowed partial cost pass-through to tenants (100% of costs amortized over 20 years, with hardship waivers) to accommodate rent-controlled properties. Created a public-facing online tracking database.	Phased mandates with clear deadlines yield high compliance. Program effectiveness due to well-publicized mandatory policy with financing options along with city's tracking and enforcement efforts. California Action Plan for Seismic Safety an important precursor for holistic seismic safety plan in San Francisco.
Berkeley (2014)	Mandatory retrofit for soft-story wood frame residential buildings (pre-1978) that are 2+ stories with 5+ units. In 2019, Berkeley conducted an inventory for concrete buildings and encourages voluntary retrofits with grant subsidies (tilt-up and nonductile concrete)	Two-phase approach for soft-story building retrofits: started with a mandatory evaluation and notification phase that prompted voluntary retrofits, then moved to a retrofit mandate. Prioritization encouraged larger buildings (10+ units) to retrofit earlier. Provided technical resources to owners (standard plans, guidance), and offered grants for qualifying retrofits, with additional hardship provisions for tenant households.	Berkeley's initial screening program raised awareness and voluntary retrofits followed by the mandate. The Berkeley seismic risk program experience shows the value of starting with good data through inventory and evaluations and financial pathways for owners. Transfer tax rebate on property sales for seismic upgrades and pass-through (with limit) also facilitated compliance. Having a single point of contact and city staff trained by FEMA to complete needed forms facilitated paperwork and progress.

City (Ordinance Year)	Policy and Scope	Notable Program Features	Key Takeaways for Palo Alto
Los Angeles (2015)	Mandatory retrofit ordinance covering two building types citywide: pre-1978 soft-story wood frame buildings (2+ stories, 4+ units, approximately 13,500 buildings) and pre-1977nonductile concrete buildings (approximately 1,400 buildings). Soft-story scope primarily captured rent-stabilized apartments.	Staggering priority (e.g., Priority I = buildings with 16+ units) so as not to overwhelm contractors or city plan-checkers. A focus on tenant protections was key - the city's Rent Stabilization Ordinance allows landlords to pass through at most 50% of retrofit costs to tenants, capped at ~$38/month for 10 years. Also, owners must provide a Tenant Habitability Plan to minimize construction impacts on residents. The city facilitated financing by promoting private lending and PACE programs and produced technical manuals and standard designs to help engineers.	Los Angeles showed that a large-scale retrofit mandate can succeed if the city provides clear rules, technical support, and considers socio-economic impacts. By limiting rent surcharges and requiring habitability plans, L.A. balanced safety with housing affordability. Definitions for "plan" and "construction documents" in original ordinance require clarification, and permit validity not commensurate with proposed retrofit timelines must be realistic and clarified.
Santa Monica (2017)	Mandatory retrofit ordinance with very broad scope covering five building types: unreinforced masonry (URM) bearing wall buildings, tilt-up concrete buildings, soft-story wood frame multifamily (2+ stories, 4+ units, pre-1978),nonductile concrete buildings (pre-1996 codes), and steel moment-frame buildings (pre-1994).	Santa Monica's approach was to address multiple hazards at once. It assigned priority tiers within categories (larger or more hazardous buildings ordered to retrofit sooner) and spaced deadlines over 20 years. The city offers tenant relocation assistance which requires that landlords pay tenant expenses when the tenant is forced to vacate. Some financial help was offered using a FEMA grant.	The key takeaway in Santa Monica's comprehensive ordinance approach is phasing and long-term commitment with up to two decades for full compliance, acknowledging resource constraints. Another takeaway is the importance of tenant support for relocation.
West Hollywood (2017)	Mandatory retrofit program for both wood frame soft-story buildings and nonductile concrete (and steel moment-frame) buildings. The soft-story ordinance applies to existing wood	To support building owners due to a lack of cost pass-through to tenants, the City secured some external funding establishing a local grant program (with federal FEMA and state funds) to help	West Hollywood prioritized avoiding tenant displacement or rent hikes. Their approach of publicly listing buildings and statuses increased transparency and pressure to comply. Finally, West

City (Ordinance Year)	Policy and Scope	Notable Program Features	Key Takeaways for Palo Alto
	buildings with soft/weak ground floors, built before 1978 (mostly two-to-three story apartments, including rent-controlled units and some condos). A separate ordinance includes nonductile concrete structures (pre-1979 codes) and pre-Northridge steel frames.	pay for soft-story design and construction. The city also held community meetings and maintained a public website with progress updates, which helped normalize compliance.	Hollywood's no-pass-through position and use of hardship petitions indicate a tenant's right approach, with the trade-off that funding assistance for owners (grants, incentives) then becomes even more critical.
Oakland (2019)	Mandatory retrofit for pre-1991 soft-story wood frame residential buildings with 5+ units. (This followed a decade of preparatory steps: a 2008 citywide survey and a 2009 ordinance requiring mandatory screening evaluations for soft-story buildings.)	Long-term, staggered approach starting with voluntary retrofit encouragement in 2007, then performing an inventory, then requiring screening and in 2019 moving to a full retrofit mandate. This drawn-out timeline helped build political consensus and allowed the city to refine its program (e.g., deciding on threshold of 5+ units). The compliance tiering considers both size and occupancy (mixed-use got higher priority). Oakland allowed pass-through with regulation to support owner compliance. Oakland also hosted owner workshops and distributed template engineering plans, recognizing many owners needed guidance. Their ordinance included a strong statement of intent to enforce with penalties which has been critical as deadlines near.	Oakland illustrates the pros and cons of a slow rollout. On one hand, years of study and incremental policies (inventory → evaluation → mandate) ensured the retrofit program was well-targeted and broadly accepted by the time of adoption. On the other hand, the actual risk reduction was delayed. Tiered compliance that prioritized larger and mixed-use buildings first can be a useful approach to target most risky buildings first. The Oakland case also gave insight on the need for appropriate construction cost review when grants are a possibility for financial subsidy.
San José (effective 2026)	Mandatory retrofit ordinance for soft-story wood frame residential buildings citywide. Applies to buildings with three	Notable provisions to address financial burden: It also enacts a 5% cap for annual increases of costs to tenants	The large number of buildings led them to set long timelines up to seven years for compliance. San José's strong

City (Ordinance Year)	Policy and Scope	Notable Program Features	Key Takeaways for Palo Alto
	or more dwelling units and 2+ stories, constructed before 1990. The city estimates that there is a total of about 3,500 soft-story buildings, home to around 72,000 people.	under the City's Apartment Rent Ordinance. The program was designed with equity in mind: city analyses noted that many soft-story building residents are low-income, so the council focused on minimizing displacement risk.	integration of housing policy (rent increase caps, direct subsidies to owners) highlights that a seismic retrofit mandate in a housing affordability crisis must be considered carefully. Finally, multi-lingual continuous outreach to stakeholders is critical throughout retrofit development process.

Appendices

Appendix A: Legal Precedence and Case Decision Review

The below is a review of legal cases and precedents that should be considered in the process of developing and implementing an ordinance. This is not provided to be a legal recommendation, but, rather, it is a review and synthesis of past cases related to seismic retrofit ordinances and key principles derived from court decisions.

Owner Liability and City Ordinance Deadlines: Myrick v. Mastagni (2010)

The 2003 San Simeon earthquake in Paso Robles killed two women when an unreinforced masonry bearing wall building collapsed. The city had required URM retrofits by 2019, but the earthquake struck in 2003 while the owners were still within the compliance timeframe. The victims' families sued the building owners for negligence. The owners argued that they had no duty to retrofit until the 2018 deadline established by city ordinance. However, the Court rejected this defense ruling that a city ordinance requiring hazardous buildings to be retrofitted by a certain date does not insulate owners of unrefined masonry buildings from negligence causing death or injuries prior to the date.

The court found that the building owners had known since 1989 that their property was hazardous after city notification and engineering assessments. The jury found the owners negligent despite technical compliance with the ordinance timeline. The appellate court affirmed this verdict in 2010.

Key legal outcome: Compliance with city ordinance deadlines does not establish the standard of care in tort law. Property owners can be held negligent for not acting sooner if they know their building poses a high risk, even when legally within the compliance period.

Religious Exemption from Historic Preservation: East Bay Asian Local Development Corp. v. State of California (2020)

In the 1990s, California enacted laws (Government Code Sections 25373 and 37361) that allowed religious organizations to exempt their noncommercial properties from local historic preservation ordinances. The law was challenged by preservationist groups and San Francisco, arguing it violated establishment clause principles by giving preferential treatment to religious entities. The California Supreme Court upheld the exemption in 2000. The majority found that allowing religious organizations to avoid historic landmark restrictions was not an unconstitutional preference for religion, but rather a neutral accommodation given the financial burdens landmark status can impose.

Key legal outcome: Religious property owners can invoke above Government Code sections to bypass historic preservation requirements when conducting seismic retrofits or even demolishing dangerous buildings. Many URM buildings are historic, and many historic buildings are URMs. Churches often fall into this category (old unreinforced masonry churches). Therefore, legal considerations and understanding between historic preservation and seismic ordinance mandates must be carefully considered.

Compelled Speech and Warning Signs: Masonry Building Owners of Oregon v. City of Portland (2019).

Portland's 2018 seismic mitigation ordinance required owners of unreinforced masonry buildings to post exterior placards stating: "This is an unreinforced masonry building. Unreinforced masonry buildings may be unsafe in the event of a major earthquake." Building owners also had to include similar warnings in rental agreements. Building owners sued claiming the requirement violated their Frist Amendment rights through compelled speech. In May 2019, federal district court Judge John Acosta granted a preliminary injunction finding several constitutional problems:

- The placards did not provide specific safety instructions, making them advocacy rather than purely factual information.
- Portland's URM database contained errors forcing some owners to display misleading messages about the retrofitted buildings.
- The ordinance was both over-inclusive (applied to some retrofitted buildings) and under-inclusive (excluded other risk building types).
- The judge suspected the city's true motive was to pressure owners into retrofitting rather than genuinely inform the public about a building's vulnerability.

Portland subsequently repealed the ordinance.

Key legal outcome: While this Oregon federal court case found Portland's specific URM placard ordinance violated the First Amendment, the case raises important constitutional questions around compelled speech that may be relevant for any jurisdiction considering seismic safety disclosures or placards. The court emphasized that required disclosure signage must:

- Be strictly factual and accurate.
- Avoid compelling owners to communicate government advocacy or policy positions.
- Be applied fairly and with accurate, up-to-date records.
- Be coupled with actionable, helpful safety information if intended to inform the public.

Unlike Portland, California has a long-standing state law that requires URM buildings not retrofitted by the retrofit completion date or extension date to post warning placards, and many cities have implemented placard requirements without similar legal challenges to date. California's signage uses factual language and is applied as part of broader regulatory efforts, but programs should remain attentive to accuracy, fairness, and communication best practices especially in light of equity concerns and the Portland court's reasoning.

The above highlight seismic related court case precedence in and outside of California. These are not exhaustive but should be carefully considered by City of Palo Alto attorney when developing seismic risk reduction ordinances and implementation process policies.

Appendix B: Compliance Timelines and Descriptions

The below provides selected compliance timelines and descriptions for California cities developing and implementing a seismic mitigation program. These can be referenced by City of Palo Alto staff when developing a potential tiered or staggered approach.

San Jose Soft-Story Retrofit Ordinance Compliance Schedule (2025)

Group Number	Construction Date	Number of Units	Screening Deadline	Design, Permit, and Construction Deadlines
Group 1	Before January 1, 1978	5 or more units	October 1, 2026	April 1, 2030
Group 2	Between January 1, 1978, and January 1, 1990	5 or more units	October 1, 2026	April 1, 2031
Group 3	Before January 1, 1990	3 or more units	October 1, 2026	April 1, 2032

Source: Partner Engineering and Science, In. (2025). *San Jose Soft-Story Retrofit Ordinance and Program Takes Effect on April 1, 2025.* Link.

Compliance Timelines for Four Bay Area Retrofit Programs (Soft-Story Retrofit Programs)

City	Deadline for Non-Engineered Screening*	Deadline for Engineered Evaluation*	Deadline for Permit*	Deadline for Completion*
Berkeley		2 years (under 2005 soft story ordinance)	2 years	4 years
San Francisco	1 year – all tiers	Tier I – 1 years Tier II – 2 years Tier III – 3 years Tier IV – 4 years	Tier I – 2 years Tier II – 3 years Tier III – 4 years Tier IV – 5 years	Tier I – 4 years Tier II – 5 years Tier III – 6 years Tier IV – 7 years
Alameda		1.5 years		
Fremont			Group I – 2 years Group II – 2.5 years	Group I – 4 years Group II – 5 years
Oakland (2009)**	2 years			

*From date of adoption.

Adapted from: Association of Bay Area Governments. (2018). *Soft Story Retrofit*. Link.

Oakland Compliance Deadlines (2019)

Building Group or Compliance Tier	Compliance Scope Item				
	Document that building is not a subject building (optional) (15.27.050.A)	Document that building is eligible for a later compliance tier (optional) (15.27.050.B)	Complete mandatory evaluation and submit initial affidavit of compliance (15.27.050. C and E)	Obtain retrofit permit or submit Target Story evaluation report (15.27.050.D.1 or D.2)	Perform retrofit work and obtain approval on final inspection; submit final affidavit of compliance (15.27.050.D.3 and E)
Non-subject buildings	1 year	NA	NA	NA	NA
Tier 1	NA	1 year	2 years	3 years	4 years
Tier 2	NA	1 year	3 years	4 years	5 years
Tier 3	NA	1 year	4 years	5 years	6 years

Tier 1: Buildings not eligible for Tier 2 or Tier 3 with 20 or more dwelling units and buildings whose owners failed to comply with the mandatory screening ordinance on or before 2011, regardless of the number of dwelling units or nominal eligibility for Tier 2 or Tier 3.

Tier 2: Buildings not eligible for Tier 3 between 5 and 19 dwelling units and buildings with legally permitted business or mercantile occupancy in a wood frame target story. A building assigned to Tier 2 due to Business or Mercantile occupancy may be reassigned to Tier 3 upon demonstration by owner that at least one commercial unit is non-vacant on the day one year from the effective date of the law and has been occupied for at least one month.

Tier 3: Buildings with legally permitted residential occupancy in a wood frame target story not otherwise assigned to Tier 1 or Tier 3 and buildings otherwise assigned to Tier 3.
Source: City of Oakland. (2019). *Ordinance 13516.* Link. As of June 2025, Palo Alto may be limited in what deadlines it can impose under AB 130 (See Task A.1 memorandum, Saiyed, 2025).

City of Santa Monica Seismic Retrofit Compliance and Noticing Schedule

Building Type Categories	Date Notice Sent	Quantity (Approx.)	Compliance Date - Evaluation Report Due	Compliance Date - Plans Submittal	Compliance Date - Retrofit Complete
Concrete Tilt Up	August 14, 2017	30	December 2017	May 2018	August 2020
URM	August 28, 2017	100	November 2017	February 2018	August 2019
Soft Story - >2 Stories and < 16 units	Sept 25, 2017	400	September 2021	September 2022	September 2025
Soft Story - 16 or more units	October 23, 2017	150	October 2021	October 2022	October 2025
Non-Ductile Concrete	October 23, 2017	70	October 2020	April 2022	October 2027
Steel Moment Frame	October 23, 2017	80	October 2020	October 2029	October 2037
Soft Story – 2 Stories, 7 to 15 Units	November 27, 2017	350	November 2021	November 2022	November 2025
Soft Story – 2 Stories, <7 Units	February 19, 2018	350	February 2022	February 2023	February 2026
	May 7, 2018	200	May 2022	May 2023	May 2026
	July 30, 2018	250	July 2022	July 2023	July 2026

Source: City of Santa Monica. (2020). *Seismic Retrofit Compliance and Noticing Schedule.* Link.

City of Mill Valley (2023)

Table 1:

Compliance Tier	Description	Screening	Retrofit Permit	Retrofit Construction
Tier 1.	Any building not eligible for Tier 2 or Tier 3	1 year	2 years	3 years
Tier 2.	A subject building located in a zone of High Landslide Risk according to the Public Safety Element of the Mill Valley General Plan or identified by a licensed Engineering Geologist as posing a High Landslide Risk, unless eligible for Tier 3.	1 year	4 years	5 years
Tier 3.	Any building with an occupied space (business or residential) in the critical story (usually the ground story).	1 years	5 years	6 years

Source: City Council Staff Report. 2023, June 26. *"Soft Story" Mandatory Retrofit Ordinance.* Link.

City of Los Angeles Soft-Story Wood Frame Notification and Compliance Timeline (2023)

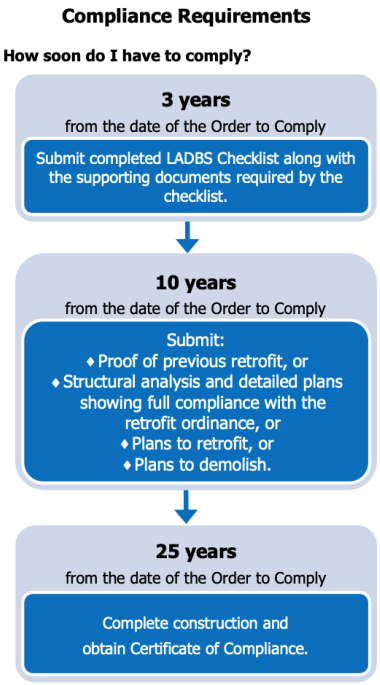
Priority	Categories	Start date of Sending Out Orders
I. Buildings with 16 or more dwelling units	3-story and above	May 2, 2016
	2-story	July 22, 2016
II. Buildings with 3 or more stories	with less than 16 units	October 17, 2016
III. Buildings not falling within the definition of Priority I or II	with 9-15 units	July 24, 2017
	with 7-8 units	August 21, 2017
	with 4-6 units	September 25, 2017
	Condos/Commercial	November 6, 2017

From the receipt of the Order to Comply:

- 2 years: Submit proof of previous retrofit, or plans to retrofit or demolish
- 3.5 years: Obtain permit to start construction or demolition
- 7 years: Complete construction

Source: City of Los Angeles. (2025). Soft-Story Retrofit Program. Link.

City of Los Angeles Nonductile Concrete Compliance Timeline (2023)



Source: City of Los Angeles. (n.d.). *Nonductile Concrete Retrofit Owners Guide.* Link.

Appendix C: Motivators and Impediments to Seismic Retrofit Implementation for Soft-Story Wood Frame Buildings

For the City of Palo Alto, navigating the complexities of seismic safety, especially for soft-story wood frame buildings, can draw significant insights from studies that examine the motivators and impediments to retrofit implementation in other California cities. A key study, "Motivators and impediments to seismic retrofit implementation for soft-story wood frame buildings: A case study in California," by Zhang et al., (2022) employed a comprehensive methodology to pinpoint factors affecting seismic retrofit adoption. This research focused on three California cities with existing soft-story wood frame retrofit programs: Berkeley, San Francisco, and Los Angeles. The approach involved leveraging publicly available data, including compliance status, property assessor information, and real estate data, from these cities.

To analyze the multitude of factors at play, the study utilized Analysis of Variance (ANOVA) tests to identify primary influences on retrofit implementation for both commercial and residential buildings. Furthermore, Multilevel Regression Analysis (MLRM) was employed to quantify the degree of influence of these factors, acknowledging the inherent differences and correlations among groups like census tracts to reduce bias. The factors under scrutiny were broad, encompassing economic (e.g., median household income, housing value, rent), social (e.g., population density, educational attainment), regulatory (e.g., retrofit tier, building use), and individual (e.g., building age, number of stories/units, ownership details) characteristics. It is crucial to note that this study specifically aimed to reveal general rules governing retrofit decisions for *groups of buildings*, rather than predicting individual preferences or behaviors. These established programs can help Palo Alto tailor its policies based on these quantified influences.

Key Lessons for Seismic Safety in Palo Alto

The findings from this detailed research, combined with the experiences of other cities, offer Palo Alto several critical lessons regarding both motivators and impediments to achieving seismic safety for its vulnerable building stock:

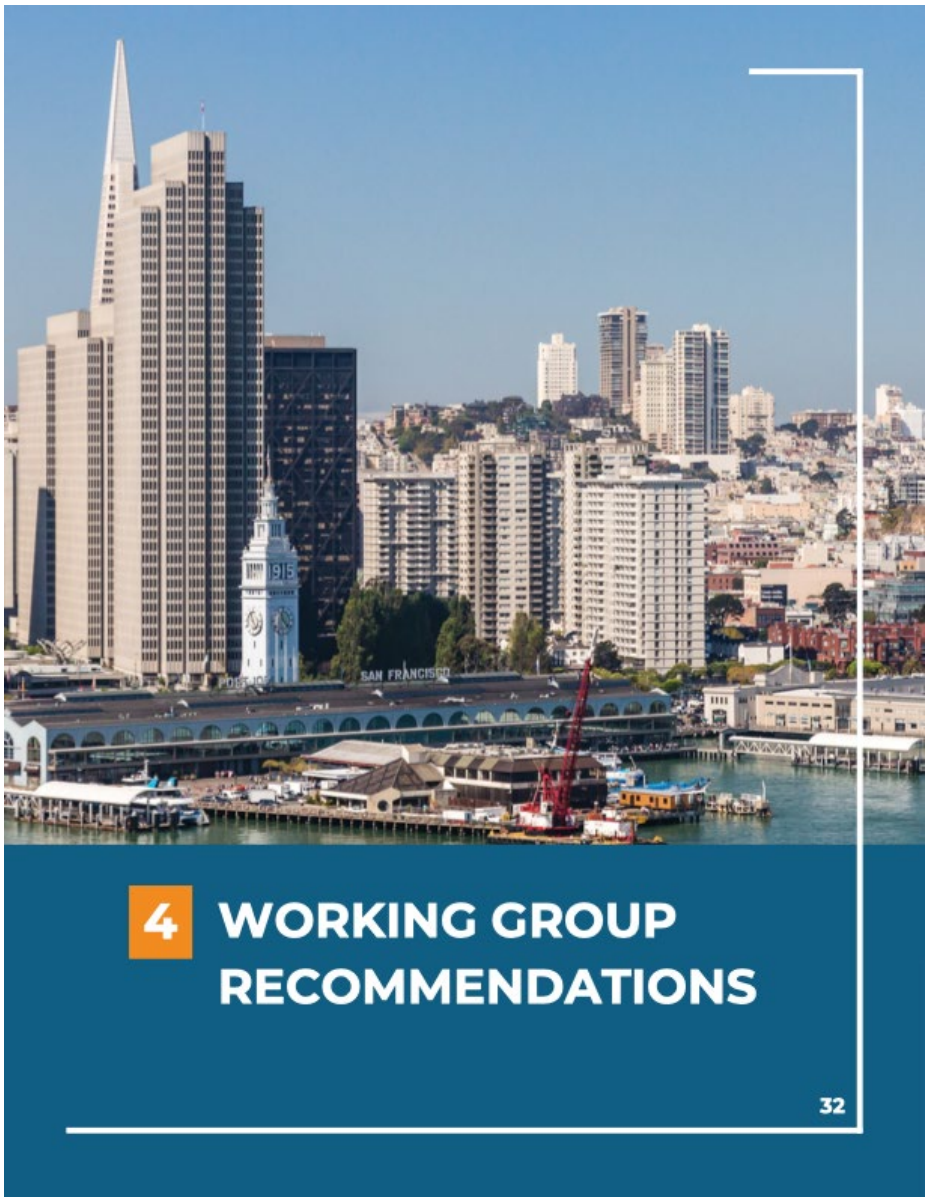
- **The power of mandatory ordinances and targeted Incentives:** One of the most important lessons is that mandatory strengthening programs achieve significantly higher retrofit rates compared to voluntary or notification-only initiatives. For instance, Los Angeles, which enacted a mandatory soft-story ordinance, has reported high compliance rates. This contrasts sharply with cities that initially pursued voluntary approaches, where incentives alone often proved insufficient to drive citywide compliance. Berkeley, for example, saw high voluntary retrofits after mandatory evaluation, but eventually made seismic upgrades obligatory.
- **Financial considerations are consistently a major driver:** The study highlights that the ability for apartment owners to recoup retrofit costs through rent increases can be a significant motivator. However, the effectiveness of financial incentives often depends on the level of subsidy; some cities found that high subsidies (e.g., 75% or more of the cost) were needed to attract applicants in voluntary programs.
- **Building characteristics and retrofit probability.** The study also provides important findings related to building characteristics and retrofit probability.
    - Building age negatively affects retrofit probability – older buildings are less likely to be retrofitted.
    - Building height (number of stories) positively affects compliance – taller buildings are more likely to be retrofitted. This may be driven by earlier program tiers that often include taller buildings/more units having more compliance by owners at outset of program.
    - Neighborhood characteristics matter – areas with higher education levels, housing values, and lower vacancy rates see higher compliance.
    - Commercial vs. residential differences – commercial buildings generally have lower retrofit rates than residential. As of the study's 2022 publication date, the

> findings show that in the cities of Berkeley, San Francisco, and Los Angeles, commercial buildings (including mixed use buildings) have compliance rates ranging from 5 to 100% (with the 100% only representative of two retail commercial buildings retrofit in San Francisco), while multi-family residential buildings had compliance rates ranging from 57-100%.

Drawing from the Zhang study's comprehensive analysis of retrofit motivators and impediments across Berkeley, San Francisco, and Los Angeles, Palo Alto can leverage several evidence-based insights to design an effective seismic safety program. The research demonstrates that mandatory ordinances consistently outperform voluntary approaches, suggesting that regulatory requirements are essential for achieving meaningful retrofit rates. Palo Alto may consider a focus on its older building stock, either through retrofitting or demolishing (pending any historic building designation), as the study confirms that building age negatively correlates with retrofit probability. The city may also want to consider that, based on these findings, taller buildings and those in neighborhoods with higher educational attainment, housing values, and lower vacancy rates are more likely to comply. Given that commercial buildings consistently show lower retrofit rates than residential properties across all three cities, Palo Alto may consider targeted outreach, enhanced financial incentives, or phased implementation schedules for commercial properties to address this compliance gap. Consistent with other recommendations in this report, the City of Palo Alto should consider preparing a robust communication/outreach and enforcement plan along with financial assistance programs to ensure equitable participation across all demographics and building types.

Appendix D: Stakeholder Engagement for The Concrete Building Safety Program, San Francisco, 2024

The below is the excerpt from the 2024 Concrete Building Safety Program's stakeholder group report. The Office of Resilience and Capital Planning with the Department of Building Inspection in San Francisco along with the Applied Technology Council and CivicMakers supported development of this report. The recommendations from this recent report can enlighten Palo Alto's process not only for concrete buildings within its potential ordinance scope but other building typologies as well.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4 | Working Group Recommendations

Introduction

The recommendations in this report represent the Concrete Building Safety Program (CBSP) stakeholder working group's top recommendations to the City for how the CBSP should be developed and implemented. These recommendations were developed based on the assumption that at some point in the future, there could be a mandatory retrofit program in line with what is recommended in ESIP. Some recommendations may become less critical if no mandatory program is passed. The working group also provided input on the technical recommendations, which were developed by ATC and presented to the Executive Panel in August 2023 (see section above). This summary of working group recommendations was compiled to support the working group's presentation to the executive panel on November 1, 2023. These recommendations were developed during the Co-creation, Prototype, and Test stage of engagement.

Development of Recommendations

As mentioned in the Stakeholder Overview Process section, prior to the formation of the working group, ORCP and CivicMakers conducted 34 interviews with stakeholders to surface primary concerns and inform the stakeholder working group's composition and scope. The stakeholder working group met eight times between October 2022 and September 2023 to identify challenges and opportunities for how to implement the program. The working group provided input on the technical program and developed the recommendations included in this report.

To develop these recommendations, the working group identified four topic areas where they would most like to provide input to the City:

1. Financing
2. Communications
3. Temporary Tenant Relocation
4. Process Streamlining

The working group formed subgroups in these four topic areas that met outside of the working group meetings for more focused analysis of the issues and proposed recommendations to address issues. This differed from providing feedback on technical recommendations in previous meetings.

The working group then ranked these recommendations in a survey, which received 25 responses out of 42 total invited working group members. The recommendations with the most support (more than 16 respondents ranked them as "high priority" and fewer than 6

moderate support (16 or fewer respondents ranked them “high priority” and fewer than 6 ranked them “low priority”) were categorized as “moderate consensus” recommendations. Working group members also had the opportunity to “write-in” recommendations, which are integrated throughout the following lists, though these were not vetted by the full working group in a formal meeting.

During the eighth and final working group meeting, the CivicMakers team led a milestone mapping exercise where recommendations ranked in the survey were mapped along programmatic milestones, including Presentation to Executive Panel; Ordinance introduced; Ordinance passed; Screening; and Evaluation, Permitting & Construction. The full summary of this meeting, and all other working group meetings, can be found in Appendix 2.

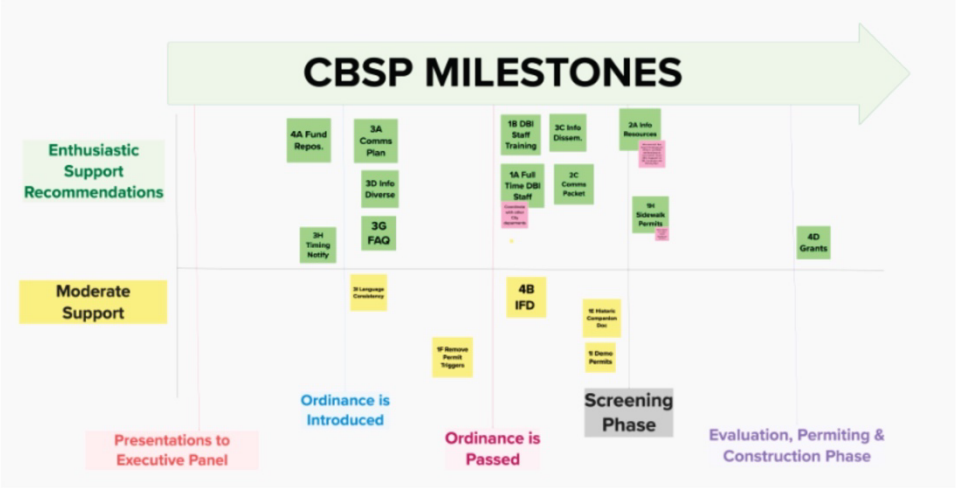

Figure 1.5 Milestone Mapping Exercise

Below are the nine “highest consensus” recommendations categorized by topic with detailed issues associated with each recommendation. Moderate consensus and “write-in” recommendations from the survey are integrated throughout.

⇨ Financing Recommendations

Financing has been a major area of discussion, and continues to have the most questions and interest. Creative, well-informed, and careful consideration has been taken by working group members and stakeholders to begin identifying recommendations for how to address the challenge.

The Financing issues and recommendations were surfaced through the financing subgroup, both in a meeting with subgroup members who were part of the working group, and through a focus group (called an "Ideas Exchange") conducted with some external experts.

Members of the financing subgroup include representatives from Tenderloin Neighborhood Development Corporation, San Francisco Apartment Association, TMG Partners, Plant Construction, the Mayor's Office of Housing and Community Development, Cathedral Hill Neighborhood Association, and Van Ness Neighborhood Association.

External experts who attended the Ideas Exchange on July 28th, 2023 included a public finance banker, PACE financing expert, and representatives from San Francisco Housing Accelerator Fund, Community Housing Partnership, California Earthquake Authority, and the SF Controller's Office.

Summary of issues raised by the working group related to financing:

Cost is a central challenge for this program's implementation. Concrete retrofits are estimated to cost $50-$200 per square foot, according to a survey of 30 concrete building retrofits conducted by ATC. Stakeholders raised concerns about cost at nearly every working group meeting, as well as in stakeholder interviews in Summer of 2022.

Concrete retrofits are difficult to finance for everyone, but some building owners face disproportionate challenges in securing retrofit funding. For example, nonprofit affordable housing providers operate on thin margins and depend heavily on grants. They might not be interested in using–or able to use–the city's rent passthrough/cost recovery provision (which allows landlords to raise rent by 10% over up to 20 years to recover the cost of a mandatory capital improvement). Condominium owners, single resident occupancy hotels, and "mom and pop" landlords may also face challenges financing earthquake retrofits. Many building owners do not have experience completing major capital projects.

Stakeholders raised concerns about high interest rates and slumping commercial real estate downtown. Some urged for a long program timeline to increase the chances of the economic situation improving before the compliance deadline. In 1992, the City used a General Obligation Bond to create a low interest loan program for a prior mandatory earthquake retrofit program. However, the City's General Obligation Bond program and other potential revenue streams are now much more constrained.

Recommendations:

Recommendation 1. Develop a financing plan which includes a repository of funding options for residential and commercial buildings before an ordinance is introduced.

The working group recommends that the City develop a financing plan in parallel with the ordinance. This plan should include information about existing and potential financing options to support building owners in completing retrofits of their buildings. It should include resources and information broken out by building use and ownership structure. This financing plan should serve as an informational resource for building owners who may not have experience completing major capital projects of their buildings and it should identify policy interventions for how the City can support these retrofits.

Below are some potential policy interventions that the working group recommends the City consider and continue to assess feasibility of:

- Leveraging Tax Increment Financing (TIF) or an Infrastructure Financing District (IFD)
- Creating a low-interest loan program
- Reducing risk for commercial lenders by setting up a warehouse to originate loans or a reserve fund to guarantee loans
- Allowing PACE (Property Assessed Clean Energy) financing to be used for "soft costs"
- Using General Obligation Bonds or other revenue sources to support retrofits
- Making grant funding available upon ordinance passage for early adopters
- Providing financial support for temporary tenant relocation costs

Recommendation 2. Pursue Federal and State grants to create grants to support property owners in doing retrofits.

Of all financing options and resources discussed by the working group, direct grants to property owners was the most popular. The working group emphasized that grants are essential to support property owners in paying for retrofits. Other solutions like low interest loans and tax support are helpful but should be considered a secondary priority to grants that property owners don't need to pay back.

This is especially true for property owners that do not generate much or any income from their properties, as they have a difficult time securing and paying back loans. Other cities like the City of West Hollywood and City of Berkeley have created small retrofit grant programs using FEMA's Hazard Mitigation Grant Program. San Francisco could use this as a model, though more work is needed to understand how much property owners are getting reimbursed and how to prioritize applicants.

Other Financing Recommendations (Moderate Support and write-in):

- Contract with financial experts to assist property owners in identifying financing options.
- Communicate that the retrofit does not increase property tax assessments.
- Create a separate phase two working group focused on seismic retrofits in condominium buildings.

⇨ Communications Recommendations

If an ordinance is passed, the CBSP will require City departments to collaborate and communicate accurately, early, and consistently with stakeholders such as building owners, tenants, community organizations, and business owners. A communication strategy will also be needed during the legislative process to ensure important stakeholders can remain involved.

The communications subgroup of the CBSP stakeholder working group included representatives from San Francisco Office of Economic and Workforce Development, San Francisco State University, San Francisco Apartment Association, and the Housing Rights Committee.

Summary of issues raised by the stakeholder working group related to communications

In order to comply with the CBSP, stakeholders will need the City to communicate expectations clearly and well in advance of the deadline. The public is not familiar with the seismic risk associated with older concrete buildings. The City will therefore need to communicate with the general public, as well as owners and occupants of subject buildings, in a way that informs without causing panic. Stakeholders expressed concern that the City's standard of method of communication i.e., mailers, may not effectively reach all of the stakeholders who need to take action to comply with this program. Stakeholders also cited a lack of trust between some tenants and landlords and asked that the city take an active role in communicating about this program with tenants. Finally, there is a risk for false or exaggerated information spreading by word of mouth or on the internet.

Recommendations:

Recommendation 3. Create a Communications Plan similar to the Soft Story Program that aligns with the CBSP timelines and process, before and after an ordinance is passed.

The working group recommends that the City create a CBSP Communications Plan which outlines what information should be communicated; to whom; by whom; and when. Some

members of the working group recommend breaking this into two communication plans: one focused on communications during the legislative process and leading up to the ordinance passage, and another focused on implementation of the program once the ordinance has been passed. Many stakeholders felt that the City did a good job communicating about the Mandatory Soft Story Retrofit Program which was passed in 2013, and felt that the City should use that framework for the CBSP Communications Plan. However, the working group felt that the City fell short on communicating with tenants about the Soft Story Program, and the CBSP Communications Plan should outline how tenant communications will be improved under the CBSP.

The working group gave some specific feedback and guidelines that the City should consider in drafting a Communications Plan.

For example, it should use multiple methods and media to disseminate important information to stakeholders, including mailers, email, radio, and the internet, among others. It should consider where key audiences and stakeholders currently receive information and integrate with those sources that are already trusted. Communications should be translated into multiple languages, and should be communicated through culturally trusted media (for example, Chinese-language radio and newspapers).

The communications plan should also include a "frequently asked questions" document that includes program information, a list of resources, and guidance for residents and building owners about their rights and responsibilities. Finally, the communications plan should identify specific ways of partnering with nonprofits and community organizations to support disseminating information to tenants.

Recommendation 4. Create a process that ensures residents and tenants are notified about potential retrofit construction before work begins, and includes information about retrofit timelines, tenant support, and tenant rights.

This program has the potential to impact many thousands of residential and business tenants, as well as condominium owners, who own and reside in their unit. It is important to standardize some aspects of the communications about construction work, retrofit timelines, and tenant rights. The goal of this standardized process is to give each building occupant affected by this program sufficient information and time to make necessary preparations and life decisions. Even if a building occupant does not need to move out of their unit during construction, they may experience impacts like construction noise or loss of building amenities. It is important that every person whose living or working space is impacted receive a standardized set of basic information that helps them prepare for disruption. One challenge will be to identify which City agency or nonprofit partner is responsible for enacting this process and communicating with tenants, as DBI typically only communicates with building owners, the rent board typically only communicates with

living in rent-controlled units, etc. The notification process should be codified in the Communications Plan.

Some stakeholders recommended requiring confirmation from tenants that they have received all notices before construction work may begin. Other stakeholders expressed concern that adding this requirement could give owners and tenants too much power to stall or prevent needed retrofits from happening.

Other Communications Recommendations (Moderate Support and Write-in)

- Host an earthquake retrofit fair for owners, contractors, and residents.
- Create a phone hotline for the public to get information and answer questions.
- Determine consistent language related to retrofitting terms and financial terms.
- Participate in existing events like Sunday Streets and partner with the Library.
- Develop a communications packet and other resources for professional services (Engineers, Architects, Planners, Builders, and Developers).

⇨ Temporary Tenant Relocation Recommendations

In many concrete building retrofits, tenants must temporarily vacate the building while construction work is completed. The significant costs associated with temporary relocation are typically the responsibility of the building owner, and the process of temporarily relocating can be destabilizing for tenants.

The temporary tenant relocation subgroup included members from SPUR, Housing Rights Committee, Mayor's Office of Housing and Community Development, and Chinatown Community Development Corporation. The high consensus recommendations deal primarily with communication, while the moderate consensus recommendations include more concrete policy changes. The recommendations focus primarily on temporary relocation of residential tenants, but the working group noted that commercial tenants should be considered and protected as well.

Summary of issues raised by the working group related to temporary tenant relocation:

The need to relocate temporarily for a seismic retrofit may bring up feelings of fear and confusion, especially for older adults, people with disabilities, families with children, and limited English speakers. The working group expressed concern that some people will be permanently displaced, either because they misunderstand their right to return, because they have been given false information maliciously, or because they don't want to deal with the inconvenience of moving twice. San Francisco has existing rules governing temporarily relocating tenants for capital improvement projects, but the rules are not easy to find or understand, and they may require some interpretation in order to apply to the CBSP. At the

same time, leaving vulnerable buildings as-is perpetuates the displacement risk of a major earthquake and safety risks. San Francisco's housing market has a shortage of occupiable units and may struggle to accommodate a large number of temporary tenants. Finally, the working group raised the concern that temporary tenant relocation costs substantially add to the total retrofit cost.

Recommendations:

Recommendation 5. Provide guidance and informational resources for building owners and residents to understand processes and rights related to relocating to temporary housing.

The working group recommends that the City develop and disseminate communications materials about temporary tenant relocation. These materials should help building owners and tenants understand what to expect, including existing processes, responsibilities, protections, and where they can get answers to personal and case-specific questions.

These resources should address questions such as:

- Who is responsible for locating and paying for temporary housing during construction?
- How will my rent change when I come back to my unit? Who must pay for moving services?
- What are the limits on construction duration?
- Who can I contact if I suspect my rights as a tenant are being violated?

Recommendation 6. Provide a communications packet helping building owners communicate with their tenants about earthquake risks.

Stakeholders in the working group who have completed concrete building retrofits in the past said that educating tenants about the need for the retrofit and the risks associated with the existing building is a necessary pre-step for temporary tenant relocation. This education effort takes a tremendous amount of staff time and work. Communicating about seismic risk is difficult even for experts, and many building owners will be learning about this information for the first time. Additionally, most people assume by default that their building is safe. It can take time and multiple conversations to help the tenant understand and believe that the retrofit is needed. The working group recommends that the City produce a packet with information about seismic risk of concrete buildings and about what a concrete building retrofit entails. Tenants may still require in-person communication and education, but the packets can help organize and structure these conversations, and can serve as a trusted source of truth in cases where there is a lack of trust between tenant and building owner.

Other Temporary Tenant Relocation Recommendations (Moderate Support and write-in)

- Allow nonprofit housing developers to have higher vacancy rates to temporarily relocate residents within their own buildings during construction work.
- Create an exemption to the residential vacancy tax for units where residents were temporarily relocated for seismic work.
- Ensure that temporary housing is of at least equivalent quality to the units being vacated and located in the same neighborhood whenever possible.
- Specify a defined period of time for temporary tenant relocation, communicate it to tenants, and ensure that building owners cover the expenses.
- Develop assistance programs for homeowners who must temporarily relocate.
- Host communication events and workshops to provide information about temporary relocation to tenants, with the help of local experts.
- Leverage the Code Enforcement Outreach Program, administered by Department of Building Inspection Housing Inspection Services, which works with nonprofits to help with tenant relocation issues.

⇨ Process Streamlining Recommendations

Much of the discussion among the Process Streamlining subgroup was centered around how to drive efficiencies in the administrative processes surrounding earthquake retrofits.

The Process Streamlining recommendations were informed by prior retrofit programs and by the experiences of City staff, building owners, and tenants.

The subgroup that generated recommendations on process streamlining included representatives from the Mayor's Office of Housing and Community Development, the Department of Building Inspection, and the Department of Public Works.

Summary of issues raised by the working group related to process streamlining:

Several members of the working group are concerned about the strain that the CBSP could put on the City's staff resources. This program would require significant staff time to administer, and there could be a funding gap related to administering this program for the first 3-10 years after the ordinance passes. Permit wait times are already very long and some types of permits that may be common in concrete retrofits–like sidewalk encroachment permits from Public Works and historic preservation permits from Planning-require case-by-case discretionary review by a department head or commission. There is a risk that passing this program without closing the funding gap and streamlining some of the City's internal processes could slow the City's progress toward other goals like new housing construction.

Recommendations:

Recommendation 7. Include funding in legislation for dedicated, full-time Department of Building Inspection staff to support the administration of this program.

The Department of Building Inspection (DBI) will lead much of the permitting, construction, and building owner communication aspects of the CBSP's implementation, and they currently are not sufficiently staffed to handle that additional workload. Each step of this program will require a heavy lift from their staff, and the later stages of the program will also require significant technical expertise. The working group recommends that DBI receive dedicated, full-time staff for this program, especially in the earlier years before permit fees begin coming in. Additionally, the working group recommends that the City fund training for DBI's technical staff to support them in reviewing submissions and permits to create more capacity within the department to implement the program.

Recommendation 8. Coordinate requirements, timelines, and communications for alarms, sprinklers, and facade repairs.

The working group has identified that multiple new mandatory programs have been rolled out in recent years, including requirements about fire alarm systems, fire suppression sprinklers, and facade inspections and maintenance. These programs typically focus on older and higher occupancy buildings, meaning that there is significant overlap in the buildings that are impacted by these different programs. If it moves forward, the CBSP will be another program affecting many of these same building owners. The working group emphasized the importance of creating predictability for building owners in as many ways as possible. To that end, they recommend that DBI coordinate the requirements, timelines, and communications for these programs. The goal should be for building owners to receive all necessary information about what is needed in an actionable, understandable, comprehensive, and organized way.

Recommendation 9. Streamline small sidewalk encroachment permits as a means of reducing administrative burden to departments and making it easier for building owners to comply.

Concrete building retrofits may frequently involve extending the building a few inches over the sidewalk. Sidewalk encroachment permits currently must be reviewed case-by-case by the City Engineer. The working group recommends that the Department of Public Works (DPW) streamline the process of issuing sidewalk encroachment permits and allow for staff approval in cases where encroachments would not impede access for people with disabilities under the Americans with Disabilities Act.

Other Process Streamlining Recommendations (Moderate Support and Write-in)

- Develop a historic preservation companion document to the Administrative Bulletin to provide direction to structural engineers and building owners on how to design in accordance with historic preservation requirements.
    - Develop a checklist, approved by the historic preservation commission, to reduce uncertainty for owners who need discretionary permits.
- Remove non-seismic permit triggers for building owners to minimize the burden and create incentives for participation.
- Streamline permitting and approval processes for demolition and rebuilding to reduce administrative burdens and make it easier for building owners to replace their building if retrofitting is not cost-effective or feasible.
- Require commercial buildings to submit an umbrella permit and phasing plan in the first five years, then allow 20 years after approval to perform the work.
- Make "tilt-up" permits "over-the-counter" to reduce time burdens.
- Dedicate staff from all City agencies (Planning, DBI, Fire, DPW) to serve as "Points of contact" able to answer questions and help applicants through the permit process.

Source: City and County of San Francisco. (2024). *Stakeholder Engagement for Concrete Building Safety Program.* Link.

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