



Concrete Building Safety Program

Stakeholder Working Group Meeting #6 Summary Memo

June 1, 2023

Working Group Attendees (15)

City & County of San Francisco Staff (3/9)

<u>Invited</u>	<u>Attended</u>
Judson True, <i>Director of Housing Delivery, Office of Mayor Breed</i>	-
Lisa Gluckstein, <i>Housing & Land Use Policy Advisor, Office of Mayor Breed</i>	-
Raquel Bito, <i>President, Building Inspection Commission</i>	-
Neville Pereira, <i>Deputy Director of Permit Services, Department of Building Inspection</i>	X
Raymond Lui, <i>Structural Engineering Section Manager, San Francisco Public Works</i>	-
Dan Sider, <i>Senior Advisor for Special Projects, San Francisco Planning Department</i>	-
Liz Watty, <i>Director of Current Planning, San Francisco Planning Department</i>	-
Susan Ma, <i>Joint Development, Project Manager, Office of Econ. & Workforce Dev.</i>	X
Holly Babe Faust, <i>Construction Rep., Mayor's Office of Housing & Comm. Dev.*</i>	X

Technical Experts (5/6)

<u>Invited</u>	<u>Attended</u>
Duke Crestfield, <i>Principal, Triangle Engineering*</i>	X
Ned Fennie, <i>Architect, DBI Code Advisory Committee</i>	-
David Friedman, <i>Board Member, SPUR</i>	X
Sarah Atkinson, <i>Earthquake Resilience Policy Manager, SPUR</i>	X
Robert Kraus, <i>Structural Engineer, Structural Engineers Assoc. of Northern California*</i>	X
Jenna Wong, <i>Assistant Professor of Civil Engineering, San Francisco State University</i>	X

Residential Building Owners (2/6)

<u>Invited</u>	<u>Attended</u>
Chris Cummings, <i>Dir. of Housing Development, Tenderloin Neighborhood Dev. Corp.</i>	X
Heather Lea Heppner, <i>Housing Preservation Mgr., Chinatown Comm. Dev. Center</i>	X

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Janan New, *Executive Director, San Francisco Apartment Association* -

Charley Goss, *Govt & Community Affairs Mgr., San Francisco Apartment Association* -

George Orbelian, *Building Owner, 640 Mason Street** -

Freeda Rawson, *Associate Director of Resident Services, Mercy Housing California* -

Commercial Building Owners (1/3)

Invited

Attended

Alex Bastian, *Director, Hotel Council of San Francisco* **X**

Lisa Yergovich, *Principal, Architectural Resources Group (on behalf of BOMA SF)* -

David Harrison, *Gov & Public Affairs Manager, BOMA San Francisco* -

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Tenant Representatives (0/4)

Invited

John Elberling, *Executive Director, Yerba Buena Neighborhood Consortium*

Raquel Redondiez, *Director, SoMa Pilipinas*

Fred Sherburn-Zimmer, *Executive Director, Housing Rights Committee of SF*

Alicia Sandoval, *Tenant Counselor, Housing Rights Committee of SF**

Attended

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Business Representatives (0/3)

Invited

Rodney Fong, *President & CEO, San Francisco Chamber of Commerce*

Emily Abraham, *Dir. of Legislative & Community Affairs, SF Chamber of Commerce*

Johnny Jaramillo, *Executive Director, PlaceMade*

Attended

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Labor Representatives (0/1)

Invited

Rudy Gonzalez, *Secretary-Treasurer, SF Building & Construction Trades Council*

Attended

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Builders & Developers (1/3)

Invited

Matt Field, *President, TMG Partners*

Gregory Johnson, *Associate Director, CBRE*

Brian Main, *Vice President, Construction Manager, Plant Construction*

Attended

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X

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Other Attendees (3)

Maria Zamudio

Galadriel Burr

Roisin Isner – *SF Tenants Union**

Project Team Attendees (11)

Office of Resilience & Capital Planning (3), Project Lead

Brian Strong, *Chief Resilience Officer*

Melissa Higbee, *Resilience Program Manager*

Laurel Mathews, *Senior Earthquake Resilience Analyst*

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Applied Technology Council (3), Technical Lead

Ayse Hortacsu, ATC Project Technical Team Manager

Joe Maffei, ATC Project Technical Director

Karl Telleen, ATC Project Technical Team Member

CivicMakers (3), Engagement Lead

Judi Brown, Project Director & Lead Facilitator

Terri Feeley, LBE Subcontractor & Facilitator*

Kyle Wicks, Project Manager

Other City Staff (2)

Christine Gasparac, Assistant Director, Department of Building Inspection

Patrick Hannan, Communications Director, Department of Building Inspection*

Angela Yip, Communications and Legislative Analyst, City Administrator's Office

*Indicates members who attended via Microsoft Teams.

Meeting Purpose

1. ATC Team presented on Technical Recommendations to provide examples of how to identify, categorize, and prioritize residential and commercial buildings in need of retrofit. The ATC Team communicated their process for how they arrived at the recommendations and suggested timelines for implementation.
2. Provide an opportunity for stakeholders to share their top 3 priorities of the program. These are intended to be incorporated into future synthesis of ATC's Technical Recommendations. Guiding Principles were referenced from the previous subgroups.
3. Conduct a Q&A to ensure stakeholders in attendance understand the premise of the Technical Recommendations, and give opportunity to provide feedback, concerns, and ideas that can be the basis for upcoming subgroup discussions.

Meeting Background Materials

1. [CBSP Working Group Meeting #6 Slide Deck](#)
 2. [Technical Recommendation Categories](#)
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Meeting Summary

Welcome, Previous Meeting Recap & Agenda Overview

Project team and working group attendees convened in-person and online via Microsoft Teams. Judi Brown, Lead Facilitator, welcomed everyone and facilitated introductions in the room. All conversations

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happened in real time, in the same room. No breakout rooms were created. Laurel Mathews, Senior Earthquake Resilience Analyst, recapped the meeting in April where recommendations for process streamlining were presented, the Planning Department was notated as a key partner for finalizing and implementing recommendations, and acknowledged the discussion about temporary tenant relocation suggestions. It was reiterated that the goal of the participatory program design is to produce recommendations with the consensus of the subgroups, informed by technical recommendations by ATC. Laurel discussed the timeline and expectations for the remaining two meetings; working groups present recommendations to the Executive Panel in October, and the Executive Panel provides feedback to staff in December. Laurel emphasized the need to address communication and messaging of the project with stakeholders' constituencies and the public. Before ATC presented on technical recommendations, Judi facilitated a share back session, allowing all present stakeholders to identify their top three priorities for the program. The intent of this exercise was to determine where the highest priorities are within the group that represents multiple stakeholder interests. There was a range of feedback, but common themes of **public safety, relocation/tenant preservation, and project feasibility** (cost and timeline) were prevalent. Additional priorities that arose were economic vitality, preparation for businesses and tenants, communication/education of the problem and solution, and ensuring a regional approach.

ATC Presentation: Process and Development of Technical Recommendations

The ATC team consisted of Joe Maffei, Ayse Hortacsu, and Karl Telleen. Ayse and Karl provided background of their process for compiling the preliminary recommendations, which consisted of gathering input from the Concrete Buildings Safety Program (CBSP) working groups, the Office of Resilience and Capital Planning (ORCP), San Francisco Department of Building Inspection (SFDBI), and the Structural Engineers Association of Northern California (SEAONC) Existing Buildings Committee (EBC) over the course of several months. Additional research on city ordinances, building codes, San Francisco's residential and commercial building inventory, and other California retrofit programs were also considered by ATC's development of draft and recommendations.

After the process was described, Joe presented the technical elements of the recommendations based on the input and research. He spoke on suggestions for which buildings would be included in the retrofit program, what level of retrofit would be required (categories), and timelines for implementing category retrofits.

What buildings would be included? The ATC team provided suggestions based on the input and research conducted, assessing buildings' integrity to withstand seismic activity on factors of when the building was constructed and/or a permit application was submitted. Factors to determine if buildings might be exempt from the program include:

- Age of building
- Height of building
- Materials and structure– are concrete columns or wall piers used? Steel Frame?
- Recent retrofit that satisfies compliance

What level of retrofit would be required? ATC recommended two options by which non-exempt buildings could comply with retrofit requirements. Compliance Option A would require buildings to comply with a

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lower level (less seismic activity) of Structural Collapse Prevention and address specific deficiencies. Deficiencies include a weak story, discontinuous walls, slab punching shear at columns, shear-governed columns or wall piers, inadequate bearing supports/beams, or moment frame. Compliance Option B would require non-exempt buildings to comply with a higher level (more seismic activity) of Structural Collapse Prevention.

What are the timeline and schedule categories? The ATC team provided four draft options for how to define (and how many) schedule categories (i.e., which buildings have sooner or later deadlines for retrofitting) with associated timelines. It was recommended to not use certain criteria when determining categories. First, occupant load was not a criterion used because it requires calculations and occupancy can vary. Second, floor area was not a criterion used because it is not indicative of the number of occupants and may not be necessary to retrofit all large buildings first. Last, a site's soil class was not a criterion used because the resources are not readily available. Criteria that were used in determining categories were risk to life safety, feasibility for implementation, and social vulnerability. Depending on the draft, implementation would range from 10 to 20 years.

Proposal A categorized structures by use (residential vs. non-residential), and whether they were built before or after 1948, resulting in four schedule categories. This proposal put the retrofit of non-residential buildings first in order to provide residents enough time to plan temporary relocation; a factor which was also acknowledged during the temporary tenant relocation subgroup discussions. Prior feedback indicated the need for more than four categories.

Proposal B categorized structures based on use and year of construction (as a proxy for vulnerability of the structure), and it divided buildings into more (six) schedule categories to spread out the work to accommodate the capacity of the Department of Building Inspection. Residential structures would be assessed later in the implementation timeline to, again, allow ample time for planning of temporary relocation. Non-residential buildings constructed between 1956-1984 would be addressed earlier in the timeline while non-residential buildings constructed prior to 1956 would be retrofitted during the middle of the timeline. Non-residential buildings constructed between 1984-1999, and any non-exempt residential structures would be implemented toward the end of the timeline.

Proposal C also categorized structures based on use and year of construction but considered the impact to the housing market by spreading residential retrofitting across the timeline of implementation. The most vulnerable* residential and non-residential structures would be implemented sooner in the timeline, while less vulnerable* structures would be addressed later in the timeline. This recommendation also considers the Department of Building Inspection's capacity to ramp up assessment of properties, implementing fewer buildings in the beginning of the timeline.

Proposal D, is comparable to the categorization of Proposal C except it includes more residential structures in the first category. The remainder of the implementation timeline tracks very similar to Draft C, addressing the most vulnerable structures* sooner while ensuring consideration of the economic impact to the housing market and local businesses is minimized.

*Note: Using year as a proxy for structural vulnerability is an oversimplification of vulnerability, based on engineering judgment, used for the purpose of grouping buildings into schedule categories for the Concrete Building Safety Program. There is building-by-building variation within each of these categories. The only way to know an individual building's risk is by an assessment from a qualified structural engineer.

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Working Group Questions & Comments

Note: the language below in italics reflects the spirit of the dialogue but is not always a direct quote.

Q1. Are hotels being categorized as residential or non-residential as some establishments are mixed-use.

A1. As presented, schedule categories indicated for residential buildings exclude hotels. Hotels are categorized as non-residential.

Q2. Does the proposed draft ordinance require compliance with the 1997 code?

A2. Buildings for which the permit application for original construction was July 1, 1999 or later are recommended to be exempt from the ordinance. (Beginning with this date, The San Francisco Building Code was based on the 1997 Uniform Building Code.) For buildings that are not exempt from the ordinance, there are different requirements for compliance, based on current retrofit standards (not the 1997 Uniform Building Code).

Q3. If a retrofit was conducted in the last 15 years, will there be a check of the non-ductile retrofits?

A3. Not all retrofits in that time period are exempt; if they meet more recent retrofit standards and have a permit showing that they meet those standards it will NOT trigger an assessment, and the building will be exempt. On the other hand, if the permitted retrofit documents do not specify a level of retrofit that meets the requirements for exemption, an engineer will be required to check whether the retrofit meets the requirements of the ordinance (or do additional retrofitting to meet the requirements).

Q4. Confusion on Compliance Option A and B.

A4. Compliance Option A is referencing collapse prevention at the BSE-1E level AND requires addressing any structural issues defined in the ordinance as deficiencies that make the structure vulnerable to 225-year (BSE-1E) earthquake motions. Option B complies with ordinance Section 304.4.3, preventing collapse at the BSE-2E level – a 975-year earthquake motion.

C1. Based on the answer to Q4 there's a question of whether Compliance Option A and Compliance Option B will change the duration that tenants must be temporarily displaced.

Q5. How do we communicate a "225-year earthquake" to tenants to convey the importance of retrofitting amidst rationalizing the comprehension of something that sounds far away or infrequent?

A5. If you are in a building for the next 30 years, or in a 30-year mortgage, the 225-year motion means you have a 12% chance of seeing that occurrence in that time horizon.

C2. (In response to Q5) We are developing messaging to assist in communicating the program's goals, insights, and recommendations in a way that is digestible and balances the urgency and risk.

Q6. Is the location of the property being considered?

A6. Yes, they're considered as much as they're considered in the ASCE-41.

Q7. Is the reparability/post-earthquake reoccupancy of the buildings going to be considered?

A7. For this mandatory program for existing buildings, the goal is preventing loss of life. A retrofit will likely improve repair costs, but that is not an explicit criterion for compliance. Retrofitting does not necessarily ensure that the building will be repairable after a major earthquake.

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C3. It's important to communicate the legal liability exposure and why/how that is communicated, explaining why it's an obligation to meet retrofitting recommendations; not a choice. Communication strategy should include understanding of short-term cost savings vs long term risk/cost of liability in a seismic event. This could be accomplished through tiered financial incentive; more/quicker compliance = better incentive.

C4. Hotels are unique in some respects; they are non-residential but employ many people and contribute sales tax to the City. Would like to see hotels distributed in the middle/throughout the implementation categories.

C5. Hard to understand how these vulnerable structures with high degree of retrofit complexity can get completed in a 10–20-year timeframe.

C6. Unrealistic to meet a 10–20-year timeline with current occupancy and economic factors. The timeline is too short across the board. For a recent retrofit project for a large building in San Francisco, with all the available resources, it took the company 23 years to complete.

Q8. Why did that project take so long?

A8. Spoke on the extensiveness of permitting, relocating, and extent of the work (steel garters for bracing ties and steel structures back to the floors, demolition, etc).

C7. On the cost side, to complete the project in the recommended timelines would wipe out everyone's principal and they would have to pull out loans to complete. If it was completed over longer timelines credit could be accessed to complete the project over a reasonable period. Maybe completing larger structural concerns first.

C8. Ensure the phasing of implementation doesn't create a worse situation that current structures can't handle. Look at and understand how hospitals phase construction and have limited impact on operation (OSHPD model).

C9. As a group, our deliverable is a list of recommendations to the City. The recommendations could include allowing phased retrofitting as commercial leases reach renewal.

C10: Phasing would need to be done carefully to make sure the building remains structurally safe for occupancy at all phases of construction/retrofit. Ideally lower floors retrofit first, then upper floors.

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Wrap Up & Next Steps

The team will compile and distribute notes. Attendees were reminded about the final two working group meetings, occurring in August and September. The next meeting is non-technical and will focus on communication with building owners/tenants, and financing information and resources.

Communication/messaging guidance will be sent out once the final review has been completed.

Stakeholders will have the opportunity to review and understand the categories and recommendations and provide feedback in the next meeting. Attendees were shown the slide of the topic groups and their members. Members were encouraged to contact Laurel if they would like to join a subgroup.