Seismic Advisory Group
Meeting #5
June 27, 2016
1 – 4 pm
Rinconada Library

MEETING MINUTES – SEISMIC RISK MANAGEMENT ADVISORY GROUP

Attendance By:	George Hoyt (GH), Chief Building Official COPA Evon Ballash (EB), Assistant Building Official COPA James Henrikson (JH), Fire Marshal COPA Meg Monroe (MM), Senior Planner COPA Bret Lizundia (BL), Principal, Rutherford+Chekene (R+C) Sharyl Rabinovic (SR), Sub Consultant to R+C Rich Cody (RC), Cody Brock Tom Holzer, USGS Teresa Marks, Hudson Pacific Roxy Rapp (RR), Developer Ken Hayes (KH), Hayes Group Annette Glanckopf, Community Doug Hohbach (DH), Hohbach – Lewin Jessica Epstein, Silvar, Policy
Minutes Prepared By:	Evon Ballash
ITEMS	DISCUSSION
Introduction/Project Timeline	General: ➢ Introduction by GH/BL: This is the last work session before that final advisory meeting. The objectives of this meeting are to review the previous straw poll results and policy framework handout; refine policy options; and identify conclusions, points of agreement, and issues warranting further attention. Eventually, the Advisory Group effort will develop recommendations for the City Council. ➢ The Meeting #4 minutes were approved without comment. ➢ BL reviewed timeline of the Advisory Group up to AG4. Draft recommendations will be developed following the meeting, with completion at the final AG6 meeting. There will not be a Policy and Services review meeting. Rather, recommendations go directly to the City Council in November or December. Following the meeting, a 12/5/16 date for presentation to the City Council was established.
Guiding Principles	➢ Palo Alto faces significant losses. ➢ Potential benefits from retrofitting are also significant. ➢ Addressing known potentially hazardous building types that are present in large numbers in Palo Alto maximizes risk reduction. ➢ Range of policy approaches can be considered for building types that pose a worse than average risk and lend themselves to available ordinances with engineering techniques adoptable to retrofit.

Parameters for Comparing Different Building Types to Target	➢ Review the number of affected buildings including multi-family residential units and commercial. ➢ The impacted areas are distributed all over town. There are no areas of high concern. ➢ Broad implications for collapse prevention, losses avoided, the retrofit costs incurred, and the average loss avoided/retrofit cost ratio
Potential Further Study	➢ Areas not covered in this study but that might be considered by the City in the future include: • Historic buildings in each building type category and whether they should have special requirements in an updated ordinance. • Parking implications: the loss of parking spaces caused by retrofitting, either temporarily during construction or permanently. • Small businesses that are impacted by seismic retrofits, loss of business, as well as improvements in speed of recovery. • Renter impacts: displacement during construction, rental rate increases, vacancy rates.
Policy Framework	➢ Six possible package options: 1. Status quo 2. Add more building types to the scope, but retrofit remains voluntary 3. Add more disclosure measures 4. Add triggered mandates, such as when a building is sold or undergoes substantial renovation 5. Add mandated, fixed timelines for selected building types 6. More building types, mandates, fixed timelines, everything included (e.g., S.F., L.A.) ➢ Straw poll strongly favored Option #5, with some for Option #3 and none for Option #1. ➢ Option #3 discussion: Complete the URM retrofit program; address the soft-story wood frame buildings. ➢ Will tenants be displaced for soft-story retrofits? BL: Retrofit ordinances focus on the soft-story deficiency at the ground floor parking level. As a result, most of the retrofit work can be done at the ground story without affecting the living areas above. There will be some noise and dust, and temporary loss of parking. There is less amount of disruption to occupants with

	this building category than other building categories. ➢ There is Advisory Group support for enhancing disclosure measures and incentives.
Topics Discussed	➢ Which building type categories to add to the program. ➢ The extent of mandatory requirements for each new category. ➢ Whether residential (multi-family) or non-residential buildings should have different requirements. ➢ General timelines for retrofitting. Second handout shows a Comparison of Selected Categories: ➢ Column 4 "Number of Housing Units" was added to address questions and concerns from the Advisory Group Category IV: Soft-Story Woodframe (SSWF) Buildings: ➢ Inventory of 294 buildings and 2001 housing units. ➢ Includes building types W1 (smaller residential), W1a (larger multi-family residential), and W2 (commercial). ➢ Large losses of $244M for M7.9 earthquake event ➢ Loss avoided if retrofitted was $172M. ➢ The average loss avoided divided by the average retrofit cost was 4:1 and is considered comparatively high. Category V: Pre-1988 Tilt-up Buildings: ➢ Inventory of 99 buildings with no housing units. ➢ Located mostly in south Palo Alto ➢ Harder to retrofit than the woodframe buildings. ➢ Losses of $327M with loss avoided if retrofitted of $218M ➢ Average loss avoided / average cost ratio is 3:1. Category VI: Pre-1977 Concrete Soft-Story Buildings: ➢ Inventory of 37 buildings and 42 housing units. ➢ Losses of $125M with loss avoided if retrofitted of $108M ➢ Average loss avoided / average cost ratio is 3:1. Category VII: Pre-1998 steel moment frame ➢ Inventory of 35 buildings and 85 housing units. ➢ Losses of $105M with loss avoided if retrofitted of $76M ➢ Highest average loss avoided / average retrofit cost ratio of 11:1 due to loss retrofit cost assumed. Actual ratio likely to be lower. Category VIII: Other pre-1977 concrete buildings: ➢ This category was added, in part because the City of L.A. has

	an ordinance. ➢ Which buildings are the worst performers in this overall category can be difficult to quickly identify and is currently the subject of on-going study. ➢ 25 year timeline to retrofit in L.A. BL recommends only Categories IV – VII be considered at this time.
Policy Discussion	Due to meeting time, only the soft-story wood frame buildings were discussed in detail. Other potential building categories will be discussed at the final meeting. ➢ Type IV: SSWF buildings ➢ Usage: Residential vs. non-residential ➢ Size: Area, number of occupants or units. ➢ W1- inventory of 175 units. How many are 50 units or less? BL approximately 20%. ➢ 1st step: Notification from Building Department that the building has been identified as a potential soft-story woodframe building. ➢ 2nd step: Short, inexpensive screening form completed by a design professional to confirm the building is in fact a soft story and woodframe structure and thus subject to the ordinance. ➢ 3rd step: Structural evaluation to determine if structure is o.k. ➢ The International Existing Building Code (IEBC) standard can be used for evaluation as well as retrofit. Current version is the 2015 IEBC. Other possibilities are ASCE 41-13 or FEMA P-807. All three are permitted in San Francisco as part of their soft-story wood frame ordinance. ➢ SR: $2,000 - $5,000 estimated cost for seismic evaluation in Berkeley. It was cheaper to develop plans for mandatory retrofit than a structural evaluation and retrofit plan. ➢ There was concern for tenant displacement and cost pass-through for retrofits. Renter impacts include: will they have to move-out, e.g. ave cost/s.f. and number unit $10/unit over 10 year, could be written as an ordinance. What about SSWF and URM building that already have been voluntarily retrofitted after the retrofit ordinance has been passed: ➢ How to address past partial retrofit conditions and what is fair. ➢ Would a structural evaluation by the owner provided to the building department be sufficient? ➢ Ordinance should define retrofit scope. Rating System through USRC, U.S. Resiliency Council ➢ Following an evaluation, the building receives a rating related to several seismic risk metrics ➢ Non-profit organization, similar to USGBC, LEED. ➢ Possibility of influencing market for rental rates, insurance premiums lowered, etc.

BL/KH ask Advisory Group: How many are in favor of woodframe soft-story retrofits?

- 11 in favor.
- 0 oppose.
- 1 abstains.

Advisory Group Discussion:

- PACE program is available to help finance retrofits and there is some interest.
- SSWF buildings should have mandatory retrofit.
- Loss of life concern has compelling concerns for mandates to retrofit.
- Population of Palo Alto is approximately 67,000. 5 -10% of the population could be displaced from SSWF.
- Risk to life is smaller in SSWF buildings
- Cost of displacement is much higher in SSWF
- Loss of housing stock in post-earthquake event, usually the most affordable units are impacted, due to lower quality construction.
- Will the cost of retrofit be fair to landlords or will it impose an undue burden?
- Level of incentives can help to level the playing field.
- RR comments that structural evaluation will inform the owner and tenants the building's risks and may help the city to justify more action to be taken.
- Structural report may not have influence on insurance companies.
- If a rating system is available, this may affect bank lenders.
- GH comments that the Building Division currently has a Class 1 ISO rating in part because of the existing seismic mitigation ordinance.
- SR comments that currently there is no insurance benefit for retrofits.
- The City of Berkeley ordinance requires a seismic evaluation and a cost estimate.
- DH advocated use of mandatory triggers, such as when there is a change of use, a sale or a substantial renovation that costs more than 50% of the replacement cost of the building
- BL explained San Francisco had a cumulative cost trigger where all previous renovation work was included as well. The Advisory Group did not support this due to the difficulty of enforcement and administration.

Advisory Group non-staff members were polled: "How many agree on mandatory SSWF retrofit?" and "How many support mandatory triggers?" There were 7 non-staff members present. One consistently

	abstained, leaving 6 "voting." Synthesis of results is as follows: ➢ Option 3 (mandatory evaluation, voluntary retrofit, disclosure, incentives): 6 support at least doing this. ➢ Option 4 (mandatory evaluation, retrofits triggered on sale or substantial renovation): 4 support going this far, 2 prefer not stay at Option 3 ➢ Option 5 (mandatory evaluation and retrofit): 2 of the remaining 4 support going this; the other 2 do not ➢ Option 6: zero. Discussion on polled results: ➢ Mandatory triggers were useful in past ordinance. ➢ Advisory Group suggests mandatory retrofits on low hanging fruit, i.e., building types that have the lowest average cost to retrofit ➢ SR comments that triggers are a stop-gap measure to a mandatory retrofit. A mandatory evaluation with a trigger would be an intermediate measure.
Disclosure Measures	➢ Bundle 1—Basic Transparency: Inventory lists and information are readily available for owners on websites. • A pdf list that is downloadable from city website • Interactive and/or searchable map • Monthly updates on pdf list • Only the property address should be shown, rather than the owner's name • List SSWF on deed and title search • Post list after mandatory screening • Staff time concern to support and maintain posting ➢ Bundle 2—Community Awareness: Public inventory lists are focused on tenants and citizens, such as tenant notification forms to be signed and on file with the city. • Obtaining signatures is difficult. The Advisory Group does not support this. • Passive notification at time of rental lease signing may be simpler ➢ Bundle 3: Onsite signage on buildings with seismic hazards. Example signs can be multi-lingual. Also includes building rating systems. Advisory Group preferences on disclosure measures: ➢ Notice on title: low interest ➢ Tenant notification: strong interest for passive only approach ➢ Community events, involvement, and awareness: good support,

	should repeat every few years ➢ Required signage following building evaluation, implement only later if retrofit is not undertaken: low to moderate interest. Benefits are less clear.
Incentives	➢ Who will these measures help: residential or commercial owners? ➢ Use housing inventory list element, for preferred density sites to increase FAR, if community benefits are provided. ➢ What about SSWF that are condominium developments that need financial help or multi-family buildings with low-equity owners? ➢ PACE loans are paid through real estate taxes. Most banks will not allow transferrable PACE loans for refinancing. ➢ More incentives are needed on a shorter timeline. Advisory Group preferences on incentives: ➢ Fee waiver or expedited review for SSWF and to include residential and commercial: high interest. ➢ FAR bonuses that are transferrable: high interest for residential ➢ Parking bonus for when dimensional changes reduces density: low interest ➢ PACE – like loan program: sounds good, but there was low interest on the 8% rate.
Meeting Wrap-Up	➢ SR: We obtained enough information from AG4 and AG5 meetings to develop draft language for recommendations ➢ RC: Needs more buy-in from Advisory Group in the next meeting that decisions will be made. ➢ BL: The final AG6 meeting will focus on discussing the approach to be take with the remaining building categories