



## MEMORANDUM

**TO:** PUBLIC SAFETY COMMITTEE

**FROM:** DAVID M. REYES, DIRECTOR OF THE PLANNING & COMMUNITY DEVELOPMENT DEPARTMENT

**DATE:** MAY 16, 2018

**SUBJECT:** SEISMIC RETROFITTING OF SOFT-STORY BUILDINGS

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### BACKGROUND:

On December 4, 2017 staff and consultant, Degenkolb Engineers presented to the Public Safety Committee on the topic of multi-family wood buildings with a soft-story deficiency within the City of Pasadena. These wood soft-story buildings were primarily constructed between 1920s and 1970s. Wood soft-story buildings are wood-frame buildings with more than one story that typically have extensive ground story windows, garage doors, or open-air spaces (such as tuck under parking) with little or no enclosing solid wall. These buildings result in a relatively soft or weak lateral load resisting system in the lower story making them more vulnerable to collapse during an earthquake. The poor performance of these buildings was evident during the 1989 Loma Prieta and 1994 Northridge earthquakes, accounting for significant human loss and property damage. Currently, the city estimates that there are approximately 493 wood soft-story buildings that were constructed in Pasadena before the 1978 building code became effective. The 1978 building code is the typically used as a trigger since this code improved the design of these types of buildings. During the December 4, 2017 meeting, the Public Safety Committee expressed the desire to develop a seismic retrofit ordinance for wood soft-story buildings.

### PROPOSED PROJECT:

City staff has estimated that there are 493 wood soft-story buildings that require evaluation and possible retrofit. To develop the retrofit ordinance, staff has contracted with Degenkolb Engineers. Degenkolb has worked with several cities in Southern California including Santa Monica, Beverly Hills, and West Hollywood to develop soft story ordinances specific to each city. Staff has met with Degenkolb and are proposing the following steps to develop the multifamily wood building soft story ordinance:

- (1) Draft Ordinance - Develop a working draft ordinance to include the technical framework;
- (2) Incorporate City Comments - Work with relevant city departments to incorporate non-technical language into the Draft Ordinance;
- (3) Advisory Group - Form an Advisory Group composed of stakeholders (e.g. city technical staff, local structural engineers and architects, Caltech members, local developers, local

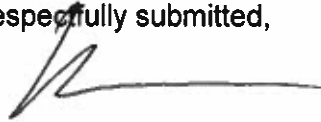
real estate professionals, and local housing associations). The Advisory Group will be tasked with providing recommendations to City staff on non-technical items such as timeframes and prioritization;

- (4) Technical Committee - Develop a Technical Committee composed of experienced members of the Structural Engineers Association of Southern California (SEAOSC) to review the technical portions of the ordinance and provide comments to staff; and
- (5) Community Outreach – Hold two community outreach meetings to present the ordinance to the public and receive comments.

After completing initial community outreach as described above, staff will present a draft ordinance to Public Safety Committee for review and comment.

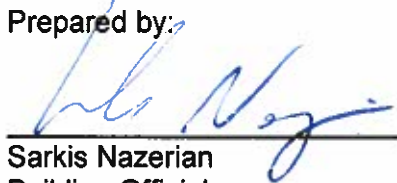
Tentative Timeline	
Drafting Ordinance and City Review	Fall 2018
Advisory Group	Winter/Spring 2019
Outside Technical Review	Spring/Summer 2019
Community Outreach	Fall 2019
Public Safety	Fall 2019
Ordinance Adoption	November/December 2019

Respectfully submitted,



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Prepared by:



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