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David Osgood  
Rincon Point Neighbors' Association  
Email: [osgood@rinconneighbors.com](mailto:osgood@rinconneighbors.com)

Re: Additional questions from Rincon Point Neighbors' Association about Seismic Safety and Hazard Mitigation in San Francisco Buildings

Hello Mr. Osgood,

Thank you for your follow-up questions about bedrock and steel moment frames. Given the nuances that are associated with building foundations and steel-moment frame welds, it would be better to discuss these issues in-person with a structural engineer. Noting that I am not an engineer, please see my responses below.

**Question 1: Does the building rest on bedrock?**

The proximity between the building foundation and the bedrock layer was not a datapoint that was collected as a part of the Tall Buildings Study. Most building foundations do not go down to bedrock. There are a variety of ways in which a building can address the vertical and horizontal forces placed upon its structure to meet the life-safety requirements of the building code. In other words, there is no single or one-size fits all approach for a building's foundation.

To find out if a specific building's foundation goes down to bedrock, you can schedule an appointment to view the building documents in person at the Department of Building Inspection. Since the building information is protected, it can be viewed, but not copied, photographed, or shared. This is the approach the team used to collect the general information supporting the Tall Building Study.

**Question 2: Steel Moment Frame buildings**

In addition to its foundation, a building's seismic safety also depends on its structural composition. There are some building types that are identified as a priority for retrofit in the ESIP (Earthquake Safety Implementation Plan) Workplan, supported by earthquake-scenario studies and stakeholder input, such as wood-frame buildings with soft-story deficiencies (addressed in the soft story retrofit program that completed in 2021) and older concrete buildings with non-ductile detailing.

Under existing building inspection protocols, buildings with older welded steel moment frames might incur undetected damage after a very large earthquake. While the extent and risks associated with these buildings are still being determined, FEMA commissioned a report, FEMA 352: Recommended Post Earthquake Evaluation and Repair Criteria for Welded Steel Moment Frame Buildings, that provides post-earthquake inspection and

retrofit protocols for welded steel moment frame buildings. Incorporation of this report and related follow-up actions are covered in recommendation 3F of the Tall Buildings Study. Work to implement 3F is scheduled to begin in approximately two years or after the development of the concrete building safety retrofit program.

Thank you again for your thoughtful questions and your concern for San Francisco's residents of tall buildings.

Sincerely,



Brian Strong, Chief Resilience Officer and Director

cc:

Supervisor Aaron Peskin, Board of Supervisors

Carmen Chu, City Administrator

Patrick O'Riordan, Director of the Department of Building Inspection