Congress of the United States

Washington, DC 20515

September 22, 2016

President Barack Obama The White House 1600 Pennsylvania Avenue, NW Washington, DC 20500

Dear President Obama:

We write to urge you to take significant additional steps before the end of your Administration to strengthen the nation's earthquake preparedness. The Government Accountability Office (GAO) is releasing a report which finds that federal agencies must do more to identify and mitigate seismically-unsafe buildings. The report also finds that additional actions are needed to ensure the successful implementation of an earthquake early warning system. We have attached the report for your reference.

The U.S. Geological Survey (USGS) estimates nearly half of Americans live in areas where damaging earthquakes can occur. The agency in 2008 also estimated that a 7.8 earthquake occurring on the San Andreas Fault in California could cause 1,800 deaths, 50,000 injuries, and \$200 billion dollars in damage. There is no question that a catastrophic earthquake will ultimately occur in the U.S., it is only a question of when and where. The U.S. Geological Survey estimates that there is a near certain chance that the nation will be struck by a major earthquake in the next 30 years. In light of this, Federal agencies must take steps to improve our nation's preparedness for this inevitability.

The recent 6.2 magnitude earthquake in Italy – which reportedly caused 291 deaths – is one further tragic reminder that failure to mitigate seismic safety risks puts lives in grave danger. According to reports in the media, experts have indicated that many of these deaths were due to buildings that were not sufficiently retrofitted to withstand the known earthquake hazard in the region.

Therefore, we urge you to take the following actions in response to the GAO report's findings:

1. Direct the National Earthquake Hazard Reduction Program to create a standardized system to identify seismically unsafe federal buildings in earthquake hazard zones, including a consistent definition of what constitutes an "exceptionally high risk" building. While we appreciate the ongoing efforts by

federal agencies in this regard, GAO found that not every agency had a clear definition for "exceptionally high risk," despite the requirement in your Executive Order earlier this year establishing a Federal Earthquake Risk Management Standard (Executive Order 13717) that agencies identify structures meeting this definition and develop a plan to mitigate known risks.

- 2. Direct federal agencies to clearly identify which buildings meet the "exceptionally high risk" definition and to establish reasonable, risk-based goals for retrofitting or replacing these buildings as quickly as possible. While budgets are limited and retrofits or replacements can be time-intensive, the federal government has a responsibility to mitigate threats to human life and critical infrastructure.
- 3. Direct federal agencies to take immediate steps to identify and address low-cost seismic safety issues as is practicable. Several studies, including a University of California, Los Angeles analysis of the 1994 Northridge Earthquake, suggest that shifting contents and non-structural items like furniture account for a significant proportion or even a majority of the injuries that occur during a strong earthquake. Additionally, unsecured furniture and light fixtures can impede the ability of building occupants to evacuate after shaking occurs. Every federal agency should take steps to identity and mitigate low-cost risks, such as bolting bookshelves to walls and securing light fixtures.
- 4. Create a clear plan and multi-agency governance structure for the development and operation of the Earthquake Early Warning System currently being developed by the USGS. While USGS has developed technology that has the potential to provide sufficient warning prior to a damaging earthquake, numerous steps must be taken by various state and federal agencies to translate this technology into a fully operational warning system that can automatically stop trains, shut-off pipelines, and prompt the public to take actions to minimize injury or death. The Administration needs to outline a clear implementation plan and leadership structure to identify challenges and guarantee that all relevant federal and state agencies are working in concert to ensure the success of this life-saving technology.

Additionally, in light of Executive Order 13717, we respectfully ask that we be provided an update on the status of implementation of the Federal Earthquake Risk Management Standard. We further ask that the update include progress made to date to

bring federally-owned or leased properties into compliance with the executive order, as well as any relevant delineation of responsibility, milestones and timelines that have been established.

Thank you for your attention to our recommendations regarding seismic safety. We look forward to working with you and your administration, as we as with our colleagues in the Congress, to further improve our nation's preparedness and resilience.

Sincerely,

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Thomas R. Carper

United States Senator

Dianne Feinstein

United States Senator

Peter DeFazio

United States Representative

cc: The Honorable Ashton Carter Secretary of Defense

The Honorable Suzette Kimball Director, U.S. Geological Survey

The Honorable Denise Turner Roth Administrator, General Services Administration

The Honorable W. Craig Fugate Administrator, Federal Emergency Management Agency

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