# PROSPECTUS – ALTERATION SEISMIC MITIGATION PROGRAM VARIOUS BUILDINGS

Prospectus Number: PSE-0001-MU20

PBS

### FY 2020 Project Summary

This prospectus proposes alterations to install, upgrade, and improve seismic performance in Government-owned buildings.

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#### Program Summary

As part of its Seismic Mitigation Program efforts, GSA is currently identifying seismic risks in Federal facilities in high seismic areas throughout the country through previous seismic evaluations, inspections, and 41 American Society of Civil Engineers Tier 1 studies undertaken as part of the GSA Seismic Risk Rating Program. The approval requested in this prospectus is for a set of retrofit projects with engineering solutions to reduce hazards. Resulting mitigation projects will vary in size, location, and delivery method. Typical projects include:

- Installing or upgrading seismic bracing on fire suppression piping, water lines, gas lines, and steam lines to reduce fire risk and reduce risk from falling hazards to the building occupants;
- Installing seismic bracing on partitions with large height-to-thickness ratios, terra cotta, or unbraced stairwell conditions, including revisions to stairs to allow for relative floor movement during seismic events;
- Installing seismic bracing and snubbers, as required, to mechanical and electrical equipment to reduce instability, fire risk, and post-event downtime;
- Installing seismic bracing on and above suspended ceilings to prevent ceilings, fixtures, equipment, and piping from falling;
- Bracing parapet walls and other facade elements to reduce falling hazards at the exterior of buildings and at building exits;
- Strengthening diaphragm and connections to lateral load resisting elements;
- Strengthening critical structural members and connections; and
- Anchoring features and installing seismic bracing on furniture, fixtures, and equipment to mitigate injury risk.

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### **Justification**

Based on seismic studies, GSA initiated a program to identify nonstructural seismic hazards, and initiated correction and risk reduction projects associated with those hazards. According to the Department of Homeland Security, Federal Emergency Management Agency, most of the damage caused by several recent U.S. earthquakes was the result of nonstructural failures, and falling nonstructural building components are responsible for the majority of injuries. Completion of projects funded through this program will reduce the risk from seismic events in Government-owned buildings.

### **Certification of Need**

The proposed project is the best solution to meet a validated Government need.

Submitted at Washington, DC, on <u>March 18, 2019</u>

Recommended:

Commissioner, Public Buildings Service

Approved:

Emily W. Murphy

# Administrator, General Services Administration