

SCHOOL FACILITIES MANUAL
NONSTRUCTURAL PROTECTION GUIDE

**SAFER SCHOOLS
EARTHQUAKE HAZARDS
NONSTRUCTURAL**



**Lessons Learned
Seattle School District
(November 2000)**

Second Edition
Supersedes July 1989 Edition

Second Edition by Linda Lawrance Nolson (AGRA Earth & Environmental) and Todd W. Perbix (Perbix Engineering) for the Seattle Public Schools with funding from the Seattle Project Impact program initiated by FEMA.

Originally prepared by Linda Lawrance Nolson and Todd W. Perbix of Ratti Swenson Perbix for the Federal Emergency Management Agency (FEMA) and issued by the Washington Office of the Superintendent of Public Instruction.

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This guide was originally prepared by Linda Lawrance Noson and Todd W. Perbix of Ratti Swenson Perbix under contract to the Federal Emergency Management Agency (FEMA). It was issued to Washington school districts by the Washington Office of the Superintendent of Public Instruction (OSPI) in 1989 under the title *Nonstructural Earthquake Hazard Manual*. The manual was part of the Safer Schools section of the OSPI *School Facilities Development Procedures Manual*. The *Nonstructural Protection Guide* authored by Noson (AGRA Earth & Environmental) and Perbix (Perbix-Bykonen Engineers) is an update of the 1989 manual. It is being issued jointly by OSPI and the Seattle Public Schools.

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Disclaimer

This Guide provides information for school district staff and parents on how to establish a program to identify and strengthen nonstructural building elements to resist life-threatening failures during earthquake shaking. The primary goal of this Guide is to support the implementation of a school nonstructural earthquake protection program to improve the safety of students, staff, parents, and other school visitors. However, please note that *“The state of the art of earthquake engineering is not sufficiently developed to perfectly predict the performance of nonstructural elements or to guarantee adequate earthquake protection if [the guidelines in this manual] or other guidelines are followed. Professional expertise is recommended to increase the probability that intended levels of earthquake protection will be achieved. Liability for any losses that may occur in an earthquake or as a result of using this [manual] is specifically disclaimed.”* (Reducing the Risks of Nonstructural Earthquake Damage: A Practical Guide, FEMA, 1994, p. vi)

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