

# 2017 HILLSBORO SCHOOL DISTRICT BOND PROGRAM

## SEISMIC

### **BOND PROGRAM OVERVIEW**

The 2017 Hillsboro School District Bond was approved by District voters in November, 2017 by a margin of 67% to 33%. The Bond program focused on four major categories: Improving Safety and Security; Building for the Future; Enhancing Existing Infrastructure; and Providing a Modern Educational Experience for all students. Included in the Improving Safety and Security component of the bond was approximately \$45 million for seismic work at our existing school facilities. The purpose of this document is to provide detailed information regarding these seismic projects.

### **BACKGROUND**

The Hillsboro School District includes 25 elementary schools, 4 middle schools, 4 comprehensive high schools, 2 alternative schools and 5 support campuses. The oldest of these buildings was constructed in 1922 (Reedville Elementary) and the newest in 2009 (South Meadows Middle School). Over this 87 year period, building codes have changed significantly, especially with regard to seismic standards, as we have become more aware of the risks of a major seismic event.

The majority of our older school buildings in the Hillsboro School District, those built before 1997, are wood-frame structures that tend to perform better in a seismic event than unreinforced block or concrete buildings. It's also important to understand that all of our school buildings were constructed to meet building code requirements in place at the time they were built, and that many have been upgraded over the years. However, the building codes in place at the time of construction of those buildings did not address today's seismic concerns and standards. We still have several older buildings that need to have additional work completed to ensure the safety of our students, staff and community.

### **NEW CONSTRUCTION**

As part of the 2017 Bond program we will be constructing three new elementary school buildings, a replacement building at Brookwood Elementary, a second school in North Plains, and the first of what we eventually expect to be five new schools in the South Hillsboro development. In addition, the Bond will provide new gymnasium buildings at eight elementary schools that currently have a shared cafeteria/gymnasium facility. All of these new buildings will be built to a **“Risk Category IV”** structure per the current building codes. **This higher design level is intended to provide a structure that can be available to the community after an earthquake.** It is also important to remember that although the building is constructed to withstand earthquake forces, it doesn't necessarily mean the utilities coming into the building (e.g. water, plumbing, electricity, etc.) will be available.”

## **BUILDINGS CONSTRUCTED AFTER 1997**

The District has 13 buildings constructed after 1997 that will not require any seismic upgrades during the 2017 Bond program, as they already meet the **“Life Safety” seismic standard identified in Section 3-C of the building code**. **In the event of an earthquake these structures will sustain damage, but are expected to remain stable**. These buildings include:

|                                |                                  |
|--------------------------------|----------------------------------|
| Century High School            | Free Orchards Elementary School  |
| Orenco Elementary School       | Lincoln Street Elementary School |
| Patterson Elementary School    | Facilities/Maintenance Building  |
| District Administration Center | Quatama Elementary School        |
| Imlay Elementary School        | Rosedale Elementary School       |
| Witch Hazel Elementary School  | South Meadows Middle School      |
| Liberty High School            |                                  |

## **BUILDINGS CONSTRUCTED PRIOR TO 1997**

District buildings built prior to 1997 were not constructed to comply with today’s building code. The District has been able to make seismic improvements to some of these buildings as part of our 2006 Bond program or through Oregon Department of Education Seismic Grants. As part of the 2017 Bond program the District’s seismic consultant will review all pre-1997 buildings and recommend seismic upgrades to ensure that they meet, and in most cases exceed, Section 5-D of the building code standards. **The focus of these improvements will be to ensure students, staff and community members can safely exit buildings in a seismic event, rather than to protect the building itself**. The improvements at our existing buildings will focus on connecting roofs to walls and removing structures like chimneys that might fall during an earthquake.

## **SEISMIC CONSULTANT**

The Hillsboro School District will be hiring Miller Consulting Engineers, Inc. to serve as a consultant for all seismic upgrade bond projects. Miller Consulting Engineers has worked with the District for over 20 years, is very familiar with all Hillsboro School District facilities and has served as structural engineer on several past seismic upgrade projects. Miller Consulting Engineers will ensure that, in all cases, the seismic work undertaken as part of the 2017 Bond program will meet or exceed the building code standards referenced above.

## **ONGOING SAFETY DRILLS**

It's important to remember that the structural seismic upgrades will provide much safer structures, but our students staff will need to continue with their monthly earthquake drills. These drills help students to know how to protect themselves during an earthquake and how to safely evacuate the building once the event is over.