

Case Study

High-Rise Buildings
W Hotel & Residence Project
Hollywood, CA - USA

GeoSIG
swiss made to measure

In Cooperation With
GeoSIG Partner



Background

Located on the corner of Hollywood and Vine on the world famous Walk of Fame in Hollywood, California, the W Hotel and Residence project was planned to be the linchpin of the Hollywood renaissance. The mixed-use project comprises an 11-story hotel with 305 rooms, a 15-story residential tower with 143 condominium units, and three levels of subterranean parking. In the same complex are also four residential towers, 8-12 stories each, with 374 total apartments, as well as parking on five levels above grade and two levels below grade.

Challenge

The Hollywood fault is an active fault (approximately 14 km in length) located along the Los Angeles basin's northern edge; it is part of a system of seismically active folds/faults that make up the transition zone between the Transverse and Peninsular Ranges. It has never produced a significant earthquake in recorded history, but if the fault eventually ruptures by itself its size and geology could produce a sizeable quake approximately every 1,600 years, according to USGS. If the Hollywood fault is actually a continuation of the somewhat larger nearby Raymond Fault, they say, the combined strength of a rupture along both faults could produce a high-magnitude quake, though such an event would likely happen only once every 3,000 to 5,000 years. However remote, there is always this possibility.

Such a large complex of many stories — which houses so many people — requires high-rise building monitoring both for the safety of the people and for the structural health of the complex itself.

Solution

Our Partner — [Seismic Systems](#) in Simi Valley, California, USA — specializes in purchasing, installation, and service of earthquake and monitoring equipment. They helped develop a custom solution for Webcor Buildings of Hollywood, CA, regarding the W Hotel and Residence project, which included 14 x GSR-12LFDC digitisers, 14 x AC-43i force balance accelerometers (fully integrated into the GSR-12LFDC), and 14 x GXR-ICCC interconnection sets. The project did not use any central recorders, with the GSR-12 instruments interconnected with common timing and trigger, located in five different towers within the building complex. The seismic instrumentation is interconnected with cables. Data is stored on the event basis in case a dynamic event is detected.

Another Solution using GeoSIG instruments and a capable Partner effectively showing that quality and reliability can also be cost-effective.



The W Hotel & Residence Project



Aerial view: W Hotel & Residence project.

Product Links

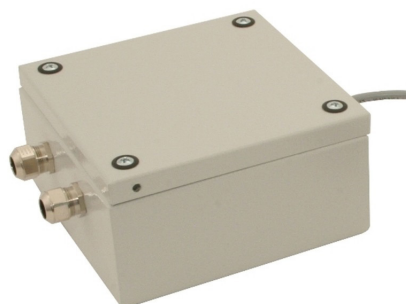
[GSR-12LFDC digitisers](#)

[AC-43i accelerometers](#)

[GXR-ICCC interconnection set](#)



• AC-43i sensors



• GXR-ICCC interconnection set



• GSR-12LFDC digitisers