

COOL CONTEMPORARY LIVING IN A CONCRETE CAR GARAGE



## THE GARAGE ON HYDE SAN FRANCISCO, CA

The Garage on Hyde project saw the retrofit of a four story, 1920s cast-in-place concrete parking garage into 27,000 ft<sup>2</sup> of luxury urban residential and commercial space. Situated in the popular Russian Hill district of San Francisco, this renovation transformed a derelict space into a highly sought after address.

Our client wanted to create open, loft-style accommodation by adding a floor to the top of the structure, while still retaining the history of the existing building. Much of this could be done cosmetically –exposing the rough character of the building's shell and contrasting it with the contemporary language of new architectural motifs.

But, as structural engineers, BuroHappold Engineering's role on this project ran deeper. We had to ensure the very fabric of the building was brought up to date to comply with current codes and legislation, especially given the location of San Francisco on a major fault line. The building's deep floor plates and the brittle nature of its lightly reinforced structure

posed significant challenges to opening the building up into spacious living units.

Our engineers took a performance-based approach to develop structural solutions that were strong yet unobtrusive. To provide more lateral support, we inserted four steel-braced frames within the existing concrete walls. Flat plates concealed in the concrete floors strengthen the horizontal elements of the garage, which was an unusual yet highly effective strategy to prevent buckling under compression forces.

We minimized the load added by the new fourth floor by employing a steel frame and lightweight concrete structure. Drawing light down from this top level and right through the building is a day-lit staircase, which creates an inviting social space and diverts residents and visitors from always taking the elevator.

The innovative structural design delivered by our engineers enabled our client to realize their goal of creating dynamic city living within a historic space.

**CLIENT**  
Green Garage LLC

**ARCHITECT**  
Ogrydziak Prillinger Architects

**PROJECT VALUE**  
\$10 million

**DURATION**  
Completed in 2014

**SERVICES PROVIDED BY**  
**BUROHAPPOLD**  
Structural engineering

**AWARDS**  
Merit Award, AIA|SF Design Awards 2015