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Rotterdam Veranda

by Michael J. Crosbie

Can a parking garage be sexy? The new Veranda Parking Garage in Rotterdam, the Netherlands, with its soft curves and elegant detailing, seems about as sensuous and inviting as a garage can be. Designed by the firm of [Architectenbureau Paul de Ruiter b.v.](#), part of the Veranda's allure, like most things sexy, is in what you can't see. In this case, it's the extraordinary story of the building's construction.

There is a big opening in the middle of this 650-car garage, not easily visible from the surrounding neighborhood, which is more gallery than motor pool. The large 52- by 72-foot (16- by 22-meter) courtyard, with its landscaping, rounded ramps, and glass elevator, brings light deep into the garage and delivers it four stories underground.

With five stories above grade, the central courtyard is an imposing nine-story space, from which you can observe cars zipping along the ramps, people coming and going via sloped walkways, and the elevator gliding up and down. The light-colored materials seem to make the garage levitate. >>>



*Veranda Parking Garage in Rotterdam, the Netherlands, designed by Architectenbureau Paul de Ruiter b.v.
Photo: [Rien van Rijnhoven](#)*



*Interior courtyard extends down four stories below grade.
Photo: [Rien van Rijnhoven](#)*

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Rotterdam Veranda

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There's nothing dark, dingy, or threatening about this 215,000-square-foot (20,000-square-meter) parking garage, which also includes commercial space (shops and a bar/cafe) at street level.

The site for the garage is on Rotterdam's newly developed Veranda strip, which includes new housing, commercial buildings, a cinema, and the Feyenoord soccer stadium. The sensitivity to the scale in this part of Rotterdam is what prompted nearly half the garage to be submerged underground.

Digging Underground

The brownfield site was formerly occupied by a ship wharf, which limited the choice of structural system used to anchor the building. Dam walls were pile-driven into the excavated site until a clay layer was reached at 107 feet (32.5 meters) deep.

This dam allows all the soil inside the footprint to remain dry because the walls act as a barrier against water seepage. The ground level of the garage was then poured on top of the unexcavated site, with the open courtyard void at the center. Steel beams were slipped into place under the slab, and then the soil underneath the cured concrete floor was excavated so the next level down could be built.

The process was repeated until all four below-grade levels were in place. These concrete slabs provide lateral support for the dam walls at the periphery of the garage. In each of the rectangular building's four corners is a large



*Veranda Parking Garage in Rotterdam, the Netherlands, designed by Architectenbureau Paul de Ruiter b.v.
 Photo: [Rien van Rijthoven](#)*



*Construction began with dam walls being pile-driven to a clay layer 107 feet (32.5 meters) deep.
 Photo: Architectenbureau de Ruiter b.v.*



The center court was

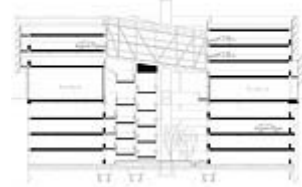
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column helping to support the concrete ramps and steel framing. All of these structural elements are painted white to visually lighten them.

excavated one floor at a time.

Photo: Architectenbureau de Ruiter b.v.

Perhaps the parking garage's most distinctive and inventive feature is its skin, which further contributes to the building's sex appeal. At street level, the designers wrapped the building in a sleek, curved glass wall, behind which is found the commercial spaces that serve the neighborhood and people using the garage.

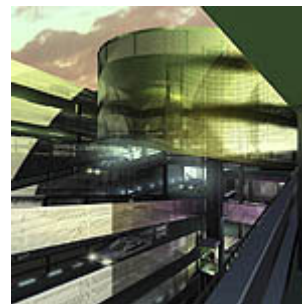


Upon this delicate glass base, the building rises in strips of metal and glass, alternating like ribbons of clouds and blue sky. What appears from a distance to be a solid metal skin is actually a perforated, gauzy wrap — a sheer shroud — that admits a filtered, nonglare daylight into the garage.

Four of the nine stories of parking are below grade.

Image: Architectenbureau de Ruiter b.v.

The folded, perforated aluminum panels also encourage good ventilation. At night, when the lights come on inside the garage, the perforated metal sheets seem to disappear, and the garage visually drops its cloak to reveal its interior.

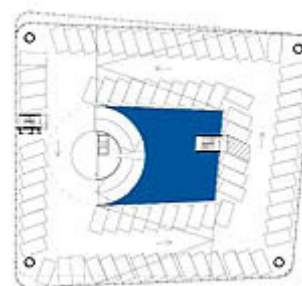


Perforated metal makes the walls look translucent.

Image: Architectenbureau de Ruiter b.v.

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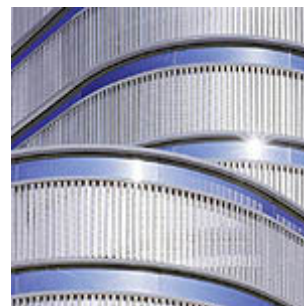
Michael J. Crosbie is editor-in-chief of [Faith & Form](#), a senior associate with [Steven Winter Associates](#), and a contributing editor to ArchitectureWeek.



Typical floor plan.

Image: Architectenbureau de Ruiter b.v.

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*Perforated, white painted metal looks silky by day, translucent by night.
Photo: Rien van Rijthoven*



*View from inside through the perforated metal screens.
Photo: Rien van Rijthoven*

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