The Janelia Farms Research Campus in rural Loudoun County, Virginia, houses a world-class research center where scientists from many disciplines gather to collaborate closely, in small teams, on some of science’s most challenging problems. This dramatically designed complex includes an expansive laboratory center, conference facilities, and housing, all fashioned to blend into the natural surroundings of the landscape. The scientific program and the plans for the campus facilities were intertwined with each section overlapping and influencing the other.

Janelia Farms built their new facility in the year 2000 with a budget of nearly $500 million dollars. This facility was created to be a long-term research environment with a flexible lab and support space to accommodate future technology. The site was chosen for its close proximity to Howard Hughes Medical Institute headquartered in Chevy Chase, Maryland.

When constructing the lab, everything had to be taken into consideration. Stonhard, the global leader in polymer floors, was brought to the design table. Based on a long-standing relationship with Turner Construction, the general contractor for Janelia Farms, along with the right products for the environment, Stonhard was chosen to manufacture and install floors and walls in the labs, vivarium and corridors.

The Stonhard installation began by preparing the new concrete. For the critically designed vivarium areas, a primer was applied, followed by an epoxy mortar system, Stonclad GS. This system delivers excellent performance under extraordinary conditions, including impact, abrasion and chemical attack.

Stonhard also installed epoxy wall systems in the vivariums. Seamless, ultra-smooth wall coatings resist abrasion and splashes and spills from cleansers and disinfectants commonly found in...
vivariums. A fiberglass reinforcement was added to the wall system to provide enhanced resistance to cracks and punctures.

The corridors and lab areas in the facility required exceptionally durable floors. Scientists spend countless hours in these labs on their feet so the flooring needed to be resilient and comfortable, as well as seamless and stain resistant. Adjacent to the labs and corridors, sheet vinyl had been installed prior to Stonhard’s arrival. Architects were unhappy with the vinyl product because seams collect dirt and bacteria making cleaning a challenge. Stonhard introduced Stonres RTZ, a completely seamless surface that is urethane-based and infused with decorative urethane chips, to provide acoustic efficiency, ease of maintenance and stain resistance.

The lab facilities were created with a flexible and interchangeable lab bench system. These areas can be quickly converted from bench systems to computer labs or robotic uses. With the seamless flooring in place, this helped make the transition of equipment extremely smooth with no damaging effects to the floor.

Some of the vinyl flooring in the lab areas remained while Stonres RTZ was installed in the surrounding areas. The team at Howard Hughes requested a custom color to match the existing sheet vinyl. In the end, Stonhard formed a flawless design transition between the two products.

Over 110,000 square feet of Stonres RTZ was installed throughout the research center, making this one of Stonhard’s largest installations of this product.

The central objective of the architectural designs of this complex demanded collaboration and flexibility. Stonhard worked within these parameters meeting design requirements and time constraints.

Stonhard provided long-lasting, sanitary, stain and impact resistant floors and walls that are not merely functional, but add a sophisticated element to this already innovative work environment.