Dr. Samuel L. Stanley Jr. arrived at Stony Brook University less than two years ago, but he’s already looking far into the future—50 years, in fact.

The university’s fifth president is now leading an ambitious initiative called “Project 50 Forward,” designed to propel the university into the ranks of the top 20 public research universities in the country. “The previous decades saw tremendous progress,” says Stanley, who took office as Stony Brook was preparing to celebrate the 50th anniversary of its first graduating class. There’s been a “marked improvement in the quality of undergraduates” bolstered by an already outstanding faculty. And the university’s facilities have been dramatically upgraded in recent years.

So how does the university get to the next level?

“We need to be strategic and focused—and still grow, even in a very tough economic time,” says Stanley, sitting recently in his third-floor office overlooking the main campus entrance. Stony Brook University’s Project 50 Forward, Stanley says, highlights three integrated goals: academic greatness, operational excellence, and building for the future. So far, the university is well on its way in assessing academic and student life, identifying the areas where “we can be great and differentiate ourselves from other programs,” he says. Across the campus, managers and staff also are finding ways to make university operations more efficient and effective.

And new construction continues to be a key to growth, but closely driven by the university’s strategic academic plan. “We involve faculty, students, and the leadership of the school when evaluating where they can be great,” Stanley says. “It’s a very inclusive process.”

It’s also been a different kind of growth. “We’re being very careful with land use,” says Barbara Chernow, vice president for facilities and services at Stony Brook. Years ago, universities, like other suburban developers, typically spread new facilities across sprawling campuses. But today, with a growing emphasis on the principles of ‘Smart growth supports the academic program ... We’re not just siting buildings in open spaces. We’re creating clusters of small communities within the campus. The goal is to build anew while minimizing our impact on the natural environment.’

—Barbara Chernow, Stony Brook’s Vice President for Facilities and Services
“smart growth,” facilities planning is intensely focused on creating energy-efficient, Leadership in Energy and Environmental Design certified buildings and pedestrian-friendly communities, while preserving open space.  

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In short, says Stanley, who is a physician by training and a professor in the School of Medicine: “Strive to do no harm.

This smart (and green) growth plan, known within the Project 50 Forward initiative as “Building for the Future,” will be implemented by the university’s Facilities Master Plan, which will last 20 years. The plan’s main goal is to develop a more efficient layout for the campus, “We’re trying to develop a more efficient layout for the campus,” Stanley says, who sometimes likens his job to that of a small-city mayor. The Master Plan will develop a “best-use model” for new and existing buildings, as well as the infra-

The Master Plan, which will cover a 10-year period from 2013 to 2023. One of the broad goals of the plan is to help unify the 1,285-acre campus—a community of more than 24,000 students and 14,500 faculty and staff. “We’re try-

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structure for all of the university campuses, including the main campus, medical center campus, and Southampton campus, as well as for the Research and Development Park and the university’s leased space in Manhattan.

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On the main campus, the goal is to build new facilities and re-purpose old ones so that the major academic areas of the campus are within an inner circular roadway, while the non-academic functions, including recreational facil-

ites and housing, are just outside the circle. But efforts to develop such a unified campus can sometimes face daunting obstacles—like Nicolls Road, a major thoroughfare that runs between the medical center campus and main campus.

“We’re not likely to get the money to move Nicolls Road,” Stanley wryly notes, but the university is looking for ways to redesign the section linking the two campuses so that it becomes a more effective “destination area.”

The current five-year capital budget for Stony Brook includes new construction, as well as critical mainte-

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nance projects. Recently completed buildings include the striking Simons Center for Geometry and Physics and the unique Advanced Energy Research and Technology Center, located within the 246-acre R&D Park. A new Student Recreation Center is under construction next to the Student Union; an upcoming renovation of the Old Chemistry Building will feature state-of-the-art classroom space and three new lecture halls; and a second Computer Science Building is being planned adjacent to the existing one. On the Southampton campus, the design has been completed for a new Marine Science Academic Research Facility Center, scheduled to open in 2013.

Capital budget allocation also provides $72 million per year for critical maintenance, such as the replacement of high-temperature hot water lines and upgrading of the uni-

versity’s electrical system, including a new substation and high-voltage feeders. These are the infrastructure projects that are vital to the daily functioning of the campus—and will help the university save more than 10 percent on its annual energy bill, says Chernow.

Increasingly, construction projects are developed with non-state funds. In recent years, for example, Charles B. Wang, the former chief executive of Computer Associates and a major real estate developer, contributed $52 mil-

lion to create the Wang Center for programs celebrating Asian and Asian-American cultures.

Gifts from alumni have contributed to the significant upgrading of athletic facilities for students. Investor and philanthropist Glen Dubin (’78) and his wife are funding a new state-of-the-art strength and conditioning facility; and Minnesota Twins All-Star pitcher Joe Nathan (’97) contributed the lead gift to construct a new baseball field at the university.

The interdisciplinary Simons Center for Geometry and Physics, which links the fields of mathematics and physics, was funded with a $60-million gift from the James and Marilyn Simons Foundation. Jim Simons, a world-

renowned hedge fund manager and founder of Renaissance Technologies in East Setauket, is a former chair of the Mathematics Department and, helped build it into one of the top-ranked departments in the nation. His wife, Marilyn, holds a Ph.D. in economics from Stony Brook and is president of the foundation.

“We give money to many places, but no place is closer to both of our hearts than Stony Brook,” says Simons. “The conception of this center was very natural. If we were going to set up something that was going to intensify and promote the interaction of these fields, Stony Brook was the place to do it.”

Many point to the Simons Center as a signature exam-

ple of how the university has balanced academic growth with effective land use. The building was placed between the Mathematics Tower and the Physics building, taking advantage of “infill” space, but also emphasizing the grow-

ings connections between these academic areas. “Physics is mathematics, and mathematics is mathematics, but the ties have become tremendous,” says Simons. Among the cen-

ter’s goals is to tackle what Simons calls one of “great questions of the world”: What is the origin and funda-

mental structure of the universe? “That’s a big question,” he acknowledges. “I doubt we’ll get a final answer, but I think we can really make some progress in this area.”

The building is as distinctive as Simons himself: an innovative six-story structure that brings a different design to the campus, yet blends well into the surrounding area, with an attractive array of finishes and a glass bridge that connects the center to the Mathematics Building.

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“IT’S perfect in terms of function,” Chernow says. “The building is also a showcase for art. “We have fan-

tastic arts and humanities at Stony Brook,” Stanley says, and the Simons Center “makes a great statement—it’s not just about the building, but about how it fits into the aesthetic of our campus.”

Not that the building was easy. “It was a challenging project,” says Harry Hansen, project executive for E. W. Howell in Woodbury, the general contractor for the Simons Center. “It had every facet of material and site restraints—there was not a lot of room for error.” Still, Stony Brook’s construction team, led by Louis Rispoli, assistant vice president for facilities and services, was “able to work in harmony with contractors,” Hansen says. “We finished this building in less than a year. We truly enjoyed doing it.”

The Simons Center also represents Stony Brook’s con-

tinued commitment to sustainable development. The center is expected to receive a LEED gold rating from the U.S. Green Building Council.

Whether funding is public or private, the planning of new facilities is a complex process that requires input from students, faculty, and staff, as well as architects, engineers, construction firms, and state officials. Two key outside pari-

The “Iconic Wall” located in the lobby of the Simons Center for Geometry and Physics, is an inspirational art installation depicting equations and theorems instrumental to the development of modern geometry and theoretical physics.

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receive Platinum LEED certification.

According to University President Samuel Robert Graves of Connecticut-based Flad & Associates, Building AERTC has been “a very exciting process,” says Platinum LEED certification, although designing research design to achieve more, as in the case of the new Advanced

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successful client,” says Karen Cooper, president of Cooper, Robertson, he says, has been instru-
mental in “translating our vision into a series of options” for the Master Plan.

Stony Brook, for its part, is a “very accomplished and successfull client,” says Karen Cooper, president of Cooper, Robertson. “It has a clear idea of what it’s doing—and the ability to set strategic goals for itself.”

According to President Stanley, Stony Brook is commi-
ted to designing all new construction for Silver LEED certification at the minimum, and, where possible, will design to achieve more, as in the case of the new Advanced Energy Research and Technology Center, poised to receive Platinum LEED certification, although designing research buildings for LEED certification is especially challenging. Building AERTC has been “a very exciting process,” says Robert Graves of Connecticut-based Flad & Associates, the architectural firm that designed the facility.

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The mission of this research complex is to forge partner-
ships among academic institutions, research institutions, energy providers, and industrial organizations with the goal of developing new technology for the advancement of clean energy, renewable energy, and nanotechnology applications for new and novel sources of energy. But the major challenge, says Graves, was designing sophis-
ticated scientific laboratory facilities without knowing who would ultimately be using them. “A lot of labs were designed to be flexible, for partnerships that did not exist yet,” Graves said.

At the same time, it was important that the building make a bold statement about sustainability—consistent with its research mission. So the facility includes a remark-
able array of energy-saving features, including “chilled beams” at room ceiling levels that run cool water to help save on central air conditioning costs; collected rain water that is filtered and used to flush toilets; and thermal storage tanks that make ice at night, when electrical rates are lower. “We even oriented the site to get maximum sun exposure,” Graves says.

Chernow points out that green buildings are just part of Stony Brook’s wide-ranging efforts in sustainable develop-
ment. In early 2007, the university’s Environmental Stewardship department formed a Sustainability Task Force, composed of students, faculty, and staff. Among the dozens of initiatives created in recent years, the university has converted a campus bus to run on waste vegetable oil, operates solar powered waste compactors; recycles wood debris to make mulch, and composts kitchen waste from dining facilities. These efforts and more are highlighted on the Green Stony Brook Map at www.stonybrook.edu/sustainability/green-map.

Ultimately, sustainability at Stony Brook means creat-
ing what planners call “a sense of place”: a community that takes advantage of the natural beauty of the campus, while placing buildings in ways that make sense for how people are going to use them. Chernow notes that a quar-
ter of Stony Brook’s campus remains undeveloped and the

and, consequently, how much space will be required for new buildings or renovations. The fourth phase requires Cooper, Robertson to develop a minimum of three alter-
native plans for the Master Plan. And last is the final recommendations phase, based on comments and issues raised by the various alternative proposals.

“If you love to work with clients who are willing to engage and be collaborative,” says McGregor, who previously served as acting president of Southampton College and was chancellor of the Vermont State Colleges. “We succeed best when the client has clear academic goals. “Stony Brook officials bring the academic agenda to us, and we offer a range of opportunities and options to consider, all the while keeping a watchful eye on spending.”

One of the university’s prominent features is the thick tree buffer that surrounds the campus. “Stony Brook has wonderful topography and trees,” McGregor says, “Our goal was to take the landscape plan and improve it as we put in new buildings.”

Much of the plan also focuses on creating an envi-
ronment that is more pedestrian, bike, and mass-transit friendly. For instance, Jonie Fu, a design partner at Cooper, Robertson, has been working on ways to make the pedestrian way to campus from the Long Island Railroad station into a major and welcoming gateway to the academic core. Within the campus, Fu says, Stony Brook also is re-designing walkways and creating clusters of buildings around quadrangles to minimize the impact of cars, despite the large number of student and faculty drivers.

“One of the challenges at a big school is how to break the campus into small spaces where people can feel comfortable,” McGregor adds. “You try to keep the intimate places intimate.” Ultimately, such careful atten-
tion to facilities and landscaping “really does make a difference in morale,” he says. “When you walk down the Academic Mall today you think, ‘This is a place that cares about itself.’”

—ERF

PAST AND PRESENT AT STONY BROOK

David McGregor remembers well his visits to Stony Brook in the early 1990s, when his daughter was a student at the university. “It was a pretty tough place,” he says. “The campus and facilities did not match the quality of students and faculty.”

But under the tenure of former President Shirley Strum Kenny, the university underwent a dramatic period of new building and campus beautification. “It’s gotten very good, very fast,” says McGregor, managing director of Cooper, Robertson & Partners, a renowned New York-based architecture and urban design firm. And today, Cooper, Robertson is a key partner in developing Stony Brook’s Facilities Master Plan, or FMP, a blueprint for its continued growth from 2013 to 2023. The FMP is part of Project 50 Forward, the university’s sweeping vision for the next 50 years.

“It’s an enormous, multi-layered process,” says Karen Cooper, president of Cooper, Robertson and also a State University of New York graduate. “We look at the larger issues of housing, work, and transporta-
tion, melding a campus into its surrounding community but also creating communities within the campus.”

Founded more than 30 years ago, Cooper, Robertson has completed or begun facilities plans for numerous private and public institutions, including Yale, M.I.T., Harvard, Georgetown, the University of Miami, and Farmingdale State College.

“We’re impressed by Stony Brook’s holistic and sustainable approach to growing its campus and pro-
gram,” says Cooper. “It’s been very motivating for us to make physical recommendations that enhance the qual-
ity of life on campus.”

A primary goal of the FMP is to help knit a growing and diverse university together, including the University Medical Center which is separated from the main cam-
pus by Route 94, better known as Nicholls Road. “This is a wonderful opportunity to link the health sciences with the rest of the campus,” says McGregor, the firm’s senior partner in charge of the Master Plan project. “We have to use the land carefully—that is, with care and fully. Stony Brook has the capacity to grow so fast that you need to be careful not to chew up all the land in the next 10 years.”

Creating the FMP involves a five-step process set by the State University Construction Fund, which shapes the final plan submitted to the state legislature. The pro-
cess—guided by an executive committee composed of key university officials—begins with fact-gathering to establish a current profile of the campus. “We tour the campus many times and listen carefully to what people say,” Cooper notes. The second step is a buildings-
building survey, assessing the condition of each structure. Next is the programming phase, during which projec-
tions are made for growth in each academic department

David McGregor, Jonie Fu, and Michael Jasper at Cooper, Robertson, with the campus model.
goal is to minimize the loss of green space largely through “infilling” new buildings between current facilities.

Besides maintaining the tree cover that frames the campus, the university has focused on improving the green spaces that are integral parts of the daily lives of students and faculty.

“Stony Brook has had a great commitment to landscaping,” says John Carlstrom, principal of the landscaping firm, Carlstrom & Ritter in Kings Park. Before the push to enhance the landscaping in recent years, “the campus was all concrete,” Carlstrom says. His firm, which has been working for Stony Brook since 2000, installed the new landscaping for the Academic Mall as well as several other projects, including the Administration Circle at the entrance to the university, the landscaping at the Wang Center, and the formal garden of the Simons Center.

“It makes a big difference to students,” Carlstrom says. “It makes the campus accessible.” Where there were inhospitable areas like the Staller Amphitheater he said—little more than a concrete pit—“now you see students hanging out, lying in the sun and throwing Frisbees on a new multi-tiered garden.”

Other efforts are being made to redirect car traffic to enhance informal gathering places for students, such as the areas near the Student Union and the new Student Recreation Center. “The idea is to create access so there’s a true flow across campus,” Stanley says. “We would love to have more ways to traverse campus by walking or by bike,” he says, making almost any part of the academic center easily accessible within a few minutes.

From the time Stanley stepped onto the Stony Brook campus, he recognized there was already “a tremendous momentum to improve the undergraduate experience,” he says. “We don’t want to lose that. We have an amazing faculty and students who have great aspirations. Our job is to help them fulfill those aspirations.”

### MAJOR CONSTRUCTION PROJECTS

**Simons Center for Geometry & Physics**
Established through a gift from the Simons Foundation, the center’s dramatic six-story, metal and glass structure houses a 236-seat auditorium, a lecture hall, offices, and seminar rooms.

**Advanced Energy Research and Technology Center**
Located in the Stony Brook Research and Development Park, the new building includes material science labs, engineering labs, and specialized facilities for a consortium of researchers, institutions, and federal laboratories.

**Nobel Halls Named After Stony Brook’s Two Nobel Laureates**, Paul Lauterbur and C.N. Yang, the new 604-bed complex is divided between Lauterbur Hall in Kelly Quad and Yang Hall in Roosevelt Quad.

**Student Recreation Center**
The 90,000-square foot building, scheduled for completion in 2012, will include a gymnasium, multipurpose indoor arena, weights and cardio exercise room, dance aerobics studios, and offices for recreation staff.

**Dubin Family Athletic Performance Center**
Located in Stony Brook’s Sports Complex, this will be a new 8,000-square foot state-of-the-art strength and conditioning facility scheduled for completion in 2011.

**Marine Science Center**
Scheduled to open in 2013, the new 10,000-square-foot center will house all marine science programs at the University’s Southampton campus.

**Computer Science Building**
Design for this new 55,000-square foot building is underway. It will be located near the existing computer science building and should be completed in 2013.

**Old Chemistry Building Renovation**
This building will be transformed into a state-of-the-art classroom facility with three 250-seat lecture halls. Construction is expected to begin in 2011.

**Laufer Center for Physical and Quantitative Biology**
Established through a gift from former Stony Brook faculty members Henry and Marsha Laufer, the 10,000-square foot center will include a computational research laboratory, a seminar room with videoconference capabilities, and office space for faculty and administrative services. The center is scheduled for completion in 2011.

**Running Track Renovation**
Rehabilitation renovation of the running track with critical maintenance funding will elevate the facility to NCAA Division I standards.

**Upgraded Electrical, Heating, and Cooling Systems**
Utility infrastructure improvements are expected to reduce the university’s energy costs by more than 10 percent annually. A recently completed electrical substation will meet the expanding needs of the campus and a new cooling tower will serve the Hospital and Health Sciences Center. By the end of 2011, all high-temperature hot water lines will be replaced.