The City University of New York
Five-Year Capital Plan FY 2017-18 through FY 2021-22
New York City Reso-A Request FY 2018

The City University of New York provides high-quality, accessible education to more than 270,000 degree-credit students and 269,000 adult, continuing and professional-education students at 24 campuses across New York City. The University is an integrated system of senior and community colleges, graduate and professional schools, research centers, institutes and consortia. From certificate courses to PhD programs, CUNY offers post-secondary learning to students of all backgrounds. It provides the city with graduates trained for high-demand positions in the sciences, technology, mathematics, teaching, nursing, and other fields. As CUNY has grown, it also has strengthened its mission as a premier research institution, building an array of modern facilities and expanding the ranks of its world-class faculty. In July 2015, Gov. Andrew Cuomo announced accreditation for The CUNY School of Medicine, located at The City College in Harlem; the first class began in 2016 in partnership with St. Barnabas Health System in the South Bronx.

Located in all boroughs of New York City, the facilities at CUNY’s campuses include the traditional and the innovative. The University has 300 buildings comprised of 28 million square feet of classrooms, computer centers, science and other instructional and research labs, theaters, athletic facilities, greenhouses, astronomy observatories and spaces for many other purposes.

This book details the University’s Five-Year Capital Plan to the state and city for Fiscal Year 2017-18 through Fiscal Year 2021-22. The capital funding need is $6.8 billion: $5.1 billion for the senior colleges and $1.7 billion for the community colleges. Half the five-year funding requested for the community colleges is to the City of New York because New York State education law requires matching state funding equally for community college capital projects. University-wide, the first-year funding need is $1.3 billion.

The Five-Year Capital Plan was developed by the Office of Facilities Planning, Construction and Management in consultation with CUNY colleges and schools. The University’s priorities include:

- An ongoing critical-maintenance initiative to bring CUNY campuses to a state of good repair and address health, safety, security, facilities preservation and code issues.
- Completion of active and ongoing work.
- Technology projects, including infrastructure upgrades, systems engineering, and new equipment that will allow the University to develop integrated data services at the campuses and across the system; in addition a request was added for digital CUNY to expand online learning offerings.
- Projects to meet energy conservation and performance objectives, including State Executive Order 88 and Local Law 87.
- New construction of space needed for academic programs. Highest priority is assigned to classroom and instructional laboratory facilities and to the replacement of temporary or leased space with permanent facilities.
- The New York State CUNY 2020 initiative to promote capital projects that encourage sustainable job creation.

For city fiscal year 2018, the University also is requesting approximately $95 million from the New York City Council and borough presidents (Reso-A funding) to address smaller-scale projects.
Highlights of the Capital Plan

The University’s primary facilities needs for the five years can be grouped into the following categories: critical maintenance to address life safety and facility preservation; critical maintenance to address modernization of facilities to current academic standards, and strategic initiatives.

Critical-Maintenance Projects

CUNY’s state-of-good-repair program aims to undertake the work necessary to keep buildings open and infrastructure operating in support of the educational mission; without fully operational facilities, students and faculty cannot do their best work. Critical-maintenance funding needs refers to:

- Projects to extend the life of CUNY facilities and provide life/safety enhancements (upgrades to physical plant, code compliance, energy conservation, etc.)
- Projects that support academic programs and enhance the University’s mission by upgrading academic and/or programmed space such as classrooms, science labs, libraries, athletic space, theater and performing space, student and multi-purpose space, etc.

A large portion of CUNY’s 28 million square feet of space is at least half a century old. Frequently, facility conditions dictate the need for projects that combine these two types of critical-maintenance projects: upgrade of entire building systems or campus-wide infrastructure, including heating and cooling distribution, electrical, ventilation, plumbing and building envelopes, followed by modernization of internal instruction and support space to current standards. Some of these examples are listed below, in addition to hundreds of smaller critical-maintenance projects, ranging from a few hundred thousand dollars to a few million, that need attention.

- **Field Building / 17 Lexington Ave.**
  Baruch College
  - At Baruch College, the Lawrence and Eris Field Building at 17 Lexington Ave. has been used continuously as an educational center with minimal upgrades since 1928. The 284,000-square-foot facility will be renovated in phases due to the need to maintain occupancy. The initial phase of construction is under way. The request for the next phase is $40 million.

- **Voorhees Hall**
  New York City College of Technology
  - $45 million is requested to continue infrastructure and programmed space upgrades to Voorhees Hall at New York City College of Technology. The 218,000-square-foot facility dates from 1920. Projects include renovation of the third-floor instructional space, upgrades to mechanical systems, and eventual renovation/reorganization of the remaining floors.

- **Marshak Building**
  The City College
o At The City College, funding is requested to continue the renovations to the 621,000-square-foot Marshak Building that houses science facilities and athletic facilities. This ongoing project will provide structural and mechanical repairs and space reorganization. $100 million is requested to reorganize space vacated by researchers moving into new science facilities on the south campus.

o At the 55-acre, 30-building Bronx Community College campus, $36 million is requested to continue the critical utility upgrades—Phase 5 of 6—in a multi-year effort estimated at nearly $200 million. The project is systematically upgrading the failing utilities infrastructure to support the heating, cooling, electrical, and telecommunications needs of the campus.

**Strategic Initiative Projects**

Strategic initiatives are new building projects in design that originated from CUNY-approved master plans and that address space deficits on campus.

**Roosevelt Hall Science Complex / Brooklyn College**

Brooklyn College’s science facilities are in the worn and dated Ingersoll Hall, whose spaces are functionally obsolete for modern science instruction and research. This project will demolish Roosevelt Hall and construct a 180,000-square-foot science facility with high-tech instructional laboratories, general-purpose classrooms and support spaces. The new facility will support the college’s academic goal of transitioning to an interdisciplinary teaching model. Design development phase has been completed. Architect: Mitchell|Giurgola Architects

**Hunter Science and Health Building.** The college’s science programs, partially located at its Brookdale campus on East 25th Street, will be moved to a new building on East 68th Street. In a public-private partnership with Memorial Sloan Kettering Cancer Center, more than 1 million square feet are being developed on East 74th Street. Hunter will occupy 390,000 square feet in a building that will support its health professions programs, including nursing and physical therapy; and provide research labs for its chemistry, biology, psychology and physics departments. Architect: Ennead Architects and Perkins Eastman.
Academic Village-Conference Center / York College
The new facility will be constructed on the site of the Classroom Building. The 165,000-square-foot facility will become the new home of the School of Business with modern classrooms, computer labs and conference rooms that will be available for use by the community. It also will serve as the student center. The new building will transform the west side of the campus and add a vibrant new presence to the Jamaica, Queens community. Design is ongoing. Architect: Ennead Architects.

High-Performance Computational Center / College of Staten Island. This project will construct a 175,000-square-foot facility to house a high-performance computer that will serve as a University resource for computer-based modeling and simulation. The new facility will contain spaces dedicated to state-of-the-art scientific computing hardware, labs for visualization, instructional and research labs, classrooms and dedicated student work areas. Design is ongoing. Architect: HDR.

Classroom and Student Union Building / Medgar Evers College. The college operates 16 classrooms in trailers installed two decades ago that must be replaced with quality, appropriate instructional space. Additionally, the campus is deficient in spaces for students to gather, socialize and meet with fellow students. On land owned by the college, this project will construct an approximately 33,000-square-foot building with modern classrooms and space for student clubs, lounges and other amenities that support student learning inside and outside the classroom.

Allied Health and Sciences Building Complex / Hostos Community College. The college’s master plan recommends a 170,000-square-foot facility to address space deficits and provide classrooms and science labs. The new facility will support the college’s Allied Health programs in dental hygiene, radiologic technology and nursing and house a dental clinic that will provide students with practical experience and furnish the community with services. The building will house the college’s Natural Science programs that articulate with baccalaureate programs at CUNY senior colleges. Pre-schematic design is ongoing. Architect: Flad Architects.
CUNY Office of Facilities Planning, Construction and Management
Issues Shaping the Capital Program and Selected Program Milestones

In the past several years, CUNY has initiated and completed work at a rapid pace. An additional 2 million gross square feet of renovations and new construction are in planning, design or construction.

Aging facilities
The most significant issue impacting CUNY’s capital program is the age of its facilities. The University’s facilities portfolio consists of 28 million square feet of space in 300 buildings across 24 campuses. Some of these buildings are more than 100 years old, and a majority of the inventory exceeds 30 years; the average building at CUNY is more than 50 years old.

History of deferred maintenance and the critical-maintenance program
Over the previous two decades, the bulk of capital funding supported programmatic renovations and new facilities with a lesser investment in preservation of the physical plant. The age of CUNY’s facilities and this history of deferred maintenance have increased the need for a state-of-good-repair program to systematically address the University’s capital facility renewal.

The state-of-good-repair program originated from condition assessment surveys that CUNY completed in 2007 with the assistance of the State University Construction Fund. Using a life-cycle model based on current replacement costs, CUNY was provided with the estimate of the funding needed to eliminate its backlog of deferred maintenance as well as an estimate of the funding needed to replace or reconstruct essential facilities and their components and subsystems as they approach the end of their useful life (renewal costs). Items identified include utilities and related controls, equipment and distribution systems; exterior walls, roofs, doors and windows; electrical equipment, power, wiring and lighting; built-ins for science facilities; campus hardscapes; and interior finishes. The 2007 analysis identified a critical-maintenance funding need of over $4 billion over 10 years.

Since 2008, CUNY has received over $1.7 billion in critical-maintenance funding. Many projects, including numerous large critical-maintenance projects, have been completed (noted later), and hundreds more are active as a result, including numerous large projects such as City College’s Marshak Building HVAC upgrades, Lehman College’s utilities plant expansion, Queens College’s central chiller plant upgrades and Hunter College’s escalator replacements. Many more projects are in the planning phase.

Allocations to the community colleges and completion of projects have been slower due to the need to match funding before it can be used. The city must provide its 50% share of funds in the first instance and the state’s 50% match is generally provided in the following state fiscal year budget (approximately nine months later). Over $400 million in critical-maintenance projects at the community colleges have been funded since FY 2009 and as a result several important projects are under way, including the fourth phase of construction of Bronx Community College’s campus-wide utility upgrades, Queensborough Community College’s campus-wide electrical system upgrades and the replacement of the enormous façade of LaGuardia Community College’s Center 3 Building.

The state-of-good repair survey was updated by the CUNY schools in 2012; the results indicated that system deterioration had increased at a faster rate than the 2007 analysis had anticipated, but this was
offset somewhat by a $700-million reduction in the backlog due to funding provided and CUNY’s efforts to reduce the backlog in the aging and overtaxed system. The 2012 update confirmed that an investment of $6 billion is needed over the next 10 years to keep pace with the backlog of deferred-maintenance needs. This year’s request for critical-maintenance funding for the next five years is more than $2 billion.

Enrollment trends
CUNY has had a surge in enrollment over the last decade. This Five-Year Capital Plan reflects the need to preserve and upgrade the University’s aging facilities, and in some cases, due to the unprecedented crowding, add space such as the Interdisciplinary High-Performance Computational Center at the College of Staten Island, the new Classroom and Student Union Building at Medgar Evers College and the Allied Health and Sciences Building Complex at Hostos Community College.

Changing pedagogy, changing facility requirements
More than a decade ago, CUNY set forth a strategy of institutional renewal committed to academic distinction. The University has implemented bold, strategic measures to position itself among the most highly regarded and respected institutions of public higher learning. Today, CUNY is navigating a course of academic achievement and innovation while sustaining its traditional roles and responsibilities. Indeed, CUNY is a leader in defining public higher education for the 21st century. In order to continue this momentum, the University must provide modern classrooms and laboratories. Appropriate facilities are an imperative element in supporting the development of new approaches to student learning, building collaborative research models, and creatively partnering with the city’s communities. The Academic Village at York College and the Roosevelt Hall Science Complex at Brooklyn College are examples of planned facilities that reflect these new interdisciplinary teaching models. Flexible spaces with appropriate furnishings and state-of-the-art technology provide students with greater opportunities to learn and prepare to join the city’s workforce.

CUNY’s libraries, like libraries across the country and the world, are in a moment of transition—technology is having a tremendous impact as more and more text is available digitally. The layout of libraries is shifting away from stack areas to information commons and small study rooms. Furthermore, as pedagogy adapts to better prepare students with critical-thinking and problem-solving skills, CUNY students are spending more time collaborating on campus in the college libraries. Additionally, the advent of dormitories at some of the senior colleges has impacted campus life. These trends are transforming CUNY campuses from commuter campuses that close at night to 24-hour facilities.

CUNY 2020 Challenge Grant Program
In 2013, the governor enacted the CUNY 2020 Challenge Grant Program that expanded a statewide strategy of utilizing higher-education institutions for economic development initiatives; CUNY’s inclusion in the program is recognition that the University is a catalyst for economic revitalization in New York City and New York State. The goal of the CUNY 2020 program is to encourage long-term economic development implementation plans, driven by CUNY’s campuses in areas of their academic strengths. The $55 million in capital funds provided annually over five years will support programmatic needs and provide academically aligned, sustainable long-term economic development
affecting students and the surrounding community. The success of this program is intended to impact future economic development decisions.

The CUNY 2020 Challenge Grant Program has provided $55 million in capital funding in the prior four state fiscal years, in support of transformational projects that provide significant economic impact by creating jobs, advancing academic research and student success, encouraging collaborations and leveraging investment, including public-private partnerships created through the START-UP NY program. The competition is open to CUNY institutions.

**Major completed projects since 2011**

### 2011
- **Bronx Community College: Early Childhood Center, April 2011.** Added 13,000 square feet.
- **Stella and Charles Guttman Community College, July 2011.** The first new community college in New York City in four decades opened in a 74,000-square-foot leased space in Manhattan.
- **New York Simulation Center for the Health Sciences, August 2011.** Added a 25,000-square-foot training facility for first responders and health-care students and professionals (project was completed as a joint venture between CUNY and NYU Langone Medical Center).
- **Graduate Center apartments, August 2011.** Added 77 apartments for graduate students, postdoctoral fellows and faculty members (project was part of a public-private partnership with a developer).
- **Hunter College: Silberman School of Social Work and CUNY School of Public Health, September 2011.** Added 147,000 square feet (project was part of a public-private partnership with a developer).
- **John Jay College: Building Expansion, November 2011.** Added a 625,000-square-foot, mixed-use facility.

### 2012
- **Hostos Community College: 500 Grand Concourse Building, January 2012.** Renovation of fifth floor and bathrooms and roof replacement.
- **City College: Marshak Science Building façade replacement, April 2012.** Replaced reinforced concrete façade with a glass curtain wall on this 621,000-square-foot facility.
- **Queens College: Kupferberg Center for the Arts complex, April 2012.** Project provided upgrades to the complex containing three performing arts facilities and a museum.
- **CUNY School of Law Building, June 2012.** Added a 260,000-square-foot condominium in a new location in Long Island City, Queens.
- **Bronx Community College: North Hall and Library Building, August 2012.** Added a 100,000-square-foot new classroom and library facility.
- **Borough of Manhattan Community College: Fiterman Hall replacement, August 2012.** Added a 390,000-square-foot, mixed-use facility to replace the one irreparably damaged on 9/11.

### 2013
- **LaGuardia Community College: New admissions/bursar offices, January 2013.** Renovated 24,000 square feet to provide new and expanded student-service facilities for the college.
- **Bronx Community College: Phase I/II of campus-wide utility upgrades, April 2013.**
- New York City College of Technology: Voorhees Hall Façade Replacement, May 2013. Replaced the aging masonry façade with a new glass curtain wall.
- College of Staten Island: Dolphin Cove Residence Halls, August 2013. Added a 450-bed student housing facility (project was completed by means of private developer agreement).
- Lehman College: Child Care Center, September 2013. Added a 13,000-square-foot new facility.
- CUNY School of Professional Studies, September 2013. Opened a new 76,000-square-foot leased facility in Manhattan.

2014
- Hunter College: Added a 37,000-square-foot science research floor in the new Belfer Research Building (public-private partnership with Weill Cornell Medical College), November 2014.
- Medgar Evers College: Bedford Library Expansion, December 2014. Upgraded and reorganized 46,000 square feet of space, including a 12,000-square-foot addition.

2015
- City College: CUNY Advanced Science Research Center and City College Center for Discovery and Innovation, June 2015. Completed the combined 400,000-square-foot science research complex; the two facilities are separate entities with shared core science facilities and amenities.
- Bronx Community College: Phase III of campus-wide utility upgrades, December 2015.
- Brooklyn College: Feirstein Graduate School of Cinema at Steiner Studios, September 2015. Opened a 70,000-square-foot new facility for graduate film studies within a working film lot in Brooklyn Navy Yard.

2016
- Queensborough Community College: Central Cafeteria/Kitchen Phase I, July 2016. Created a new campus dining facility by enclosing an under-utilized courtyard with a transparent roof.
- Graduate School of Public Health and Health Policy, Phase II Expansion, September 2016. Added 29,000 square feet of leased space at West 125th Street campus.
- John Jay College: Haaren Hall backfill, September 2016. Renovated/backfilled and provided mechanical systems upgrades to this 383,000-square-foot building.
- Queens College: NSB Building Science Lab Ventilation, September 2016. Replaced the HVAC equipment in this 263,000-square-foot, primarily science building.
- Bronx Community College: Campus Quad, September 2016.
Major construction projects ongoing

- Baruch College: Renovation of the Lawrence and Eris Field Building at 17 Lexington Ave. Anticipated completion of Phase 1A: 2019.

Other milestones of the capital program

Economic impact and Minority and Women Business Enterprises (MWBEs)
CUNY spends over $300 million each year on construction in New York City, supporting over 3,000 jobs in New York City each year. Since the beginning of Gov. Andrew Cuomo’s MWBE initiative more than five years ago, over $100 million spent on the CUNY capital program by the City University Construction Fund (CUCF) has gone to New York State-certified MWBE firms through construction and design contracts directly managed by the CUNY Office of Facilities Planning, Construction and Management. CUNY has developed contractual relationships at multiple tiers, including prime contractors, with a large number of MWBEs and endeavors to expand this network. The capstone to CUNY’s extensive and ongoing outreach efforts in 2016 was the annual MWBE conference sponsored by CUNY and CUCF that attracted almost 600 vendors.

Public-private initiatives
CUNY Office of Facilities Planning, Construction and Management endeavors to finance and develop new facilities for the University by monetizing CUNY’s real estate assets, creating revenue-supported projects and using the efficiencies of the private sector. In recent years, a number of academic buildings, student residences, consultant studies and special projects have been completed toward this goal. They include the Silberman School of Social Work at Hunter College and CUNY School of Public Health; the New York Simulation Center for the Health Sciences; CUNY School of Law at 2 Court Square; one floor of Weill Cornell’s Belfer Research Building for Hunter College; residence halls at City College, Queens College, the College of Staten Island, and for The Graduate Center; and special projects, including the rezoning of a Brooklyn College parcel. Initiatives falling under this effort include awarding the first round of CUNY 2020 funding to eight projects totaling $55 million and the initiation of CUNY’s STARTUP-NY program.

CUNY management of projects
Under a memorandum of understanding, CUNY has the option to use the Dormitory Authority of the State of New York to manage its projects or complete them with CUNY staff. In the past, if state-bonded funds were used, CUNY was required to use the Dormitory Authority.

Physical master plans
Updates were completed for York College and Brooklyn College in 2011, Hostos Community College in 2012, and John Jay College (space-needs analysis study) and Baruch College (library master plan) in 2016. Master Plan updates are under way for Borough of Manhattan Community College and Medgar Evers College. Master plans are discussed in greater detail in the section below.
Basis of the capital program

The objective of the capital program is to support the mission of The City University of New York, as articulated in the University’s Master Plan, by providing facilities that serve the University’s approved educational programs. The projects requested originate from approved college master plans and from ongoing condition assessments and are prioritized in the campus sections that follow. Funding is requested for projects of appropriate quantity and quality, with environments conducive to learning and consistent with the mandates of New York State education law and CUNY policies. Senior college major-capital projects are funded by the State of New York. Community college major-capital projects are funded equally by the State of New York and the City of New York. The Five-Year Capital Plan for FY 2017-18 through FY 2021-22 is based on the following guidelines:

1. Critical maintenance and returning campuses to a state of good repair
   Discussed in Issues Shaping the Capital Program.

2. Approved academic master plan
   CUNY’s Academic Master Plan for 2016-20 was recently approved by the CUNY Board of Trustees. It showcases CUNY’s commitment to expanding its portals of opportunity and access; raising success rates, setting the standard for academic quality in the urban university and operating efficiently in the service of its academic mission.

   Colleges of The City University of New York are required by the Board of Trustees to conform to the Academic Master Plan in developing their curricula and degree programs. When requesting capital projects, the University’s annual Capital Budget Request and the Five-Year Capital Plan reflect the policies in the Academic Master Plan.

   This year’s Capital Plan responds to the Academic Master Plan by continuing previous years’ emphasis on the remodeling and renovation of facilities so they can more effectively serve academic programs. In addition, it proposes new construction that is called for by campus master plans, by new University initiatives or by the changing needs of its constituencies.

3. Approved physical master plans
   Along with the Academic Master Plan, each campus has a trustee-approved physical master plan, developed by appropriate planning professionals in consultation with the campus facilities staff and members of the college community. Updated in 10-year cycles or as needed, these plans are the basis for the Five-Year Capital Plan Request. The physical master plans detail existing and anticipated facilities necessary to accommodate a University-approved enrollment projection for a given target date. Physical master plans are prepared and updated regularly or as warranted by changing
conditions. In developing or amending physical master plans, the campuses and Central Office consider the cost and functions of proposed projects as well as the opportunities they present for fostering mutually beneficial relationships with neighboring communities.

4. Cost estimates/schedules
Original cost estimates for the request are developed through feasibility studies or by applying comparable cost data after defining a project’s scope and square footage. Project costs for future years are escalated using rates based on current market conditions. Escalation is calculated from project schedules, which can be met only if funding is received. If appropriations are delayed, completion dates and costs are adjusted accordingly.

5. Implementation of sustainability goals
CUNY’s capital program and initiatives contained in this Five-Year Capital Budget Request reflect the University’s commitment to green technology and energy efficiency. New CUNY buildings will be a minimum of LEED-certified Silver or have green elements as part of their design and construction.

CUNY’s capital program is guided by the following state and city initiatives:

*Executive Order 88 and BuildSmart NY*
CUNY participates in the BuildSmart NY Program that was initiated by the governor’s Executive Order 88 and requires state entities to collectively reduce average energy use in state-owned and managed buildings by at least 20 percent by April 2020. The program is an extension of the governor’s NY Works initiative aimed at developing a strategic, comprehensive and coordinated capital planning process across the state. Agencies, including CUNY, have been provided with specific energy use reduction targets for the 2020 deadline—CUNY’s targets apply to the senior colleges.

*City’s “One City: Built to Last” Initiative and Local Laws 84, 86 and 87*
CUNY community colleges are participants in the mayor’s One City: Built to Last program (formerly PlaNYC) that mandates a reduction in carbon emissions of 80 percent by 2050. It is a city-wide environmental action plan to move toward a more sustainable future with regard to land, water, air, transportation and in particular, energy and climate-change metrics. To satisfy program requirements and comply with Local Laws 84, 86 and 87, CUNY has established an Energy Assessment Program wherein campus buildings and operating systems are being assessed to summarize existing conditions and identify greenhouse gas emission reduction opportunities.

To date, CUNY has invested in excess of $20 million in program capital funds in infrastructure projects at Bronx Community College, Kingsborough Community College and LaGuardia Community College by replacing inefficient boilers and in-ground campus distribution systems, and in HVAC and controls upgrades at Borough of Manhattan Community College.

Going forward, CUNY has established a plan of energy conservation measures, targeted to achieve the One City: Built to Last and Executive Order 88 goals, including routine replacement of fluorescent lamps with high-efficiency fluorescent tubes and replacement of academic space lighting with LED technology, the upgrading, renewal and/or expansion of digital control systems and migration from pneumatic systems, retro-commissioning of CUNY buildings, and installation of real-time metering systems and building sub-metering.