Part Two: Future Program

SPARC Kips Bay Master Plan

FINAL REPORT

December 2022

NYC/EDC SOM

Prepared for:

New York City
Economic Development Corporation

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This report will serve as the **Basis of Master Planning** for subsequent phases of work for the SPARC Kips Bay Master Plan. Analysis was conducted over the course of three months between August and November of 2022 via site visits; desktop and online research using publicly available data sets; meetings with NYCEDC, subconsultants, and project stakeholders; and the team's own digital tools. This analysis is summarized in two parts.

Part One documents the existing conditions of the project site. The team analyzed, extracted, and documented relevant information from various open source data sets including the U.S. Census Bureau, Mayor's Office of Sustainability, City of New York, and the State of New York. In addition to the data sets, the consultant team conducted site visits and documented observations in and around the neighborhood. This portion of the site analysis is to confirm and cross-check our desktop research as well as to document important information that cannot be attained through data sets alone.

Part Two documents the draft program for the future campus. This program is based on a series of listening sessions with each individual project stakeholder as well as the group as a collective. Members in attendance at these sessions included key representatives from each stakeholder group as well as individuals from the consultant team, including specialty subject-matter experts with extensive knowledge in health, life sciences, education, and lab planning. The document is a summary of stakeholder aspirations, projected personnel, space needs, programmatic necessities, key adjacencies, and opportunities for collaboration with others on the site.

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2.1

Programming Overview & Process

Initial Space Program

The initial program for the site includes the major categories of programs indicated below, grouped by primary user. Together, these programs account for just over 1.5 million GSF of new development. The report that follows is organized by user. For each one, it establishes a more detailed, category-level program; estimates a daily population to be accommodated; documents existing and/or benchmark facilities; identifies key parameters such as access, safety, and adjacencies; and suggests potential opportunities for sharing of space and synergies with other users on site.

CUNY – Public University

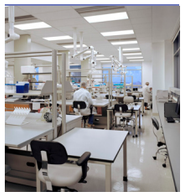
- Hunter College School of Nursing
- Hunter College School of Health Professions - Physical Therapy and Speech Language Pathology
- Hunter College School of Arts & Sciences
- BMCC Allied Health, Health Education, and Nursing Programs
- CUNY School of Public Health
- CUNY Research Labs

H+H – Outpatient Care and Training

- Simulation and Nursing Advanced Practice Center
- Ambulatory surgery
- Adult primary care
- Wellness programs
- Wound care

SCA/DOE – Education Hub

- Public health and health professions-focused high school
- Potential STEAM center



OCME – Forensic Pathology Center

- Morgue facilities
- Autopsy suite
- Toxicology and pathology lab
- Forensic anthropology lab

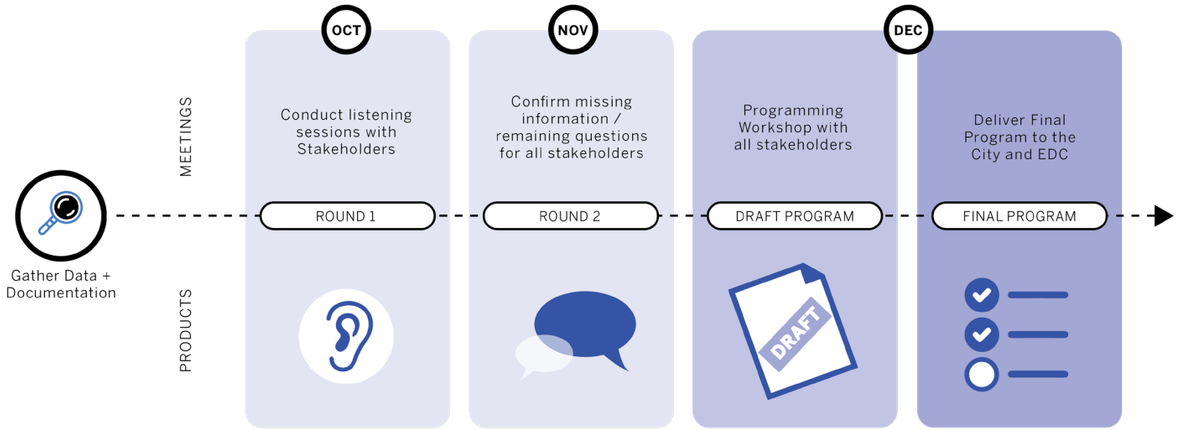
EDC – Life Sciences Labs

- Developer-led commercial life sciences laboratories
- Wet labs
- Dry labs

CUNY	Hunter College School of Nursing and School of Health Professions	280,000	510,000
	CUNY Graduate School of Public Health and Health Policy	90,000	
	Borough of Manhattan Community College (BMCC) Health Care Programs	40,000	
	CUNY Research Labs	100,000	
H+H Ambulatory and Simulation Training Center			150,000
SCA/DOE High School			160,000
OCME Manhattan Forensic Pathology Center			85,000
EDC Commercial Life Sciences			650,000
Total			**1,555,000**

Starting Point: RFP Program by User (May 2022)

Space Programming Process



Our Approach and Process

The Consultant Team began the Space Programming process by gathering and reviewing existing data and information as provided by EDC for the different project stakeholders. Information provided included concept level program, prior design studies, and relevant programmatic information as outlined in the original Request for Proposals (RFP). Upon reviewing the information, the Consultant Team documented key programmatic assumptions by stakeholder to be used as the starting point for the space programming process.

Together, the Consultant Team (SOM & HERA), in collaboration with EDC, formed questions in order to guide the team's programming efforts. Questions included:

- *What distinguishes your key program areas?*
- *What can be strengthened? What can be done better?*
- *How can SPARC Kips Bay create impact by bringing these programs together?*
- *In what ways can SPARC Kips Bay position new buildings to serve special needs and evolving programs?*
- *How can we engage with and strengthen collaborations with neighboring entities?*

Once the Consultant Team established a framework and core themes to guide the programming task, a four step stakeholder engagement process was devised to help clarify, advance, and refine the space programming inputs:

Step 1: Conduct listening sessions with Stakeholders.

Step 2: Confirm missing information / remaining questions for all stakeholders.

Step 3: Host a programming workshop with all stakeholders.

Step 4: Deliver final program

Steps 1 and 2 were completed in the form of Listening Sessions with the Consultant Team, EDC, and relevant individuals from each of the stakeholder groups. SOM led the curation and collection of best practices and precedents in the areas of higher education, life sciences, K-12, and healthcare. HERA, the lab planning and specialty subject matter experts, provided key insights, shared space type trends, and reviewed and commented on the specialty areas of the master plan development inclusive of public health and the medical examiner programs.

Step 3 was completed as part of the December 5 Interagency Update and Step 4 is captured in the document that follows.

2.2

NYC Health + Hospitals Ambulatory Care and Training Center

*"NYC Health + Hospitals is proud to be a part of SPARC Kips Bay as we **expand Bellevue Hospital's primary care clinics and add a new clinical simulation center** for our employees and CUNY students. Our health system will play a dynamic part in this new campus as we engage our patients and future nurses and physicians."*

- NYC Health + Hospitals President and CEO Mitchell Katz, MD

Program Overview

NYC H+H proposes approximately 150,000 GSF of above grade ambulatory care, primary care, wellness care, and training facilities; an additional 12,000 GSF or basement storage is also required for effective operations. The ambulatory wellness center focuses on screening, same day procedures, diagnostics and preventative care. The simulation training facility helps health professionals develop preparedness on how to handle real-life situation and experiences.

Challenges & Opportunities

- This should be state of the art and innovative: "Beyond traditional medical care."
- Interprofessional practice is essential: "We practice in silos, but we perform together"
- This will take time. What does ambulatory care look like in 6, 8, 10 years when this opens? Plan for flexibility and change.
- Test and implement new models of outpatient care, including extended home care.

Location

- First Ave frontage is essential for entrance:
  - Visibility
  - Proximity to Bellevue and other medical uses
  - Easy patient access
  - Not so important to actually have windows / physical space fronting First Ave above this entry, but the medical building cannot be as far east as FDR.
- Ground floor includes potential public-facing uses: concessions, pharmacy, walk-in phlebotomy, main lobby
- Simulation Center and Nursing Advanced Practice on same floor:
  - Access to large freight elevator is required for big equipment (robotics, simulators, etc)
  - Rooms must be flexible and adaptable to different needs.
  - Storage is a huge need, and should not be underestimated.
  - Ambulatory care should be flexible to changing needs / areas of focus.
  - Want primary care connected on single floor, rather than split across floors.

Safety

- Need to control ingress/egress points for security - no side doors.
- "A standalone building within a campus"

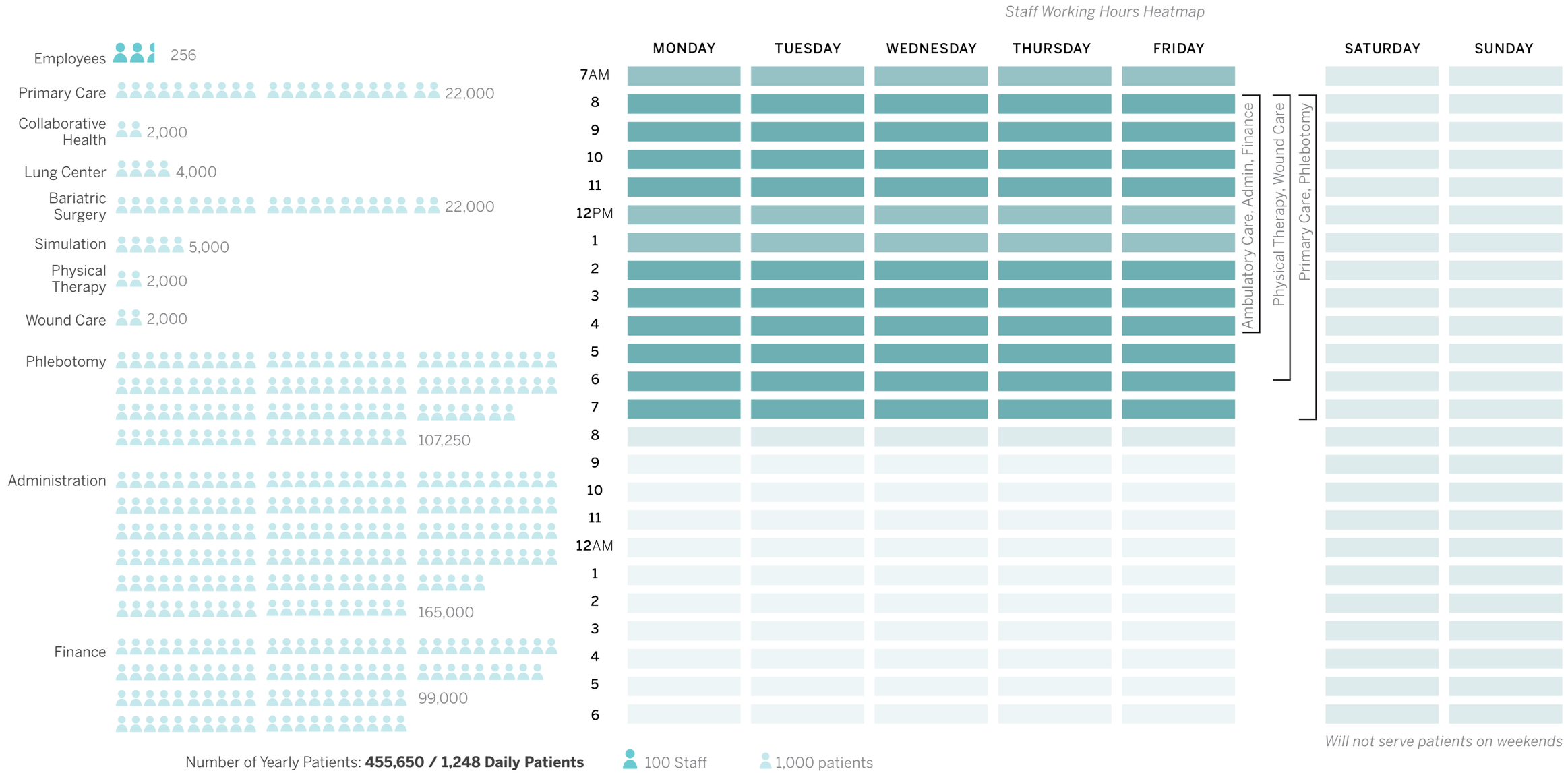
Access

- Light-filled, airy space at the Bellevue Atrium is uplifting. Would like to replicate this in the new facility.
- Connections to outdoors for therapeutic spaces, community gardens, and greenery is essential. Nature is key to healing and wellness.
- Look at possibility of tunnel connection from this facility to existing Bellevue ED, potentially via the existing steam tunnel. This would allow movement of materials, staff, and transfer patients between facilities.

Potential Partnerships

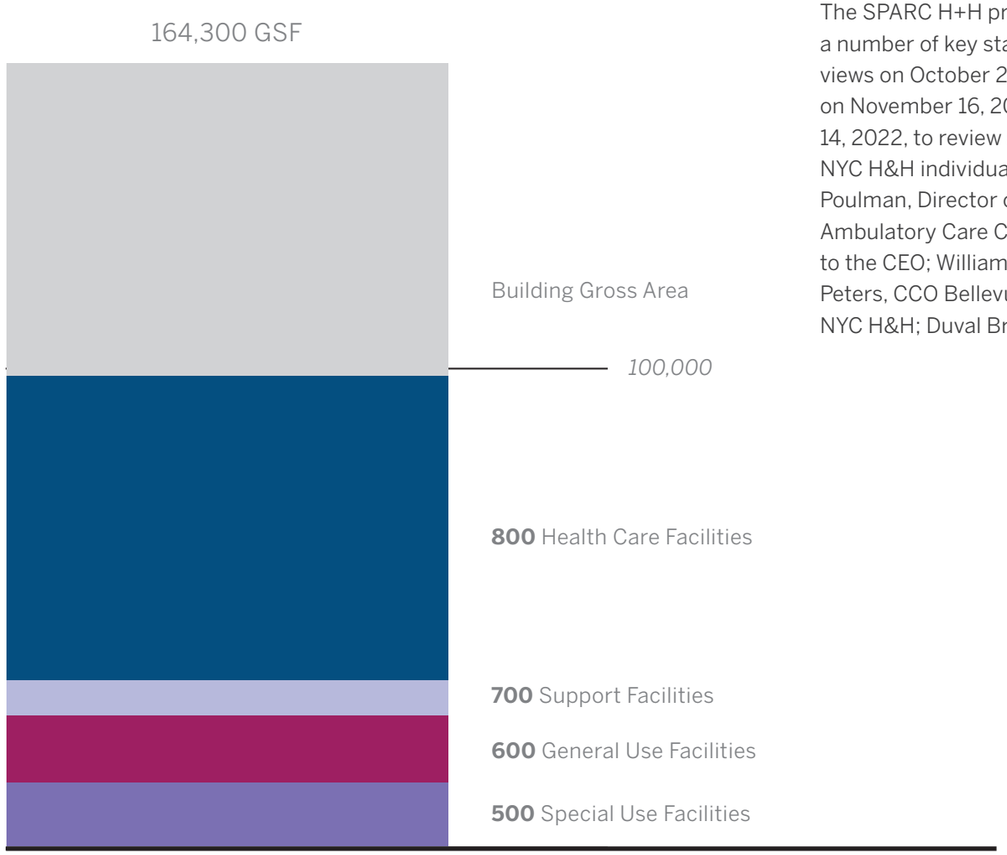
- Simulation/Nursing advanced practice training center with CUNY
- Clinical space with CUNY
- Medical and Surgical Oncology and Infusion services was discussed for inclusion initially, but removed to afford room for other programs; this space will remain at Bellevue

Potential Future Population



Category-Level Program

Space Type	Sub-Space Type	ASF
500 Special Use Facilities	Simulation Center and Advanced Nursing Practice	**13,355**
600 General Use Facilities	Shared Services	**14,020**
	Phlebotomy	
	Radiology	
700 Support Facilities	Shared Basement Storage	**7.500**
800 Health Care Facilities	Pre-op and Post-Op Recovery	**63,705**
	Ambulatory Surgery Services	
	Adult Primary Care (Collab Care, Long COVID, Health Care Integrative Program)	
	Wellness Programs (Weight Management, Plant-Based Lifestyle Medicine)	
	Outpatient Services	
Total ASF Area		**98,580**
	WXY Building Gross Area 60%	**65,720**
		164,300 GSF



The SPARC H+H program was developed with input from a number of key stakeholders during onsite tours and interviews on October 28, 2022, a web-based listening session on November 16, 2022, and third meeting on December 14, 2022, to review and clarify several items. The following NYC H&H individuals contributed to the program: Jessica Poulman, Director of Operations; Dr. Andrew Wallach, Ambulatory Care Chief; Shelly Daniel, Special Assistant to the CEO; William Hicks, CEO Bellevue Hospital; Marcia Peters, CCO Bellevue; Al Channer, Healthcare Architect for NYC H&H; Duval Brown, Facilities Management.

Notes:
- *The current program is slightly higher than the initial allocation of 150,000 GSF. This will continue to be refined alongside discussions about project budget.*

Detailed Program Tabulation

Description	# of Spaces	Average SF	Total ASF
500 Special Use Facilities			**13,355**
Simulation Center and Advanced Nursing Practice			
Self Check-In Kiosks	3	25	**75**
Reception\Pharmacy Simulation	1	150	**150**
Waiting	10	25	**250**
Student Lockers	1	120	**120**
OSCE Exam, Small	8	120	**960**
OSCE Exam, Large.	3	200	**600**
OSCE Exam+Ante (Isolation)	1	200	**200**
SP Locker Room	1	200	**200**
SP Changing	2	100	**200**
SP Waiting	1	450	**450**
SP Restroom	2	70	**140**
Counseling\Behavioral Health	2	120	**240**
Apartment	1	400	**400**
Outpatient Procedure	0	325	**0**
Offices (Sim Manager, Director)	2	120	**240**
Skills Lab (8 stations\32 Learners)	1	1,025	**1,025**
Medication Room	1	125	**125**
HF Simulation	3	350	**1,050**
Patient Practice Restroom	1	70	**70**
Virtual Anatomy\VR (for 10)	1	450	**450**
Small Debriefing\Virtual Care Sim space	3	200	**600**
Medium Debriefing (for 8)	3	320	**960**
Storage	4	600	**2,400**
Control Rooms	5	150	**750**
Sim Tech(for 2)\Control	1	180	**180**
Advanced Nursing Offices	2	120	**240**
Simulation Offices	2	120	**240**
Hoteling Stations	4	60	**240**
Prep\Laundry	1	150	**150**
Server	1	150	**150**
Staff Lockers / Shower / Restrooms	1	500	**500**
600 General Use Facilities			**14,020**
Shared Services			
Self Check In Kiosks	10	25	**250**
Patient/Student Lockers	1	300	**300**
Main Lobby	1	750	**750**
General Waiting	25	20	**500**
Reception Counter	3	60	**180**
Finance Offices	4	120	**480**
Admin Offices.	8	120	**960**
Conference (for 8)	2	320	**640**
Conference (for 12)	2	420	**840**
Healthy Concessions/Sitting Area	1	1,800	**1,800**
Retail Pharmacy	1	2,500	**2,500**
Phlebotomy			
Phlebotomy Recept\Waiting	1	300	**300**
Stations	12	80	**960**
Office	1	120	**120**
Radiology			
Radiology Recept\Waiting	1	300	**300**
Conventional X-Ray	3	300	**900**
CT Scan\Future Hybrid-PET Scan	2	400	**800**
Lower Extremity Doppler	1	200	**200**
Offices	2	120	**240**
Staff Lockers / Lounge / Shower / Toilet (Seperate Entrance)	1	500	**500**
Receiving\Storage	2	250	**500**
700 Support Facilities			**7,500**
Shared Basement Storage	1	5,000	**5,000**
Pharmacy back of house\storage	1	2,500	**2,500**
800 Health Care Facilities			**63,705**
Pre-op and Post-Op Recovery			
Pre-Procedure Patient Care	20	100	**2,000**
Workroom	1	190	**190**
Nurses'/Doctors'/Nourish/Pneum. Tube Stations(Pre-Procedure)	1	505	**505**
Nurses'/Doctors'/Nourish/Pneum. Tube Stations(Pre-Testing)	1	300	**300**
Soiled Holding	2	70	**140**
Clean Holding	2	110	**220**
Medication Room	2	90	**180**
Pre-Testing Exam Room	10	120	**1,200**
Office	2	120	**240**
Storage	2	135	**270**
Staff Lockers / Shower / Toilet	1	1,150	**1,150**
Conference / Classroom	1	325	**325**
Patient Navigational Services	1	325	**325**
Financial Services	1	325	**325**
Clergy / Religious Services	1	325	**325**
Psychiatric / Social Work Services	1	325	**325**
Occupational / Physical Services.	1	325	**325**
Dietary / Nutritional Services	1	325	**325**
Reception / Security / Lobby/Self-Check Kiosk	1	2,010	**2,010**
Waiting / Reception	1	1950	**1,950**
Changing Rooms	6	45	**270**
Changing Room (ADA)	1	85	**85**

Detailed Program Tabulation

Description	# of Spaces	Average SF	**Total ASF**
Patient\Student Lockers	2	120	**240**
Ambulatory Surgery Services (incl. Bariatric Surg.)			
Operating Rooms	11	500	**5,500**
Equipment Storage	2	400	**800**
Soiled Holding	2	125	**250**
Clean Holding	2	200	**400**
Chief of Service Offices	2	80	**160**
Sterile Storage\High Level Disinf	1	400	**400**
Surgical Access Lobby	1	400	**400**
Nurses/Control Station	1	200	**200**
Pre/Post Procedure Patient Care	20	100	**2,000**
Nurses'/Doctors'/Nourish/Pneum. Tube Stations	1	505	**505**
Medication Room	1	90	**90**
Storage	2	130	**260**
Office for Anesthesia Attendings	2	80	**160**
Workstations for Surgery and Anesthesia Doctors	1	300	**300**
Waiting Area	1	490	**490**
Reception / Security / Lobby	1	800	**800**
Student Lockers	1	100	**100**
Staff Lounge / Shower / Toilet	1	615	**615**
Nurse Manager Offices	2	80	**160**
I. Adult Primary Care (Collab Care, Long COVID)			
Self Check In Kiosks	4	25	**100**
Reception\Waiting	1	600	**600**
Nurses Station	1	200	**200**
Nurse Collab\Conf Room(for 4)	2	200	**400**
Exam Room	46	120	**5,520**
Exam Room with Isolation	4	200	**800**
Procedure Cart Staging	2	120	**240**

Description	# of Spaces	Average SF	**Total ASF**
Offices	18	120	**2,160**
Conference (for 8)	1	320	**320**
Counseling\Conference (up to 4)	4	200	**800**
Storage	3	150	**450**
Staff Lounge / Shower / Toilet	1	1,150	**1,150**
Soiled Holding	1	70	**70**
Clean Holding	1	110	**110**
Medication Room	2	90	**180**
Patient\Student Lockers	1	120	**120**
II. Adult Primary Care (Collab Care, Long COVID)			
Self Check In Kiosks	4	25	**100**
Reception\Waiting	1	600	**600**
Nurses Station	1	200	**200**
Nurse Collab\Conf Room(for 4)	2	200	**400**
Exam Room	46	120	**5,520**
Exam Room with Isolation	4	200	**800**
Procedure Cart Staging	2	120	**240**
Offices	18	120	**2,160**
Conference (for 8)	1	320	**320**
Counseling\Conference (up to 4)	4	200	**800**
Storage	3	150	**450**
Staff Lounge / Shower / Toilet	1	1,150	**1,150**
Soiled Holding	1	70	**70**
Clean Holding	1	110	**110**
Medication Room	2	90	**180**
Patient\Student Lockers	1	120	**120**
Weight Management, Bariatric Program & Plant-Based Lifestyle Medicine Program			
Exam Room	8	100	**800**
Exam Room with Isolation	2	220	**440**
Medication Room	1	90	**90**

Description	# of Spaces	Average SF	**Total ASF**
Test Kitchen	1	350	**350**
Fitness Center\OT\PT	1	3,500	**3,500**
Plant-Based Program Counseling Rooms	2	225	**450**
Offices	2	120	**240**
Outpatient Services			
Wound Care			
Procedure Room	1	200	**200**
Exam Room	4	125	**500**
Bathroom /Showers	2	120	**240**
Medication Room	1	100	**100**
Storage	1	200	**200**
Offices	2	120	**240**
Shared			
Reception\Waiting	1	350	**350**
Patient\Student Lockers	1	150	**150**
Nurses Station	1	250	**250**
Nurse Collab\Conf Room(for 4)	1	200	**200**
Conference (8)	1	320	**320**
Counseling	1	200	**200**
Classroom	1	650	**650**
Staff Lounge / Shower / Toilet	1	500	**500**
Soiled Holding	1	70	**70**
Clean Holding	1	110	**110**
Storage	2	150	**300**

Total ASF Area			**98,580**
WXY Building Gross Area	*60%*	*net-to-gross efficiency*	**65,720**
Total GSF Area			**164,300 GSF**

Physical Requirements: Initial Stacking Options

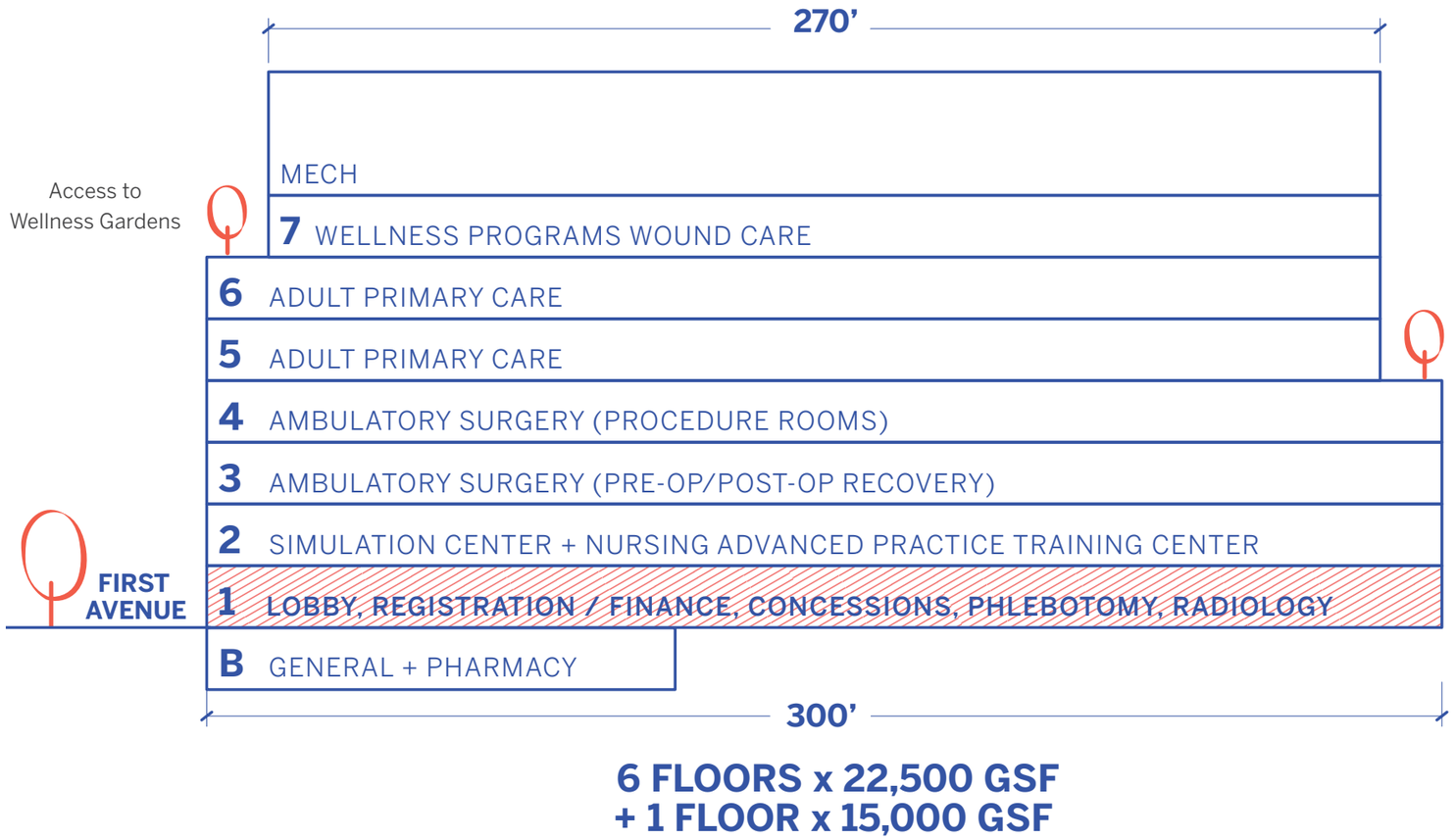
Basement
- Storage square footage would be planned in the basement to reduce associated construction costs
- If feasible, a tunnel connection could reduce some planned programming spaces. Central Sterile, at Brookdale, can be utilized. Dock delivery only needed without tunnel; anticipate deliveries from main hospital

Second Floor
- The Simulation Facility will be focused on Outpatient training; efficiencies were identified by combining the Simulation facility and Advanced Nursing Practice training facilities

Third and Fourth Floor
- Stakeholders evaluated multiple options with regard to outpatient surgery; after consideration, full Operating rooms were planned versus a mix of Procedure and Operating spaces.

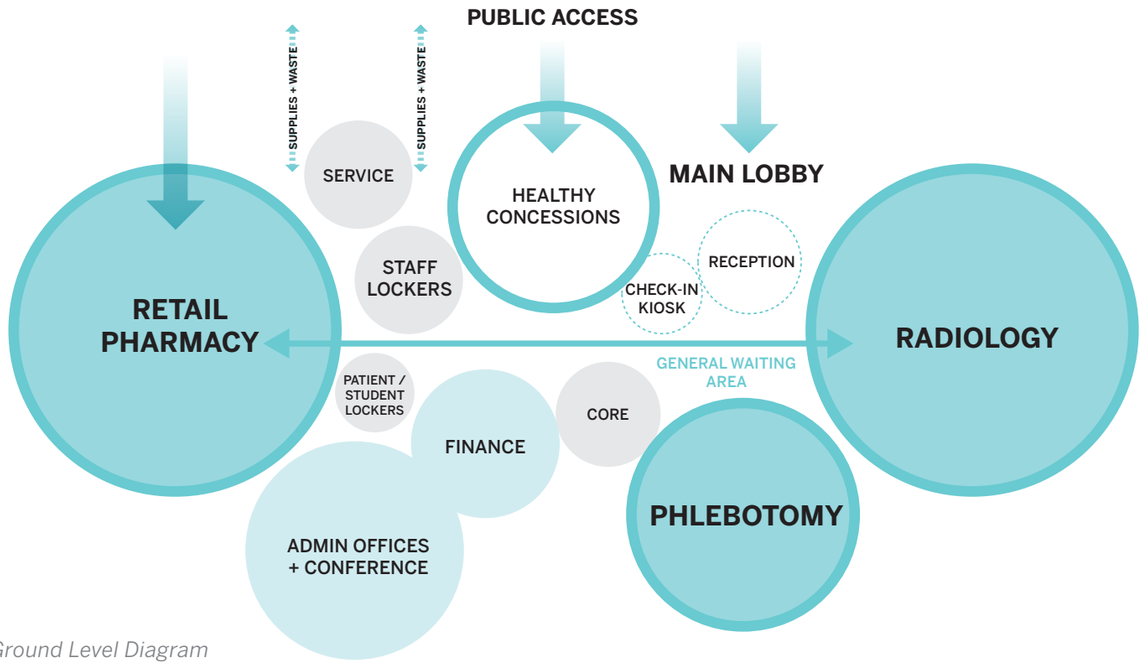
Fifth and Sixth Floors
- Primary Care Exam spaces should afford one-stop services, leveraging in room monitors and mobile medical treatment carts
- Two full floors dedicated to Primary Care to address the growing need.
- Staircases between floor for patients and staff to use as a direct connection (open stairs between Primary Care Floors)

Seventh Floor
- Access to outdoor space for access to gardens, wellness and counseling
- Wellness initiatives are growing; the program affords space for teaching kitchen, physical and occupational therapy, fitness, exam, and counseling spaces to support Weight Management, Bariatric Program & Plant-Based Lifestyle Medicine and Collaborative Health Programs.
- All programs can share common Nursing\Reception stations.
- Wound Care requires dedicated exam and procedure spaces



Proposed initial ideal stacking per workshops with H&H.
Layout may be refined as full master plan is developed

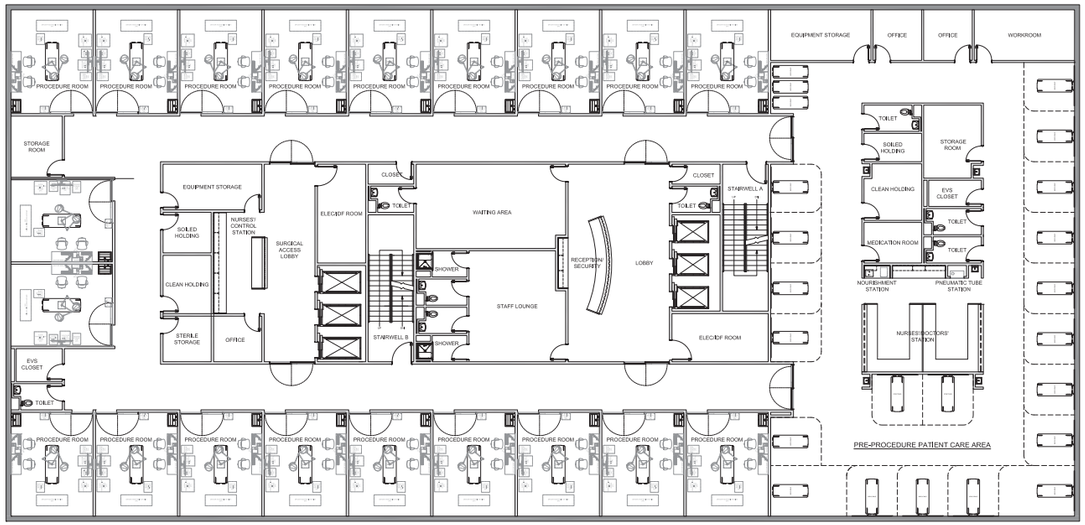
Physical Requirements



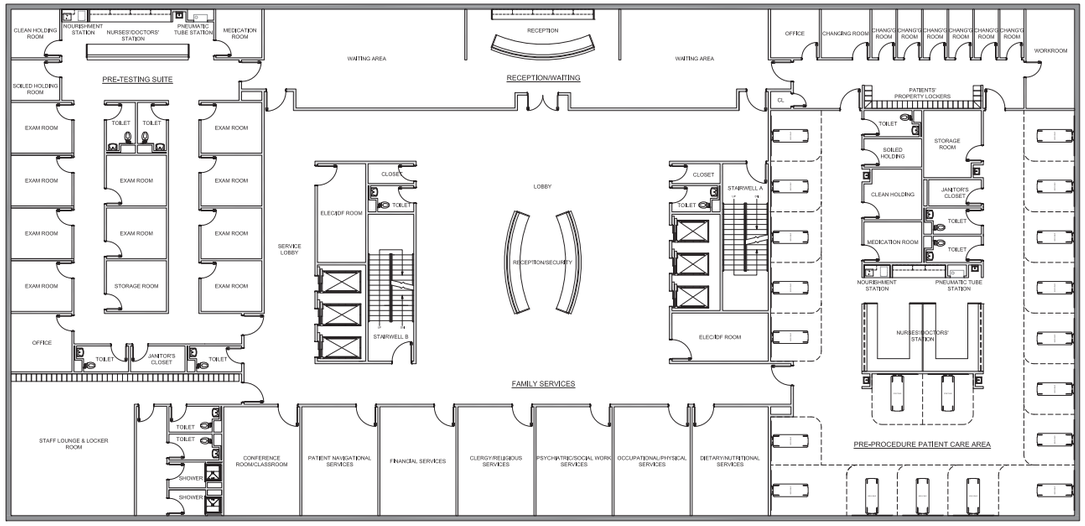
Ground Level Diagram

First Floor

- Reception and Waiting areas should be minimized by used of self-check kiosk
- Drop-in services for Phlebotomy, Radiology and Pharmacy Services for same day service of ambulatory and tele-health patients.
- Radiology: Conventional X-Ray (focus), CT or Hybrid CT/PET scan, Lower extremity Doppler's
- Healthy concessions: soup, salad, fruit, etc.
- A separate staff entrance is desired



1 SK101 CONCEPTUAL LAYOUT - AMBULATORY SURGERY SERVICES
1/8" = 1'-0"



1 SK100 CONCEPTUAL LAYOUT - PRE-OP & PATIENT SUPPORT SERVICES
1/8" = 1'-0"

Indicative Ambulatory Surgery Layouts, provided by H+H

NYC Health + Hospitals

Site Visit: Key Takeaways

What works well today?

- Light-filled open patient entry at Bellevue and connection to exam spaces
- Jacobi Simulation Operational Structure, Fellowship Program and SSH Accreditation

What doesn't work well - and we want to avoid?

- Location of the hub Jacobi Simulation facility in relation to other spoke facilities
- Some modularity designed into Jacobi Simulation Center – expand this concept in Outpatient Simulation and Nursing Advanced Practice Centers
- Need to rethink Simulation AV Capture system

What's missing?

- Ambulatory drop-in services (Phlebotomy, Basic X-Ray, EKG, Pharmacy) at entry level
- Expanded Outpatient Programs: Wound Care, Infusion Clinic
- Potential tunnel connection to Bellevue
- Leveraging robotics and technology (i.e. Self-check-in kiosks at entry level)
- Exam rooms designed for a one-stop medical treatment (i.e. Monitors on wall, procedure carts or CT Scan brought into space; in room Phlebotomy drawings.
- Synergies between key programs, such as Weight Management, Plant-based Lifestyle Medicine Program, Exterior Gardens and Fitness Center/OT/PT.
- Facilities to support expanded use of Simulated/Standardized Patients (SP), virtual Simulation, Outpatient Focused and Home Care Simulation

Site Visit: Bellevue - Second Floor

"Importance of wayfinding, multi-lingual communication, self-check in spaces"

Common Area for Staff

Typical Exam Room

Self Check-in Kiosk

Shared Spaces

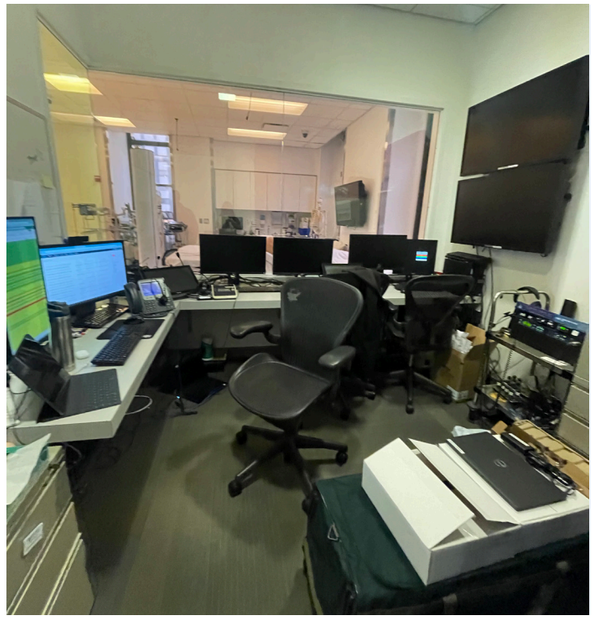
NYC Health + Hospitals

Site Visit: Bellevue - NYSIM

“We practice in silos, but we perform together. Simulation should break down these barriers.”

Exam Event Space and Secondary Viewing Station

Basic Life Support and Advanced Life Support Training Lab

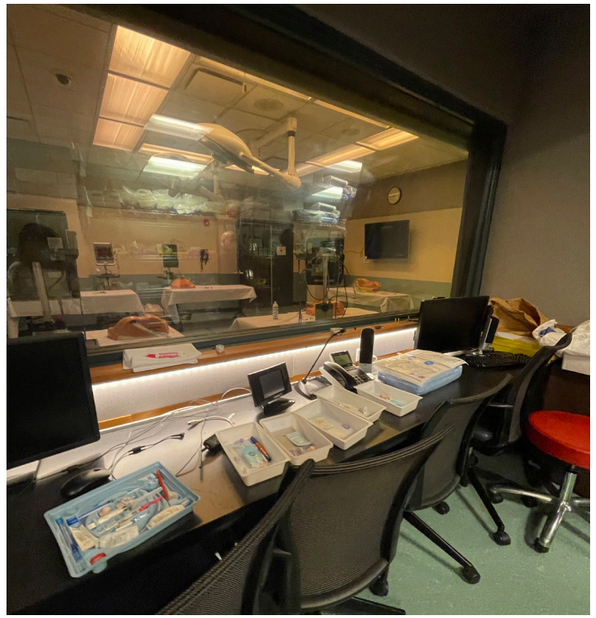


IT Backbone and Storage

Multi-bay Simulation Event Space

Site Visit: Jacobi Medical Center, Institute for Medical Simulation and Advanced Learning

"The primary issue with utilization is location – Jacobi is not easy to get to."



Control Room

Flexible Simulation Event Spaces

Storage and Prep Space

Dedicated Simulation Event Spaces

Benchmarks

The new H+H facility will combine the best of different worlds, elevating patient care alongside exceptional training facilities, all in a space that is grounded in wellness and healing. Benchmarks from around the country provide insight into how this can be accomplished.

Wellness Amenities

Center for Rehabilitation Education University of Scranton, Scranton, PA

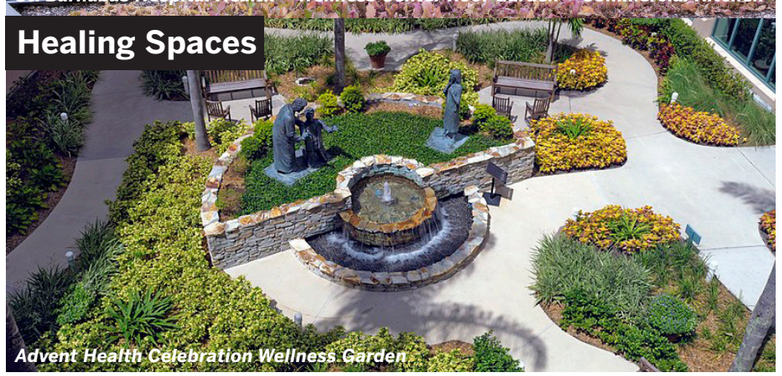
Test Kitchen

Boston Medical Teaching Kitchen

"Food as Medicine" is at the forefront of functional medicine and offers a comprehensive and personalized approach to wellness. Therapy and fitness provide foundational support for wellness initiatives – with clear connections to the planned Bariatric, Weight-Loss, and Plant-Based Medicine areas of focus at SPARC.

Food Production

St. Barnabas Hospital Health + Wellness Center Roof Garden + Commercial Kitchen



Healing Spaces

Advent Health Celebration Wellness Garden

Evidence-based design has demonstrated the power of environmental design to support improved patient, family and staff wellbeing. Healing environments give access to views, nature, light, and air. Production gardens can be incorporated as an educational resource for plant-based lifestyle training.

Benchmarks

Ambulatory Care

Omaha VA Ambulatory Care Center, Omaha, NE

Cedars Sinai Outpatient Surgery Center, LA

Ambulatory Care facilities are the backbone of community healthcare. Providing outpatient services and amenities allows a comprehensive approach to managing long-term illness as well as just-in-time needs for urgent medical matters

Simulation Training

Texas A&M Nursing Simulation Center, Texarkana, TX

The best training before entering the workforce is a life-like, simulated patient experience. Rooms are designed to mimic healthcare facilities. Adult and Pediatric simulators controlled by a computer can offer more than 72,000 combinations of physiologic responses for students to learn from. Standardized Patients (actors) can also be used in simulation environments to provide ambulatory and home care event training.

2.3

SCA/DOE High School

"Providing our students with a clear pathway to and preparation for a rewarding career and long-term economic security is our North Star. SPARC Kips Bay will be a result of unprecedented collaboration between our public schools, CUNY, neighboring health and biotech industries, and public health institutions to provide meaningful career pathways for our high school students. I am thrilled that this opportunity will ***help prepare more of our students for the 21st-century economy and the opportunities of the future****."*

-

New York City Department of Education Chancellor
David C. Banks March 2, 2022

Program Overview

PROGRAM SUBJECT TO CHANGE UPON FEEDBACK FROM NEW YORK PUBLIC SCHOOLS

The School Construction Authority (SCA) and Department of Education (DOE) envision a new 160,000 GSF high school facility focused on healthcare, public health, and life sciences. This may be a traditional high school or a STEAM center – a school with a particular focus on career and technical training.

Challenges & Opportunities

- **Reinforcing DOE's Four Pillars of Trust:**
  - Reimagining the student experience
  - Scaling, sustaining, and restoring what works
  - Prioritizing wellness and its link to student success
  - Engaging families to be our true partners
- **Ensuring Flexibility:** At this point in the planning, the facility should be flexible to accommodate whatever school type and area of focus the DOE eventually chooses

Location

- SCA has a strong preference for standalone facility, but there are models for facilities integrated with other uses in a shared building.
- Lower floors are preferable, but could go up to 5-7 floors depending on the available footprint
- Ground floor presence is required at least for a lobby (students, visitors)
- Need at least one street frontage so students can egress directly to street in case of an emergency
- Street frontage needs access to interior block space to avoid students congregating on the sidewalk before school
- Building should maximize opportunities to bring light into instructional spaces

Safety

- The public cannot enter the school during the day,
- Require outdoor space that is exclusive to DOE and accessible by students during the day; active space is preferred where possible
- Emergency access from and evacuation to public street is required

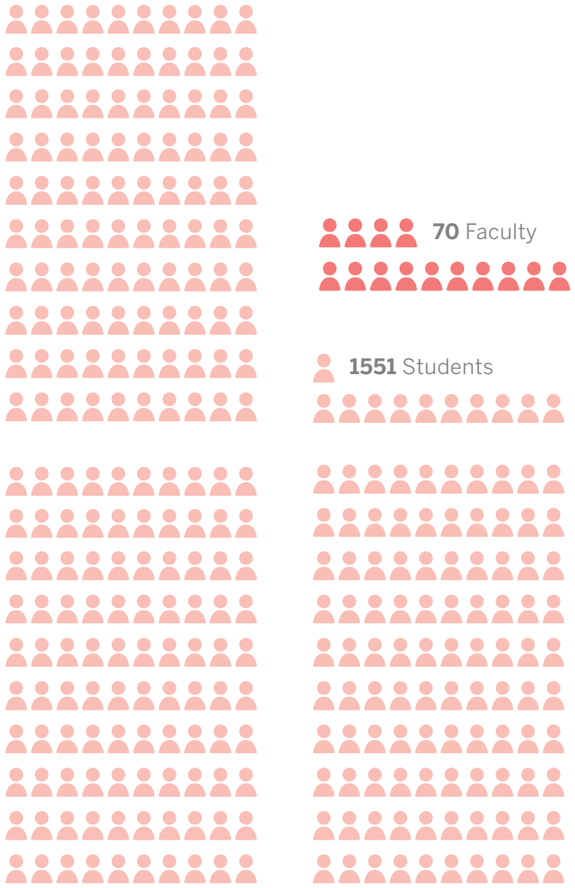
Access

- All students arrive via public transit
- Bussing may occur in rare instances when there are off-site field trips

Potential Partnerships

- Big opportunity to partner with CUNY – earn college credit, share facilities, connect to job training initiatives
- The visibility of the "end goal" of health and life sciences professions in one campus is exciting for students and educators
- Certain campus amenities may be shareable, particularly during off-hours (a larger auditorium, a research hub) but would be outside the school proper
- The larger block could be more like a college campus, where everyone shares a collective public realm

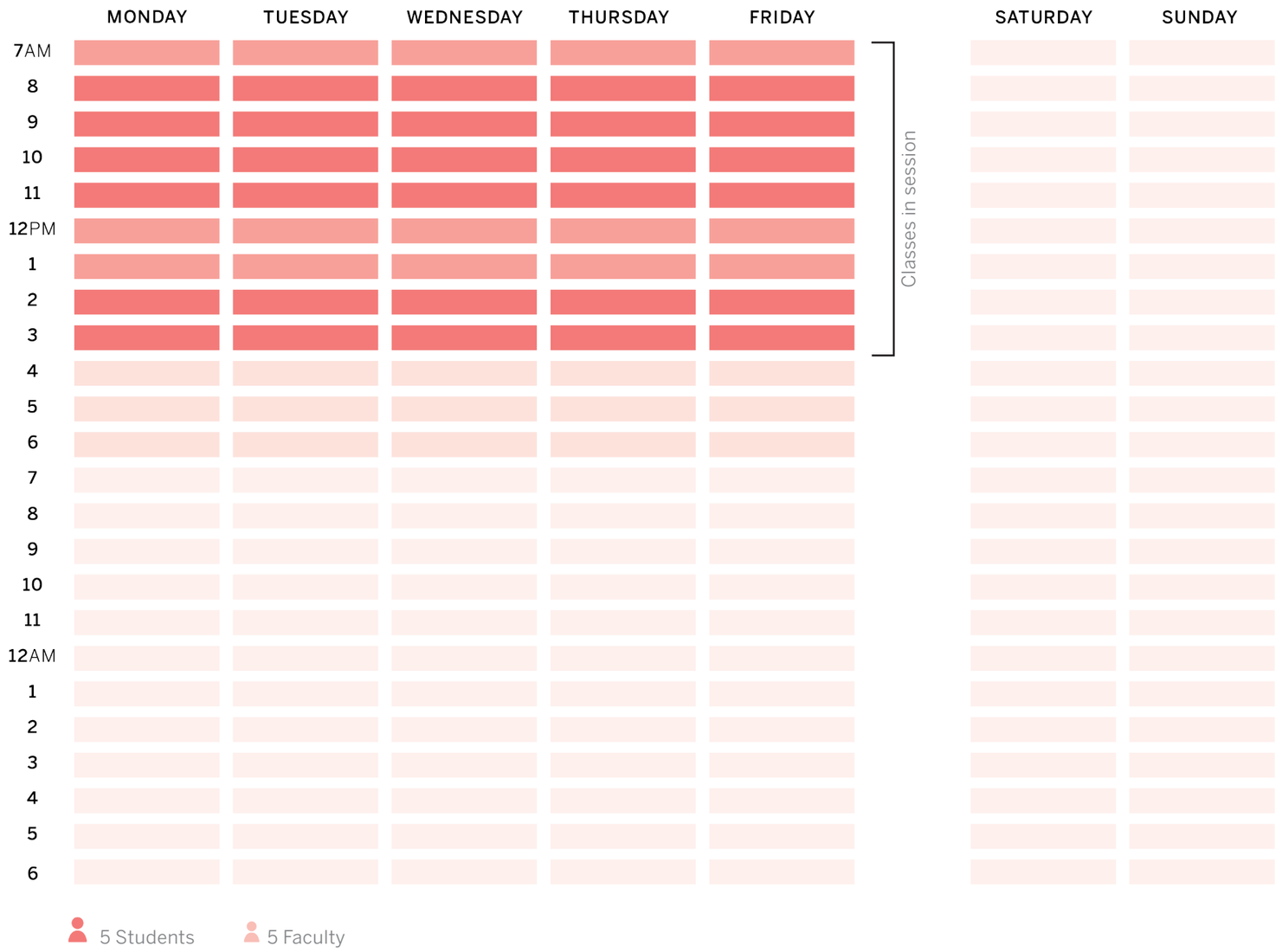
Potential Future Population



70 Faculty

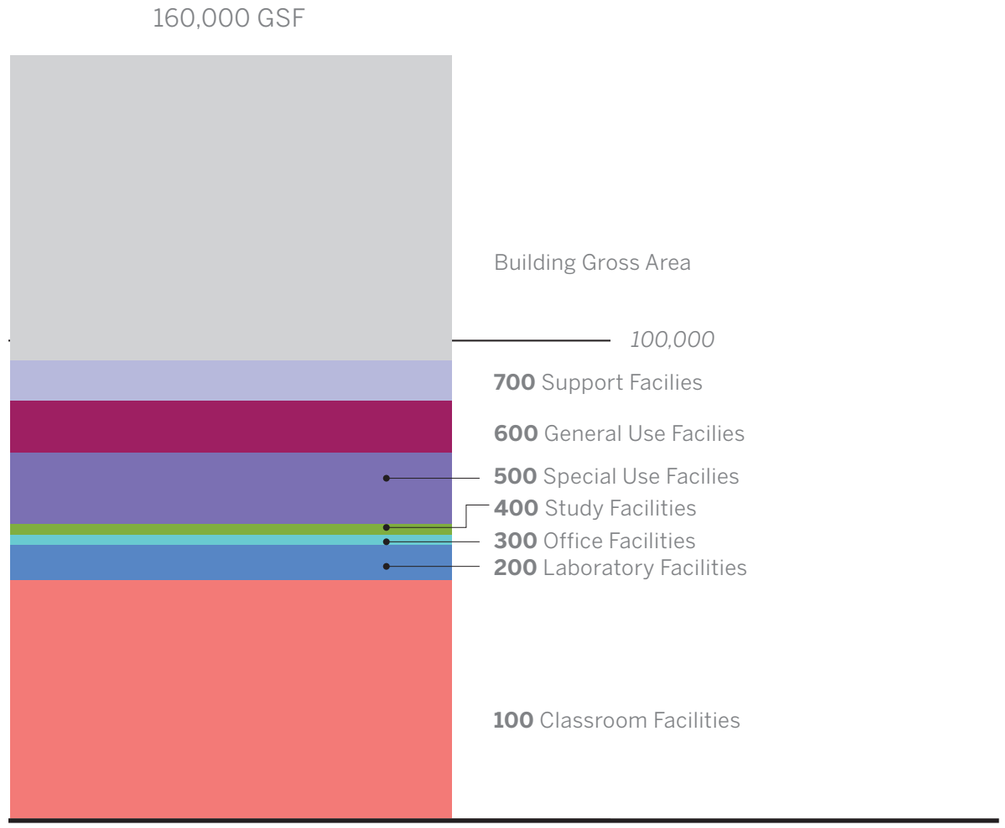
1551 Students

Staff Working Hours Heatmap



Category-Level Program

	Space Type	Sub-Space Type	ASF
100 Classroom Facilities	**Group 1**	Instruction	**49,900**
	Group CW	City Wide Special Ed - District 75 (Clustered At First Floor Or Stacked On 1 & 2)	
	Group 2	Specialized Instruction	
200 Laboratory Facilities	**Group 3**	Science	**7,375**
300 Office Facilities	**Group 10**	Administration	**2,175**
400 Study Facilities	**Group 6**	Library	**2,250**
500 Special Use Facilities	**Group 4**	Physical Education	**14,925**
600 General Use Facilities	**Group 7**	Lobby / Main Entrance	**10,955**
	Group 8	Student Services	
	Group 11	Cafeteria / Staff Lunch	
700 Support Facilities	**Group K**	Kitchen	**8,340**
	Group 9	Storage	
	Group 12	Custodial	
	Total ASF Area		**95,920**
		WXY Building Gross Area 60%	**64,080**
			160,000



Notes:
- *Program represents a standard DOE high school. The need for additional specialty spaces and/or lab facilities may evolve as the specific focus or type of school is established.*

SCA/DOE

Detailed Program Tabulation

Description	# of Spaces	Average SF	Total ASF
100 Classroom Facilities			**49,900**
GROUP 1 - Instruction			
Typical Classrooms - Grade 9 - 12	46	750	**34,500**
District Special Ed. Classrooms - HS use	2	500	**1,000**
Resource Room (Small group Instruction)	1	375	**375**

GROUP CW - CITY-WIDE SPECIAL ED - DISTRICT 75 (clustered at first floor or stacked on 1 & 2)			
Special Education Classrooms(w/o toilets) - District 75	4	500	**2,000**
Special Education Classrooms(w/o toilets) - District 75	4	750	**3,000**
Citywide Special Ed Speech Rm (w/ storage) - Dist. 75	2	200	**400**
Main Office	1	300	**300**
Resource Room	3	200	**600**
Guidance Office/Other Office - District 75	2	150	**300**
Occupational Therapy Room w/ wall padding	1	500	**500**
Physical Therapy Room	1	750	**750**
Supervisory Office (w/ storage) - District 75	1	150	**150**
Multi-purpose Room w/ sink - no fixed furniture	1	750	**750**
Storage Room - District 75	2	250	**500**
Changing Room(on each floor that has D75 Classrooms)	1	100	**100**

Description	# of Spaces	Average SF	Total ASF
GROUP 2 - SPECIALIZED INSTRUCTION			
Art Classroom (w/ 250 sf storage)	2	1150	**2,300**
HS Instrumental Music CR (w/ practice cubicles)	2	1000	**2,000**
HS Music Instrument Storeroom (shared)	1	375	**375**

200 Laboratory Facilities			**7,375**
GROUP 3 - SCIENCE			
Science Lab - trifacial	3	1250	**3,750**
Science Demo Room - HS use	3	875	**2,625**
Science Preparation Room (w/ doors to labs & corridor)	2	500	**1,000**

300 Office Facilities			**2,175**
GROUP 10 - ADMINISTRATION			
Administration Suite	1	1300	**1,300**
Program Office /ATS Suite	1	200	**200**
Supervisory office	2	150	**300**
Parent/Community Office	1	375	**375**

400 Study Facilities			**2,250**
GROUP 6 - LIBRARY			
Library	1	1500	**1,500**
Staff Development(cubicles and workshop area)	1	750	**750**

500 Special Use Facilities			**14,925**
GROUP 4 - PHYSICAL EDUCATION			
Gymnasium (Competition) w/ Telescoping seating	1	8700	**8,700**

Description	# of Spaces	Average SF	Total ASF
Stage-along 1/2 of long side of gym	1	900	**900**
Chair Storage	1	150	**150**
Locker Rooms w/ showers (Provide Type 1 lockers) one locker u	2	1250	**2,500**
Community / Visiting Team Locker Room	1	375	**375**
Health Instructor's Office (adj. to gym, exercise room)	2	150	**300**
Gymnasium Storeroom (adjacent to competition gym)	2	250	**500**
Exercise Room	1	1500	**1,500**

600 General Use Faciltiies			**10,955**
GROUP 7 - LOBBY / MAIN ENTRANCE			
Lobby- max double height area not to exceed 50% of Lobby area	1	1000	**1,000**

GROUP 8 - STUDENT SERVICES			
Guidance suite/attendance and lateness office	1	500	**500**
Guidance, SAT, HS Coll/Voc Suite	1	375	**375**
Records/Storage Room adj to guidance 8-21	1	125	**125**
Medical Suite	1	700	**700**

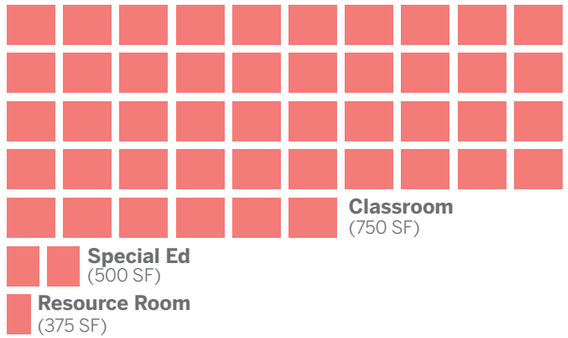
GROUP 11 - CAFETERIA / STAFF LUNCH			
Staff Lunch	1	500	**500**
Students' Dining Area -(100% Capacity / 3*15 Sq. Ft.)	1	7755	**7,755**

Detailed Program Tabulation + Program Blocks

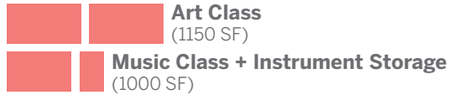
Detailed Program per SCA, Oct. 19, 2022

Description	# of Spaces	Average SF	Total ASF
700 Support Facilities			**8,340**
GROUP 9 - STORAGE			
Educational storage closet- books etc	1	375	**375**
General Storage	1	750	**750**
Grounds Equipment Storeroom	1	125	**125**
Vault' with Anteroom	1	375	**375**
Refuse and Recycling room (w/ floor drain and hose bib) (on 1st floor if possible)	1	600	**600**
Bicycle Storage	1	180	**180**
Shower/Changing room for Bike users	1	150	**150**
GROUP 12 - CUSTODIAL			
Custodial Locker Rm - M/F	2	150	**300**
Custodian's Office	1	375	**375**
Custodian's Storage/Workshop (include hydraulic lift)	1	500	**500**
Telecommunications Room	1	300	**300**
Telecommunications Switch Closet	3	100	**300**
Unisex toilet for non-ambulatory use-Verify if reqd	1	60	**60**
School Safety office/locker rooms	1	450	**450**
GROUP K - KITCHEN			
Kitchen Complex 3 serving lines	1	3500	**3,500**
Total ASF			**95,920**
WXY Buidling Gross Area	60%	net to gross efficiency	**64,080**
Total GSF Area			**160,000**

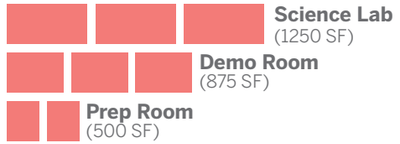
Group 1 - Instruction



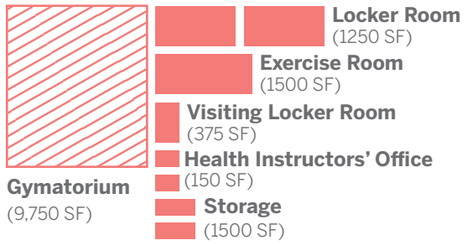
Group 2 - Specialized Instruction



Group 3 - Sciences



Group 4 - Physical Education

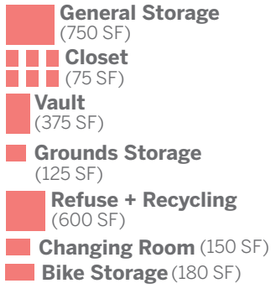


Group 6 - Library

Group 7 - Lobby

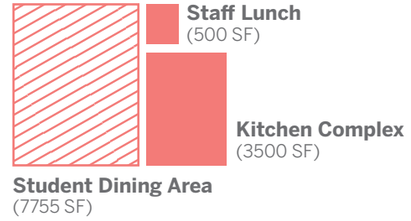
Group 8 - Student Services

Group 9 - Storage

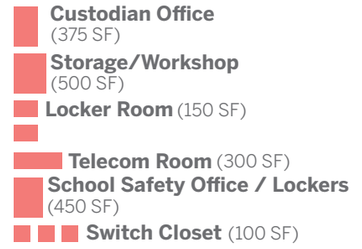


Group 10 - Administration

Group 11 - Cafeteria / Group K - Kitchen



Group 12 - Custodial



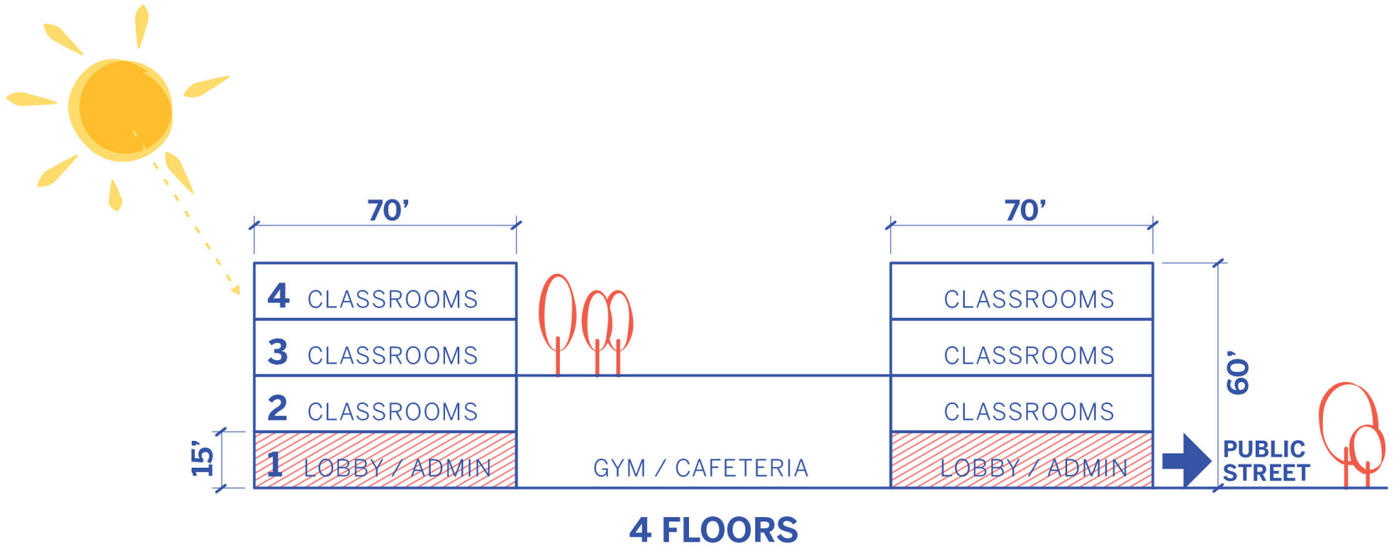
Outdoor Space @ 30 SF/ Student Recommended

(46,500 SF / 1.1 acre)

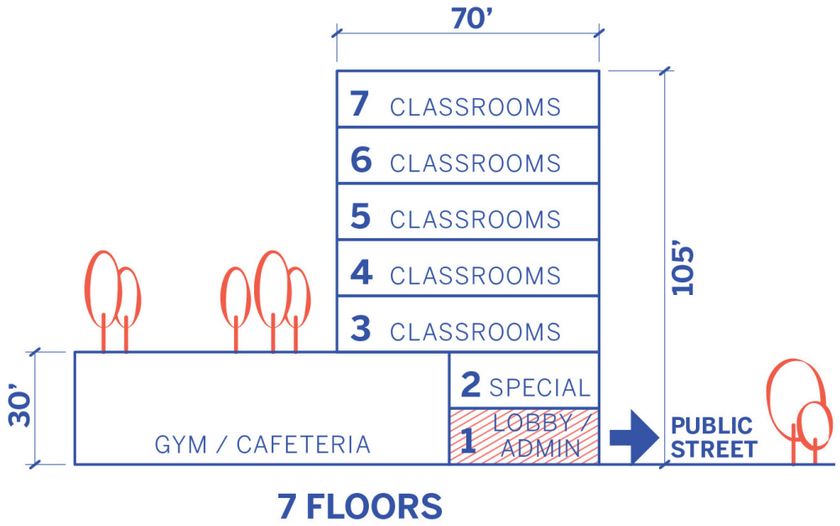
SCA/DOE

Physical Requirements: Initial Stacking Options

Initial Stacking based on feedback from Listening Sessions



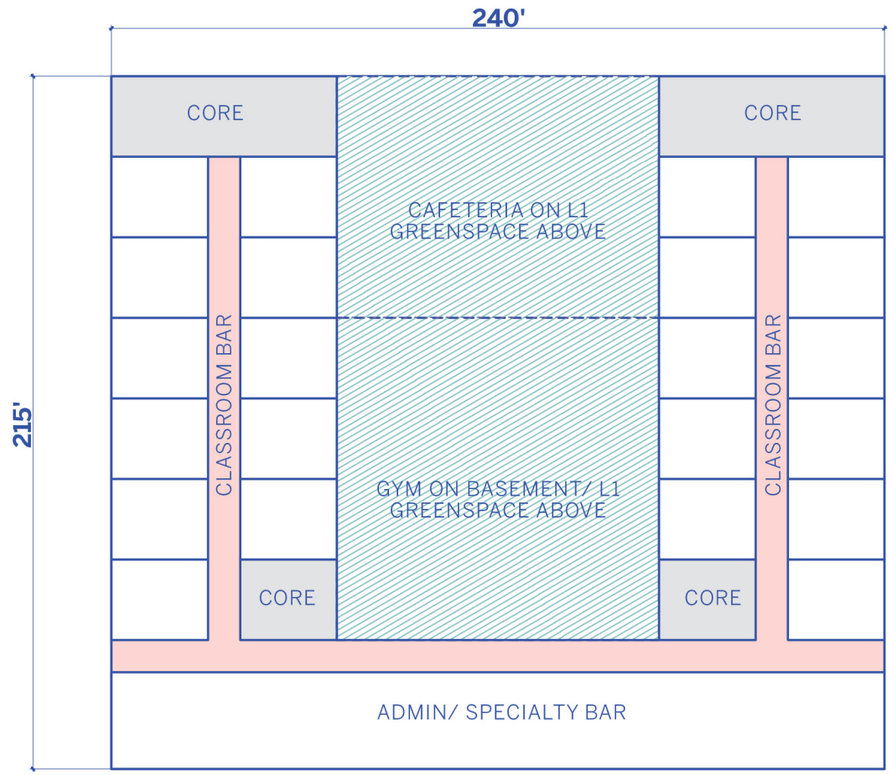
Type 1:
Lower floors are always a preference, if possible



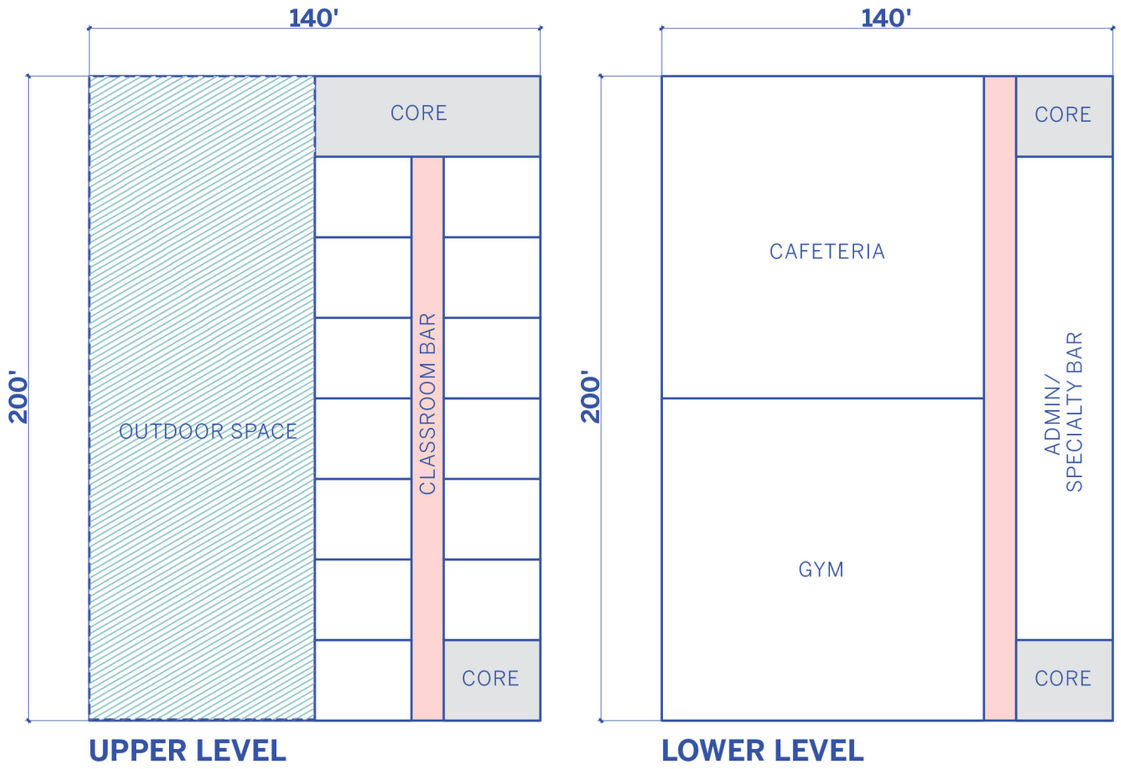
Type 2:
Up to 5, 6, or 7 floors depending on footprint

Physical Requirements: Initial Plan Options

Type 1:
C-shape layout around shared spaces



Type 2:
Standard classroom bar on upper levels



SCA/DOE

Benchmarks

Benchmark projects offer potential insights into how an urban, public-health focused high school might take shape on the SPARC campus.

Vertical Campus

The Dalton School, STEAM Renpvation & Addition, SOM

While the request was for 7 or fewer floors, there are examples in the city of more vertical campuses that include flexible, STEAM-focused space on upper floors. This may be worth exploring if a significant footprint becomes difficult to accommodate.

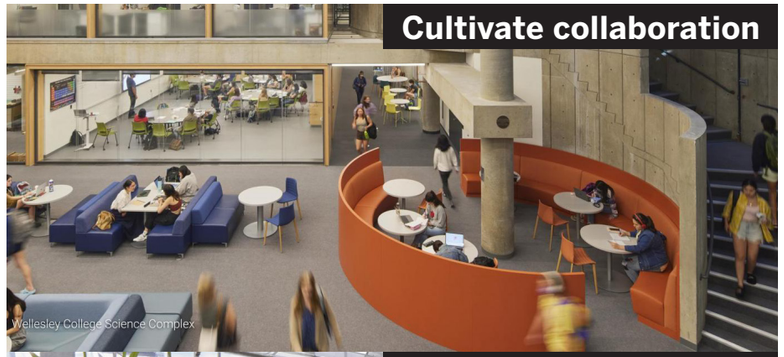
Flexible Classrooms

The Dalton School, STEAM Renovation & Addition, SOM

The classroom of the future is flexible, open, and collaborative. There is opportunity to provide spaces here that enable experimentation and innovation in ways that few other schools do today.

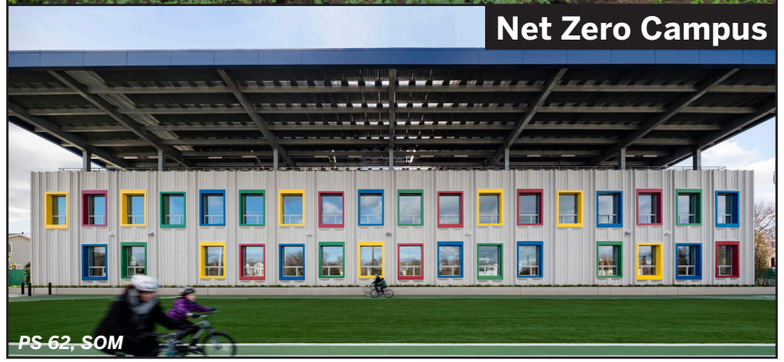
Benchmarks

Demonstration Spaces



Other mission-focused schools put their work on display and enable high-visibility experimentation in ways that bring students together around shared ideas and initiatives.

Sustainability



The wellness focus of the SPARC campus could be represented here as well, via ambitious sustainability commitments or student-run initiatives such as urban agriculture.

Outdoor Amenity

Outdoor space will be critical. While there is a need for private space associated with the school, there may also be opportunity for larger “campus space,” similar to the open spaces at recent university expansions in the city, that could be shared with other users.

2.4

OCME Forensic Pathology Center

*"Kips Bay has been home to OCME for more than a century, and, with our **new forensic pathology center**, we are excited to launch the next chapter for this neighborhood as a global hub for discovery and innovation in forensic science. Our state-of-the-art facility will support doctors and scientists serving New Yorkers at the intersection of public health and safety and ensure that we continue to lead the country in producing board-certified forensic pathologists at a **time when this medical subSpecialty is critically needed**."*

- New York City Chief Medical Examiner Dr. Jason Graham

Program Overview

The Office of the Chief Medical Examiner (OCME) will replace its aging 520 First Avenue facility and build the finest, most cutting-edge, skillfully designed medical examiner facility and forensic toxicology laboratory in the world – a facility that advances OCME's position as the global leader in forensic science and medicine. The new facility on the SPARC campus must become the agency's primary disaster response mortuary and must maintain capacity should the need arise in the future.

Challenges & Opportunities

- **Identity**: Create world's largest Forensic Pathology Training Center and build the finest medical examiner facility and forensic toxicology laboratory in the world
- **Functionality:** Planning and parking of vehicles for the funeral directors, burial trucks, and investigations and mortuary operations
- **Independence:** The nature of the program means there are security and privacy concerns that require almost no sharing of programs, but there may be educational partnerships with CUNY

Location

- Ground floor area required for Receipt & Release (Sally Port Pass-Through)
- All mechanical equipment should be standalone and not shared with any other mechanical equipment in the building
- Need 100% outside air handling with 20 air exchanges per hour plus redundancy
- Private Family Entrance
- Adjacency to the Hirsch Building is important; a potential bridge connection across 26th Street would allow movement of people back and forth

Safety

- Waste and chemical management – potential to share as long as hazardous materials are respected (many regulations around this)
- Require BSL-3 isolation autopsy suite
- Auditorium in Hirsch Building often made available to NYPD or specialist forensic groups for lecture series and events, and has been used for presentations to high school students to teach youth. Otherwise no sharing feasible within mortuary.

Access

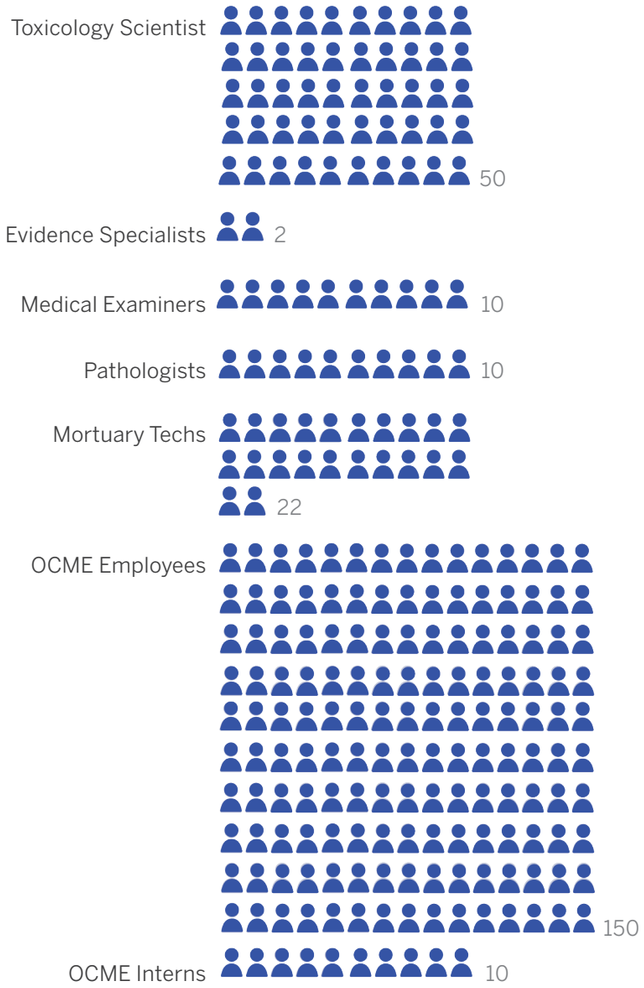
- Significant parking need for facility vehicles, funeral directors
- No sharing due to sensitivity and privacy

Potential Partnerships

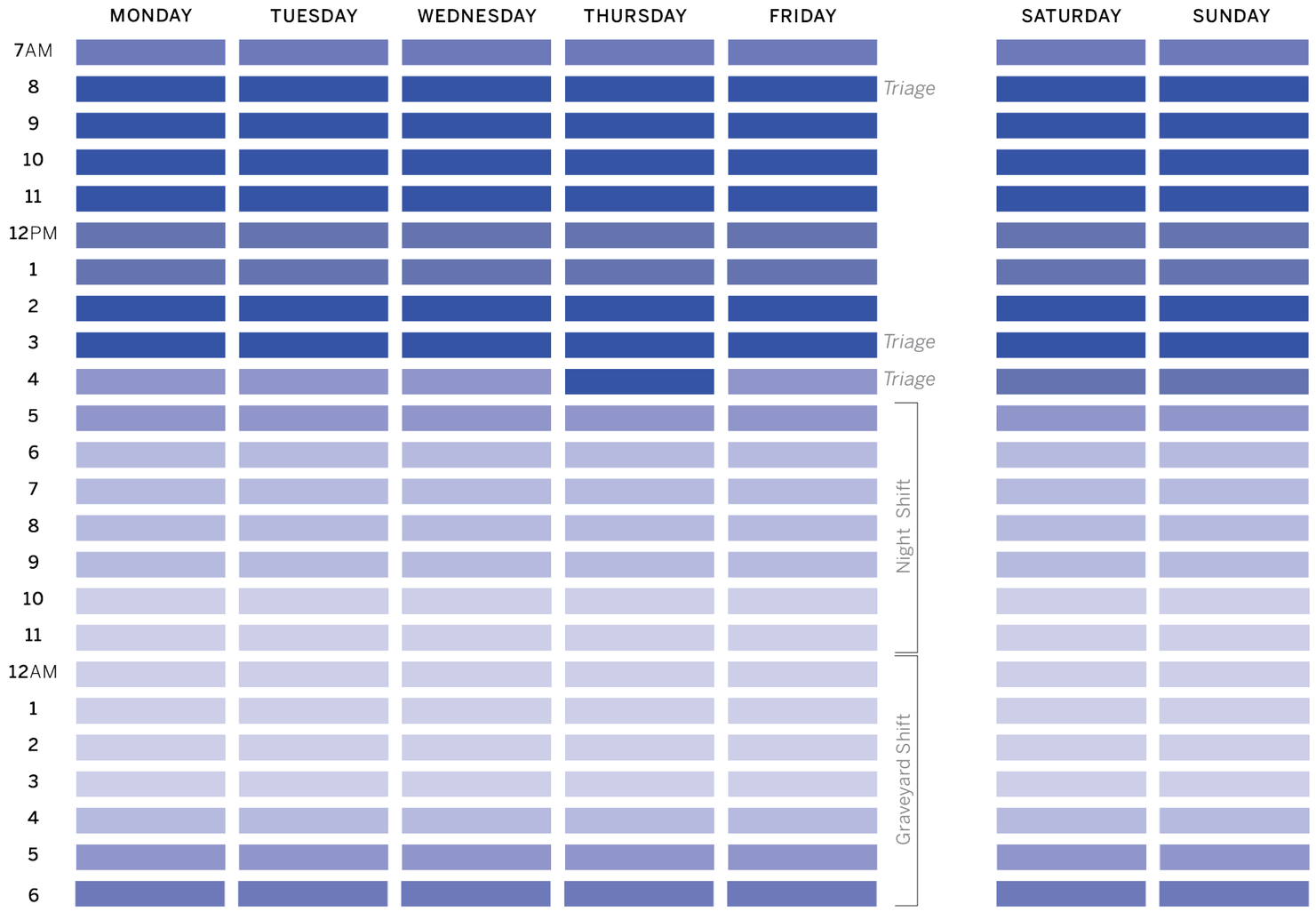
- Majority of scientists that staff labs have gone through FBI certification course – and could potentially envision more synergies here
- Use CUNY and training across various levels to bring people through program.
  - Would be wonderful to have forensic technicians onboarded at CUNY (likely John Jay)
  - New gun crimes unit (24 hires) started - many of them came out of CUNY
- "Union city" - seven year apprenticeship required to be engineers in the building

OCME

Potential Future Population

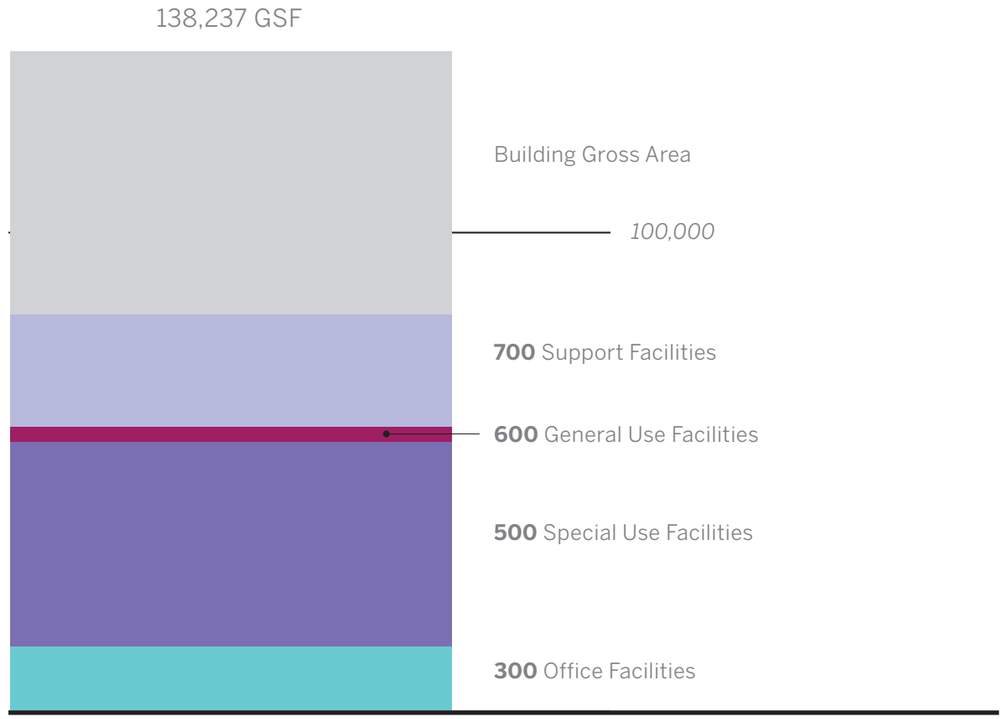


Staff Working Hours Heatmap



Category-Level Program

Space Type	Sub-Space Type	ASF
300 Office Facilities	Death Investtigator Operations, Morgue Operations/Offices, Staff	**13,622**
500 Special Use Facilities	Mortuary, Autopsy Suite, BSL3 Suite Facility, Toxicology & Storage	**43,018**
600 General Use Facilities	Large Conference/Training Space	**3,146**
700 Support Facilities	Cooler Storage	**23.552**
	Exterior Space - Loading Staging	
Total ASF Area		**82,942**
	WXY Building Gross Area 60%	**55,295**
		138,237 GSF



Notes:

- *The current program has grown significantly from the initial allocation of 85,000 GSF, but at this point all spaces shown are considered essential by OCME. This will continue to be refined alongside discussions about project budget.*

OCME

Detailed Program Tabulation

The table on the right is a detailed program tabulation of the various space needs as well as programmatic "must-haves" that the Design Team should account for throughout the master planning process. Quantities and values were workshopped with OCME and documented by the team's subject matter experts.

Description	# of Spaces	Average SF	**Total ASF**
300 Office Facilities			**13,226**
Office			
First Deputy ME	1	120	**120**
Deputy Chief ME	1	120	**120**
Senior Medical Examiners	10	120	**1,200**
Medical Examiner - Director of Fellowship Training	1	120	**120**
Medical Examiner - Director of Neuropathology	1	120	**120**
Medical Examiner - Director of Cardiovascular Pathology	1	120	**120**
Medical Training Program Coordinator	1	120	**120**
Medical Interns	20	65	**1,300**
Forensic Pathology Fellows	6	100	**600**
Cardiovascular Pathology / Neuropathology Fellows	4	100	**400**
Pathology Residents, Students, Visiting Scientists	4	100	**400**
Photography, Imaging (X-ray, CT), Support - Private Office	2	120	**240**
Photography, Imaging (X-ray, CT), Support	4	100	**400**
Anthropology - Private Office	2	120	**240**
Anthropology	4	100	**400**
Forensic Pathology Coordinator	4	65	**260**
Evidence	2	100	**200**
Identification / Outreach / Dental - Private Office	2	120	**240**
Identification / Outreach / Dental	4	65	**260**
Forensic Quality Specialist - Private Office	1	120	**120**
Forensic Quality Specialist	2	100	**200**
Mortuary / Transportation - Private Office	5	120	**600**
Mortuary / Transportation	5	65	**325**
Fleet / Logistics	3	65	**195**
Security / Fire Life Safety Dir. - Private Office	1	120	**120**
Security / Fire Life Safety Dir.	2	65	**130**
IT	2	65	**130**
MLI - Private Office	1	120	**120**
MLI	2	65	**130**
NYPD Workstation	4	65	**260**
Office Storage/Copy Room	4	61	**242**
Large Conference/Training Space	60	35	**2,100**
Staff Breakroom and Pantry	1	242	**242**
Staff Spaces			
Staff Lockers/Showers/Toilets	1	1,210	**1,210**
Staff Breakroom and Pantry	1	242	**242**
500 Special Use Facilities			**43,018**
Autopsy Suite			
Examination Area/Prep	1	242	**242**
Control Room	1	484	**484**
Imaging: Xray + CT Scan + Lodox	1	1,694	**1,694**
Photography	1	242	**242**

Detailed Program Tabulation

Description	# of Spaces	Average SF	**Total ASF**
Autopsy	10	424	**4,235**
Workstation/Dictation	10	91	**908**
Observation	20	30	**600**
Neuro Pathology	3	726	**2,178**
Anthropology - wet & dry	2	605	**1,210**
BSL3 Suite			
ME Lockers/Toilets Female	1	968	**968**
ME Lockers/Toilets Male	1	968	**968**
Observation Corridor	5	30	**150**
BioVestibule Room	1	121	**121**
VHP Room	1	121	**121**
DeComp Autopsy	2	424	**847**
BSL3 - Support Area *(Gowning in & out, receiving area, cooler, storage)*	1	1,694	**1,694**
BSL3 - Autopsy	1	424	**424**
Toxicology & Storage Suite (Calculated from Tab Toxicology)			
Laboratory Space	1	14,520	**14,520**
Storage	1	7,260	**7,260**
Office Private	12	120	**1,440**
Office Non-Office Cubicles	38	65	**2,470**
Staff Breakroom and Pantry	1	242	**242**

600 General Use Facilities			**3,146**
Front of House			
Family Assistance Rooms	2	484	**968**
Decedent Viewing Rooms	2	484	**968**
Reception/Lobby	1	968	**968**
Public Restroom	2	121	**242**

Description	# of Spaces	Average SF	**Total ASF**
700 Support Facilities			**23,552**
Back of House			
Receipt / Release (RFID)	1	968	**968**
Control Room	1	242	**242**
Transfer Area/Scale	1	121	**121**
Funeral Director / Law Enforcement Waiting	1	242	**242**
Unisex Toilet	1	121	**121**
Evidence Collection Team Office	1	242	**242**
Property Storage	1	484	**484**
Evidence drying and wrap	1	242	**242**
Evidence Storage	1	484	**484**
Coffin Storage & Casketing Area	1	681	**681**

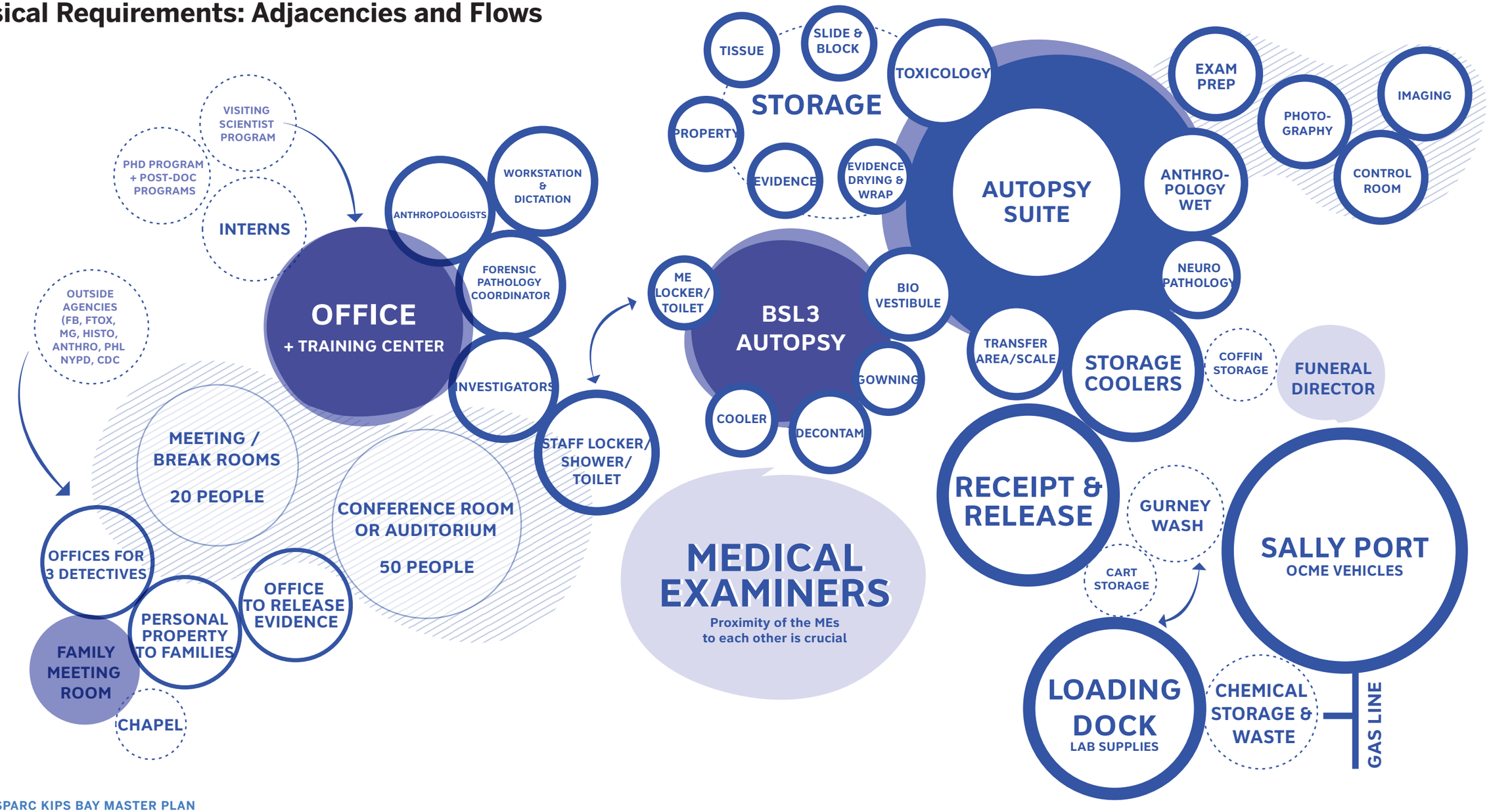
Cooler Storage			
Decedent Cooler (Intake)	60	15	**908**
Decedent Cooler (Out)	60	15	**908**
Mass Casualty Decedent Cooler (surge)	760	8	**5,748**
Holding Cooler (ID, Claim)	300	15	**4,538**
Decomp Cooler	20	30	**605**

Exterior Space Type			
Sally Port	4	1,089	**4,356**
Gurney Wash	1	121	**121**
Secure Garage	0	0	**0**
Loading Dock and Staging/Freight Elevators	2	1,089	**2,178**

Description	# of Spaces	Average SF	**Total ASF**
Trash (Holding) + BioHazard Waste	0.5	242	**121**
Chemical Storage	1	242	**242**

Total ASF Area			**82,942**
WXY Building Gross Area	*60%*	*net-to-gross efficiency*	*55,295*
Total GSF Area			**138,237**

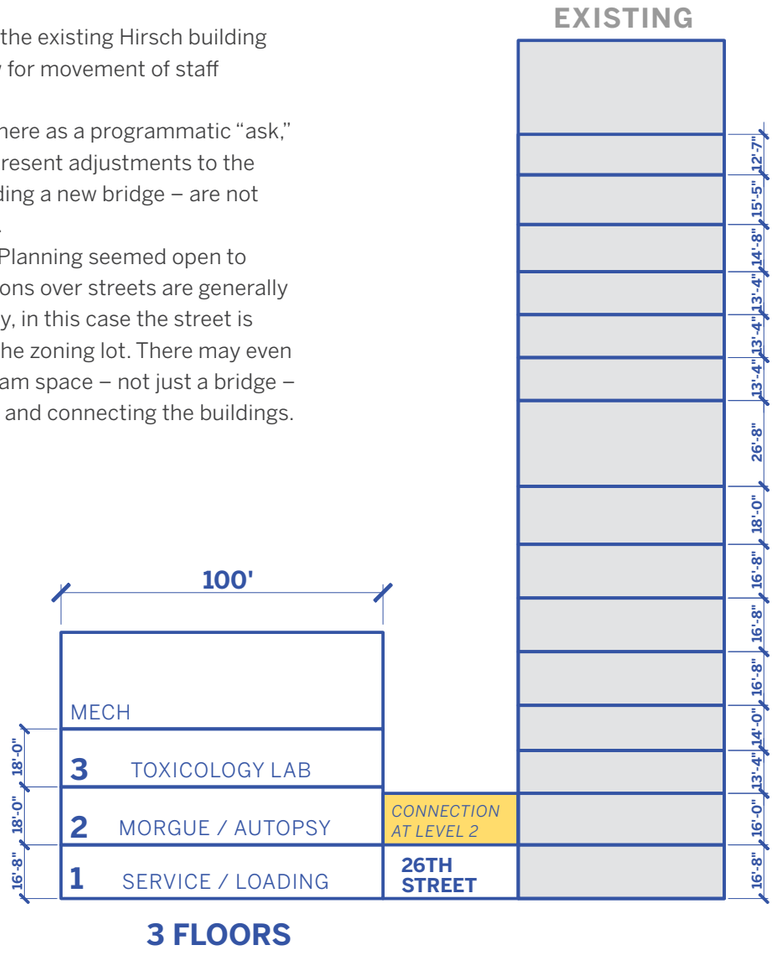
Physical Requirements: Adjacencies and Flows



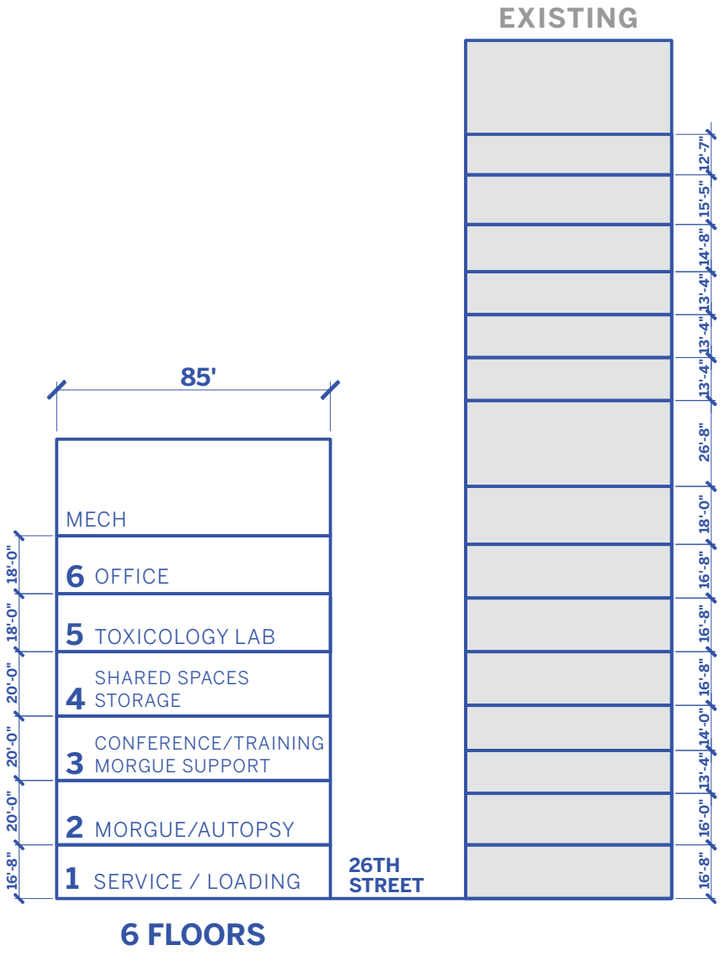
Physical Requirements: Initial Stacking

The idea for a connection to the existing Hirsch building was raised by OCME to allow for movement of staff between the facilities.

- We have documented it here as a programmatic “ask,” but understand that at present adjustments to the existing building – including a new bridge – are not part of the initial budget.
- The Department of City Planning seemed open to this idea. While connections over streets are generally not supported by the City, in this case the street is de-mapped and part of the zoning lot. There may even be opportunity for program space – not just a bridge – spanning over the street and connecting the buildings.



Type 1:
Prefer single floor morgue with toxicology on separate floor



Type 2:
Taller model (similar to previous scheme / existing facility)

OCME

Site Visit: Key Takeaways

What works well today?

- The adaptability of the staff to be able to work at such a high level in a space that has been outgrown.

What doesn't work well - and we want to avoid?

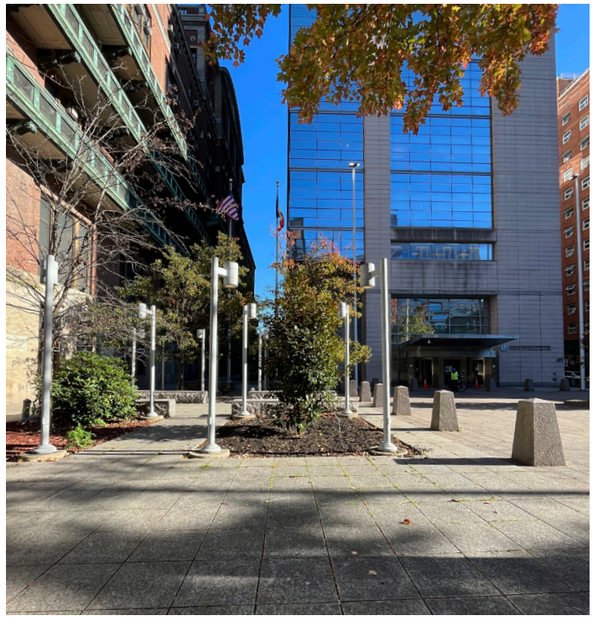
- It is evident that the current facility falls short on many measures. Outdated equipment and technology, using space that is undersized, functioning with a non-linear flow, some programs spaces missing due to constraints.
- In the new design we would like to propose an overhaul of the program, where the parts and pieces are placed in better adjacency to each other with the correct flow, size, security and storage needs. It would be best to capitalize on separate entrances for families vs. employees and decedents.

What's missing?

- Hirsch Building is missing requisite parking for OCME vehicles and Funeral Directors, causing vehicles to park on 26th St and the adjacent sidewalk - even before adding need for new building
- Proper Observation Space
- Proper Chem, Waste and Biologic storage
- No direct gas lines into the toxicology lab
- Sufficient storage space for decedents, decomp lab, neuro/cardio lab
- BSL-3 isolation autopsy space

Site Visit: Charles S. Hirsch Center for Forensic Sciences

26th Street



Plaza in front of Charles S. Hirsch Center for Forensic Sciences

Open Space in front of Charles S. Hirsch Center for Forensic Sciences

Healinng Garden

Site Visit: Existing OCME Facility (Manhattan Morgue)

Makeshift Cover for Sally Port

Street Parking for Funeral Director

Waiting Room

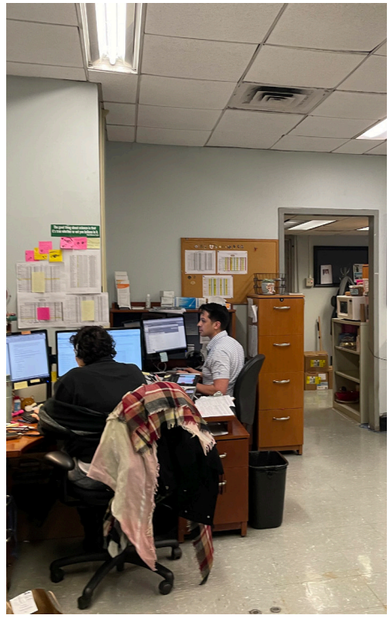
Front Desk

Funeral Director Office

Communal Space

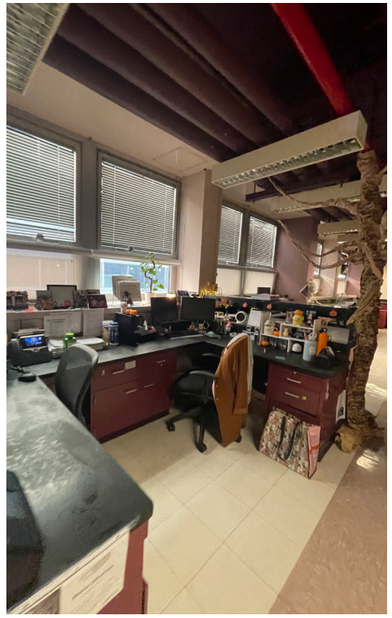
Site Visit: Existing OCME Facility (Manhattan Morgue)

Autopsy Suite Lab



Staff Offices

Triage Conference Room



Toxicology Offices

Toxicology Lab

Toxicology Lab

Benchmarks

This collection of benchmarks was selected to show master planning solutions for recent Medical Examiner Facilities built within large inner-city limits. Each facility is outfitted with state-of-the-art equipment and is planned based on up-to-date metrics.

- HCIFS offers programing solutions for a vertical distribution of spaces.
- SDME offers planning solutions for space adjacencies including X-ray, cloud storage, Toxicology, Autopsy and BSL-3 Suite.
- Maricopa is a state of the art facility which merged complex engineering systems with sensitive lab equipment. The Medical Examiner facility is paired with a parking structure and is located in a highly populated downtown location where careful design of the ventilation systems and odor control was critical.
- OCME Baltimore has extremely similar programmatic requirements as well as city challenges. The facility was designed with teaching in mind and includes the most up to date technology for autopsy and toxicology.

Vertical Facility

Harris County Institute of Forensic Sciences New Advanced Forensic Center Phase 1 Houston, Texas

Project Completion: **2016**
Size: **210,000 GSF**
Number of floors: **9**

'State of the Art'

County of San Diego Medical Examiner and Forensic Center, Medical Examiner, Veterinary Medicine and Environmental Health Laboratories
San Diego, California

Project Completion: **2009**
Size: **90,767 GSF**
Number of floors: **2**

Benchmarks

Community Pillar

Maricopa County, Forensic Science Center & Medical Examiner Facility
Phoenix, Arizona

Project Completion: **2002**
Size: **62,000 GSF**
Number of floor:s **3**

Office of the Chief Medical Examiner | Baltimore, Maryland

Project Completion: **Late 2010s**
Size: **240,000 GSF**
Number of floors: **6**

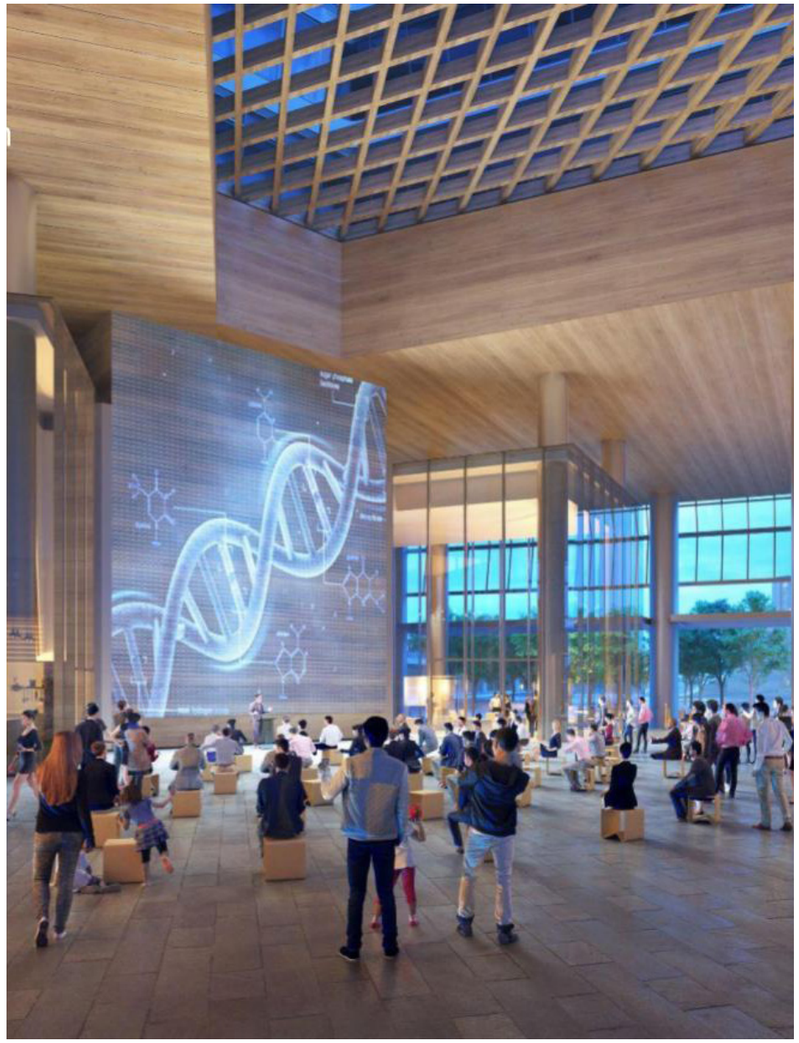
2.5

EDC Commercial Life Sciences

"This new research hub will accelerate the growth of life sciences in New York City and create an expanded hub in Kips Bay, currently anchored by the Alexandria Center. Thanks to major public and private sector investments, life sciences has become a bright spot in our city's economy — creating thousands of jobs and attracting millions of additional dollars of private sector investment. The campus will also ***enhance the job training and workforce development initiatives needed to close the skills gap and create a pipeline of life sciences talent****."*

Partnership Fund for New York City President and CEO Maria Gotsch

Program Overview



NYCEDC LifeSci envisions a 650,000 GSF commercial life sciences development on First Avenue. The development would consist of wet labs, research facilities, convening spaces, and a "community lab" that could bring together the private life sciences with CUNY and DOE to create more visible workforce development pathways. In order to augment the Kips Bay life sciences cluster, the development anticipates land use actions and a rezoning to a higher-density mixed-use zoning district.

Challenges & Opportunities

- Create a space that encourages collaboration and collisions
- Realize partnership between life sciences, healthcare, and education
- Respond to market needs 5-8 years down the line
- Flexibility and modularity are most important at this time

Location

- Prominent 1st Avenue presence
- Flexible floor plates that can be subdivided, reprogrammed, and leased to a variety of potential tenants
- Localized facilities
- Room for workforce development to accommodate people at all stages of professional development
- “Community Lab” at ground level

Safety

- BSL-2

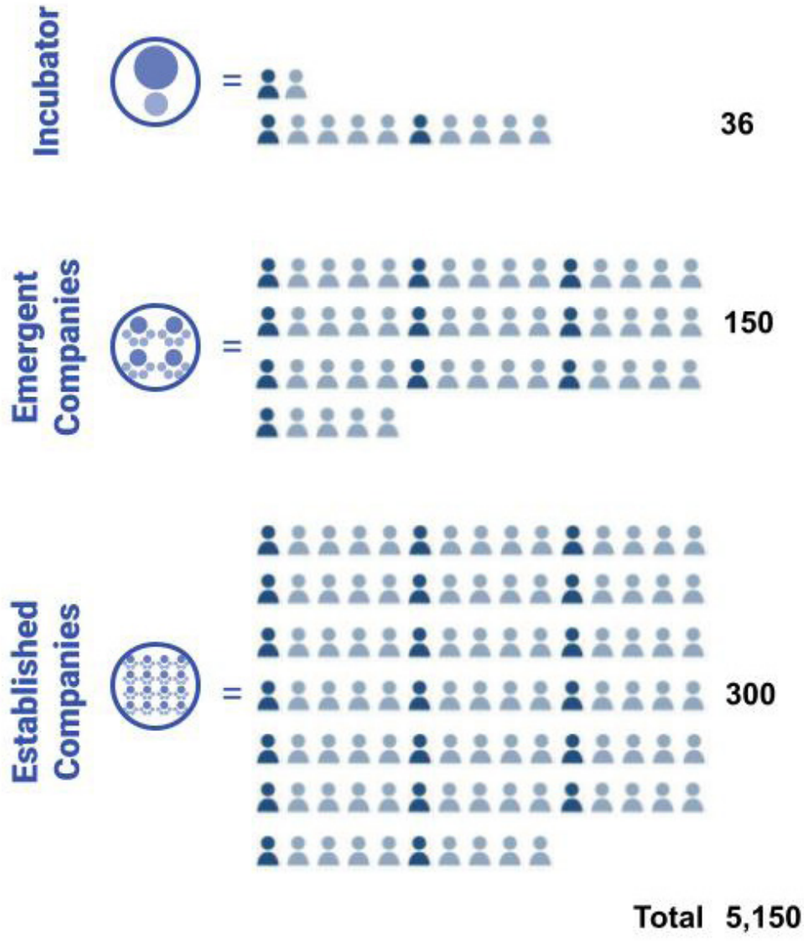
Access

- Want to be seen as a more open campus and one that is allowing for building the community of Kips Bay and Life Sciences
- Ground level should be more open and accessible than comparable projects in the area (such as Alexandria Center)
- Lab spaces want to be private, above any public ground level areas and behind restricted access

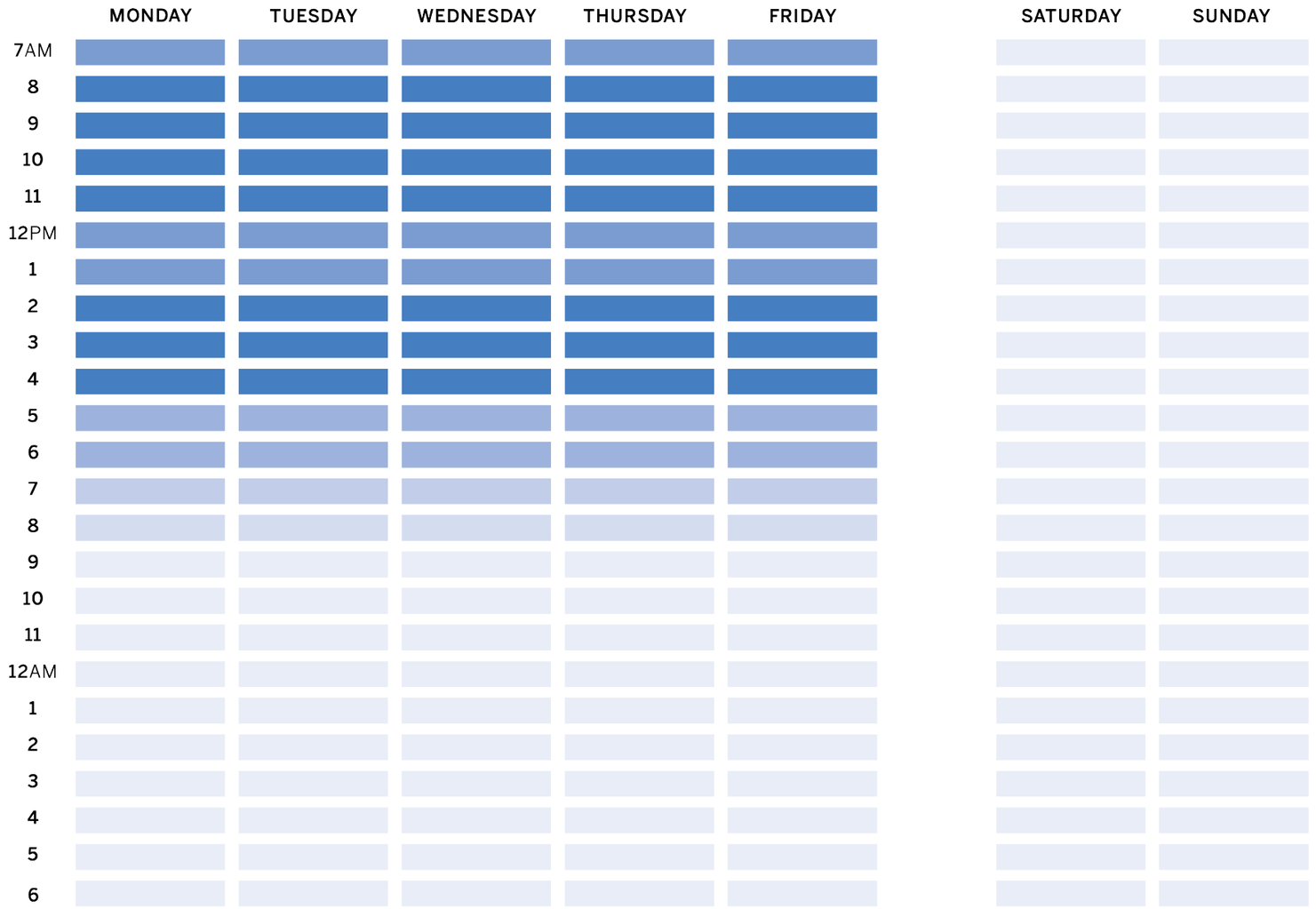
Potential Partnerships

- CUNY Research Labs
- High School Shared Lab
- Community partnerships

Potential Future Population



Staff Working Hours Heatmap



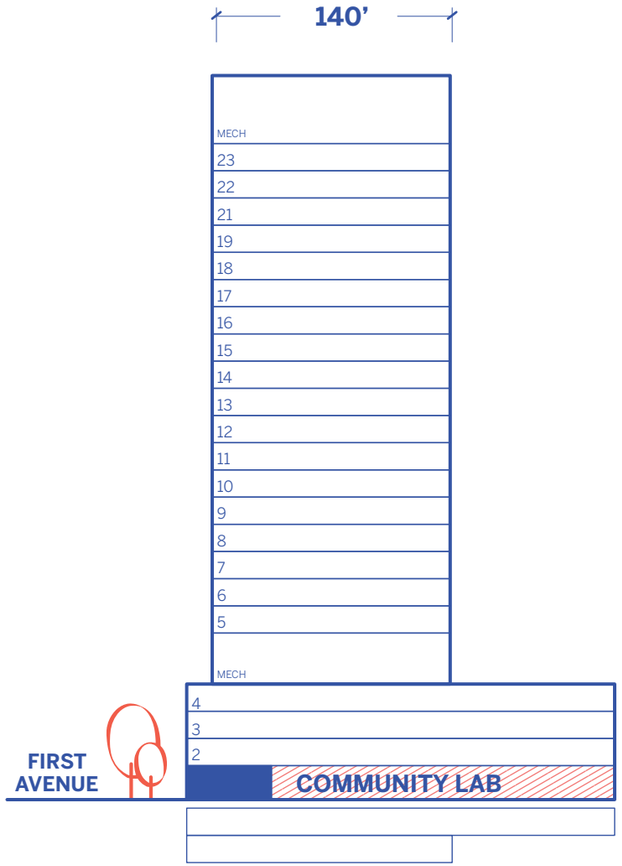
Category-Level Program

Space Type	Sub-Space Type	ASF
200 Laboratory Facilites	Fit Out Labs	**380,000**
600 General Use Facilities	Shared Amenities, Public Covening Spaces, Ground-floor Retail	**40,000**
NASF Subtotal		**420,000**
	WXY Building Gross Area 65%	**230,000**
		650,000 GSF

Notes:

- *The LifeSci space needs are understood as a starting point. These may change as the team learns more about the program and needs of other users, begins discussion with potential development partners, and further understands the market.*

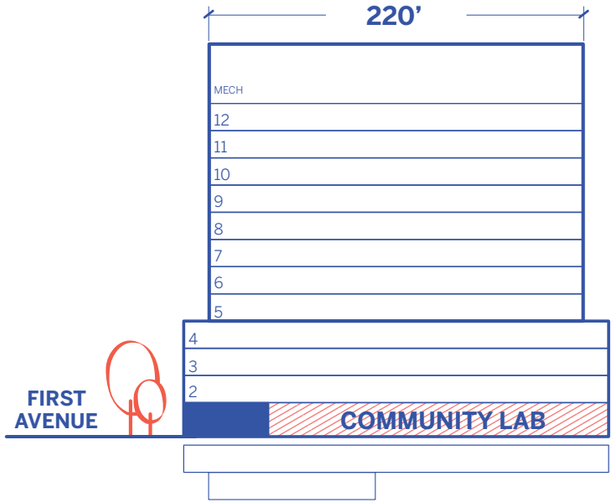
Physical Requirements: Initial Stacking Options



LAB **18 FLOORS x 28,000 SF**

LAB **4 FLOORS x 48,000 SF**

Type 1: *Plinth + Bar*



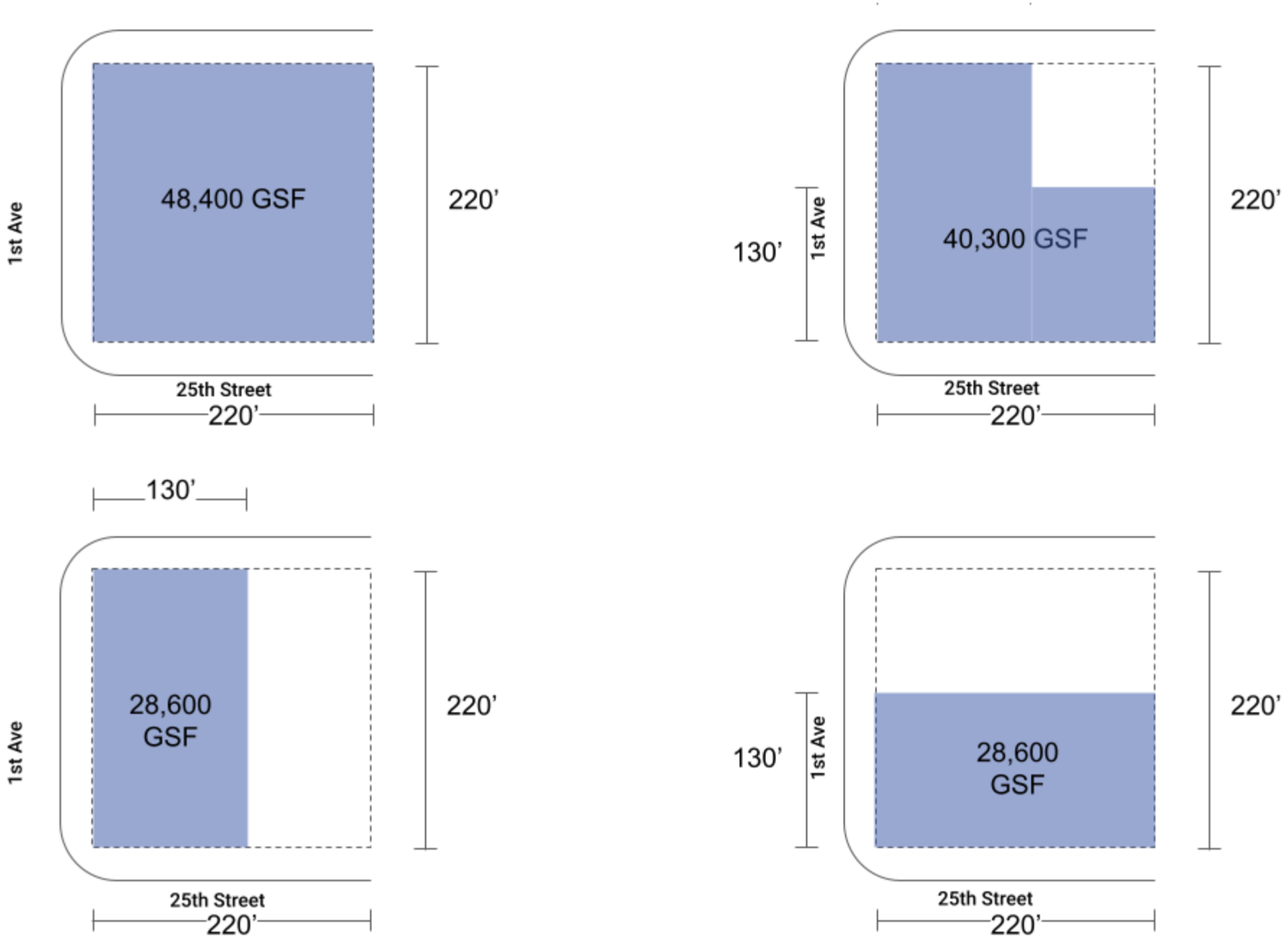
LAB **13 FLOORS x 40,000 SF**

LAB **4 FLOORS x 48,000 SF**

Type 2: *Plinth + L-Shape*

Physical Requirements: Initial Plan Options

The planned 50,000 SF LifeSci parcel can accommodate a range of different laboratory floor sizes and configurations. Depending on desired tenancy and height and setback parameters, one or a combination of the typologies represented here could be used effectively.



Benchmarks

Vertical Campus


Alexandria Center

There are existing benchmark projects in Kips Bay that serve as models for developer-led commercial life sciences projects. Alexandria Center, just north of the site on First Avenue, includes two towers totaling 775,000 GSF arranged as an inward-focused campus of wet and dry labs and tenant amenities. Other urban benchmarks – along with key parameters – are included in the table on the following page.

Welcoming Ground Floor


CIC Tokyo


Elementum, Singapore

The challenge many CLS benchmarks have is their lack of engaging street presence (including, for example, Alexandria Center). The LifeSci tower at SPARC needs to engage with the street and with the myriad other users of the site – students, faculty, researchers, health workers, and more. This could include exhibition space or a building that opens out onto a great, shared public space like at CIC Tower in Tokyo.

Community Lab


Columbia Makerspace


Genspace

In addition to incubator spaces and shared lab facilities on leasable floors, there is an opportunity to partner with other organizations – on the SPARC site and beyond – who can jointly utilize core lab facilities for education, job training, and other initiatives.

Benchmarks

Life Science Facility	Project Location	Project Year	Project Size / Typical Floor Plate Size	Module Size	Approximate Tenant Depths per Side	Approximate Core Depth	Elevator Count - Passenger / Service	Amenity Space
Vertex Pharmaceuticals	**Boston (Seaport), MA**	**2014**	424,000 GSF / TYP 44,600 GSF	**11'-0" x 11'-0"**	**A 105'-0" B 55'-0"**	**42'-0"**	**P) 7 S) 2**	
Novartis Institutes for BioMedical Research	**Cambridge (MIT), MA**	**2017**	800,000 GSF / 33,600 GSF + TYP 44,200 GSF	**11'-0" x 11'-0"**	**A 55'-0" B 55'-0"**	**44'-0"**	**P) 3 + 3 S) 2 + 2**	
Alexandria at Kendall Square (75 / 125 Binney)	**Cambridge (Kendall Square), MA**	**2015**	380,000 GSF / TYP 67,600 GSF	**11'-0" x 11'-0"**	**A 55'-0" B 49'-0"**	**29'-0" + 25'-0"**	**P) 6 S) 2**	
Alexandria Center for Life Science (NYC East)	**New York (Kips Bay), NY**	**2011**	310,000 GSF / TYP 24,500 GSF	**11'-0" x 11'-0"**	**A 50'-0" B 56'-0"**	**68'-0"**	**P) 4 S) 1**	Cafe, Urban Farm, Conference Ceter
Alexandria Center for Life Science (NYC West)	**New York (Kips Bay), NY**	**2015**	465,000 GSF / TYP 31,000 GSF	**11'-0" x 11'-0"**	**A 56'-0" B 56'-0"**	**41'-0"**	**P) 5 S) 2**	
NW Science Building Harvard University	**Cambridge (Harvard), MA**	**2008**	485,000 GSF / TYP 50,000 GSF	**10'-6" x 10'-6"**	**A 63'-0" B 29'-0"**	**19'-0"**	**P) 4 S) 2**	
Cambridge Innovation Center / University City Science Center	**Philadelphia, PA**	**2018**	127,000 SF TYP 20,000 SF	-	-	-	-	
GenSpace	**Brooklyn, NY**	**2010**	TYP 16,000 GSF	-	-	-	-	
Zuckerman Institute: Columbia Jerome L. Greene Science Center	**New York, NY**	**2017**	450,000 GSF / TYP 30,000 GSF	-	-	-	-	
NYC Public Health Lab	**New York, NY**	**2025 (Ant.)**	230,000 GSF TYP 34,000 GSF	**11'-0" x 11'-0"**	-	**40'-0"**	**P) 3 S) 2**	

2.6

CUNY

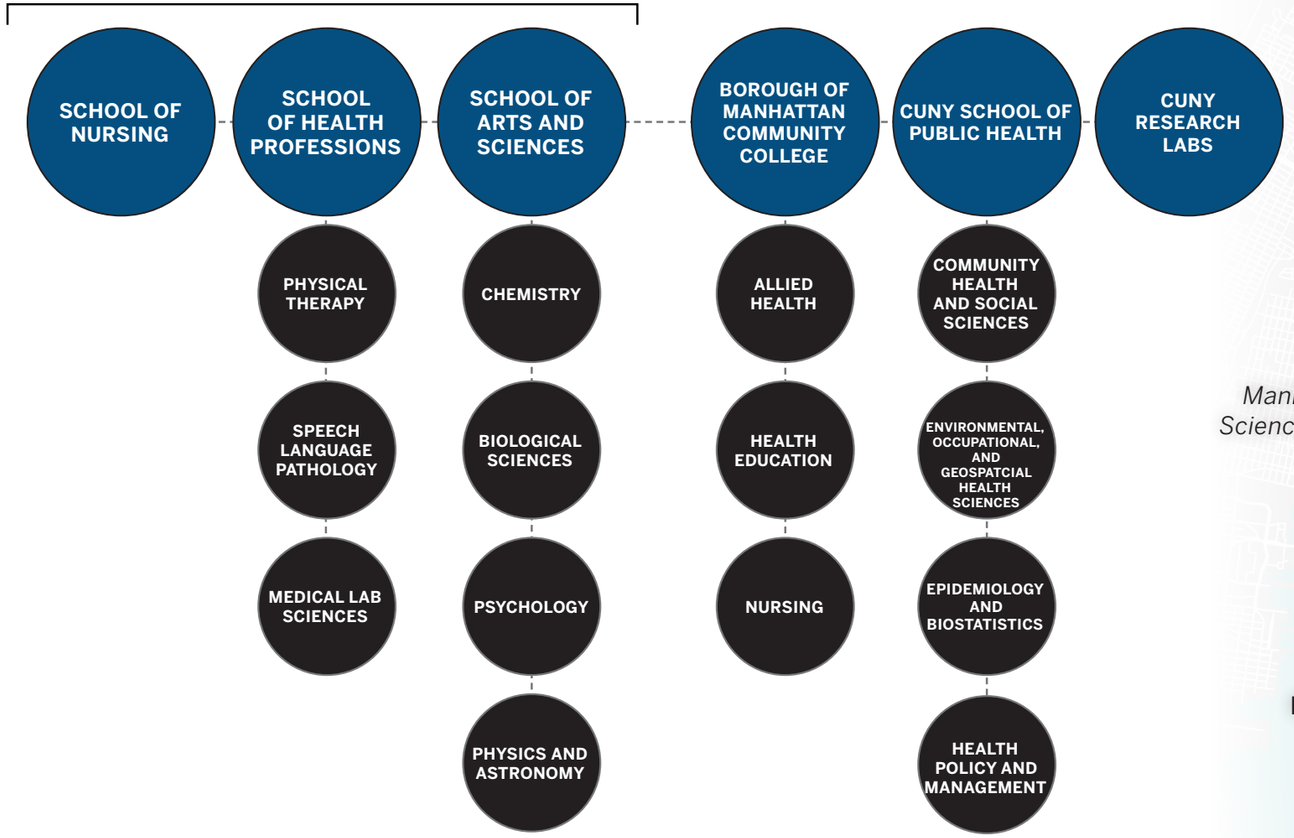
"This much-needed new facility will allow CUNY to expand our programs in health care and workforce development, connect students to internships and jobs in these growing industries, and ***expand our robust and growing life sciences research capacity****. I'm grateful to Governor Hochul and Mayor Adams for making CUNY an anchor for this new, vibrant development that will be critical to the future success of our city."*

– City University of New York Board of Trustees Chairperson William C. Thompson Jr

Program Overview

CUNY envisions a new public health and life sciences hub at SPARC Kips Bay by bringing together three of its flagship schools – Hunter College, BMCC, and School of Public Health – under a single roof to advance research, education, and practice in these critical fields. Together, **they represent 4,900 students across nearly 60 degree and certificate programs.**

Hunter College: Existing Schools to Remain On-Site



CUNY

BMCC Health Programs

MISSION

"Borough of Manhattan Community College is a diverse teaching and ***learning community committed to advancing equity and the intellectual and personal growth of students****. Working to strengthen a culture of care inside and outside the classroom, we share a passion for learning with students from around the world. We strive to increase degree completion, successful transfer, career achievement and service and leadership within our community, New York City, and beyond."*

Programs

- **Allied Health:** Prepares students to have a career as Respiratory Therapy, paramedics, EMTs, and Health Information Technology (HIT).
- **Health Education:** Prepares students to address health from a social justice perspective. Students study health disparities, social determinants of health, community engagement, and public health research and practice. Students enter the fields of community and public health.
- **Nursing:** Prepares students to practice, think critically, and make safe clinical decisions in the delivery of care to patients in all settings from acute care to community.

Degrees Conferred

- Community Health (Nutrition, Exercise Science, and Health Services Administration concentrations)
- Public Health
- Gerontology
- Nursing (ASN, LPN)
- Paramedic
- Respiratory Therapy
- Health Information Systems
- Patient Navigation
- Medical Office Assistant

Challenges & Opportunities

- The plan for BMCC at the Brookdale Campus revolves around creating **collaborative space where students can participate in both didactic and practical based learning**. Specifically, this includes dedicating space to experiences that enhance teamwork and collaborative work skills.
- All three departments are currently located on a single floor (7) of the main campus in Lower Manhattan. There are no dedicated collaborative space, nor is there physical space and equipment to engage in cross-discipline simulated experiences.

Specialty Spaces

- A simulated hospital where students can combine knowledge acquired in the classroom with hands on experience, critical thinking, clinical reasoning, and problem solving that align with in-demand workforce skills.
  - The simulation hospital will allow students from Nursing, EMS/ Paramedic, Respiratory Therapy, Health Information Technology (HIT), Gerontology, Health Administration, Community Health, Human Services, and Public Health programs to practice skills independently and collaboratively in a simulated environment.
  - The hospital will include laboratory and administrative offices, treatment rooms, a simulated operating room and outpatient clinic, and a home care/community setting.
- Dedicated space for disease prevention and health promotion, including a garden, teaching kitchen, and exercise/physical therapy lab that can be used for both simulated education and real-life community focused health promotion work.

Location

- Located on one or two floors, not on ground level.
- Access to garden space and inspirational River or scenic City views.
- Dedicated spaces for the simulated hospital, teaching kitchen, garden, and exercise/physical therapy lab are essential to allow for efficient and effective education and training of a multi-disciplinary healthcare workforce. These spaces must be available based on curricula and instructional needs.

Safety

- Keyed access to facility for students and faculty
- Areas with sensitive equipment or supplies need to be controlled

BMCC Health Programs

Shared Spaces

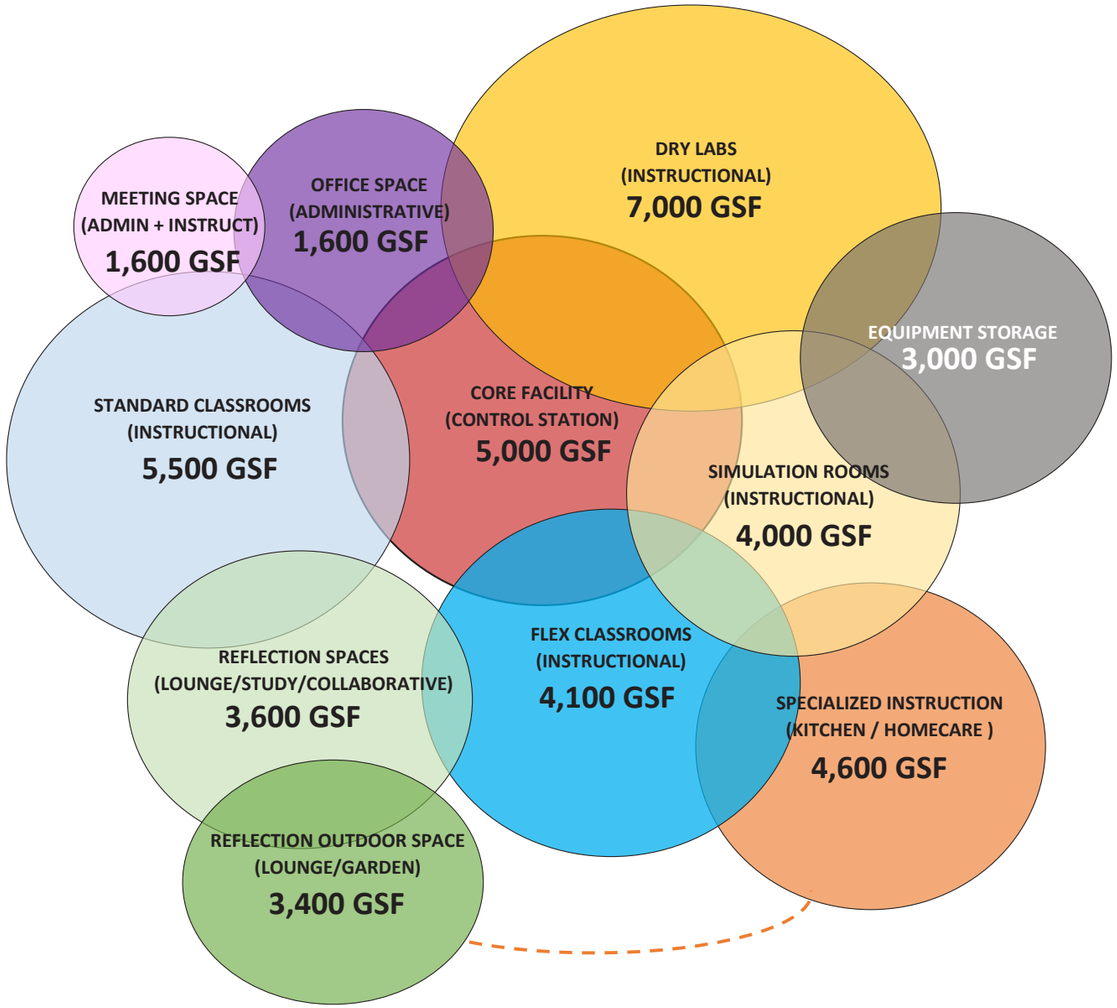
- Lounge areas that provide spaces for reflection, interaction with others and the opportunity to disconnect from daily stressors of a demanding field.
- Shared resources would eliminate the need for duplication of functions, spaces and equipment, providing a more efficient use of space, greater classroom/lab utilization and at the same time allowing for spatial gains that can be allocated to non-conventional support areas.

Potential Partnerships

- An ideal neighborhood would encourage collaboration across all entities.
- Numerous opportunities to share space for efficiency and synergy, including space dedicated to education, training, service, and demonstration with Hunter College School of Nursing.
- The Simulation Hospital would have equipment (e.g., hospital bed, suction machine, oxygen, etc.) used by multiple disciplines and would not need duplication of resources.

Sustainability and Wellness

- Passive means of ventilation, supplemental to mechanical means
- Daylighting considerations to reduce need for artificial lights (orientation to reduce heat gain and maximize daylight)
- Energy Efficient Lighting (LED)
- Finishes (renewal or low environmental impact durable materials)



Program chart received December 15, 2022

Potential Future Population

Projected Population

The numbers below refer to full-time faculty members, adjuncts, and students in each of BMCC's three health related disciplines. The school anticipates 6-12 classes for every proposed classroom Sunday through Saturday 8:00 AM to 11:00 PM. The ideal occupancy based on an 800+ sq. ft. classroom is 30 students per classroom. In the simulation hospital, both faculty and students would be rotating on any given day as a clinical instruction day. Therefore, the space at SPARC will need to be large enough to accommodate the faculty and students from at least one course from each of the three disciplines for the IPE experience. For example, if 10-15 students and 1 faculty in a course is rotating to the Simulation Hospital from each discipline then the space will need to accommodate 44-64 occupants.

Students: 830-935

- Allied Health = 300-335
- Health Education = 200-250 students
- Nursing = 330-350 students

Post Docs: 0

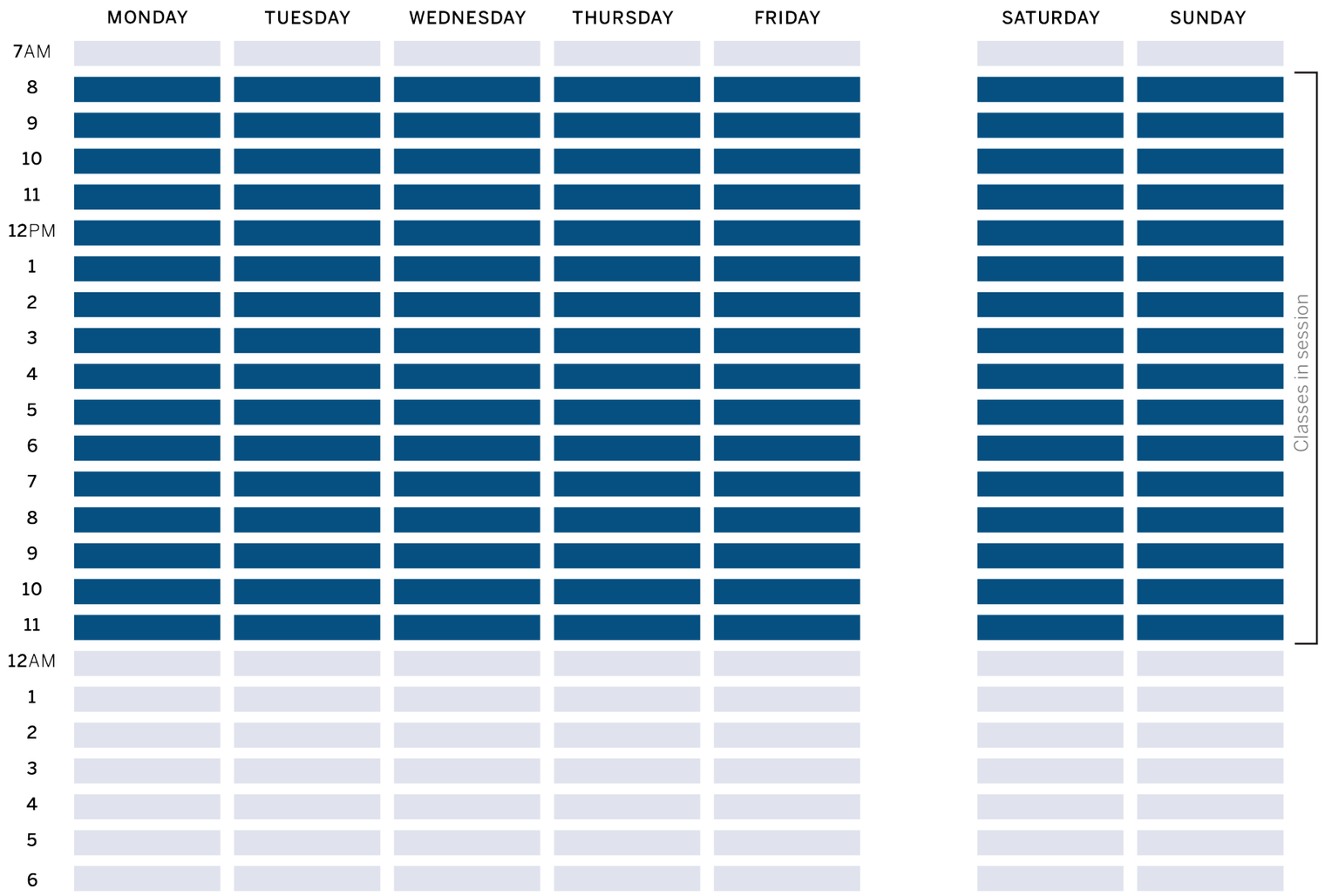
Faculty: 43 FT + 52 adjunct

- Allied Health = 8 FT faculty positions, 7 adjuncts
- Health Education = 12 FT faculty positions, 10 adjuncts
- Nursing = 23 FT faculty positions, 35 adjuncts

Staff & Administration: 4

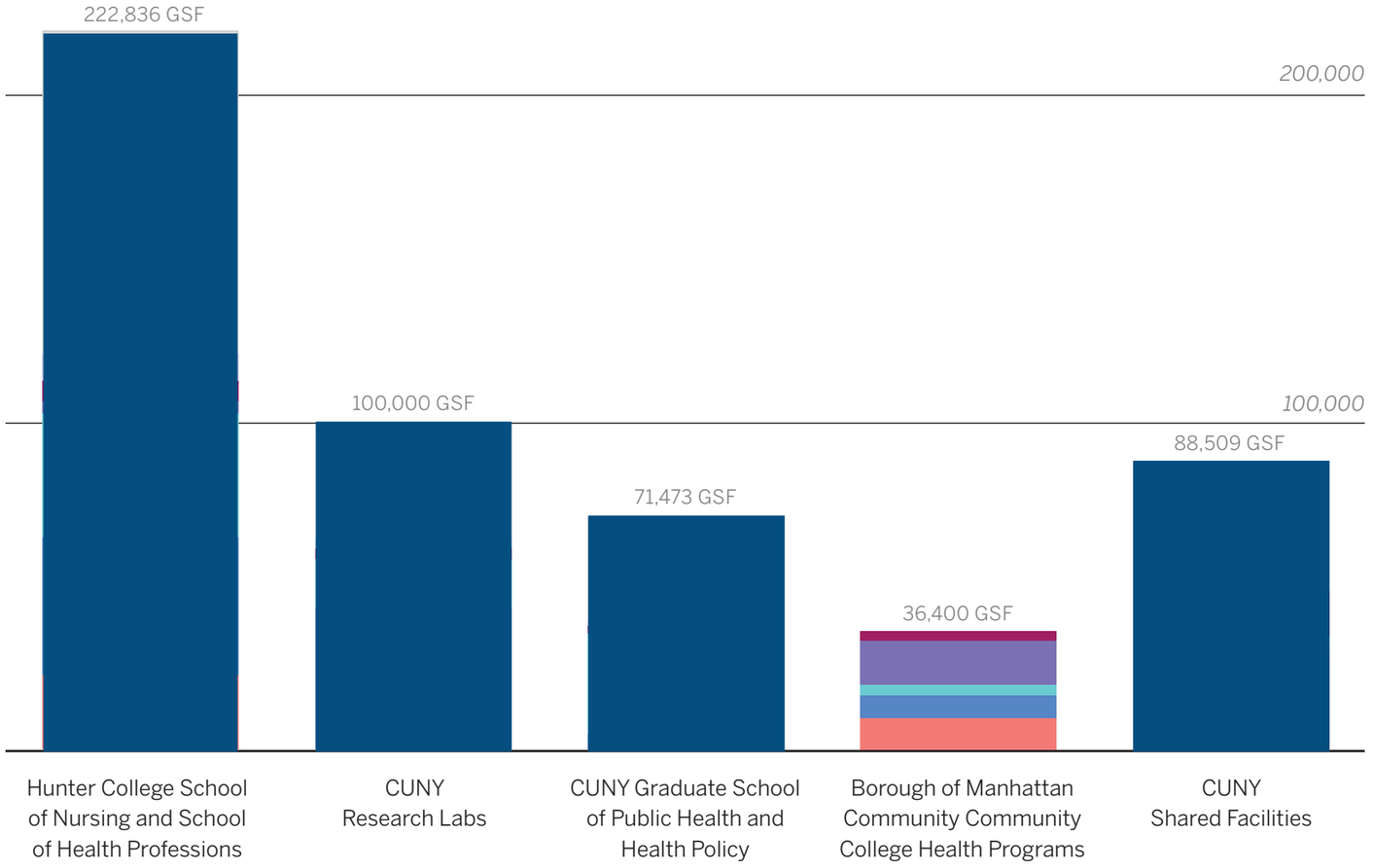
- A full-time administrator, clinical coordinator, CLT, and support staff will need to be managing and coordinating the moving parts of the Simulation Hospital between the three disciplines and external entities.

Staff Working Hours Heatmap



Category-Level Program

Space Type	Sub-Space Type	GSF
100 Classroom Facilities	Standard Classroom	**5,500**
	Flexible Classroom	**4,100**
200 Laboratory Facilities	Dry Labs	**7,000**
300 Office Use Facilities	Office Space (Administration)	**3,200**
	Meeting Space (Admin + Instructional)	
500 Special Use Facilities	Simulation Rooms: Treatment Rooms, Simulated Operating Room	**4,000**
	Core Facility (Nursing Control Station)	**5,000**
	Specialized Instruction (Disease Prevention and Health Promotion): Teaching Kitchen, Home care, Exercise / Physical Therapy Lab	**4,600**
700 Support Facilities	Equipment Storage	**3,000**
Total GSF Area		**36,400 GSF**



Notes:
- *WXY building area is included within the GSF shown in other categories, since areas provided by BMCC were in GSF.*
- *Additional CUNY Shared Facilities are included at the end of this chapter, and make up the difference between the category-level program for BMCC and the original request of 40,000 GSF*
- *See end of CUNY section for detailed program tabulation*

CUNY

CUNY School of Public Health

MISSION

*"Our mission is to **promote and sustain healthier populations in New York City and around the world** through excellence in education, research, and service in public health and by advocating for sound policy and practice to advance social justice and improve health outcomes for all."*

Programs

- CUNY SPH consists of four academic departments, seven thriving centers and institutes, and administrative departments. Academic departments include:
  - Community Health and Social Sciences
  - Environmental, Occupational, and Geospatial Health Sciences
  - Epidemiology and Biostatistics
  - Health Policy and Management
- SPH partners with faculty and administrators across academic disciplines throughout CUNY, as well as with schools of public health and other IHEs across the country and internationally, community groups, NGOs, and other organizations to improve public health in NYC, nationwide and across the globe.
- SPH is currently a graduate school. **On the new campus, the aspiration is to have the space to accommodate fully developed undergraduate programs in public health.**

Degrees Conferred

- Master of Public Health (MPH) concentrations:
  - MPH in Community Health
  - MPH in Environmental and Occupational Health Sciences
  - MPH in Epidemiology and Biostatistics
  - MPH in Health Policy and Management
  - MPH in Public Health Nutrition
- Master of Science (MS) concentrations:
  - MS in Environmental and Occupational Health Sciences
  - MS in Global and Migrant Health Policy (online program)
  - MS in Health Communications for Social Change (online program)
  - MS in Population Health Informatics (online program)
- Doctor of Philosophy in Public Health (PhD) degree concentrations:
  - PhD in Community Health and Health Policy
  - PhD in Environmental and Planetary Health Sciences
  - PhD in Epidemiology
- Certificate Programs
  - Advanced Certificate in Public Health
  - Advanced Certificate in Industrial Hygiene (online program)
- Other Programs
  - Nutrition and Dietetic Internship Program
- NOTE: Future programs may include DrPH and Bachelors degree

Challenges & Opportunities

- Potential to realize an inspirational and aspirational vision of community and population health: a healthy community and city as can be. The space encourages health and invites the community and the world to see what health can look and feel like.
- Maximize usage through flexible work arrangements, shared space/ hoteling reservation systems, and modular classroom and meeting rooms
- This space should be a place people look forward to come to – healthy design, healthy as easy option, encouraging natural light and controlled acoustics, dignified and private work space complemented with easy to reserve/make use of collaborative space
- Apply a health equity approach to the work and acknowledge the legacy of health inequities and racism experienced by marginalized populations. An important tenet of the school's mission is to use our intellectual resources and talent to advance global public health efforts and improve well-being.

Specialty Spaces

- Classrooms and offices should be modular. Lots of outlets on walls and floors, walls should be writable, technology easy to use.
- Classrooms and conference rooms should be expandable with movable

CUNY School of Public Health

wall retraction. Sound and visual displays should be state of the art: no imposition from ventilation systems, ambient noise, interruption from other rooms. Natural light and greenery should provide an environment that promotes learning, collaboration and well-being.

- Community rooms for meetings with tables and chairs easy to rearrange in circle design or small groups with a screen and ceiling-mounted projector and counter for catering of healthier food.

Location

- Avoid classroom or meeting space adjacent to 1st Ave and FDR drive, or install well-insulated windows to reduce noise. Classrooms should be quiet but have a view where possible. Lighting is important.
- The space should facilitate flow and cohesion – on each floor level and between floors with open stairways, glass, greenery
- Center for Systems and Community Design, Firefly near other healthtech ventures at SPARC.
- Library and computer labs should be situated close to each other
- Access to the roof for monitoring environmental quality and meteorology

Safety

- The main entrance into the schools must be controlled (e.g. programmed turnstiles). Visitors should be greeted promptly and warmly and able to enter the CUNY space seamlessly.
- All egress and access points, especially main entrance, IDF rooms, and stairs must have card readers

Access

- Branding should be loud, proud and bold. CUNY deserves a first-class building to celebrate and elevate its brand.
- Need better connection with bike and walk paths along FDR drive (e.g. pedestrian bridge). Bike racks should be safe, plentiful and welcoming. Citi Bikes and similar physical opportunities should be widely available, conveniently located and easy to access.
- Shuttle service to subway stops and/or express bus lines should be considered.
- Think about the ferry system. Work with City to add boats to existing NYC fleet? A CUNY-branded expanded fleet?

Shared Spaces

- All 3 schools should coordinate on class/meeting scheduling and there should be a single central reservation system for classrooms, conference and meeting rooms. Some conference spaces should be SPH-only.
- Street-level spaces to showcase schools and connect with community: big windows looking into activities, performances, public health data visualizations, artistic presentations, community resources and info, etc.
- Conference space to host researchers, partners, and communities
- Healthy cafeteria with strong nutrition / environmental standards
- Student wellness center
- Ancillary student and employee support (e.g. childcare, food pantry)
- Student activity spaces (clubs, student government lounge w/ refrigerator and microwave, etc.)

Potential Partnerships

- Ability to synergize with Hunter College and BMCC for research, learning, service and collaboration. Co-locating these programs will increase opportunities for students to learn from and mentor each other; for faculty to collaborate on pedagogy, research, community engagement and service projects; and for the academic community to develop joint programming.
- Student research recruitment, participation and collaboration
- Guest lectures from other programs
- **Food production:** potential for rooftop farm, building-integrated growing systems, or garden spaces would enable different programs (from public high school classes to graduate programs in nutrition and community health) to use these spaces to support CUNY-based STEM education
- **Proximity to health care systems** will allow collaboration with Bellevue hospital in ways that are not possible currently. This would include health literacy, mental health, obesity, chronic disease and infectious disease related service and research.
- **Proximity to high school students** seeking careers in health will be a unique opportunity to enrich their curriculum with public health related topics and recruit undergraduate students.
- **Proximity to the school of nursing** could be beneficial to recruiting into graduate programs.
- **Proximity to Baruch College** could lead to future joint MPH/MBA degree.
- Think about the international experience - hotels, conference spaces, etc. This will assist in collaboration with international schools, and institutions

Sustainability and Wellness

- Healthier food and beverages with good nutrition standards, carbon footprint, etc. Students are much more interested in their food now.
- NYS EO 22: Waste reduction and sustainability
- Plentiful free water dispensation. No plastic bottles sold on campus. Only compostable cups provided with convenient disposal bins. Food served on campus must meet the highest possible nutritional standards.

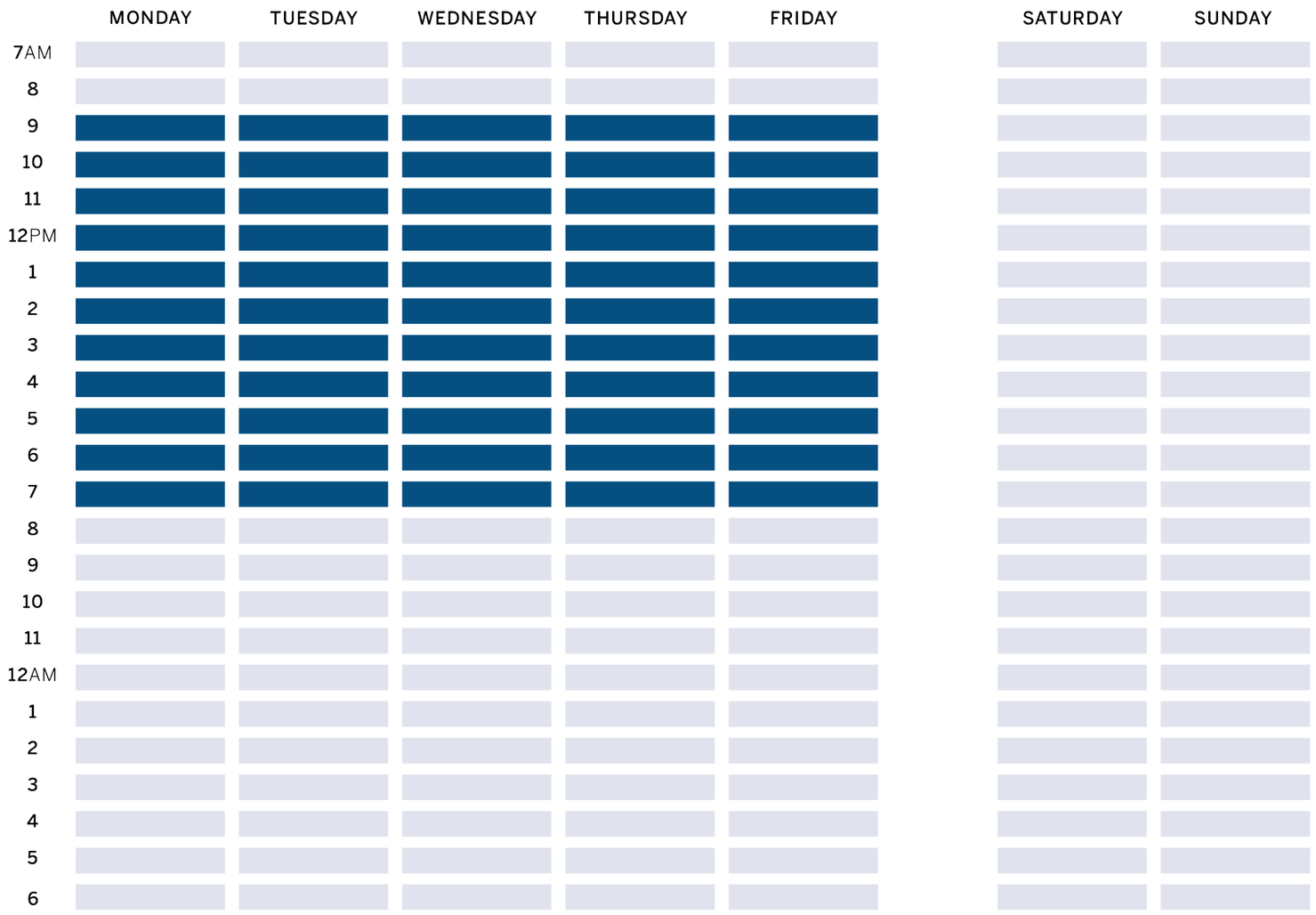
Potential Future Population

Projected Population

The School currently has limited hours of operation and is closed on weekends and late evenings. SPH will adapt its hours of operation, based on the needs of the other schools and available resources, but envisions something like 7am - 11PM Monday - Friday; and 9am - 6pm on Saturday and Sunday.

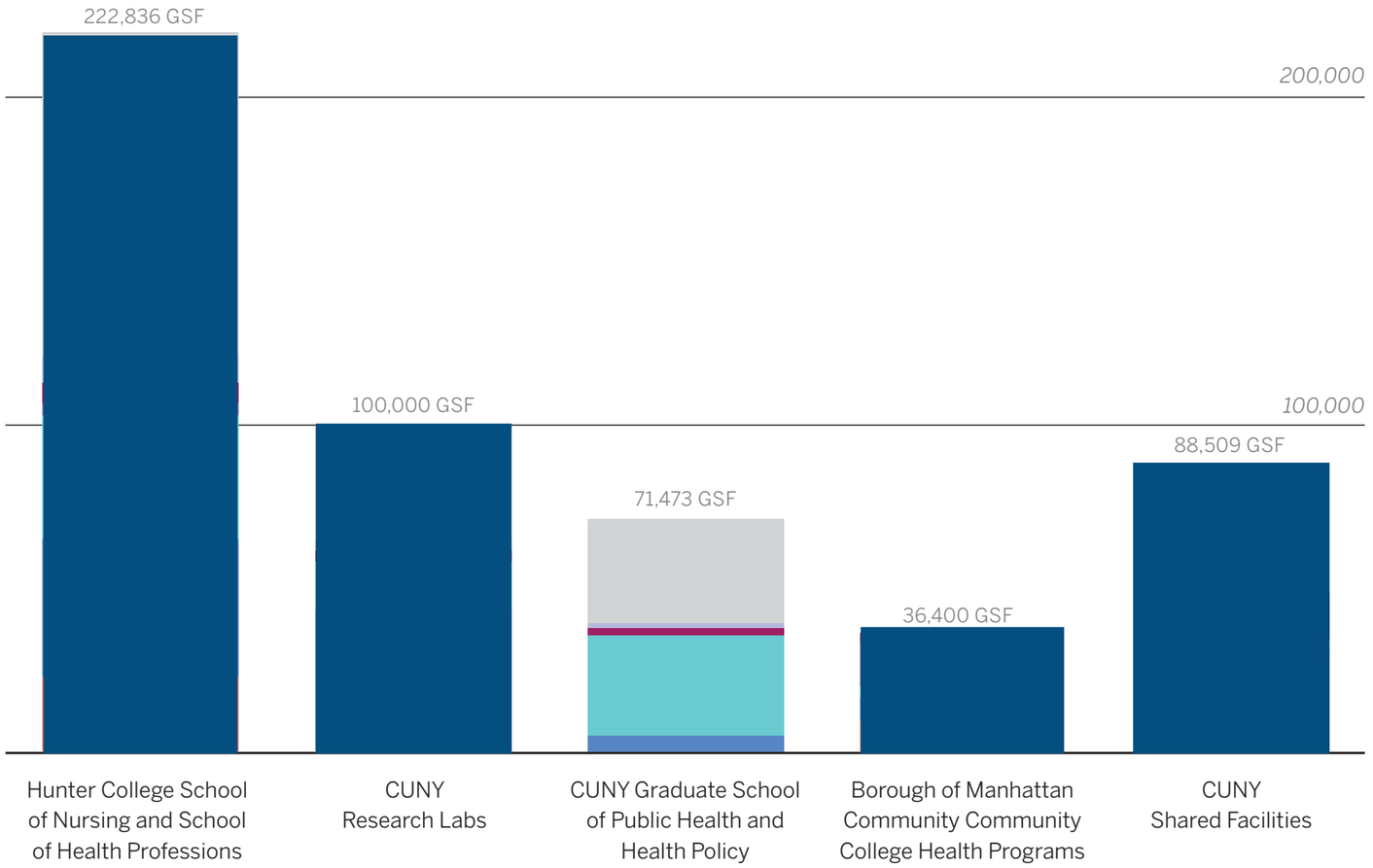
- **Graduate Students: 1000** (current census: 912)
- **Undergraduate students: 500 - 750**
- **FT Faculty: 60** (46 current + 6 current vacancies + 10 new faculty for undergraduate programs)
- **Adjunct Faculty: 33** (current; could be reduced if new lecturer lines are funded centrally)
- **Graduate Assistants: 29**
- **FT Staff & Administration: 110** (90 current: 76 current + 14 vacancies, plus up to 20 new positions to accommodate, for example new undergraduate programs, community engagement
- **PT Staff (CA, NTA, ACLT): 28**
- **RF Employees: 215** (185 current plus 30 additional staff, especially as lab assistants for 10,000 sq ft of wet lab space)

Staff Working Hours Heatmap



Category-Level Program

Graduate School of Public Health and Health Policy			ASF
200 Laboratory Facilities	Open Labs		**4,855**
	Open Lab Support & Clinical Research		
300 Office Facilities	Offices, Meeting Space		**30,695**
600 General Use Facilities	Bookstore, Student Club, Makerspace, Student Assistance		**2,280**
700 Support Facilities	Storage		**1,480**
Graduate School of Public Health and Health Policy			**39,310**
Grossing Factor		**65%**	**32,163**
			71,470 GSF



Notes:
- *Additional CUNY Shared Facilities are included at the end of this chapter, and make up the difference between the category-level program for SPH and the original request of 90,000 GSF*
- *See end of CUNY section for detailed program tabulation*

CUNY

Life Sciences Labs

NOT IN RFP SCOPE OF WORK

The program includes 100,000 GSF of life sciences labs for use across the CUNY programs. This space has not yet been programmed to the level of detail of the other users on the SPARC campus. *The program represented here is a strawman based on the experience of the design team and relevant benchmarks. We anticipate working with Hunter and other prospective users as we move forward regarding utilization of this space.*

Challenges & Opportunities

- **Flexibility:** At this time, there is a not a particular program for this space. Planning should focus on maintaining total flexibility for future use by multiple CUNY users.
- **Functionality:** The specific function of these labs will need to be identified within the context of the schools that require laboratory programs for research and teaching. BMCC, CUNY SPH, and the various Hunter College schools already have detailed lab programs developed, which will need to be vetted for potential overlap or reconsidered in light of possible shared core facilities.

Specialty Spaces

- These labs could potentially house biomedical researchers, who would require a vivarium, tissue culture facilities, and imaging centers.
- The labs could house other bench sciences (Chemistry and Physics) who will also need specialized core facilities.
- These labs could be used to house clinical and experimental psychology researchers who would require clinic/human subject research space.

Location

- Co-located with other CUNY facilities to allow seamless interaction

Safety

- All areas of academic, research and clinical work will need to be secured.
- Assume BSL-2

Access

- Loading dock for delivery of materials and chemicals

Shared Spaces

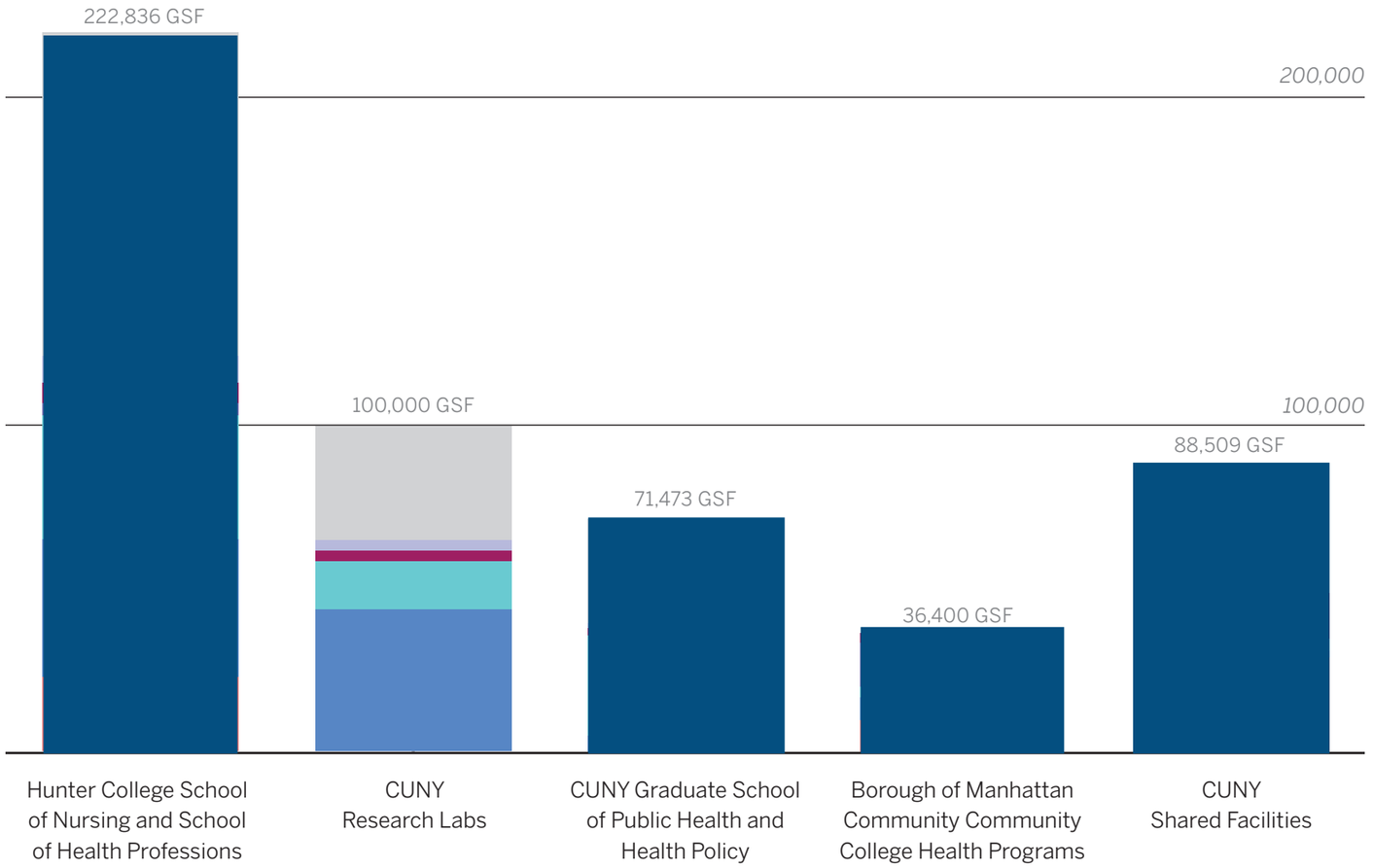
- Given the proximity to other laboratory facilities for each of the CUNY schools, the full set of facilities should be planned holistically to maximize efficiency and reduce duplication of infrastructure-heavy and expensive space.
- Shared campus-wide amenity spaces such as public lobby, event space, recreation, cafeteria, etc (not included in program assumptions)

Potential Partnerships

- Shared specialty spaces at EDC LifeSci

Category-Level Program

Space Type	Sub-Space Type		ASF
200 Laboratory Facilities	Core Labs		**43,550**
	Vivarium		
	Imaging		
	Open Labs		
	Support Labs		
300 Office Facilities	Work stations, Meeting Collaboration, Office Support		**14,820**
600 General Use Facilities	Lobby / Reception, Event Space		**3,250**
700 Support Facilities	Building Support		**3,250**
Total ASF Area			**64,870**
Grossing Factor		**65%**	**35,130**
			100,000 GSF



Notes:

- *The program represented here is a strawman based on the experience of the design team and relevant benchmarks. We anticipate working with Hunter and other prospective users as we move forward regarding utilization of this space.*
- *See end of CUNY section for detailed program tabulation*

CUNY

Hunter College Overview

MISSION

"Hunter College of the City University of New York, a distinguished public university, values learning in the liberal arts and sciences as a cornerstone of individual development and a vital foundation for a more just and inclusive society. Continuing our long tradition of expanding opportunity, we seek students from all backgrounds to engage in a rigorous educational experience that prepares them to become leaders and innovators in their communities and in the world. Hunter also contributes to intellectual discourse by supporting excellent scholarship and creative activity by its accomplished faculty."

Programs

- **School of Nursing**
- **School of Health Professions** (Speech Language Pathology, Medical Lab Sciences, and Physical Therapy)
- **School of Arts and Sciences** (Chemistry, Physics and Astronomy, Biological Sciences, Psychology)

Challenges & Opportunities

- **New facilities and synergies between multiple institutions:** The Brookdale SPARC campus will create new infrastructure for training the next generation of healthcare workers.
- **Thorough planning, involving all stakeholders**: This is key to making this project viable. Facilities planning at Hunter College is typically a collaborative process that considers plans on a 5-10 year timeframe.
- **Location:** Integration with the 68th St campus and the biomedical corridor of the Upper East Side is challenging. The location is difficult to reach for our students and requires a minimum of 30 minute commute time between classes on 68th St and labs.
- **Program Competitiveness:** In order to be competitive with other health profession programs across Universities in NYC and the region, the new facility must be equipped with state–of-the-art teaching technology and appropriate spacing for the delivery of clinical education and training.

Current Facilities

- Brookdale does not provide students, residents and faculty with access to a cafeteria.
- Exercise, gym, and pool spaces have been shut down and are no longer available for use.
- The state of the current Brookdale facilities is a deterrent to efforts toward the recruitment of talented and competitive applicants – surrounding schools offer state-of-art facilities and equipment.

Location

- Ideally, the 3 schools would all be co-located and interact liberally. This allows students to mix their classes and experience science from multiple perspectives and would allow for the development and implementation of inter-professional education experiences. It facilitates collaborations between laboratories and allows for economy in shared spaces.
- Physical therapy, Nursing and Speech & Language Pathology each **require their own dedicated spaces** given the specialty equipment needed for classrooms and lab activities.

Safety

- All areas of academic, research and clinical work will need to be secured.

Shared Spaces

- A Wellness, Prevention & Fitness center – in addition to a gym, this center would provide wellness and prevention programming
- Bioimaging facilities
- Sequencing facilities
- Vivarium
- High performance computing
- Nuclear Magnetic Resonance
- Statistical Consulting
- Auditorium
- Library

CUNY

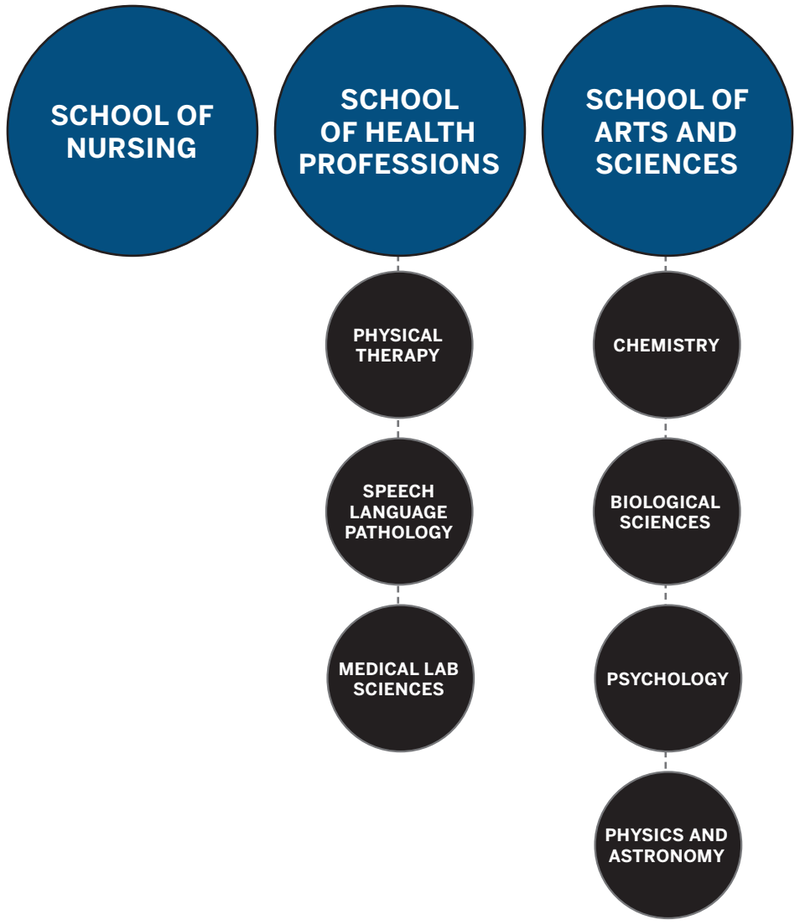
Hunter College Overview

- Health Professions Teaching Technology and Media Center
- Clinical Simulation Center
- Student Clinical Remediation room
- Adaptive living space for student training
- Pro-bono clinic
- Cafeteria

Potential Partnerships

- The sciences at Hunter are critically connected to the 68th st campus, Weill Cornell Medical College, Memorial Sloan Kettering, Mount Sinai and Rockefeller University.
- The School of Nursing and the Physical Therapy program currently work closely with the state-of-the-art Bellevue NYSIM Center for simulated experiences across the nursing and physical therapy curriculums Continued access to a full simulation is required for both programs. The current collaborations work well and should be maintained.
- The SPARC Campus location on hospital row in Kips Bay (New York University Langone Hospital, Bellevue Hospital, VA Hospital) is integral to the clinical education mission.
- A public university is by definition a public-serving institution. In addition, researchers recruit study subjects from the larger community and these subjects will need access to our laboratories. Hunter College also routinely hosts events that include the public.
  - The Speech and Language Pathology program runs a speech clinic serving the local community and beyond.
  - Physical Therapy is in the process of developing a pro-bono clinic needed to augment the academic program.
  - The School of Nursing is exploring the development of advanced practice nursing run health clinics to support the surrounding community.

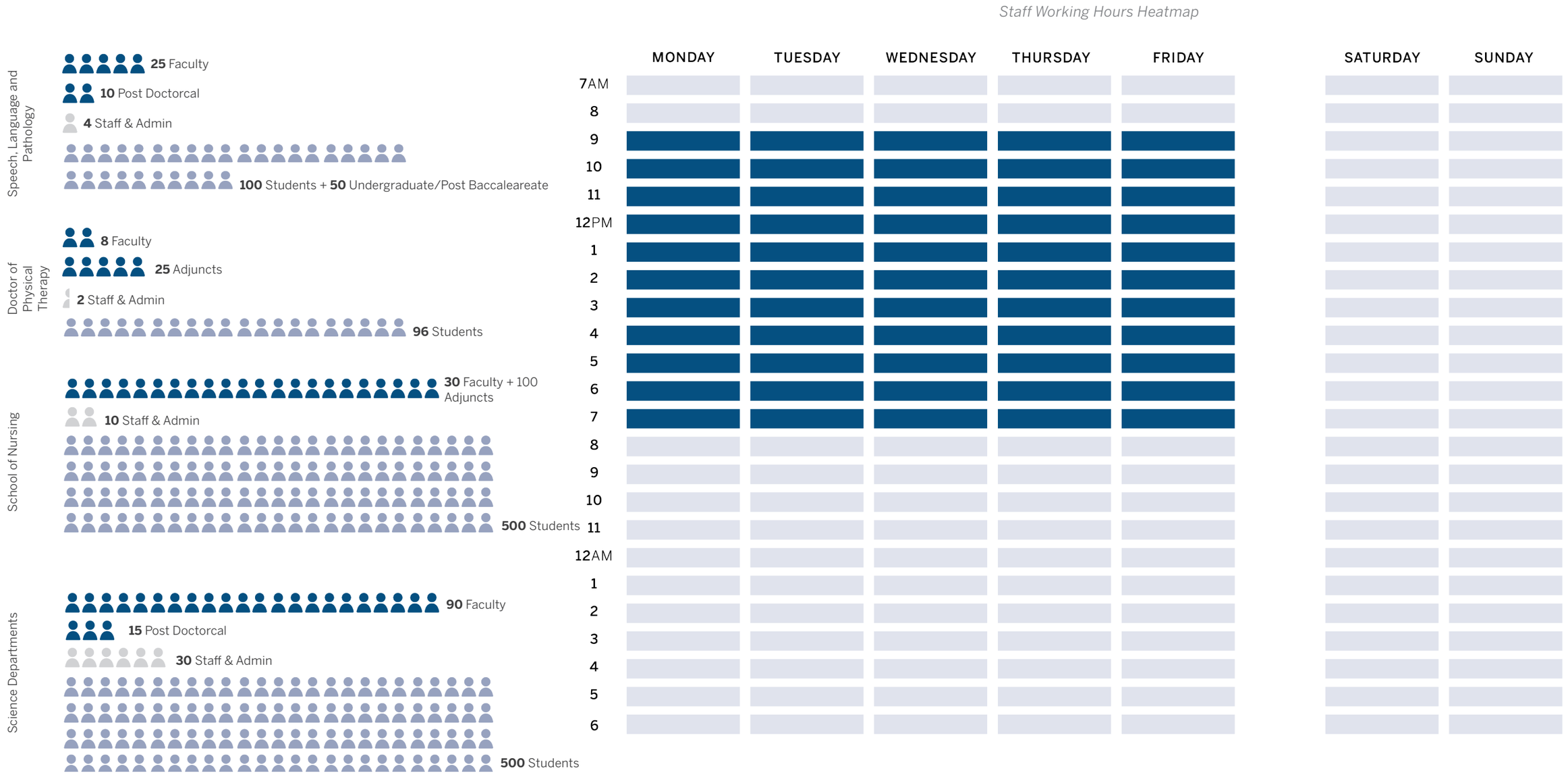
Hunter College:
Schools at Brookdale Campue



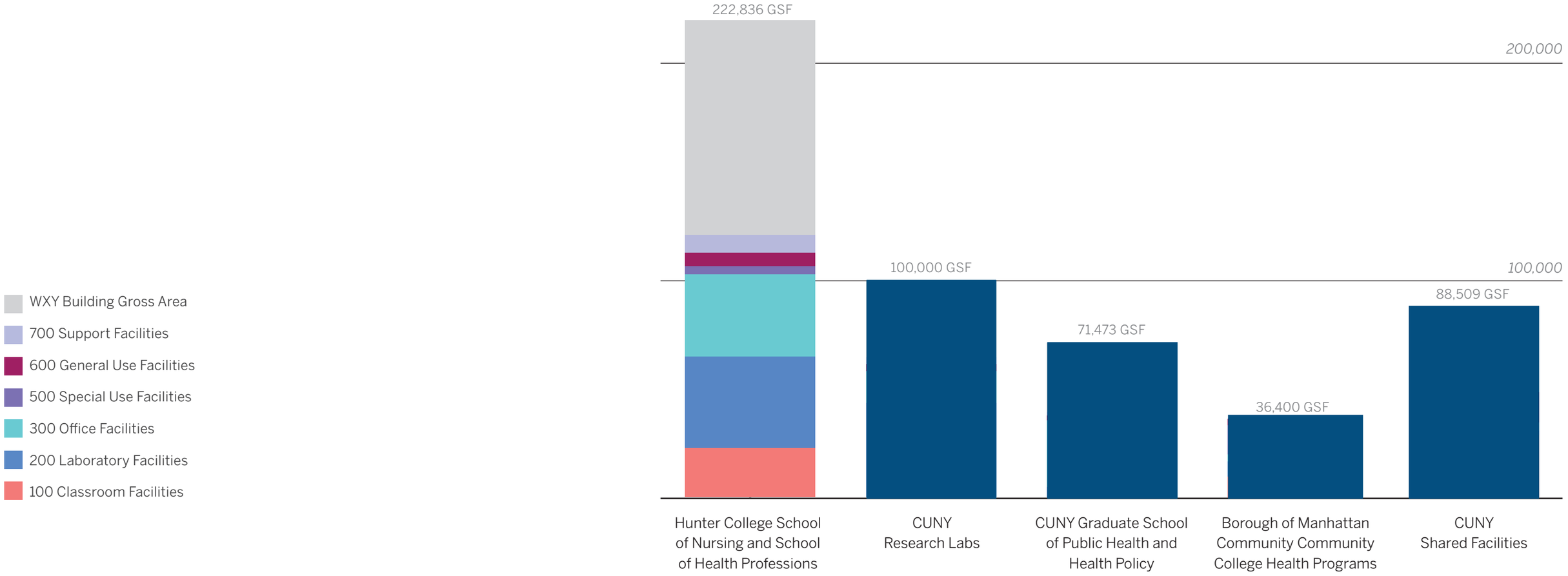
MISSION

*"**We embrace our setting at the heart of New York City**—we seek to draw on its energy, capitalize on its remarkable resources, weave it into the fabric of our teaching, research and creative expression, and give back to it through our service and citizenship."*

Potential Future Population



Category-Level Program



Note: Current program based on written responses. To be refined with Hunter College and EDC.

CUNY

Hunter College School of Nursing

Challenges & Opportunities

- **Continuity:** All Nursing programs must run in their entirety without interruption in order to fulfill accreditation requirements.
- **Quality of Space:** The school currently operates in sub-par conditions including, but not limited to, issues of temperature control, malfunctioning restrooms, inadequate spacing for lab/classrooms with pillars in the middle of the room, and mice issues.
- **Operations During Construction:** Operating in the current space/site during construction in the Brookdale Campus does not seem feasible as an appropriate teaching/learning space as the current issues would be exacerbated making teaching and learning extremely difficult.

Degrees Conferred

- Doctoral:
  - Ph. D. in Nursing
  - DNP: Doctorate of Nursing Practice
- Graduate
  - MS in Community/Public Health Nursing
  - MS in Psychiatric Mental Health Nurse Practitioner
  - MS/MS in Nursing Administration/Urban Policy and Leadership
  - MS in Adult Gerontology Clinical Nurse Specialist
  - MS in Adult Gerontology Primary Care Nurse Practitioner
- Undergraduate
  - BS in Nursing, Accelerated second degree program
  - BS in Nursing, generic
  - BS in Nursing, RN pathway
  - Certificate in Nursing Education
  - Certificate in Psychiatric Nurse Practitioner

Specialty Spaces

- The size and scope of the numerous nursing programs, specialized equipment needs, accreditation requirements, and full time scheduling 9am to 8pm 5 days/week do not allow for sharing of classroom spaces; all Nursing teaching classrooms and labs must be dedicated space for the Nursing programs.
  - 4 lecture halls with 175 student capacity
  - 10 seminar classrooms to accommodate 25 students for graduate programs
  - 4 lab spaces for 30 students – the space must accommodate appropriate equipment to include hospital beds (5 students/bed).
  - A fully equipped simulation lab to accommodate 30 students at a time – this should include all needs of a simulation center.
  - An examination and skills lab space to accommodate 30 students – this must include 6 clinical exam tables and appropriate space for clinical skill stations.
  - 4 computer labs to accommodate 100 students each for standardized clinical exams.
- Nursing labs must be free of any vibration and noise.
- Nursing teaching lab rooms must be spacious and well ventilated given the nature of lab sessions. Lab rooms must allow for adequate space and specialized equipment. These must be dedicated spaces given the specialty treatment tables and equipment required for nursing education.
- Locker rooms and lockers must be dedicated to nursing students.
- Faculty and administrative offices must be dedicated to Nursing faculty and administrative office and staff.
  - Faculty: 40 offices will be needed to accommodate the new programs
  - Adjunct: 10 offices are needed to accommodate all adjunct faculty
  - Staff/Admin: 15 offices are needed to accommodate the current staff
- Two dedicated conference rooms (undergraduate and graduate) and one Dean conference room are required

Location

- Labs, classrooms and offices should be on adjacent floors to facilitate the much needed daily interaction between faculty and students as well as the quick transition across teaching and lab sessions.
- Unless provided with temporary space during construction, all programs must continue in their current locations throughout construction.
- Undergraduate nursing students commute between Brookdale and 68th street campus for undergraduate general education classes. This movement between campuses is expected to continue during the construction of SPARC.

Potential Partnerships

- The School of Nursing currently works closely with the Bellevue NYSIM Center for simulated experiences across the nursing curriculum. Continued access to a full simulation is required for the School of Nursing.

Hunter College School of Nursing

Category-Level Program: Hunter College School of Nursing		ASF
100 Classroom Facilities	Nursing Classrooms (175p)	10,500
200 Laboratory Facilities	Nursing Computer / Testing Center	8,980
	Nursing Teaching Labs	
	Nursing Lab Support	
300 Office Facilities	Offices	9,100
700 Support Facilities	Locker Rooms and Equipment Storage	2,500
Hunter College School of Nursing Subtotal		36,700

Projected Population

- **Students: 500** (across 4 programs – Bachelors, Master, Doctor of Nursing Practice, and PhD in Nursing)
- **Post Docs: 2**
- **Faculty: 30 full-time and 100+ adjunct faculty**
- **Staff & Administration: 10**

Notes:
- *See end of CUNY section for detailed program tabulation*

Hunter College School of Nursing Students *(Source: Hunter College)*

Hunter College School of Nursing at Brookdale Campus

CUNY

Hunter College School of Health Professions
Physical Therapy

Challenges & Opportunities

- **Continuity:** The program must run in its entirety without interruption in order to fulfill accreditation requirements.
- **Quality of Space:** The school currently operates in sub-par conditions including, but not limited to, issues of temperature control, malfunctioning restrooms, inadequate spacing for lab/classrooms with pillars in the middle of the room, and mice issues.
- **Operations During Construction:** Operating in the current space/site during construction in the Brookdale Campus does not seem feasible as an appropriate teaching/learning space as the current issues would be exacerbated making teaching and learning extremely difficult.

Degrees Conferred

- DPT: Doctor of Physical Therapy

Specialty Spaces

- Dedicated space, with appropriate PT clinical equipment, is necessary for all classes. The sharing of classrooms is not feasible given the full day, 5 day/week schedule needed for curriculum and accreditation standards.
- 1 classroom with desks for 32 students plus instructor space sufficient for a treatment table for demonstration of physical therapy skills. Must be equipped with large viewing screens in addition to a camera system for projection of examination and intervention demonstrations.
- 8 faculty offices; 1 adjunct faculty office dedicated to PT adjunct faculty; 2 administrative department office for two administrative personnel
- Faculty conference room for meetings of up to 15 individuals. This should serve as a faculty conference room as well as department meeting room.
- 2 teaching/lab rooms with sufficient space for 20 clinical treatment hi-lo tables and sufficient surrounding space for teaching and practicing no table related physical therapy activities.
- 1 anatomy cadaver lab for 8 cadaver dissection tables and a cadaver refrigeration room for storing up to 8 cadavers.
- 2 movement analysis lab rooms no less than 25'x 25' and 15' x 15' to allow for equipment set up for gait analysis and other movement analysis
- 1 clinical simulation/remediation space
- 1 main department office to support the running of the department
- 1 administrative office for the department's administrative assistant - this space is also needed to the administering of exams to students with special needs accommodations.
- 2 student locker rooms with sufficient lockers (96) plus changing rooms and bathrooms to support the department (96 students + 10 faculty/ staff). Students are required to change into lab clothing for teaching labs.
- Storage space for PT equipment (large) – 15 wheelchairs, numerous walking devices, treatment equipment including: heat and cold pack units, electrical stimulation equipment, skeletons and skeleton parts, pillows and linens, 15 large physio balls, 20 large foam rollers, etc.

Location

- Given the lockstep nature of the Doctor of Physical Therapy Program, classrooms and offices should be on the same floor to facilitate the much needed daily interaction between faculty and students as well as the quick transition across teaching and lab sessions.

Potential Partnerships

- The Department of Physical Therapy currently works closely with the Bellevue NYSIM Center for simulated experiences across the PT curriculum. In addition to continuing to have access to a full simulation center, PT requires a dedicated simulation room to conduct simulation in the areas of specialty in PT and to conduct clinical remediation for PT students. The dedicated PT simulation room is needed given the specialty equipment required for these PT specific sessions.

Category-Level Program: SHP: Physical Therapy		**ASF**
100 Special Use Facilities	PT Classroom (32p)	**960**
200 Laboratory Facilities	PT Teaching Lab	**7,900**
	Anatomy Lab	
	Movement Analysis	
300 Office Facilities	Offices	**2,940**
500 Special Use Facilities	Clinical Simulation / Remediation	**1,800**
	Pro Bono Community Clinic	**2,150**
600 General Use Facilities	Faculty / Student Lounge	**650**
700 Support Facilities	Locker Rooms and Equipment Storage	**3,500**
SHP: Physical Therapy Subtotal		**18,100**

Note: See end of CUNY section for detailed program tabulation

Projected Population

- The Physical Therapy program is a 3-year lockstep program with classes running 5 days/week for 3 cohorts. Class schedules often span from 9 am to 8pm.
- **Students: 96** (3 cohorts of 32 students each)
- **Post Docs: NA**
- **Faculty: 8**
- **Staff & Administration: 2**
- **Other: 25 adjunct faculty**

Hunter College School of Health Professions
Speech Language Pathology

Challenges & Opportunities

- **Operations During Construction:** Without a proposed swing space, we assume all programs must remain on site. Construction will create challenges for our programs.
- **Vibration Sensitivity:** Sound proof booths (audiology) are extremely expense to manage/relocate but at the same time, are very sensitive. Any construction involving vibrations will interfere with testing and may require recalibration of the equipment; these booths are used for training of graduate students and AuD students.
- **Dedicated Space:** All students in SLP are full-time students, which means that each student spends a considerable amount of time on campus (in classes, labs, etc.). The Department requires dedicated space to accommodate the needs of its students. Classes in SLP are offered both during the day as well as in the evening so that classroom space needs to be dedicated to SLP.

Degrees Conferred

- MS in Speech & Language Pathology

Specialty Spaces

- Minimum of five dedicated classrooms
- 18 faculty offices
- 2 conference rooms (up to 50 seats each)
- 5 large instructional laboratories
- Two admin offices to house 4 personnel
- Rooms must be light and sound controlled. Audiology booths have very specific building specs; these are set forth by the manufacturer
- Community speech clinic to treat clients and train students

Location

- Given the size and needs of SLP, all classrooms, faculty offices and labs, student areas (labs and lounges) and the Hunter College Center for Communication Disorders should be assigned as close to each other as possible.

Potential Partnerships

- Shared facilities must include: auditorium for student performances/ concerts/presentations/graduation ceremonies, etc.; common spaces for meals; library space; media center.

Projected Population

- **Undergraduates: 50** (in the process of instituting undergraduate/ post-bac program)
- **Graduate Students: 100**
- **Post Docs: 10**
- **Faculty: 25** (this includes both PT and FT members)
- **Staff & Administration: 4**

Category-Level Program: SHP: Speech-Language Pathology & Audiology		ASF
100 Special Use Facilities	SLP Classroom (30-45p)	4,000
200 Laboratory Facilities	SLP Teaching Lab / Classroom	1,000
	SLP Instructional / Research Labs	3,600
300 Office Facilities	SLP Faculty Offices	3,690
	SLP Adjunct Offices	
500 Special Use Facilities	Speech Clinic	1,800
700 Support Facilities	Locker Rooms	1,000
Speech-Language Pathology & Audiology Subtotal		15,090

Note: See end of CUNY section for detailed program tabulation

Audiology Lab *(Source: CUNY)*

CUNY

Hunter College School of Health Professions
Medical Lab Sciences

Challenges & Opportunities

- *TBD based on further discussions*

Degrees Conferred

- BS in Medical Laboratory Sciences: Clinical Science
- BS in MHC Medical Laboratory Sciences: Clinical Science
- BS in Medical Laboratory Sciences: Biomedical Sciences
- MS in Biomedical Laboratory Management
- Advanced Certificate in Cytotechnology
- Advanced Certificate in Medical Laboratory Technology

Specialty Spaces

- 4 large teaching labs similar to E113, lab stations and benches to accommodate 25 students each
- 2 preparation rooms with adjoining offices (E104 and E106). These must be adjacent or very close to the teaching laboratories
- 8 Faculty offices and 1 departmental office
- 8 Faculty research laboratories (~600 sq ft)
- Tissue culture core (E016)
- Bioimaging core
- Equipment and storage rooms
- Washeteria/autoclave facility

Location

- MLS Faculty commute to Belfer but students do not. This movement between campuses is expected to continue during the construction of SPARC.

Projected Population

- **Total Enrollment: 160**
- **Faculty: 6** (with ongoing searches for additional candidates)

Category-Level Program: Medical Lab Sciences		**ASF**
200 Laboratory Facilities	Research Labs, Teaching Labs, Bioimaging	**13,800**
300 Office Facilities	Offices	**5,250**
Medical Lab Sciences Subtotal		**19,050**

Note: See end of CUNY section for detailed program tabulation

MLS Lab Facilities *(Source: Hunter College)*

CUNY

Hunter College
School of Arts and Sciences

Challenges & Opportunities

- Only Anatomy and Physiology is currently located at the Brookdale Campus. SPARC presents an opportunity to locate additional A&S units and activities at this campus, to be determined by a re-assessment of the A&S strategic plan.

Degrees Conferred

- BA in Chemistry, Physics, Biology
- BA in Behavioral Neurobiology
- BA in Psychology with a Neuroscience Concentration
- BA, MA in Bioinformatics
- MA in Biology
- BA/MA in Biophysics
- MA in Chemistry
- BA, BA/MA, MA, Adv Certificate in Chemistry adolescent education
- BA, BA/MA, MA, Adv Certificate in Physics adolescent education

Speciality Spaces

- 3 classrooms
- 2 teaching labs with prep/storage/support space
- Faculty and admin offices
- Conference Room
- Chemical and general storage space

Potential Partnerships

- A&S students will need access to computer labs.
- May include core facilities such as instructional spaces and research laboratories.

Projected Population

- *TBD based on further discussions*

Category-Level Program: School of Arts & Sciences		**ASF**
100 Classroom Facilities	A & S Classroom	**1,600**
200 Laboratory Facilities	A & S Teaching Labs	**2,160**
	A & S Prep / Storage	
300 Office Facilities	Offices	**17,000**
700 Support Facilities	Chemical & Instructional Storage	**1,060**
School of Arts & Sciences Subtotal		**22,020**

Note: See end of CUNY section for detailed program tabulation

Existing Arts & Sciences Space at Upper East Side Campus *(Source: Hunter College)*

CUNY

Detailed Program Tabulation

Description	# of Spaces	# of Spaces	Total ASF
Borough of Manhattan Community College Health Care Programs			
100 Classroom Facilities			**9,600**
Standard Classroom			**5,500**
Flexible Classroom			**4,100**
200 Laboratory Facilities			**7,000**
Dry Labs (Instructional)			**7,000**
300 Office Spaces			**3,200**
Office Space (Administrative)			**1,600**
Meeting Space (Admin + Instructional)			**1,600**
500 Special Use Facilities			**13,600**
Simulation Rooms			**4,000**
Treatment Rooms			
Simulated Operating Room			
Outpatient Clinic			
Core Facility (Nursing Control Station)			**5,000**
Specialized Instruction (Disease Prevention and Health Promotion)			**4,600**
Teaching Kitchen			
Homecare			
Exercise / Physical Therapy Lab			
700 Support Facilities			**3,000**
Equipment Storage			**3,000**
Total GSF Area			**36,400**

Description	# of Spaces	# of Spaces	Total ASF
Graduate School of Public Health and Health Policy			
200 Laboratory Facilities			**4,855**
Open Labs			
Teaching Labs (Nutrition & EOGHS)	4	500	**2,000**
Open Lab Support			
Cell Culture Room	1	135	**135**
Equipment Storage	2	135	**270**
Cold Rooms	1	135	**135**
Autoclave Room	1	270	**270**
Write-Up Space	4	135	**540**
Clinical Research			
Clinical Research Lab Facilities	1	1,100	**1,100**
Clinical Research Lab Support	3	135	**405**
300 Office Facilities			**30,695**
Office Space			
Faculty	101	120	**12,120**
Faculty - Undergraduate	16	120	**1,920**
Faculty - Adjunct	10	120	**1,200**
Senior Admin	5	200	**1,000**
Admin / Research Staff - Private	50	120	**6,000**
Admin / Research Staff - Cubicles	100	36	**3,600**
Study / Research Carrel - PhD	20	36	**720**
Co-working Spaces	25	36	**900**

Description	# of Spaces	Average SF	Total ASF
Meeting Space			
Conference Room (14-18pp) - Dedicated	5	425	**2,125**
Phone Booths	6	25	**150**
Office Service			
Pantry	2	240	**480**
Print Room	4	120	**480**
600 General Use Facilities			**2,280**
Bookstore	1	360	**360**
Student Club / Government	1	400	**400**
Student Assistance (childcare, food pantry, mental health, financial assistance)			**720**
Maker Space / Workshop	1	800	**800**
			-
700 Support Facilities			**1,480**
AV Video Room	1	200	**200**
Mail Room	1	360	**360**
Facilities Storage	6	120	**720**
Public Safety Office	1	200	**200**
Total ASF Area			**39,310**
WXY Building Gross Area	*55%*	*net-to-gross efficiency*	*32,163*
Total GSF Area			**71,473**

Detailed Program Tabulation

Description	# of Spaces	Average SF	Total ASF
CUNY Research Labs			
200 Laboratory Facilities			**43,550**
Core Labs (10%)			**6,500**
Vivarium			
Imaging			
Behavioral / Transgenics			
Open Labs (30%)			**18,525**
Support Labs (30%)			**18,525**
300 Office Facilities			**14,820**
Workstations			
Meeting / Collaboration			
Office Support			
600 General Use Facilities			**3,250**
Lobby / Reception			
Event Space			
700 Support Facilities			**3,250**
Building Support			**3,250**
Total ASF Area			**64,870**
WXY Building Gross Area	*65%*	*net-to-gross efficiency*	*35,130*
Total GSF Area			**100,000**

Description	# of Spaces	Average SF	Total ASF
Speech-Language Pathology and Audiology			**15,090**
100 Classroom Facilities			**4,000**
SLP Classroom (35-40p)	5	800	**4,000**
200 Laboratory Facilities			**4,600**
SLP Teaching Lab / Classroom	1	1,000	**1,000**
SLP Instructional / Reseach Labs	6	600	**3,600**
300 Office Facilities			**3,690**
SLP Faculty Offices	18	150	**2,700**
SLP Adjunct Office Space (touchdown / shared)	1	150	**150**
SLP Admin Offices - shared	2	120	**240**
SLP Conference Rooms (15 seats)	1	400	**400**
Office Pantry (Breakroom)	1	200	**200**
500 Special Use Facilities			**1,800**
Speech Clinic	1	1,800	**1,800**
Office - Director			
Office - Student Coordinator			
Office - Admin / Support			
Office - Clinical Educator			
File Room			
Pantry			
Storage Room			
Conference Room (15-18p)			
Student Study Space (10-15p)			
Student Lounge (lockers & mailbox)			
Computer Lab (10p)			
Voice Lab			
Eye-Tracking Lab			
Audio Booths			

Description	# of Spaces	Average SF	Total ASF
Therapy Rooms			
Reception / Waiting (15p)			
700 Support Facilities			**1,000**
Locker Rooms	1	1,000	**1,000**
Physical Therapy			**18,100**
100 Classroom Facilities			**960**
PT Classroom (32p) - with Demo Table	1	960	**960**
200 Laboratory Facilities			**7,900**
PT Teaching Lab	2	2,000	**4,000**
PT Teaching Lab Support	1	500	**500**
Anatomy Lab (8 dissection tables)	1	1,400	**1,400**
Cadaver Refrigerator Room (8 cadavers)	1	250	**250**
Movement Analysis Lab - 40' x 25'	1	1,000	**1,000**
Movement Analysis Lab - 30' x 25'	1	750	**750**
300 Office Facilities			**2,940**
PT Faculty Offices	8	150	**1,200**
PT Adjunct Office	1	200	**200**
PT Admin Offices	2	120	**240**
PT Main Office	1	300	**300**
PT Conference Room (15p)	1	600	**600**
Office Pantry (Breakroom)	1	400	**400**
500 Special Use Facilities			**2,150**
Clinical Simulation / Remediation Space	1	1,400	**1,400**
Simulation Room			
Control Room			
Briefing Space			

CUNY

Detailed Program Tabulation

Description	# of Spaces	Average SF	Total ASF
Storage			
Laundry			
Changing Room - Students			
Pro-Bono Community Clinic	1	750	**750**
600 General Use Facilities			**650**
PT Faculty Lounge	1	400	**400**
PT Student Lounge (Touchdown Space)	1	250	**250**
700 Support Facilities			**3,500**
Locker Rooms	1	2,500	**2,500**
Equipment Storage	1	1,000	**1,000**

School of Nursing			**36,700**
100 Classroom Facilities			**16,000**
Nursing Classroom (175p)	4	2,625	**10,500**
Nursing Seminar Room (25p)	10	550	**5,500**
200 Laboratory Facilities			**8,980**
Nursing Computer/Testing Center	3	660	**1,980**
Nursing Teaching Labs	4	1,500	**6,000**
Nursing Lab Storage/Support	1	1,000	**1,000**
300 Office Facilities			**9,100**
Nursing Faculty Office	36	150	**5,400**
Nursing Adjunct Office	1	600	**600**
Nursing Staff / Admin Office	10	120	**1,200**
Nursing Conference Room (15p)	1	600	**600**
Nursing Dean's Suite	1	650	**650**
Office Storage	1	150	**150**
Office Pantry (Breakroom)	2	500	**500**
700 Support Facilities			**2,620**

Description	# of Spaces	Average SF	Total ASF
Locker Rooms	1	2,500	**2,500**
Storage	1	120	**120**

Arts and Sciences			**22,020**
100 Classroom Facilities			**1,800**
A&S Classroom	3	600	**1,800**
200 Laboratory Facilities			**2,160**
A&S Teaching Labs - Misc	2	900	**1,800**
A&S Prep / Storage / Support Space	1	360	**360**
300 Office Facilities			**17,000**
MLS Faculty Office	90	120	**10,800**
MLS Staff / Admin Office	25	120	**3,000**
MLS Conference Room	4	600	**2,400**
Office Pantry (Breakroom)	2	400	**800**
700 Support Facilities			**1,060**
Chemical Storage	1	360	**360**
Instructional Storage	1	700	**700**

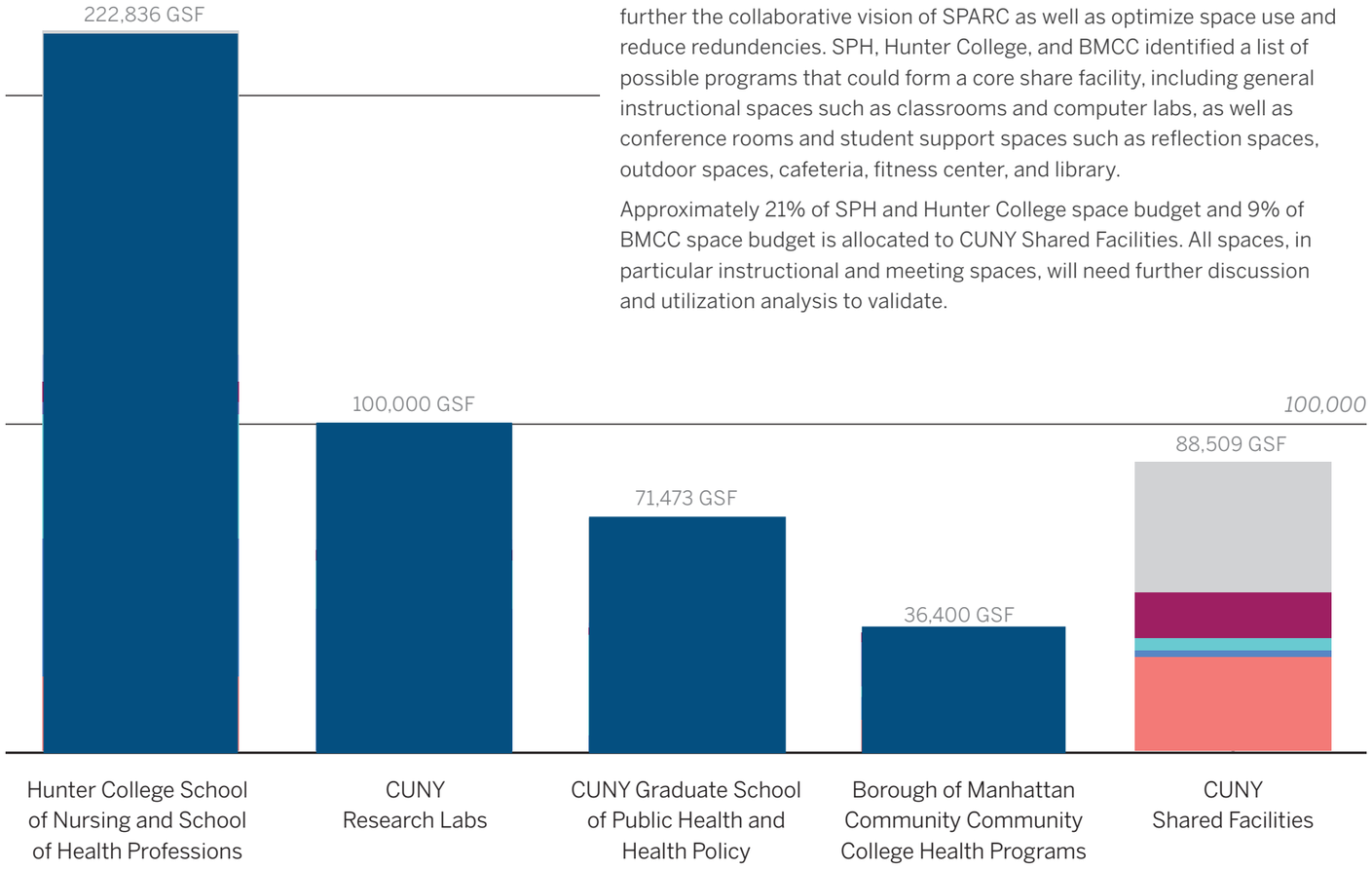
Medical Laboratory Sciences			**19,050**
200 Laboratory Facilities			**13,800**
MLS Faculty Research Labs - Misc.	8	600	**4,800**
MLS Teaching Labs	4	1,500	**6,000**
MLS Prep, Storage, Support Space	3	600	**1,800**
Tissue Culture Facility	1	500	**500**
Bioimaging Facility	1	500	**500**
Washeteria / Autoclave	1	200	**200**
300 Office Facilities			**5,250**
MLS Faculty Office	8	150	**1,200**
MLS Staff / Admin Office	25	120	**3,000**

Description	# of Spaces	Average SF	Total ASF
MLS Main Office / Dean's Suite	1	600	**600**
MLS Conference Room (medium)	1	300	**300**
Office Pantry (Breakroom)	1	150	**150**

General Building Program			**10,500**
200 Laboratory Facilities			**4,900**
General Teaching Labs	3	1,100	**3,300**
General Teaching Labs - small	4	400	**1,600**
600 General Use Facilities			**5,600**
Faculty Lounge	1	800	**800**
Adaptive Living Space for Student Training	1	800	**800**
Health Education Center	1	800	**800**
Health Professions Teaching Technology and Media Center	1	2,000	**2,000**
Conference Room - Large			
Conference Room - Small			
Reception / Office			
Computer Lab			
Library			
Center for Nursing Research			
Visiting Consultant Office - shared	2	150	**300**
Admin Office	1	150	**150**
Conference Room	1	500	**500**
Computer Lab (8p)	1	250	**250**
Total ASF Area			**121,460**
WXY Building Gross Area	*55%*	*net-to-gross efficiency*	*99,376*
Total GSF Area			**220,836**

Detailed Program Tabulation

Description	# of Spaces	Average SF	**Total ASF**
CUNY Shared Facilities			
100 Classroom Facilities			**28,750**
Auditorium (500 seat)	1	7,500	**7,500**
Classroom (25p)	6	500	**3,000**
Classroom (40p)	5	1,000	**5,000**
Classroom (50p)	3	1,250	**3,750**
Classroom (100p)	3	2,500	**7,500**
Classroom (120p)	1	2,000	**2,000**
200 Laboratory Facilities			**2,200**
General Flex Computer lab / Testing Center	2	1,100	**2,200**
300 Office Spaces			**3,730**
Conference Room (30p)	1	750	**750**
Conference Room (20p) - Shared	5	500	**2,500**
Lactation Room	2	120	**240**
Prayer / Wellness Room	2	120	**240**
600 General Use Facilities			**14,000**
Reflection Spaces (Lounge / Study / Collab)	1	5,000	**5,000**
Reflection Spaces (Outdoors - not included in building gsf)			**3,400**
Cafeteria	1	2,000	**2,000**
Wellness, Prevention & Fitness Center	1	2,000	**2,000**
Library	1	5,000	**5,000**
Total ASF Area			**48,680**
WXY Building Gross Area	55%	*net-to-gross efficiency*	**39,829**
Total GSF Area			**88,509**



Through written program responses, CUNY stakeholders expressed a desire and willingness to share spaces across the CUNY facilities, both to further the collaborative vision of SPARC as well as optimize space use and reduce redundencies. SPH, Hunter College, and BMCC identified a list of possible programs that could form a core share facility, including general instructional spaces such as classrooms and computer labs, as well as conference rooms and student support spaces such as reflection spaces, outdoor spaces, cafeteria, fitness center, and library.

Approximately 21% of SPH and Hunter College space budget and 9% of BMCC space budget is allocated to CUNY Shared Facilities. All spaces, in particular instructional and meeting spaces, will need further discussion and utilization analysis to validate.

2.7

Summary of Findings

Success at SPARC Kips Bay is...

"...to provide meaningful opportunities for W/MBEs throughout the process"

Deputy Mayor Wright

"...establishing NYC as a global leader in forensic pathology"

Jason Graham, Office of Chief Medical Examiner

"...creating an interconnected campus – connectivity physically and programmatically, breaking down the walls of these facilities."

James Katz, NY State Exec. Chamber

" ...ensuring there is a place for commercial sector and strong linkage between research, learning, companies, and business"

Andrew Kimball, President & CEO NYCEDC

"...creating a beacon for NYC schools, showcasing future potential, infusing career-connected learning into the project"

Nina Kubota, President & CEO NYC SCA

"...cultivating a workforce to keep New Yorkers healthy, develop young talent, and hands-on training"

William Hicks, CEO of NYC Health + Hospitals

" ...creating an ecosystem for students to tap into jobs; a state of the art facility for nursing; bringing together of three schools..."

Hector Batista, Executive Vice Chancellor & COO CUNY

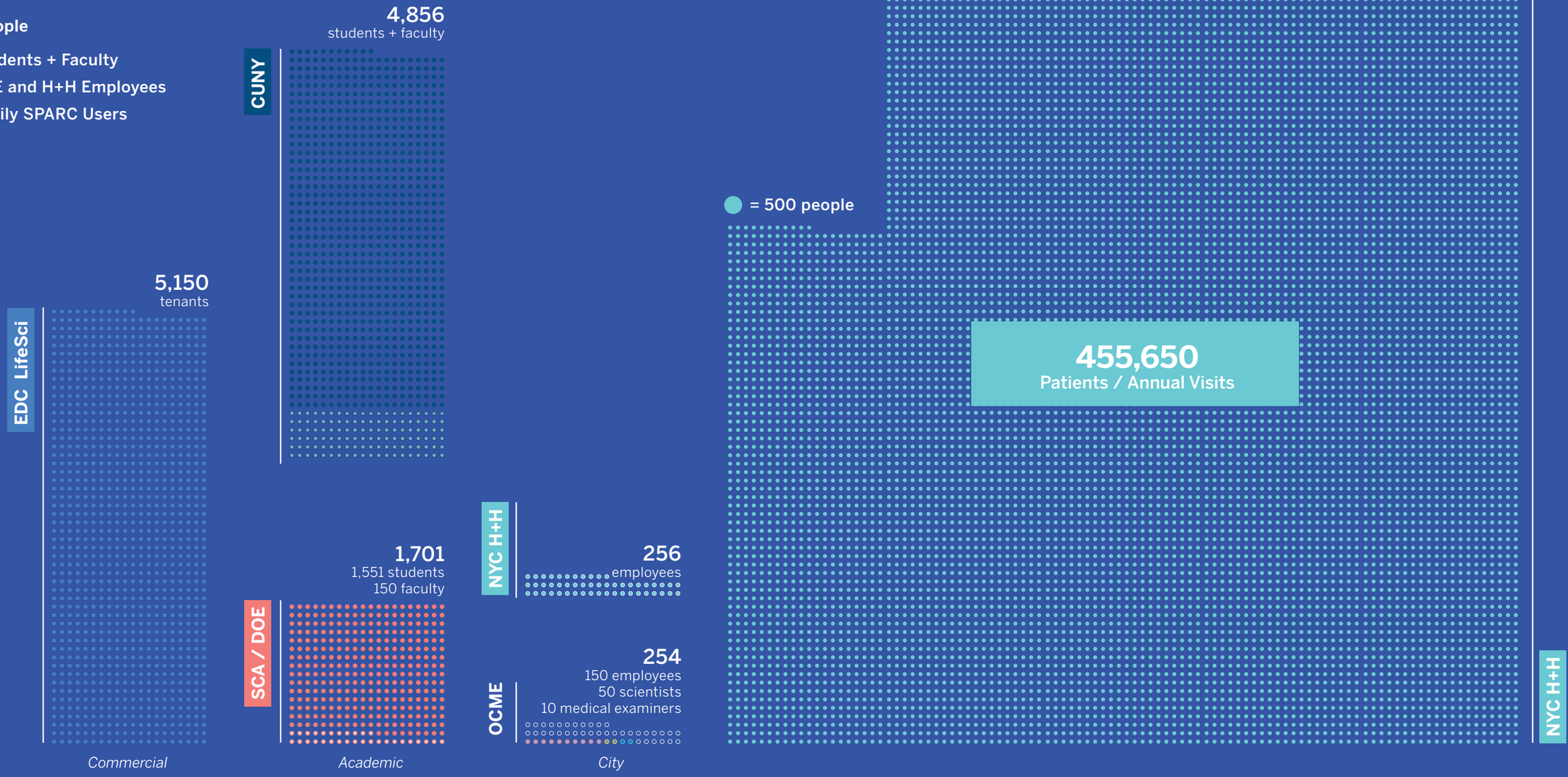
"To be successful, SPARC must be transformative: we must build a place of opportunity. Not just a beautiful campus, but a place that serves this larger mission."

Deputy Mayor Torres-Springer

Future Campus Population

◯ = 5 people

6,557 Students + Faculty
510 OCME and H+H Employees
13,645 Daily SPARC Users



Future Campus Population

Given the number of users and the demand for individual space, understanding when people will be on site is as important as where they will be.

CUNY
- Graduate Students
- Undergraduate Students
- Post-Doctoral Students (Post-Docs)
- Laboratory Technicians (Techs)
- Faculty / Adjunct Faculty
- Staff
- Teaching Assistants

H+H
- Research Assistants
- Research Nurses
- Doctors
- Staff Physician / Nurses
- Simulation Staff / Data Manager
- Fellows
- Patients
- Other Health Care Professionals (Phlebotomists, Radiologists, Pharmacist)
- Hospital Administration / Support Staff

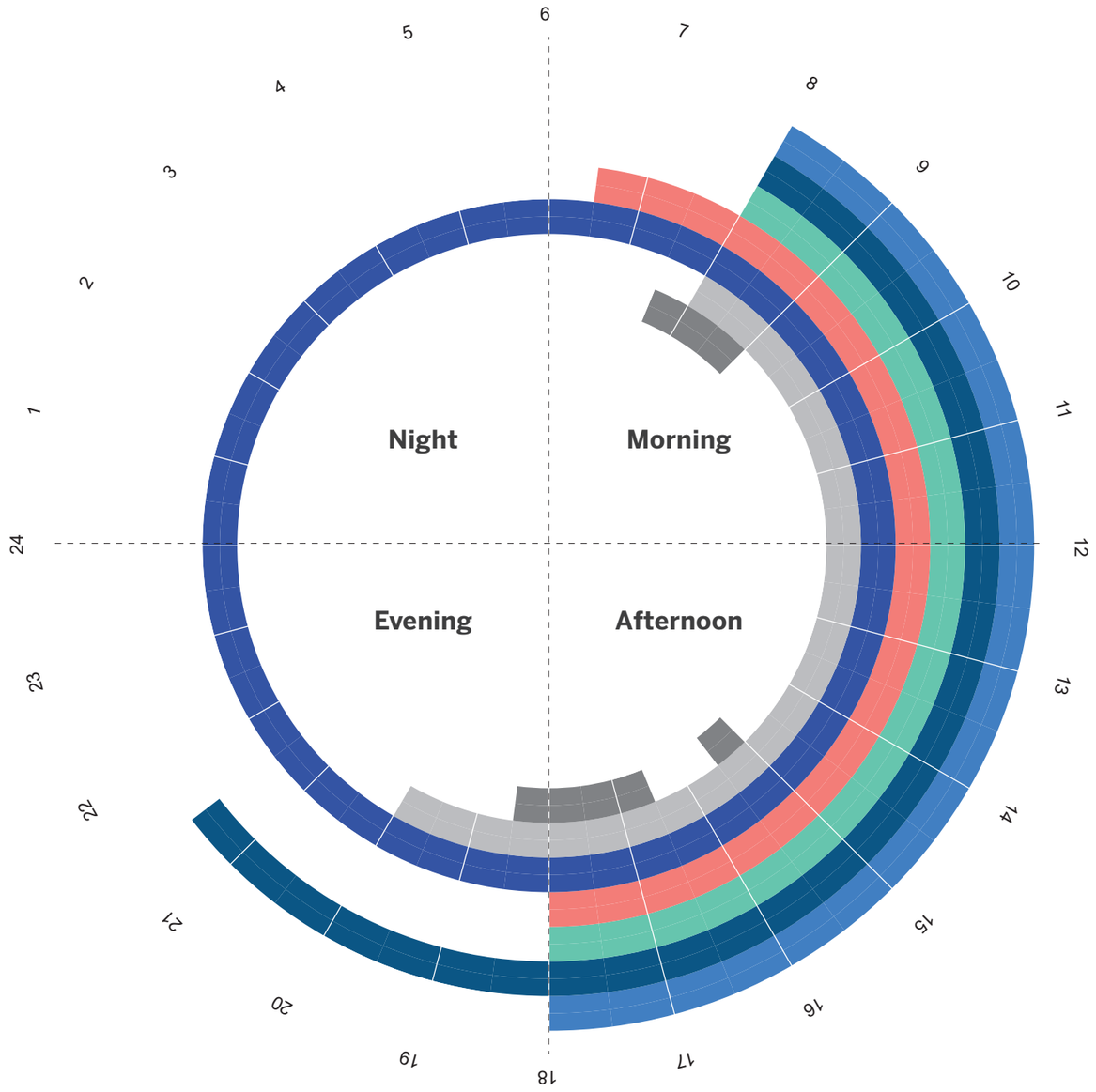
SCA
- High School Students
- Faculty
- Maintenance Staff
- Administrators

EDC
- Start Up Tenants
- Life Science Tenants

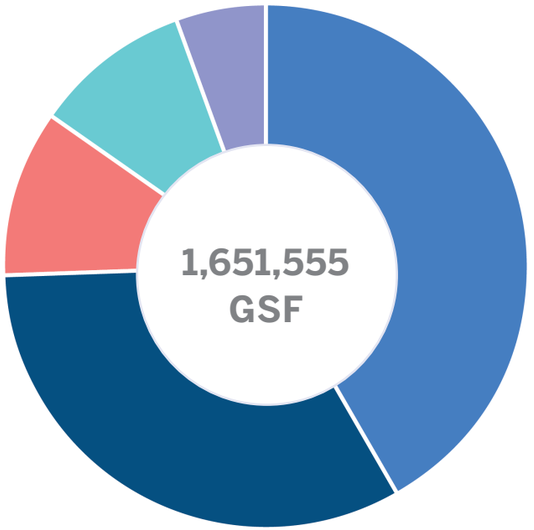
OCME
- Toxicology Scientists
- Evidence Specialists.
- Medical Examiners
- Evidence Specialists
- Pathologists
- Mortuary Techs
- OCME Employees
- OCME Interns

- General Public Visitors

- 25th Street Pedestrian Bridge Users



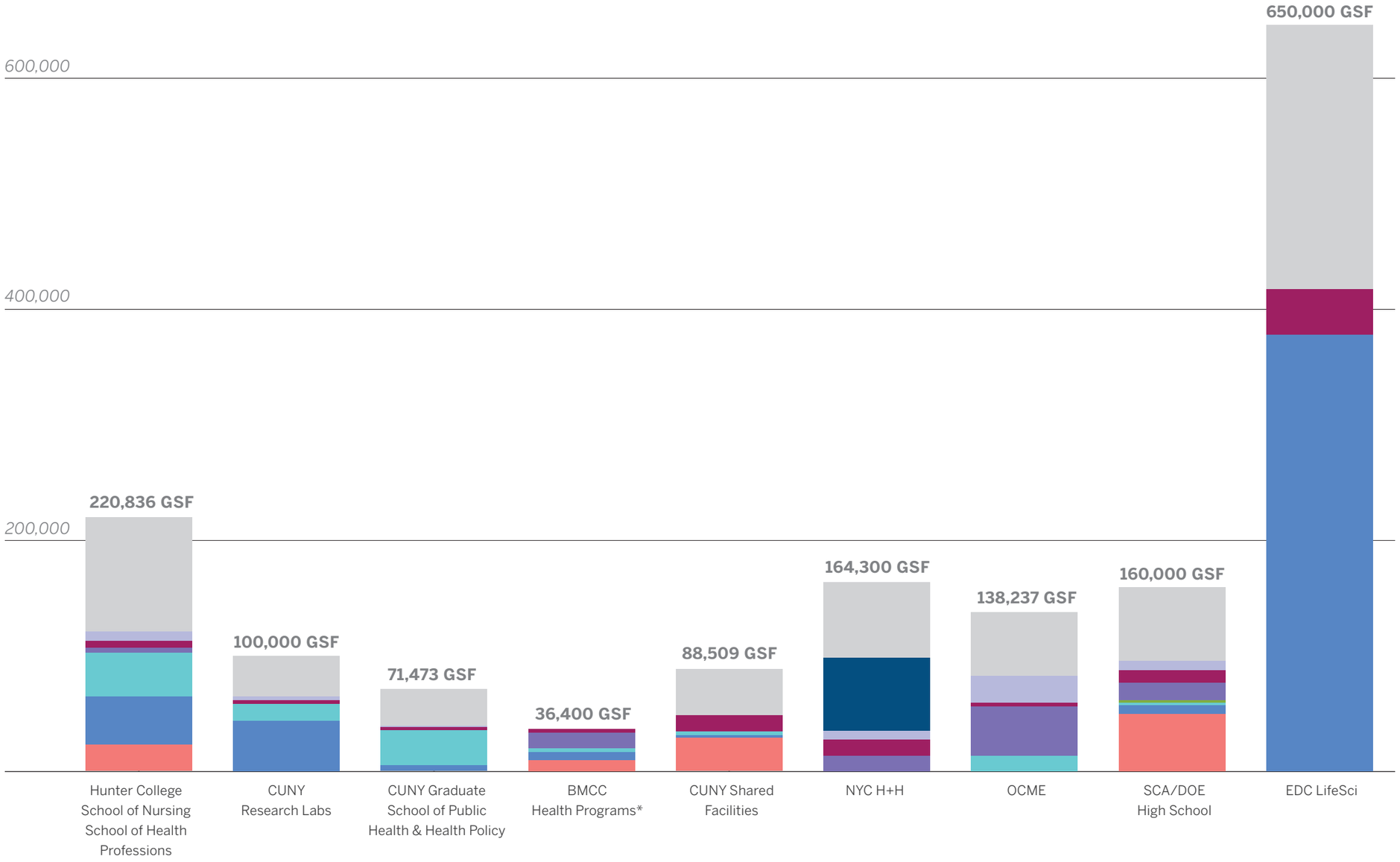
Category-Level Program by User



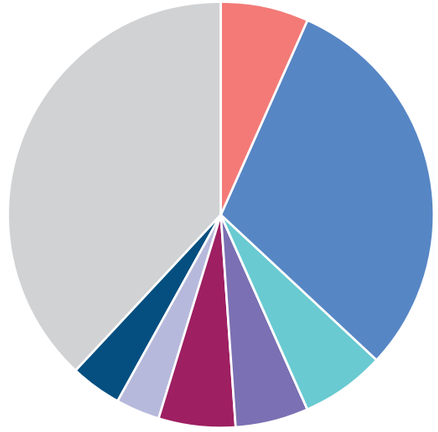
Note: Current program based on stakeholder discussions exceeds RFP allotment. To be refined with EDC and broader stakeholder group.

	Academic & Research Program					Clinical Care and Training Space	Office and Morgue	Commercial Life Sciences	High School
Program Categories	Hunter College School of Nursing and School of Health Professions	CUNY Research Labs	CUNY Graduate School of Public Health and Health Policy	Borough of Manhattan Community College (BMCC) Health Care Programs	Shared Facilities	NYC H+H	OCME	EDC	SCA/DOE High School
100 Classroom Facilities	22,760	-	-	9,600	28,750	-	-	-	49,900
200 Laboratory Facilities	42,340	43,550	4,855	7,000	2,200	-	-	380,000	7,375
300 Office Facilities	37,980	14,820	30,695	3,200	3,730	-	13,226	-	2,175
400 Study Facilities	-	-	-	-	-	-	-	-	2,250
500 Special Use Facilities	3,950	-	-	13,600	-	13,355	43,018	-	14,925
600 General Use Facilities	6,250	3,250	2,280	-	14,000	14,020	3,146	40,000	10,955
700 Support Facilities	8,180	3,250	1,480	3,000	-	7,500	23,552	-	8,340
800 Health Care Facilities	-	-	-	-	-	63,705	-	-	-
WXY Building Gross Area	*99,376*	*35,130*	*32,163*	-	*39,829*	*65,720*	*55,295*	*230,000*	*64,080*
Total GSF Area	**220,836**	**100,000**	**71,473**	**36,400**	**88,509**	**164,300**	**138,237**	**650,000**	**160,000**
								Total	**1,629,755**

Category-Level Program by Type

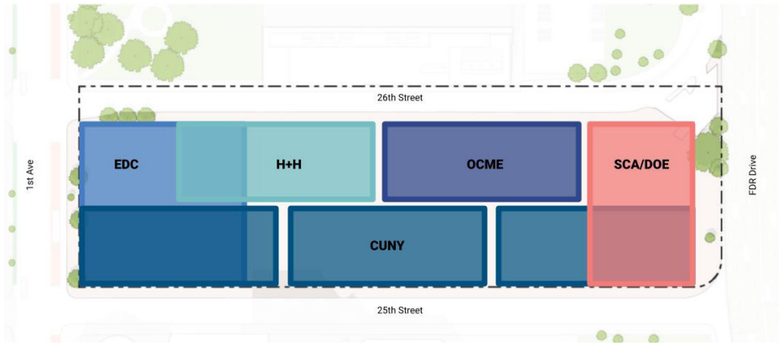


Space Needs by Program Categories

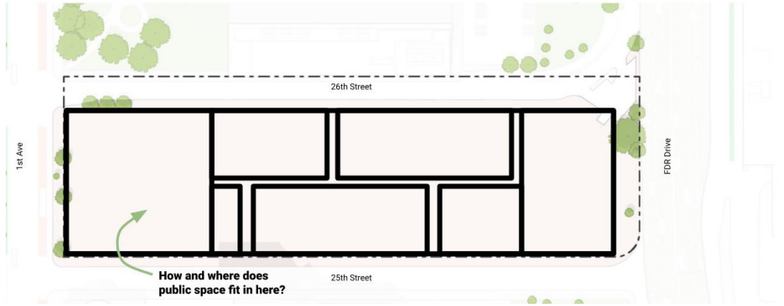


*WXY Building Area is included within BMCC's program

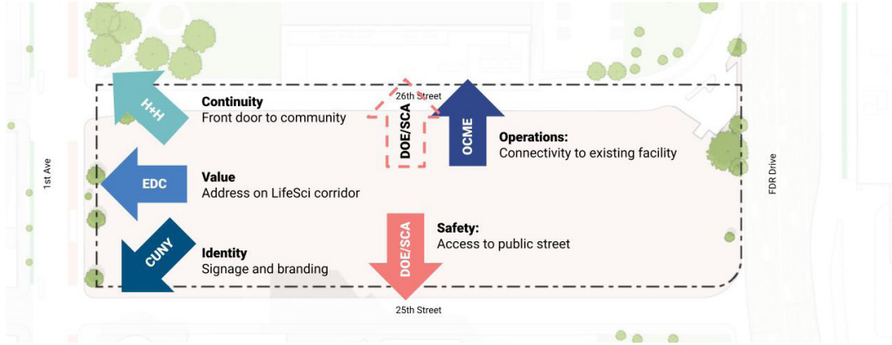
What We Heard: Key Takeaways



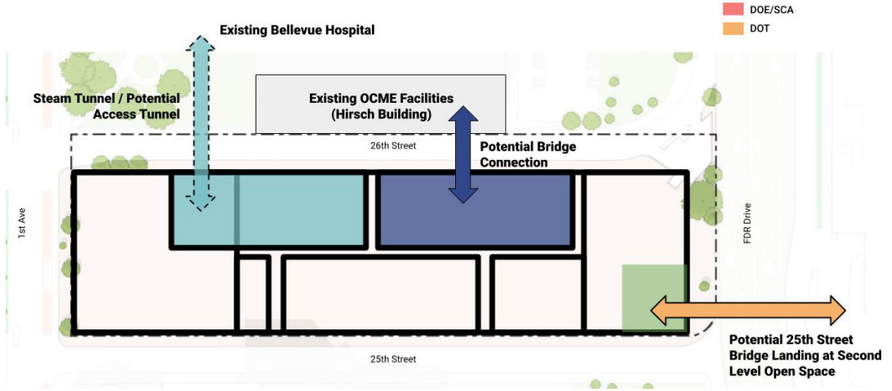
1 All users express an interest in being **part of a campus**, but within their own **standalone facilities**.



2 Everyone is interested in **public space**, but almost all require secure perimeters with **limited public access**.

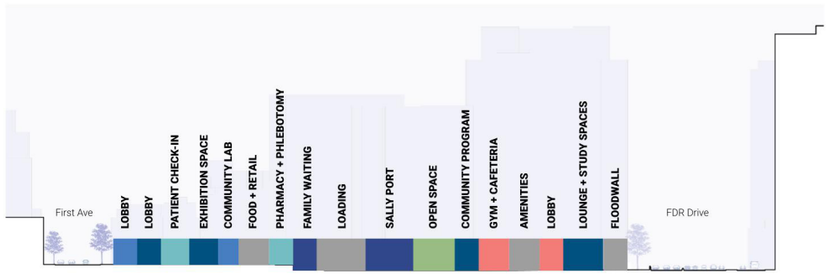


3 **Street frontage and visibility** are critical for all users

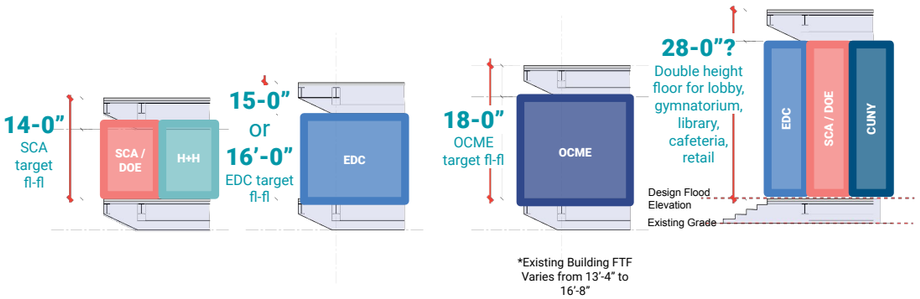


4 Multiple users have identified potential **connections to adjacent (off-site) facilities** that will need to be coordinated.

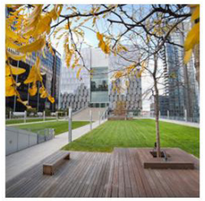
What We Heard: Key Takeaways



5 Regardless of specific location on site, **ground level space** will be at a premium.

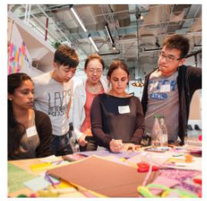


6 Different users have **different floor-to-floor height** standards, complicating (or adding cost to) shared facilities.

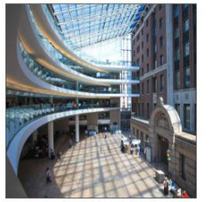


DOE/SCA
Campus Green

OCME
Conference Space



EDC
Community Lab



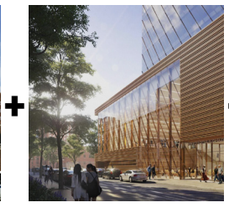
H+H
Atrium/Check-in

CUNY
Student Success / Workforce Development "One Stop Shop"

7 Most users identified shared space and synergy as desirable to encourage **collaboration and collisions**, but there is **not specific space identified** for this within individual programs (yet).

SCA
The education hub of the future

OCME
The forensic pathology center of the future



EDC
The life sciences lab of the future

H+H
The outpatient ambulatory and simulation center of the future

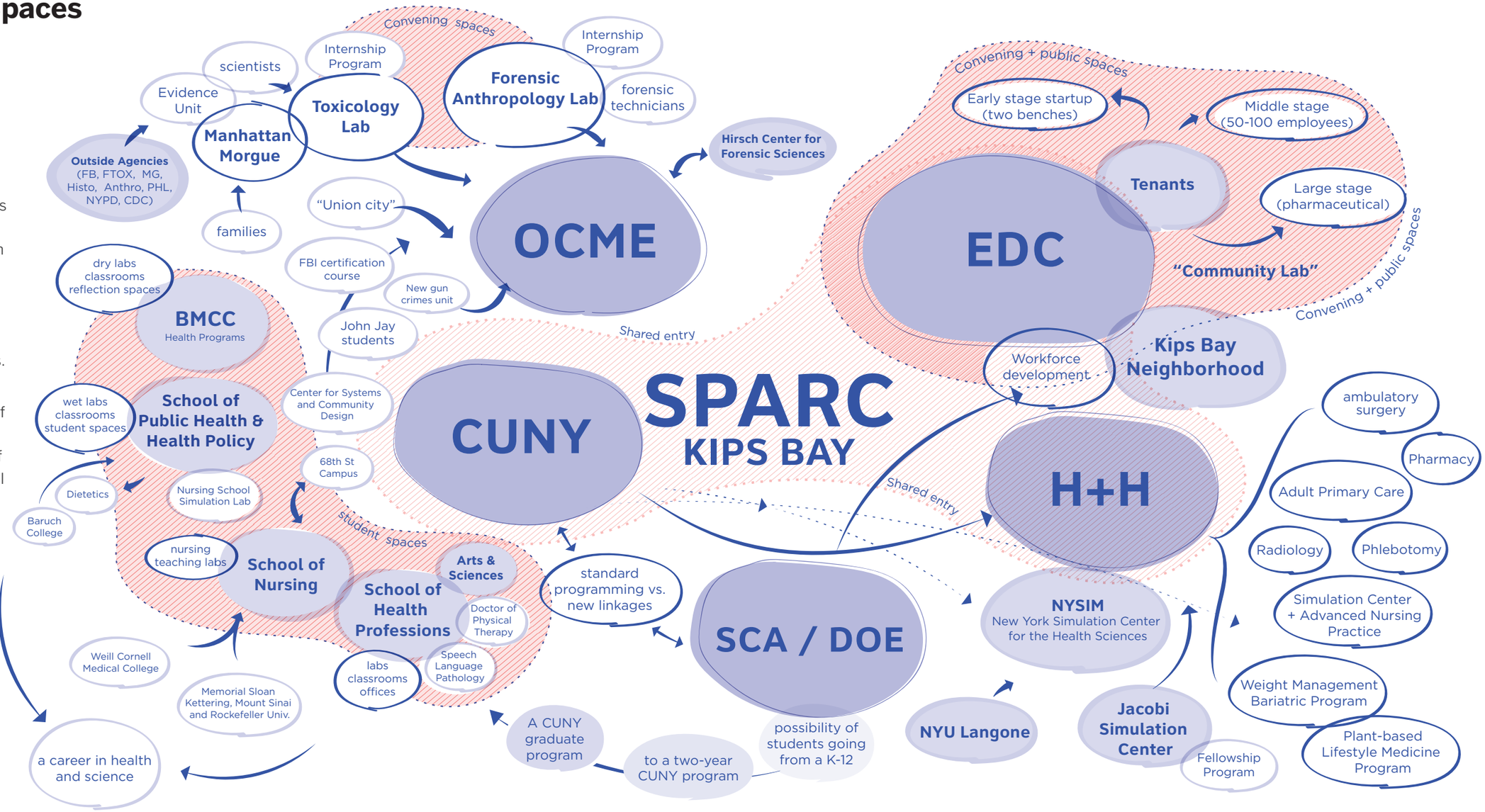
CUNY
The public university and workforce hub of the future

8 All users wants innovative, best-in-class facilities, but there is an understanding that **flexibility and adaptability** are critical, given the time this will take to happen (5-10 years).

Potential Shared Spaces

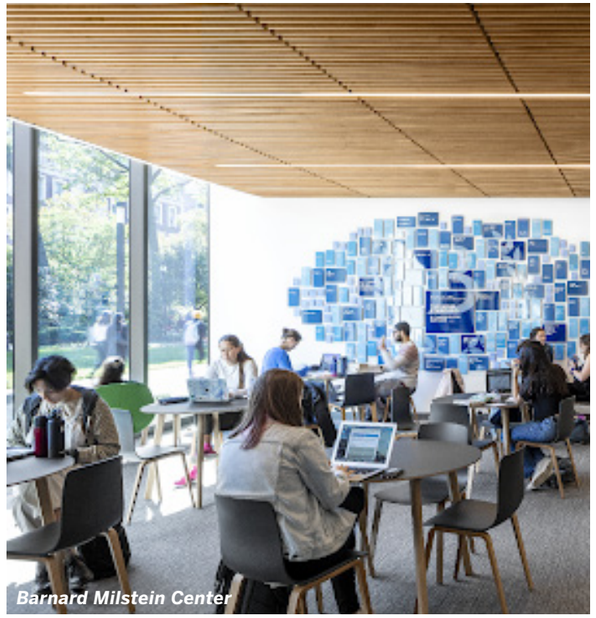
The five primary stakeholders on campus have their set of programs, centers, institutes, and initiatives, which are diagrammed here in a notional way. This "mind map" of sorts shows how the programs connect together across user to create a mesh network of relationships supporting the vision for SPARC Kips Bay. This has started to reveal where there are potential synergies across users that might result in the sharing of facilities.

Based on this mapping of relationships, three particular types of shared spaces rise to the top: shared uses across the academic divisions of CUNY, shared uses at the ground level such as community and convening spaces, and the the shared “glue” of public space that brings these programs together.



Potential Shared Spaces

How can shared academic programs and spaces help to realize necessary efficiencies while creating valuable synergies for the 5,000+ students and 1,000+ faculty and staff on site?



Barnard Milstein Center

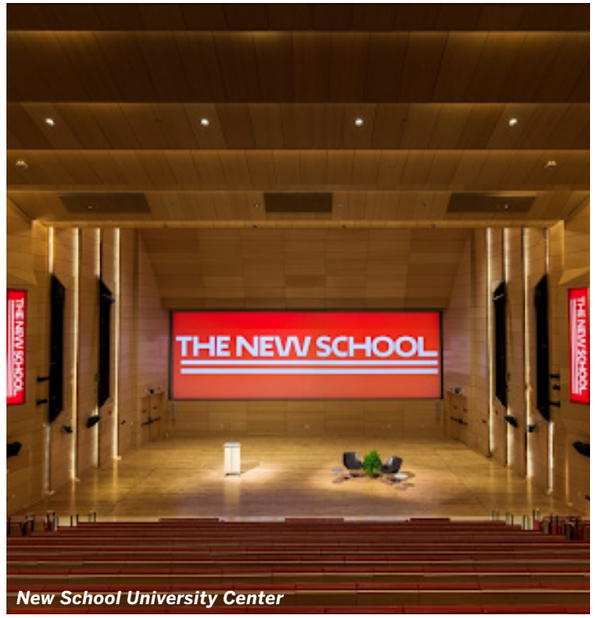
Study Spaces

There are a large number of potential shared study spaces across the various academic programs on site, from informal lounge spaces to a shared CUNY library.

Biogen Community Lab, Kendall Square

Simulation and Nursing Skills Labs

Multiple programs require teaching labs and classrooms, some of which need to be dedicated but some that could be part of a shared resource pool across institutions. Core lab facilities, such as a vivarium, may also be shared.



New School University Center

Auditorium

Large-format spaces, such as auditoria, conference and event spaces, or a cafeteria could be shared and managed by CUNY rather than individual schools.

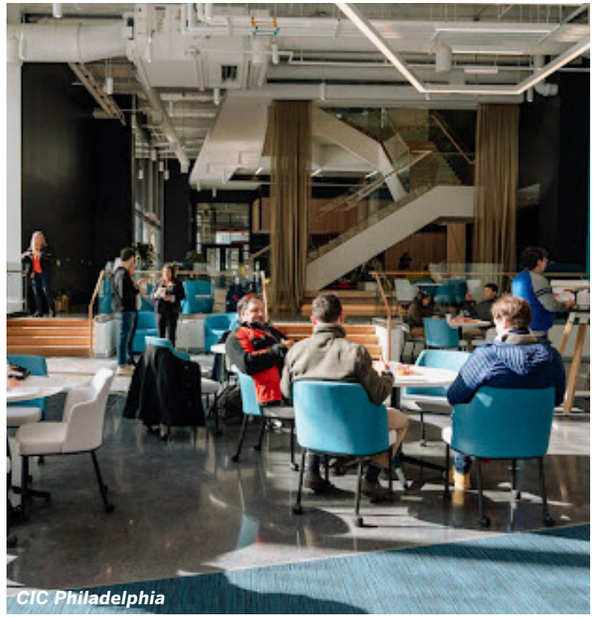
Columbia University Manhattanville

Recreation and Wellness

Spaces for recreation and wellness – including a gym/ fitness center, club spaces, student services, prayer rooms, and other amenities could be shared by all CUNY schools.

Potential Shared Spaces

How can the ground floor, even while accommodating all the technical needs of each facility, be something that is active and community-focused?



CIC Philadelphia

Forum/Breakout Spaces

Breakout spaces encourage different users to interact. Can these be deployed in ways that put different groups of people right next to each other and spark conversations?

Alexandria Center

Cafe/Food Service

Cafes, places to grab lunch, and to foreground health and wellness will be essential. Everyone has this need, so can we take advantage and do something really interesting?

Elementum, Singapore

Exhibition Space

Exhibition and convening space puts the work being done on display and creates spaces that can host events and conferences. At SPARC, we can see the cutting edge of the full spectrum of life sciences and public health, together.

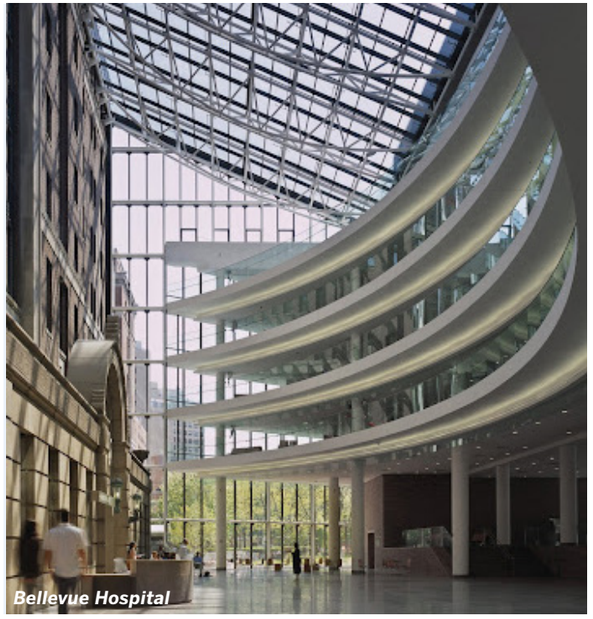
The Dalton School

Demonstration Labs

Demonstration spaces or “community labs” could be used by multiple programs on site or those that are doing community-focused work. They could be part of the LifeSci program but used by the DOE high school, H+H Demo Kitchen, CUNY in any of their outreach programs, or others.

Potential Shared Spaces

How can public space unify and connect a campus while maintaining necessary privacy and security?



Bellevue Hospital

Atrium/Entryway

We already see the potential for great interior space at the Bellevue Hospital entry on First Avenue, just north of the SPARC site. A shared atrium or entryway could provide light-filled access to multiple facilities or spaces for sitting, eating, or having impromtu meetings.

Wellesley Science Center

Community Garden

Multiple users could benefit from garden space, perhaps at upper levels in the project, which could serve H+H, CUNY, and other facilities and could perhaps be managed or curated by students.

Citi Headquarters, TriBeCa

Entry Plaza

An entry plaza as the forecourt to multiple facilities would echo the courtyard at the Brookdale campus today, providing access to nature and an escape from the city.

Elevated Acre, Lower Manhattan

Open Outdoor Space

All users express an interest in outdoor space. A shared space within the block, perhaps above the ground level, could be accessible from all facilities and take advantage of the proximity to other adjacent green spaces as well as views to the river.

NYC/EDC SOM