



RUTGERS UNIVERSITY PHYSICAL MASTER PLAN

RUTGERS 2030

VOLUME 2: NEWARK

JUNE 18, 2015

PREFACE

Rutgers University embarked on Rutgers 2030 in May 2013, the first comprehensive master plan in over a decade, and the first to incorporate Rutgers Biomedical and Health Sciences (RBHS), created from the integration of the University of Medicine and Dentistry of New Jersey (UMDNJ) with Rutgers University in July 2013. The physical master plan complements the Rutgers University Strategic Plan, prepared in conjunction with the Boston Consulting Group, and approved by the Board of Governors in February 2014, and the strategic plans of each of Rutgers' component institutions.

Rutgers 2030 envisions development at Rutgers over a 15 year time frame, 2015–2030, and is comprehensive in its scope; taking into account buildings, the natural and constructed landscape, transportation, and infrastructure. The report consists of 3 volumes:

- Volume 1: Rutgers University – New Brunswick
- Volume 2: Rutgers University – Newark
- Volume 3: Rutgers University – Camden

RBHS is considered primarily within Volume 1 although constituent elements are found across Rutgers.

The scope of input was broad, involving survey responses from approximately 8,000 members of the community, over thirty presentations and town hall meetings, and meetings with many administrative faculty, and student groups.

This study would not have been possible without the leadership of Rutgers University President Robert L. Barchi and support of Chancellors Nancy Cantor, Richard Edwards, Phoebe Haddon and Brian Strom. In addition, the Physical Master Plan Executive Steering Committee, Rutgers University Facilities and Capital Planning members, Deans, staff, faculty and students contributed invaluable insight to the development of the project.

The master plan consulting team included Robert A.M. Stern Architects, Sasaki Associates, VHB, Buro Happold, and Toscano Clements Taylor.

Volume 2: Newark

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3

THE PLANNING CONTEXT

3.1 RUTGERS UNIVERSITY–NEWARK AND THE CITY

3.2 CLASSROOMS

3.3 OPEN SPACE AND NATURAL SYSTEMS

3.4 MOBILITY



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DR. HILDA HIDALGO WAY

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WALKER COLLEGE OF BUSINESS

Introduction

In the late 19th and 20th centuries, four educational institutions were founded in Newark: New Jersey College of Pharmacy, New Jersey Law School, Newark Institute of Arts and Sciences, and Mercer Beasley School of Law. New Jersey Law School gave rise to Dana College and the Seth Boyden School of Business shortly thereafter. Alliances and partnerships between these schools resulted in their eventual incorporation into the Rutgers system in 1946. In the 1960s, the school's various locations were consolidated onto its current campus in the University Heights neighborhood of the city.

One of RU–N's defining legacies is one of diversity. The origins of this legacy date to 1969, when the Black Organization of Students (BOS) held a peaceful takeover of Conklin Hall to protest Rutgers' policies for people of color, regarding admissions, hiring, and the academic experience. The protest led to negotiations between BOS and Rutgers administrators, aimed at improving diversity at RU–N, which was 95% white despite a predominantly African-American population throughout the city. Though the agreement was negated by the faculty one week later, Rutgers' Board of Governors responded by establishing a new program

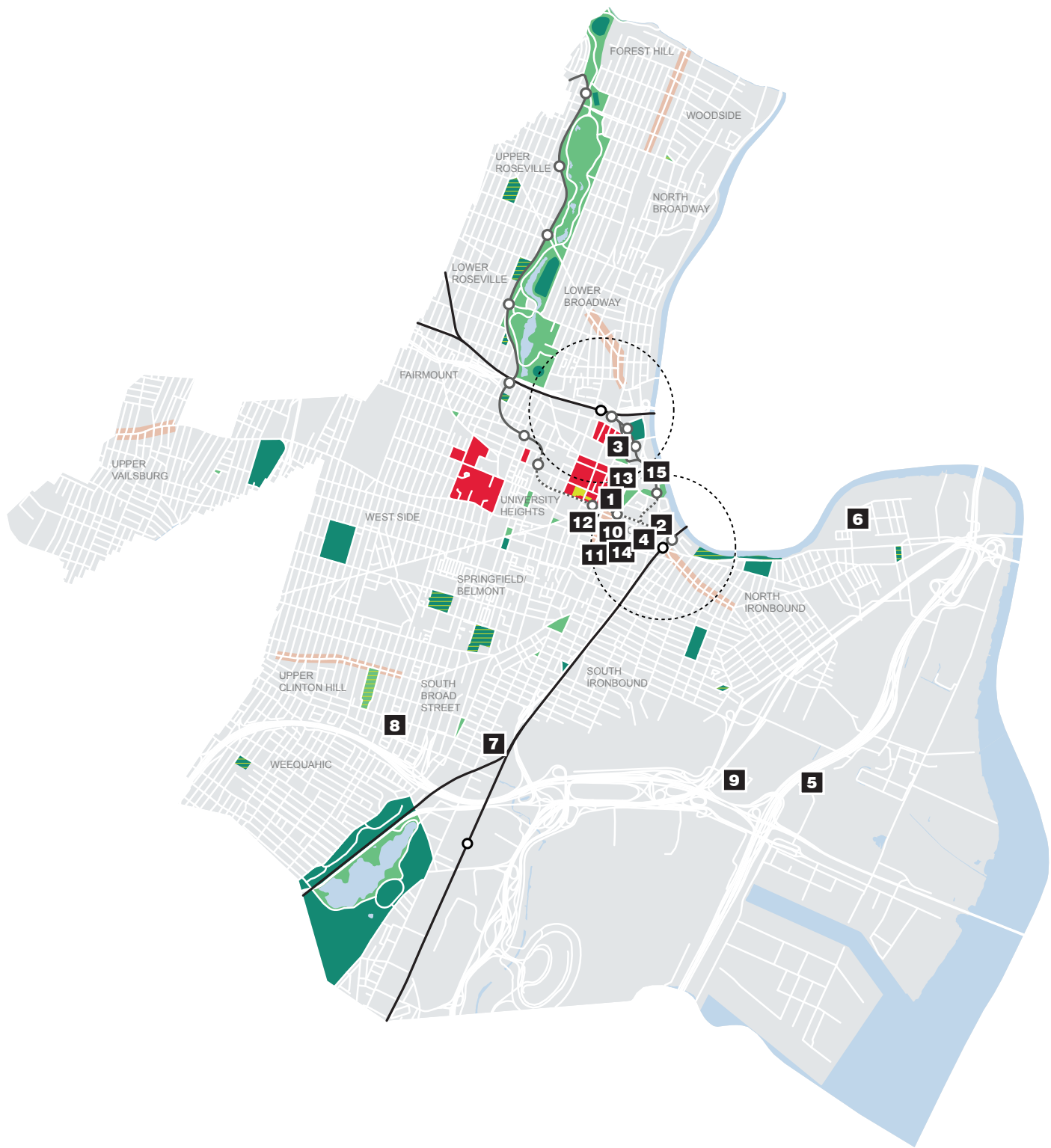
to encourage the enrollment of unrepresented groups. The enduring commitment to diversity has defined Rutgers, which has been ranked by U.S. News & World Report as one of the most diverse universities in the country.

Academics have expanded at RU–N as the school has grown, with enrollment today of more than 12,000 students. The University offers signature programs in six colleges, with an emphasis on cross-cutting, multi-disciplinary scholarship.

Because RU–N is embedded in the City of Newark, its planning context is intertwined with new development in the Central Business District, and with its institutional neighbors, NJIT and Essex County College. This section summarizes key elements of the campus planning context, including city development projects, planned projects at RU–N, student life, classrooms, open space, topography, and mobility. The planning context, in combination with the University's strategic vision, identify opportunities and challenges to be addressed in the master plan framework.

RECENT DEVELOPMENT

- 1. Prudential
- 2. Panasonic US
- 3. Audible.com
- 4. Standard Chartered Bank
- 5. Manischewitz
- 6. Wakefern Food Corporation
- 7. Evertile Flooring Company
- 8. Bartlett Dairy & Food Service
- 9. Ironbound Film Studios
- 10. Hotel Indigo
- 11. Courtyard Newark
- 12. Teachers Village
- 13. Hahne's Building
- 14. Four Corners Millennium Project
- 15. One Rector Street



3.1 Rutgers University–Newark and the City

AREA DEVELOPMENT + DRIVERS

The City of Newark is currently experiencing a period of renaissance, with new development ranging from corporate headquarters and distribution operations to housing and hotels. Newark's population is also growing, reversing decades of population decline; it remains New Jersey's largest employment center, with 150,000 jobs.¹

A significant amount of recent and ongoing development is currently transforming the city, triggered by corporate headquarter projects facilitated by Urban Transit Hub tax credits. Urban Transit Hub tax credits have attracted a significant level of commitment from corporations, taking advantage of Newark's unique location as the East Coast's largest container port, with proximity to New York and Newark Liberty International Airport. Corporations that have recently built major facilities in Newark include financial services and electronics companies like Panasonic US, Prudential, Standard Chartered Bank, and Audible.com, while the City's shipping capabilities have attracted companies like Manischewitz, Wakefern Food Corporation, Evertile Flooring Company, and Bartlett Dairy & Food Service.



Three major corporations – Audible.com, Prudential, and Panasonic US – have currently established their main office in Newark. Several other corporations have established offices or distribution centers in Newark: Standard Chartered Bank, Wakefern Food

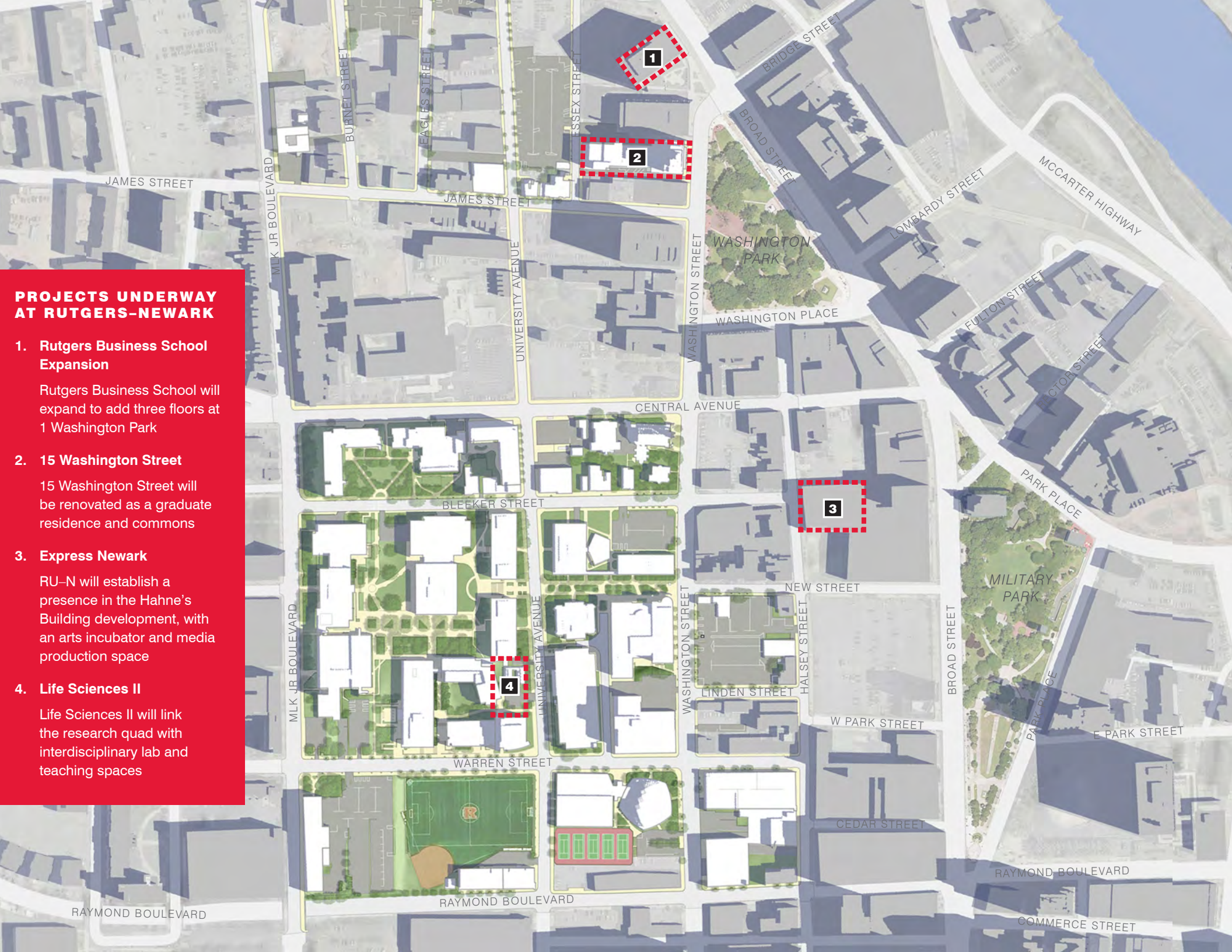
Corporation, Evertile Flooring Company, and Bartlett Dairy & Food Service.

This development has impacted Rutgers University–Newark (RU–N), not only in its proximity to campus,

1. *Newark's Master Plan: Our City, Our Future*, City of Newark, 2012: p 19.

PROJECTS UNDERWAY AT RUTGERS-NEWARK

- Rutgers Business School Expansion**
Rutgers Business School will expand to add three floors at 1 Washington Park
- 15 Washington Street**
15 Washington Street will be renovated as a graduate residence and commons
- Express Newark**
RU-N will establish a presence in the Hahn's Building development, with an arts incubator and media production space
- Life Sciences II**
Life Sciences II will link the research quad with interdisciplinary lab and teaching spaces

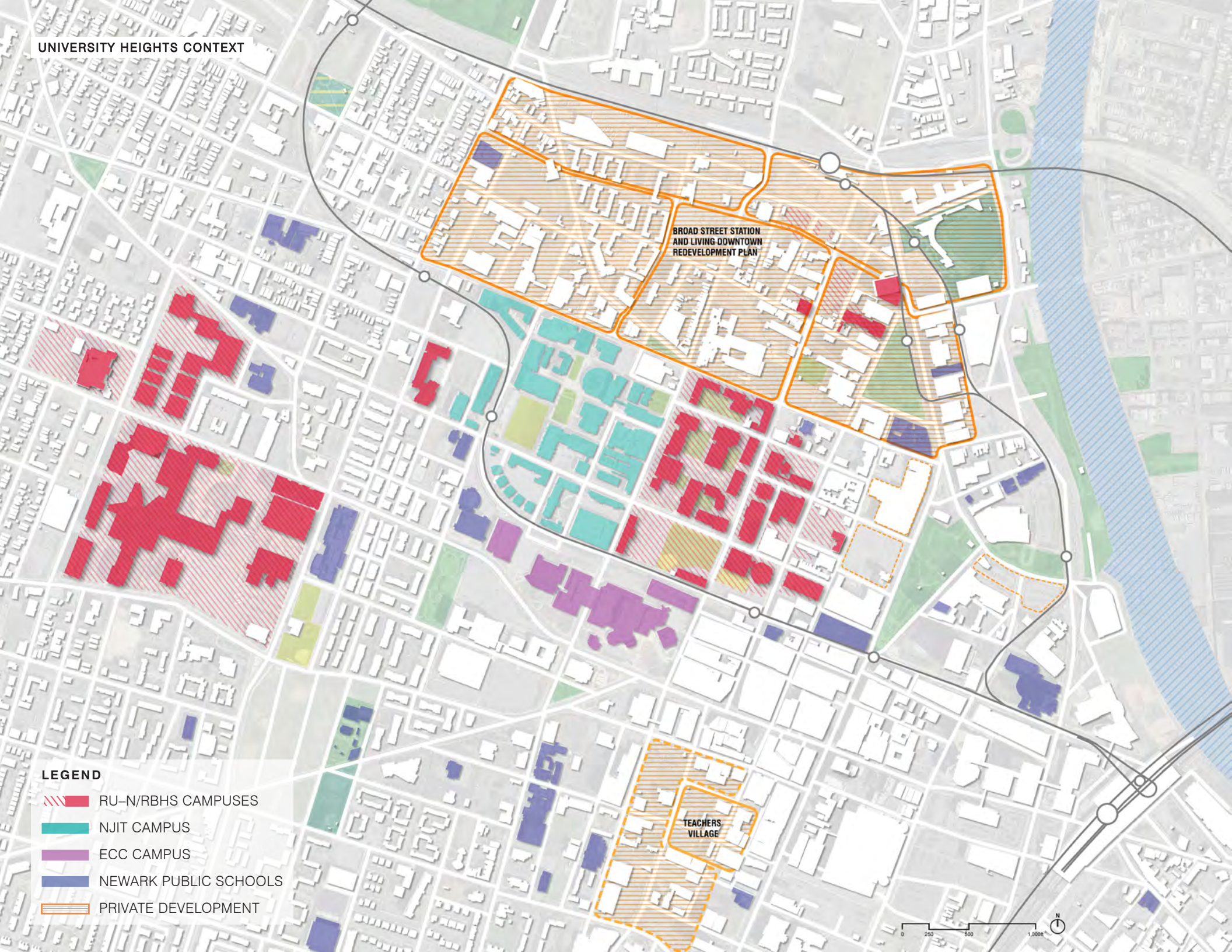


but also in terms of supporting development (retail, restaurants, etc). The influx of new development has brought additional development to the city, including market-rate housing, affordable housing, and new hotels, primarily located in the Central Business District (CBD). Recent and future development in the CBD includes affordable housing such as Teachers Village, as well as market-rate housing at the Hahne's Building and at a new residential high-rise to be built adjacent to NJPAC on Rector Street. Two hotels have also recently opened in the Central Business District – the first new hotels in almost a decade.

This corporate development activity has attracted a secondary wave of development: affordable housing, condos, hotels, and some retail and entertainment, largely located in the Central Business District. Of particular significance for RU-N is the new Prudential HQ development. The new complex, located adjacent to the renewed Military Park, will relocate approximately 2,400 employees who currently work in the Gateway office complex adjacent to Newark Penn Station. The new building brings the Gateway employees within a few blocks' walking distance from the Prudential office complex at Prudential Plaza on






UNIVERSITY HEIGHTS CONTEXT

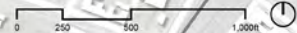


BROAD STREET STATION
AND LIVING DOWNTOWN
REDEVELOPMENT PLAN

TEACHERS
VILLAGE

LEGEND

-  RU-N/RBHS CAMPUSES
-  NJIT CAMPUS
-  ECC CAMPUS
-  NEWARK PUBLIC SCHOOLS
-  PRIVATE DEVELOPMENT

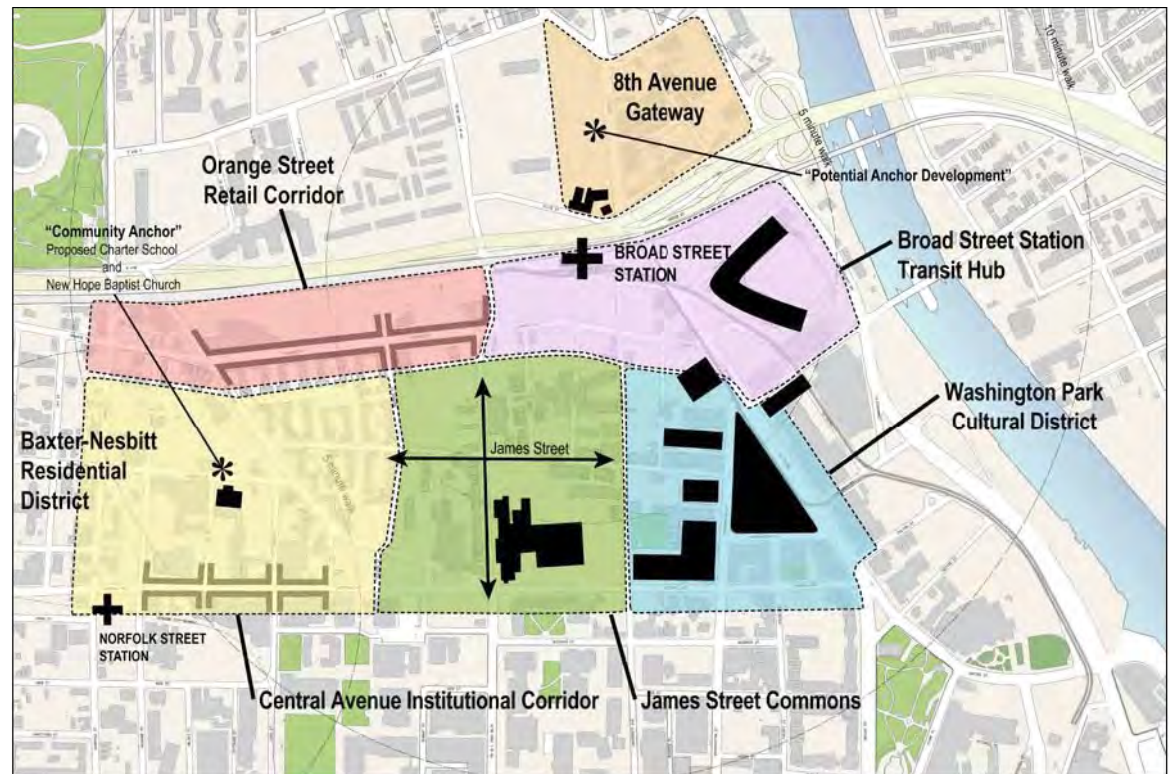


Broad Street. Construction is almost complete on the new headquarters, and will include ground floor retail in addition to offices and structured parking; the building is expected to open in 2015.

Prudential has been an active partner in other development projects in the area – notably, the Hahne’s Building redevelopment adjacent to Prudential. This mixed-use development includes a Whole Foods on the ground floor and residential units on the upper floors, in addition to Express Newark, an arts incubator. Prudential was also involved in the revitalization of Military Park, and is advocating for a robust retail presence along New Street. Though structured parking will be built on the north side of the Prudential development, the corporation is fully invested in developing active streetscapes, with ground-floor retail planned for the structured parking.

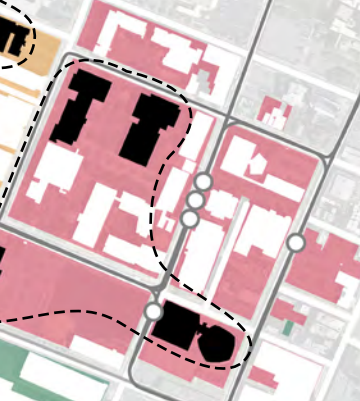
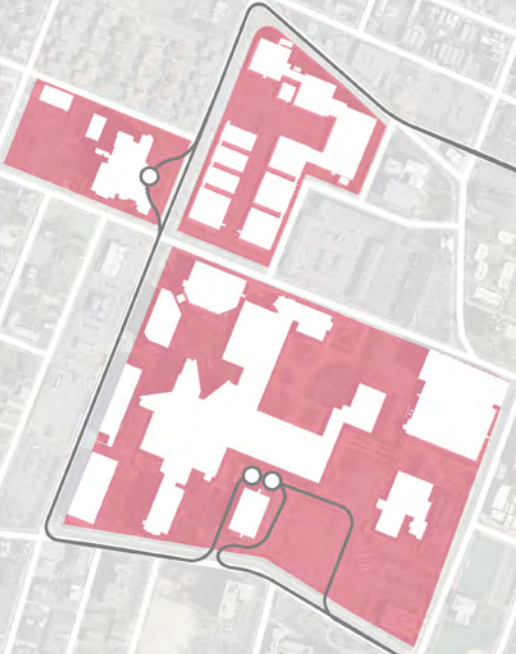
GROWTH AT RUTGERS

Rutgers is strategically poised to effect a regional impact with the development of its campus and its partnerships throughout the city. It has already begun to engage the community with Express Newark, the








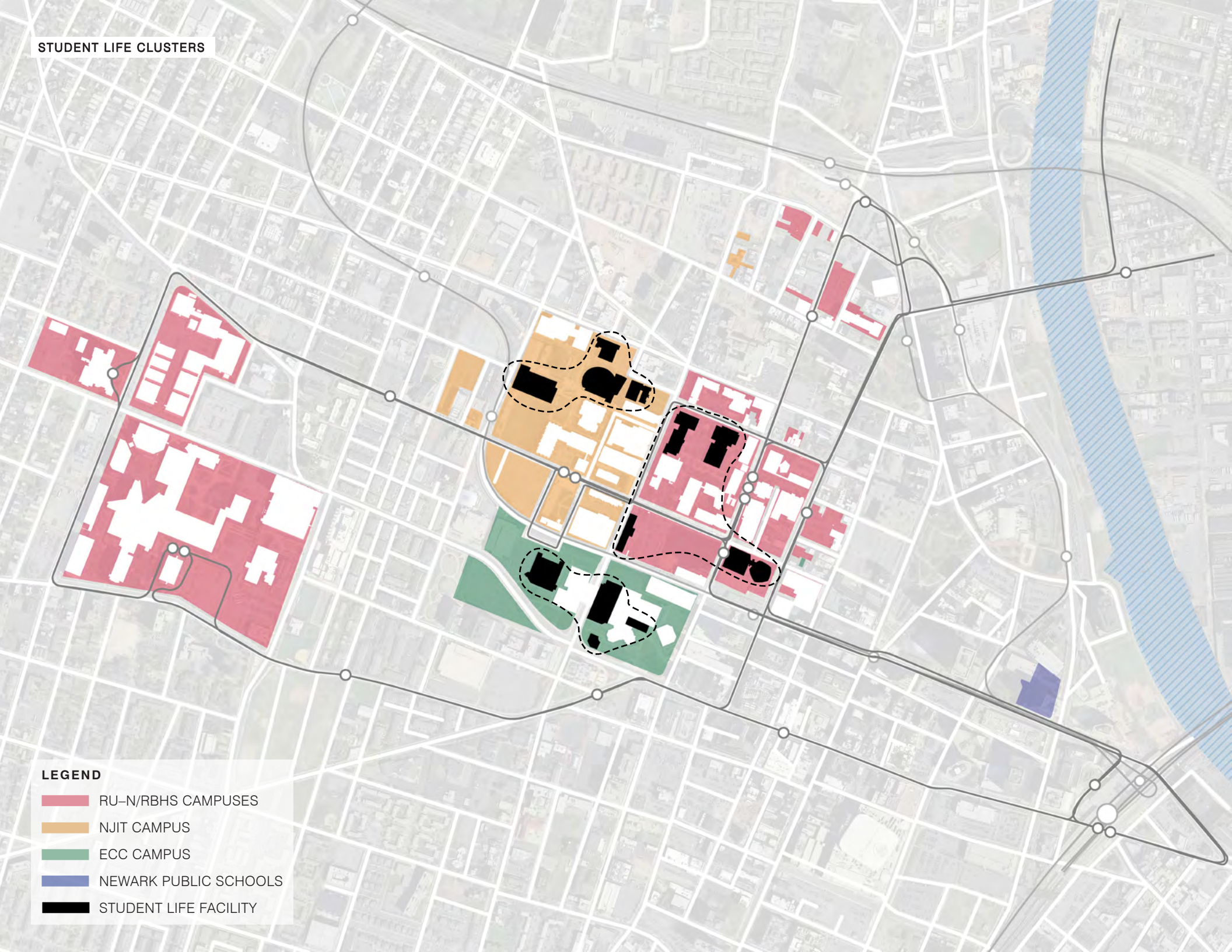
The Broad Street Redevelopment Plan envisions a residential district, anchored by retail, and supported by the light rail station and nearby educational institutions. NJIT’s 2008 Gateway Master Plan covers the James Street Commons area of the plan, and also includes a combination of residential, retail, and some office space.

STUDENT LIFE CLUSTERS



LEGEND

-  RU-N/RBHS CAMPUSES
-  NJIT CAMPUS
-  ECC CAMPUS
-  NEWARK PUBLIC SCHOOLS
-  STUDENT LIFE FACILITY



arts incubator located in the Hahne's Building. This space will include classrooms, a film-making studio, exhibits from the Jazz Institute, art studios, a print studio, common spaces, and a community media studio and gallery space.

On campus, multiple capital projects are currently underway. Design is underway on the Life Sciences II building, funded by the 2012 higher education bond. At 1 Washington Park, Rutgers Business School is renovating and expanding on four floors of the building, with Audible.com expanding into an additional floor. A few doors down, 340 beds of graduate and undergraduate housing with common areas will be added at 15 Washington Street. The cumulative activity in Newark – a combination of private and public development – has put the city on an upward trend – one that the University has contributed to, and will continue to support as part of its master plan.

LONG-TERM DEVELOPMENT POTENTIAL

RU–N is neighbored by Essex County College to the immediate south, and NJIT to the immediate west. The University maintains open communication with these

institutions, as well as programmatic relationships including transfer students and joint degrees. The University Heights neighborhood is also home to a wide array of public and private primary and secondary schools, including Science Park High School, which moved into a new building adjacent to the Rutgers Biomedical and Health Sciences campus in 2009.

In addition to the Prudential and Hahne's developments, the area between Central Avenue and the Broad Street light rail station has long-term development potential as a partnership between private developers and, to varying degrees, Rutgers, NJIT, and ECC. All three institutions stand to benefit from investment in this area, and can help guide its development to ensure success. The City created a redevelopment plan for this area in 2008, as a residential district supported by significant retail.

UNIVERSITY HEIGHTS AND STUDENT LIFE

RU–N remained a commuter school until the 1970s, when the Talbott Apartments became its first residence hall. Today, the University's residential population has grown to approximately 1,300 students, out of a total

of 12,000 students. Bringing the residential population to a critical mass is one of the University's strategic goals, while acknowledging that the university will remain primarily a commuter school. Both resident and commuter students currently support retail located in proximity to campus, and additional retail development will provide the Rutgers community with more options, as well as contribute to the economic health of the neighborhood. On campus, core student life facilities – campus center, library, bookstore, and athletics and recreation – are spread out across the campus, rather than clustered as is the case at NJIT and ECC.



3.2 Classrooms

Classrooms are rooms used for scheduled classes that are not limited in their use to a specific subject or discipline, by instructional aids or equipment, or room configuration. They are the primary learning environment for students; the master plan team studied this space in detail to assess whether the classroom inventory is serving the University's needs.

The table to the right summarizes the existing classroom space and utilization. Rutgers University–Newark has a portfolio of 138 classrooms, of which 132 were scheduled for use in Fall 2012. Fifteen classrooms are located in the Center for Law and Justice, under the School of Law, of which fourteen were scheduled for use in Fall 2012. These classrooms are used exclusively by the School of Law, and comprise 10% of the number of classrooms, but 15% of total classroom space. Aside from the School of Law, classroom seats are concentrated in four major buildings: Conklin, Hill, and Smith Halls; and One Washington Park.

Overall, classrooms at RU–N have below-average utilization ratios—the measure of Weekly Student Contact Hours (WSCH) generated versus the existing capacity. Some classrooms, such as those in the

TABLE 3.1 Summary of Scheduled Classroom Space and Utilization by Building

Building	Classroom Area (asf)	Classroom Count	Seat Count	Avg ASF/ Station	WSCH Generated	WSCH Capacity	Utilization Ratio
Ackerson Hall	5,550	2	340	17	3,260	13,600	0.240
Aidekman Research Center	858	2	40	21	12	1,600	0.008
Boyden Hall	4,597	2	393	12	4,410	15,720	0.281
Bradley Hall	5,338	7	314	18	3,314	12,560	0.264
Center for Law and Justice	19,103	14	838	26	8,690	33,520	0.259
Center for Urban and Public Service	3,699	4	204	19	3,473	8,160	0.426
Conklin Hall	18,146	28	1,217	17	16,980	48,680	0.349
Engelhard Hall	8,142	9	410	19	4,174	16,400	0.285
Hill Hall	13,916	19	943	16	14,266	37,720	0.378
Life Sciences Center	623	1	40	16	641	1,600	0.400
One Washington Park	31,482	26	1,223	27	28,291	48,920	0.578
Smith Hall	12,715	18	937	15	13,856	37,480	0.370
TOTAL	124,169	132	6,899		101,367	275,960	0.367

Note: Weekly Student Contact Hours (WSCH) are a measure of classroom usage and weights weekly room hours by enrollment in a given course.

Aidekman Research Center, may be underutilized because of location or specialization. Of the major classroom buildings, only 1 Washington Park has a utilization ratio close to the CEFPI target of 0.650.

RU–N has a high proportion of commuter students, which is reflected in the extended class schedule beyond the traditional window of 8am–5pm. As indicated by the overall utilization histograms, the

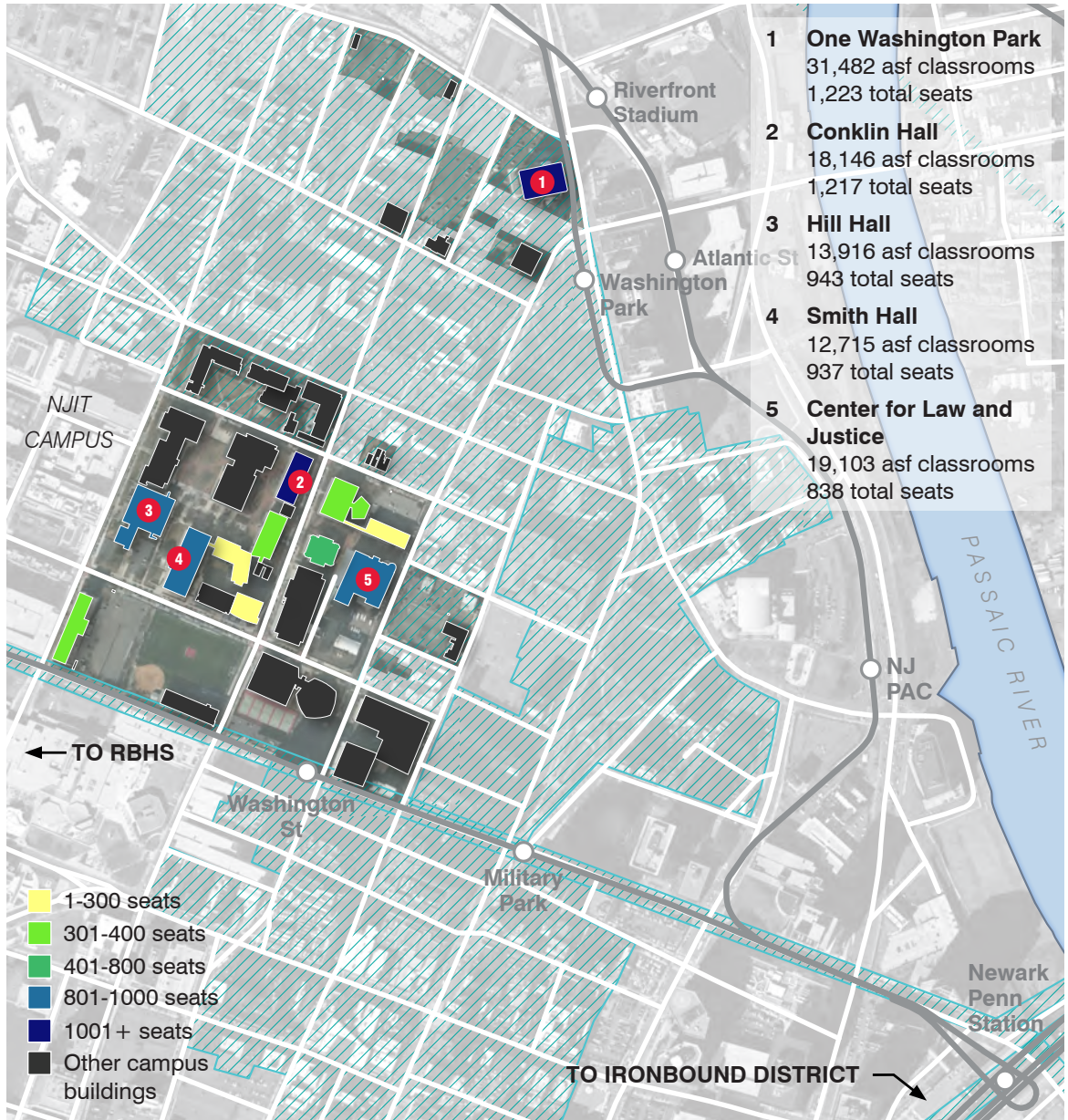
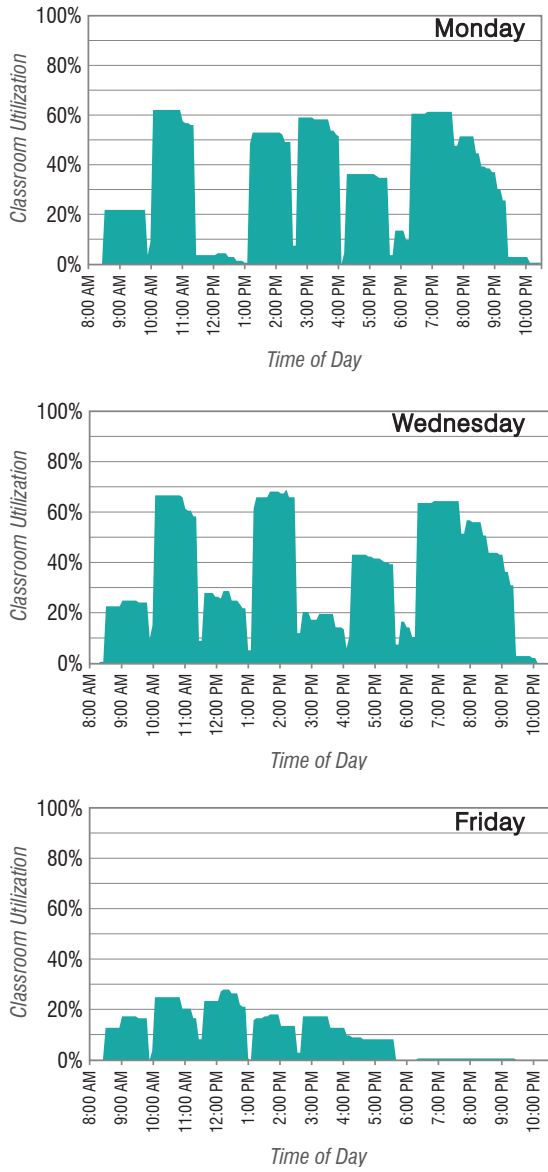
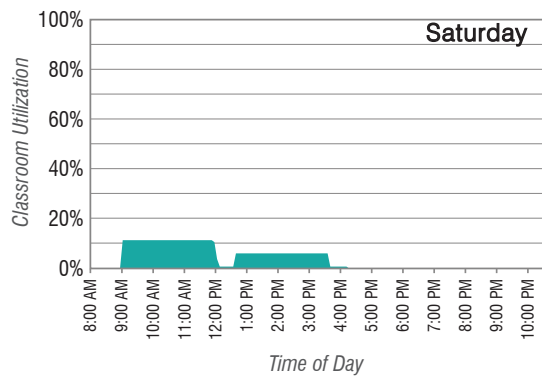
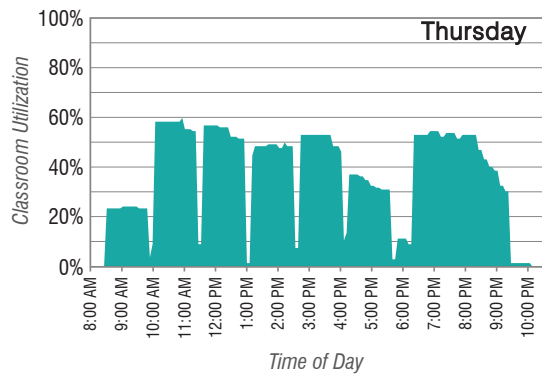
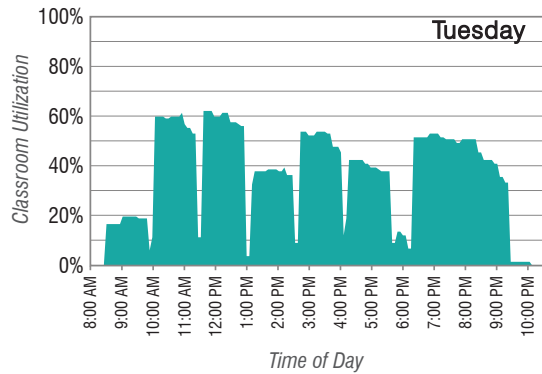


FIGURE 3.1 Classroom Utilization Histograms





RU–N campus schedules a significant proportion of classes in the mid to late evening between 6:30pm and 9:30pm, in part to accommodate evening students. Evening classes also tend to have longer blocks than day classes. Classroom utilization strongest on Tuesdays and Thursdays, which are consistently within range of the target of 65% utilization. Mondays and Wednesdays have pronounced peaks of high utilization between 10am-11am and 1pm-2pm, in addition to the evening. As is typical for institutions with many commuter students, utilization drops off on Fridays, throughout the entire potential scheduling window. A small number of classes are scheduled on Saturdays. Opportunities for additional classroom capacity include the early morning from 8am to 10am and the late afternoon from 2pm to 5pm, and Fridays. Given that there is significant capacity Monday through Friday, added utilization on Saturdays is likely unnecessary. The ability to capture the available classroom capacity will depend partially on the schedules of commuter students and adjunct faculty.

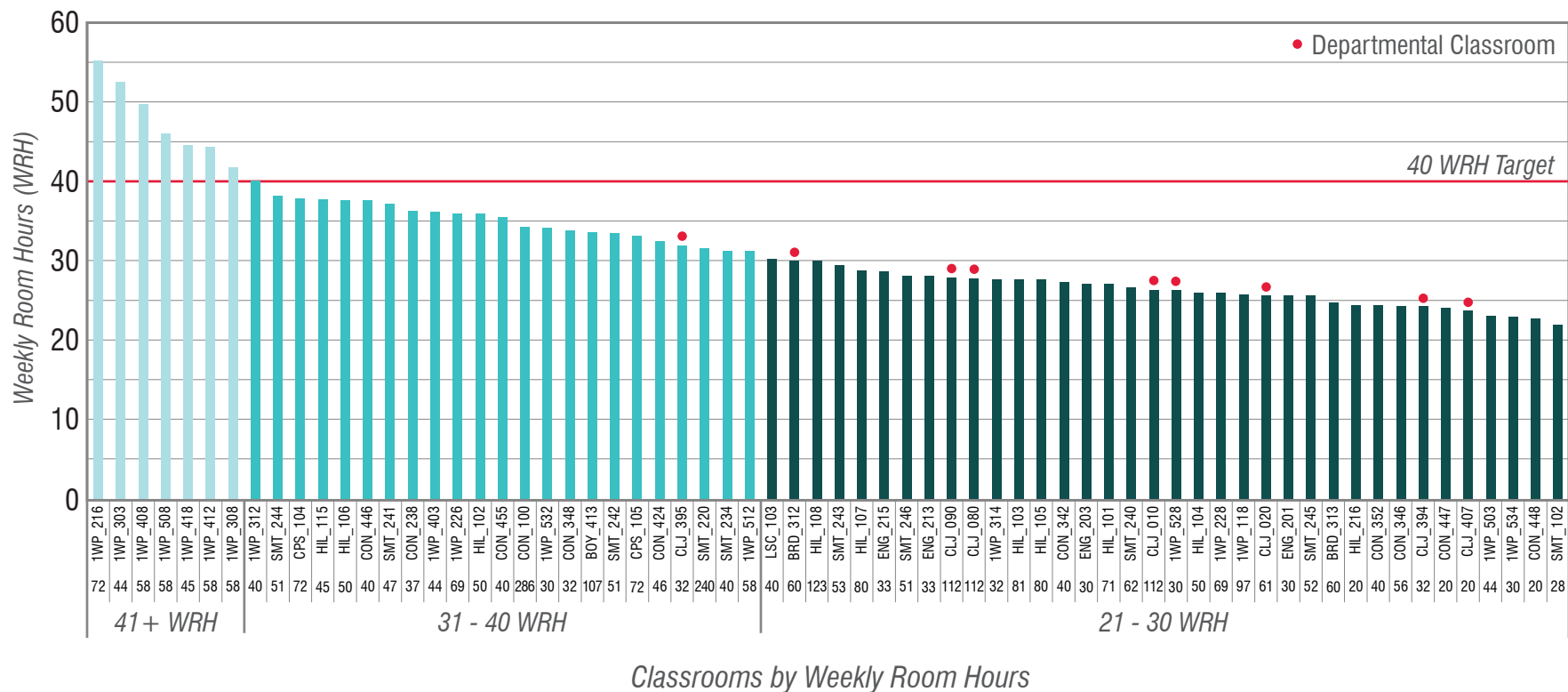
The University currently appears to have enough classroom capacity, overall. The distribution of classroom types indicates a majority of classrooms in

the medium range (26-75 seats) - slightly more than three quarters of the classroom inventory is comprised of this type of classroom. Slightly less than half of medium-sized classrooms are located in Conklin Hall and 1 Washington Park. Looking more closely at what classes are taught in medium-sized classrooms, the majority of classes at One Washington Park in medium sized classrooms are in the School of Business; at Conklin Hall, more than 90% of classes are in the College of Arts and Sciences.

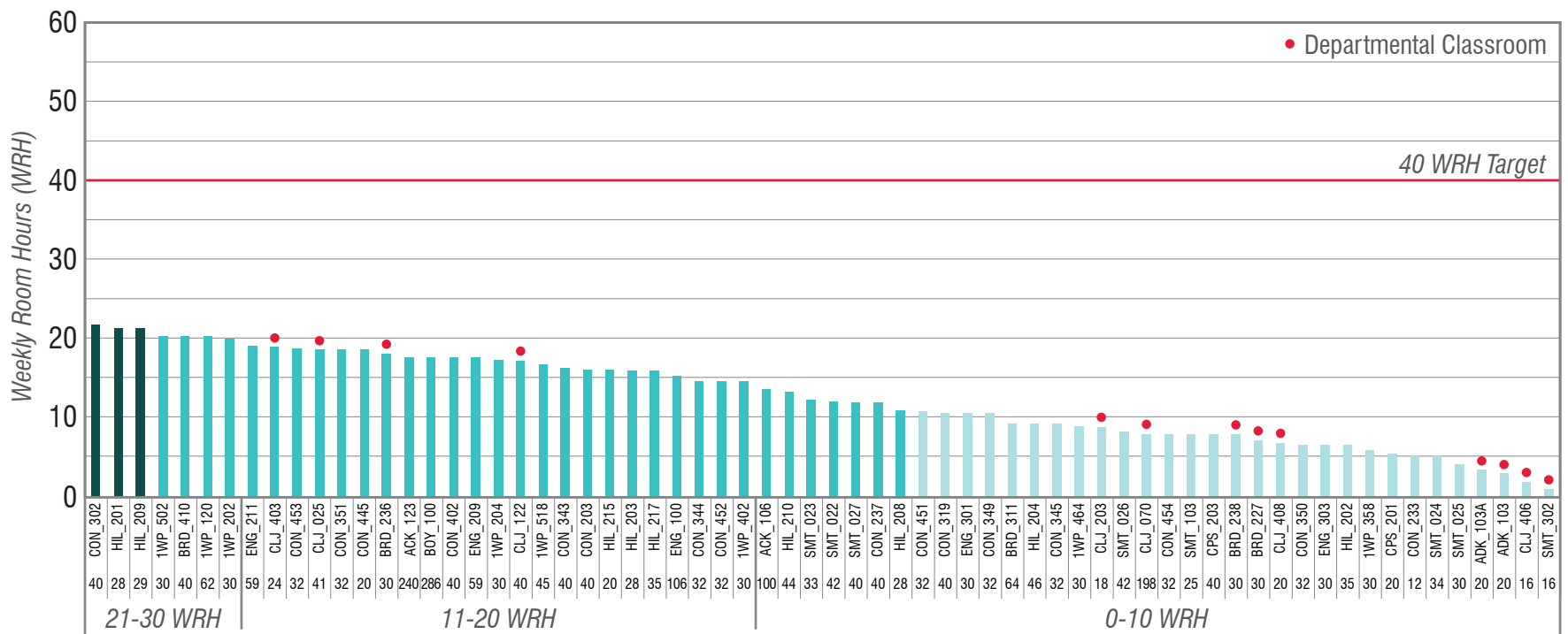
The average utilization ratio varies between room types; larger classrooms (76+ seats) are well utilized, while seminar classrooms are least well utilized. Classes taught in all of the larger classrooms are generally in the College of Arts and Sciences, especially in the largest rooms (201-300 seats), where Arts and Sciences accounts for nearly 90% of all weekly student contact hours (WSCH). The primary users of 76-100 seat classrooms are Arts and Sciences and Business; and Arts and Sciences and Law for 101-200 seat classrooms.

Looking at classroom utilization, a chart of Weekly Room Hours (WRH) sorted from high to low reveals

FIGURE 3.2 Newark Weekly Room Hours



Most classrooms at Rutgers University–Newark do not reach the 40 weekly room hour (WRH) target. This is partially due to the overall class schedule, which accommodates commuters and adjunct faculty. Still,



Classrooms by Weekly Room Hours

that almost half of the classroom supply achieves 30 hours or more, with the busiest rooms exceeding 40 hours per week. The top eight rooms in classroom utilization are located in One Washington Park, with capacities ranging from 40 to 72 seats. Classrooms in Conklin Hall also tend to be highly utilized. The other half are technically underutilized; the most underused rooms see fewer than 10 hours of activity per week. In some instances, departmental control over scheduling may be a factor in lower utilization - for example, classrooms dedicated to the Law School account for several classrooms with utilization below 10 WRH, including a large lecture hall (CLJ 070 at 198 seats).

QUALITATIVE FINDINGS

RU-N has a compact urban campus; still, most classrooms are concentrated in campus core, close to the Robeson Campus Center and the Dana Library. One major exception is One Washington Park, which is located a 10-minute walk from the campus core. However, nearly all Rutgers Business School classes are located at One Washington Park. The sole Fall 2012 class taught in the campus core was the Business Forum class in Administrative Studies, whose

six sections ranged 67 students to 271 students and required the use of Conklin 100 (286 seats). Bradley Hall was also noted for its relatively far distance from other classroom buildings.

Classroom facilities vary in age and condition; new classrooms in One Washington Park and the Life Sciences Center were well-reviewed by students who responded to the MyCampus survey. Older classrooms were most frequently described as being overcrowded, most frequently classrooms in Conklin Hall. In general, students are looking for an adequate supply of power outlets, enough space to store their backpacks, and easy viewing of the professor and chalkboards or projector screen.

While seat counts were not available for unscheduled rooms, they may contain capacity that would alleviate the need for small classrooms. In particular, two unused classrooms located in the Dana Library are 529 asf and 706 asf, and would accommodate seminar style rooms with up to 20 or 25 seats; these classrooms are dedicated to the Dana Library.

Capacity data were only available for classrooms in the

Registrar's data; the eight unscheduled classrooms were not included in the capacity and supply/demand analyses. These classrooms comprise 5,976 asf, and most are dedicated; only two classrooms, in Hill Hall and One Washington Park, are in the general inventory.

The primary needs for RU-N are the modernization of the classroom inventory, and potential strategies for improving classroom utilization. As the MyCampus survey findings indicated, the classrooms at One Washington Park are popular due to their modern configuration and amenities. However, they are generally scheduled with School of Business classes, so improvements are potentially needed in the campus core. The low utilization in some classrooms indicates that it would be possible to take some classrooms offline for renovation, while still accommodating the class schedule.

INSTRUCTIONAL LABS

Instructional laboratories are instructional spaces that require specialized equipment or specific room configurations for student participation, experimentation, observation, or practice. Wet labs

designed for chemistry or biology instruction are typical teaching labs, but a variety of arts studies also require labs. For example, sculpture, painting and dance studios are considered labs. Other types of labs include stages used for the performing arts or simulated trading rooms used in business instruction. Instructional labs may also serve as open labs during unscheduled hours when students work on special projects or access study materials. Computer labs capable of hosting instruction in multiple disciplines are best classified as classrooms and scheduled with the rest of the classroom pool.

Instructional labs at RU–N are dominated by labs in physical sciences, and in arts. Biology, chemistry, and physics labs are located in Boyden, Olson, and Smith Halls, as well as the Life Sciences Center; they range in size from 16 to 36 seats. Arts, Culture & Media labs are located in Bradley Hall, and range in size from 20 to 63 seats.

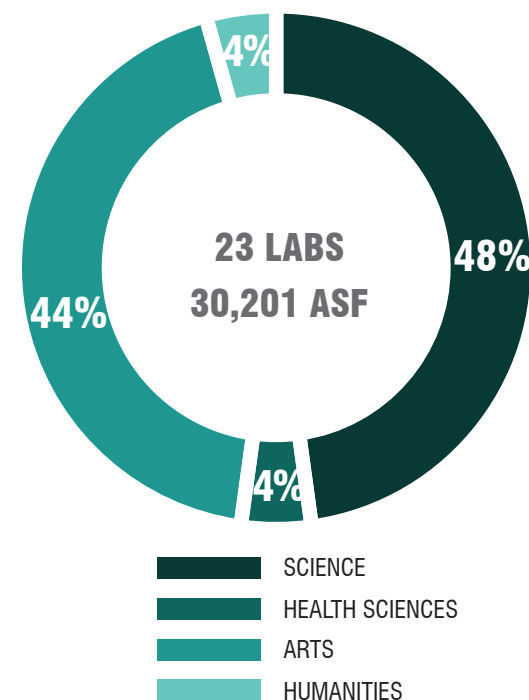
Overall, most labs do not reach the CEFPI target utilization of 25 WRH. Low utilization is typical for arts instructional labs, as they are generally studio space that has a significant proportion of open use. Lower

utilization can also be affected by qualitative issues, which are not fully captured by utilization metrics. The newer biology lab in the Life Sciences Center, built in 2006, significantly exceeds the target WRH, indicating that its facilities may be more modern and preferred to those of older biology labs in Boyden Hall, which have lower utilization in comparison. Utilization of the Anatomy and Physiology lab also exceeds the target WRH, and additional instructional lab capacity may be needed.

Arts labs in Bradley Hall typically have very low utilization, although this is typical of studio classes in which instructional space is open for use outside of scheduled class time. Other factors that affect lab utilization include location and whether desired class sizes match up with available classroom capacities. Labs that did not appear in the course schedule were not included in the analysis.

The analysis underscores the variability of utilization for instructional labs, and the importance of assessing them individually; opportunities may exist to relieve pressure on the busiest labs. The quality and fit-out of all labs should also be assessed on an individual

FIGURE 3.3 Number of Teaching Labs by Type

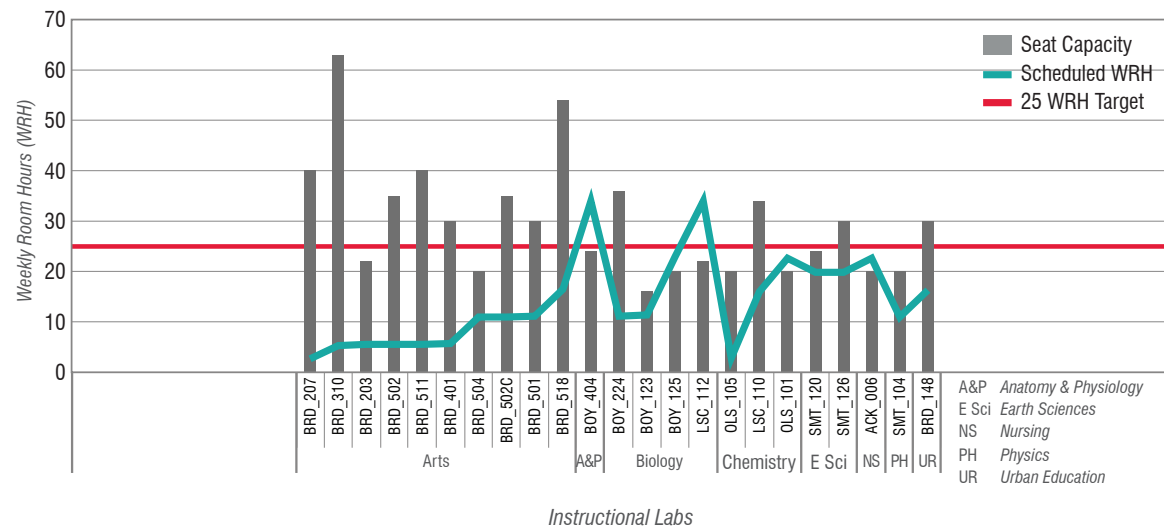


basis, given the variation between specialized needs from lab to lab. This facilities assessment can be informed by the individual schools' strategic planning processes.

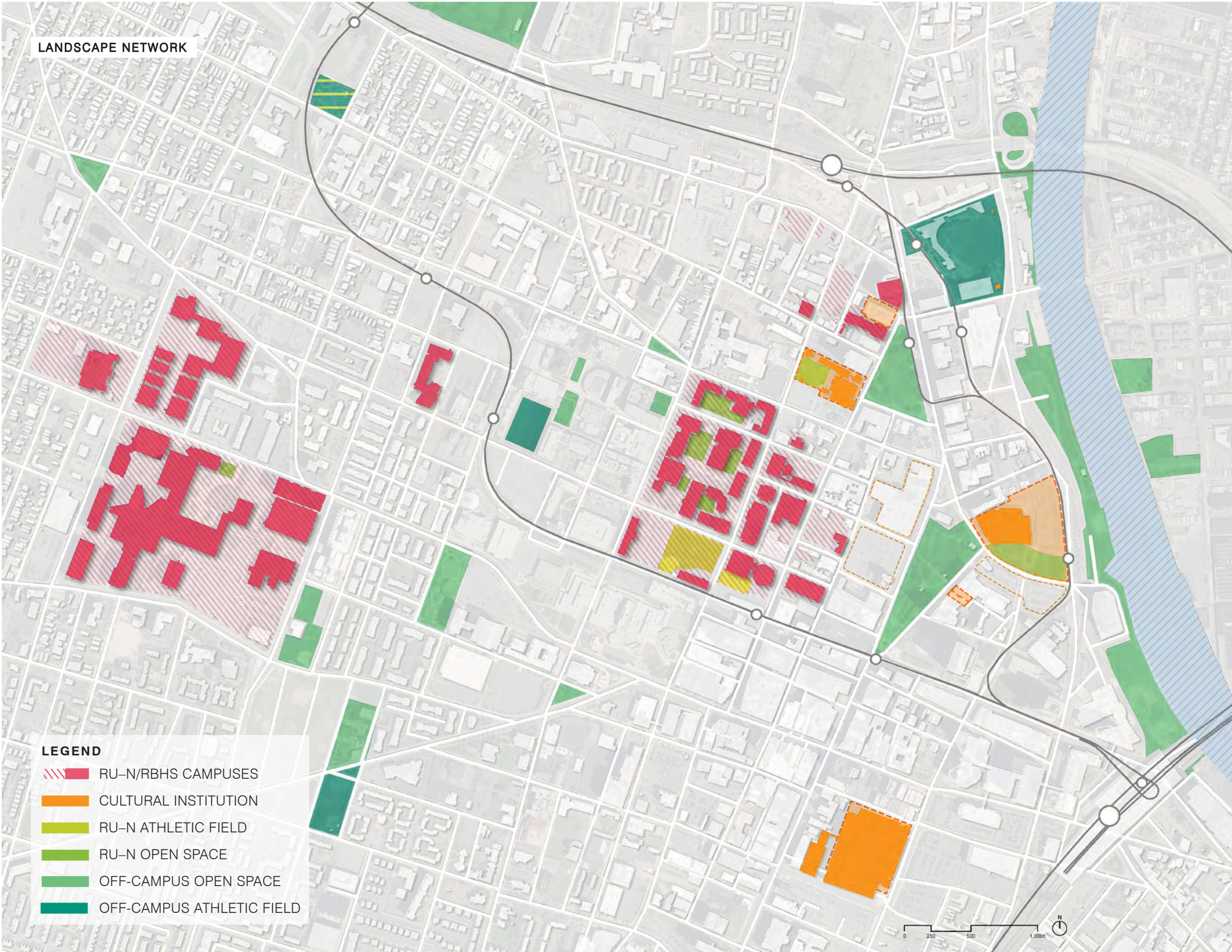
New instructional labs for chemistry are slated for inclusion in Life Sciences II, which was included in the November 2012 Higher Education bond issue. The building will also create a new life sciences complex on campus, by connecting Life Sciences I and Olson Hall to Boyden Hall and the Aidekman Research Center. New instructional labs in chemistry will help improve the quality of instructional space. Future space needs for instructional space in life sciences can be reassessed after Life Sciences II is completed, with the exception of additional capacity in anatomy and physiology labs. A key finding of this analysis is that a strategy for anatomy and physiology instructional space is needed.

Current and complete data is paramount to managing space efficiently; in particular, the correct coding of unused instructional lab space should be addressed.

FIGURE 3.4 Newark Instructional Lab Utilization



LANDSCAPE NETWORK



LEGEND

- RU-N/RBHS CAMPUSES
- CULTURAL INSTITUTION
- RU-N ATHLETIC FIELD
- RU-N OPEN SPACE
- OFF-CAMPUS OPEN SPACE
- OFF-CAMPUS ATHLETIC FIELD



3.3 Open Space and Natural Systems

TOPOGRAPHY + URBAN FABRIC

The City of Newark is an urban environment, with its highest density concentrated in the Central Business District and topography that slopes downwards from the western edge of the city to the Passaic River at the east. The majority of recent new development in Newark is located in the Central Business District, which has easy access to both New York City and Newark Liberty International Airport.

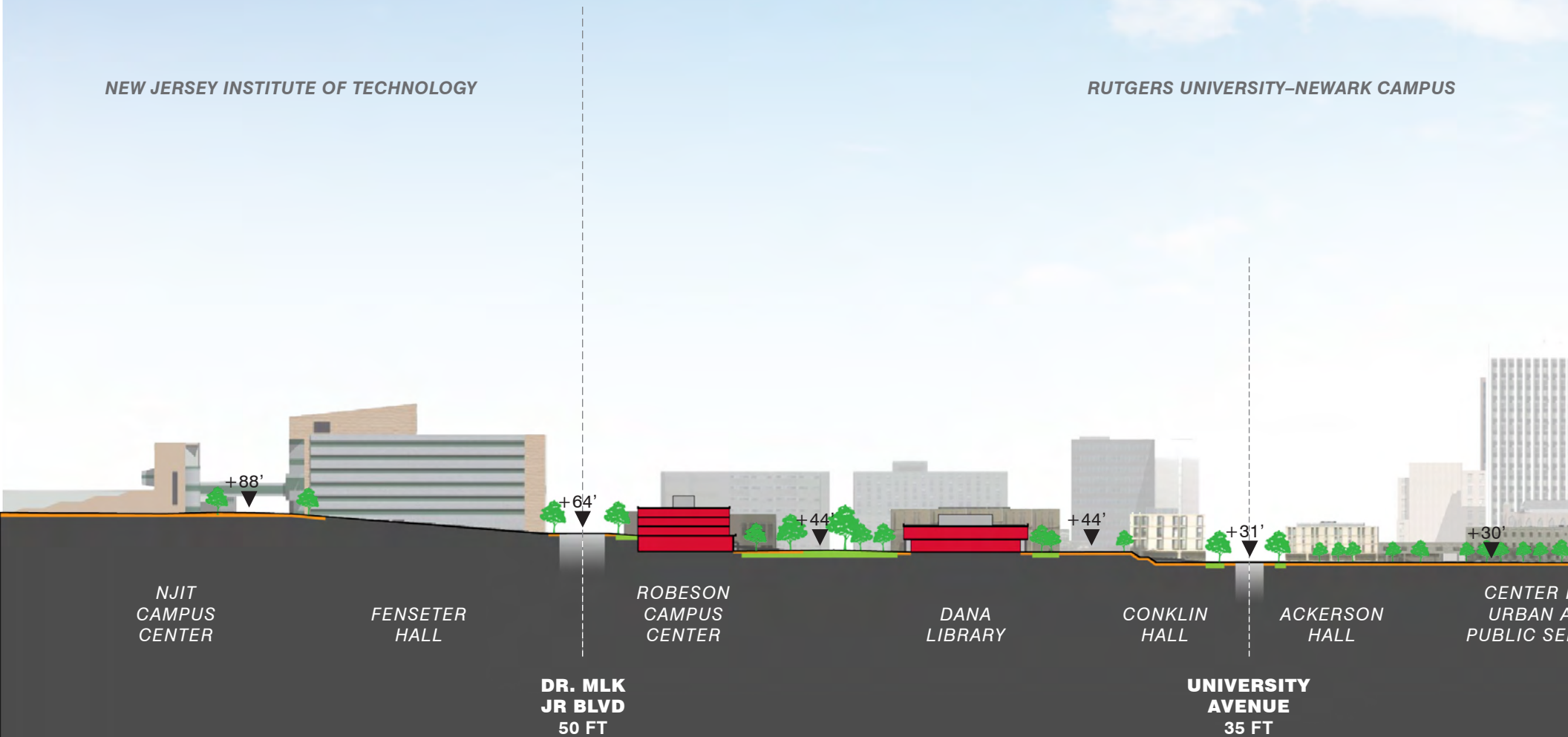
RU-N is located in the University Heights neighborhood, in between the Fairmount and Central Business District neighborhoods; its campus generally continues the high-density, compact urban environment of the adjacent CBD. There is significant grade change at the edges of the campus, particularly along Dr. Martin Luther King Jr. Boulevard (Dr MLK Jr Boulevard) and Bleeker Street, which help form the sunken courtyard at Norman Samuels Plaza. This grade change is navigated within the Robeson Campus Center with a central enclosed staircase. At the southwestern edge of campus, a retaining wall forms a barrier between RU-N and Essex County College as Raymond Boulevard passes underneath Dr MLK Jr Boulevard.



TOPOGRAPHY AT RUTGERS UNIVERSITY-NEWARK

NEW JERSEY INSTITUTE OF TECHNOLOGY

RUTGERS UNIVERSITY-NEWARK CAMPUS





*PRUDENTIAL DEVELOPMENT
+
HAHNE'S BUILDING*

MILITARY PARK

*NEW JERSEY PERFORMING
ARTS CENTER*



+31'

+34'

+34'

+38'

+35'

*FOR
AND
SERVICE*

*ACKERSON
HALL*

**WASHINGTON
STREET**
50 FT

**HALSEY
STREET**
30 FT

**BROAD
STREET**
80 FT

**PARK
PLACE**
25 FT



View of Norman Samuels Plaza looking south, with the Dana Library to the left

LANDSCAPE NETWORK

For an urban campus, RU–N has a significant amount of tree cover and open space. The network of campus open spaces is dominated by Norman Samuels Plaza, which connects the Robeson Campus Center and the Dana Library to form the heart of the campus. Norman Samuels Plaza was, at one time, completely paved; it was planted Secondary open spaces, including the New Street Plaza and the quad inside the life sciences complex, all connect to Norman Samuels Plaza. All three open spaces are populated by mature trees that provide shade in warmer weather, and are home to several species of birds. Landscaped areas on campus are planted with additional species of plants. RU–N’s annual BioBlitz event showcases the level of biodiversity present on campus.

Although the campus is limited in open space due to its urban location, it is adjacent to two city parks – Washington Park to the north, and Military Park to the east. These two parks extend the landscape network into the city, and more robust connections between the campus and these parks would be beneficial to all.

CULTURAL DESTINATIONS

RU-N is in proximity to several area cultural destinations, including the Newark Museum, the Newark Public Library, and the New Jersey Performing Arts Center (NJPAC). The University currently maintains programmatic ties with many different and diverse organizations, with plans to expand programs with more partners in the future. Students also have access to retail along Broad Street, as well as recreational space in Military and Washington Parks.

Military Park is a 6-acre, triangular open space that was originally used as a training ground for soldiers from 1667 until 1869, at which time it became the town commons. In the city's post-industrial phase, the park became a hotspot for crime. However, the park was transformed through a \$3 million project to improve the park in 2014 by Biederman Redevelopment Ventures, adding new plantings, lighting, and streetscape improvements. The revitalized park is intended as a gathering space for the city, with free classes and events to help activate the new open space. The park is operated and maintained by the Military Park Partnership, a nonprofit that includes the



The Newark Museum is in close proximity to both Washington Park and Rutgers Business School

City of Newark, Prudential Insurance, MCJ Amelior Foundation, and the Theater Square Development Corporation as members. Military Park is connected to the city through NJ Transit buses, as well as through its own light rail stop, and has three levels of underground parking. This area is within close walking distance of the planned development at the Hahne's Building.

Washington Park is also a historical landmark in Newark; it is the site of the city's original colonial market. The park is an amenity to the businesses and institutions along its border, anchoring the northern end of Washington Street. This stretch of Washington Street is home to Rutgers Business School and the future RU-N residence hall at 15 Washington Street, as well as Wachovia, DHL, and Veterans Administration offices. The park is also served by the city's light rail system, and is connected to the main RU-N quad by the University's shuttle system.



Current and planned development adjacent to Military Park, within walking distance of the RU-N campus

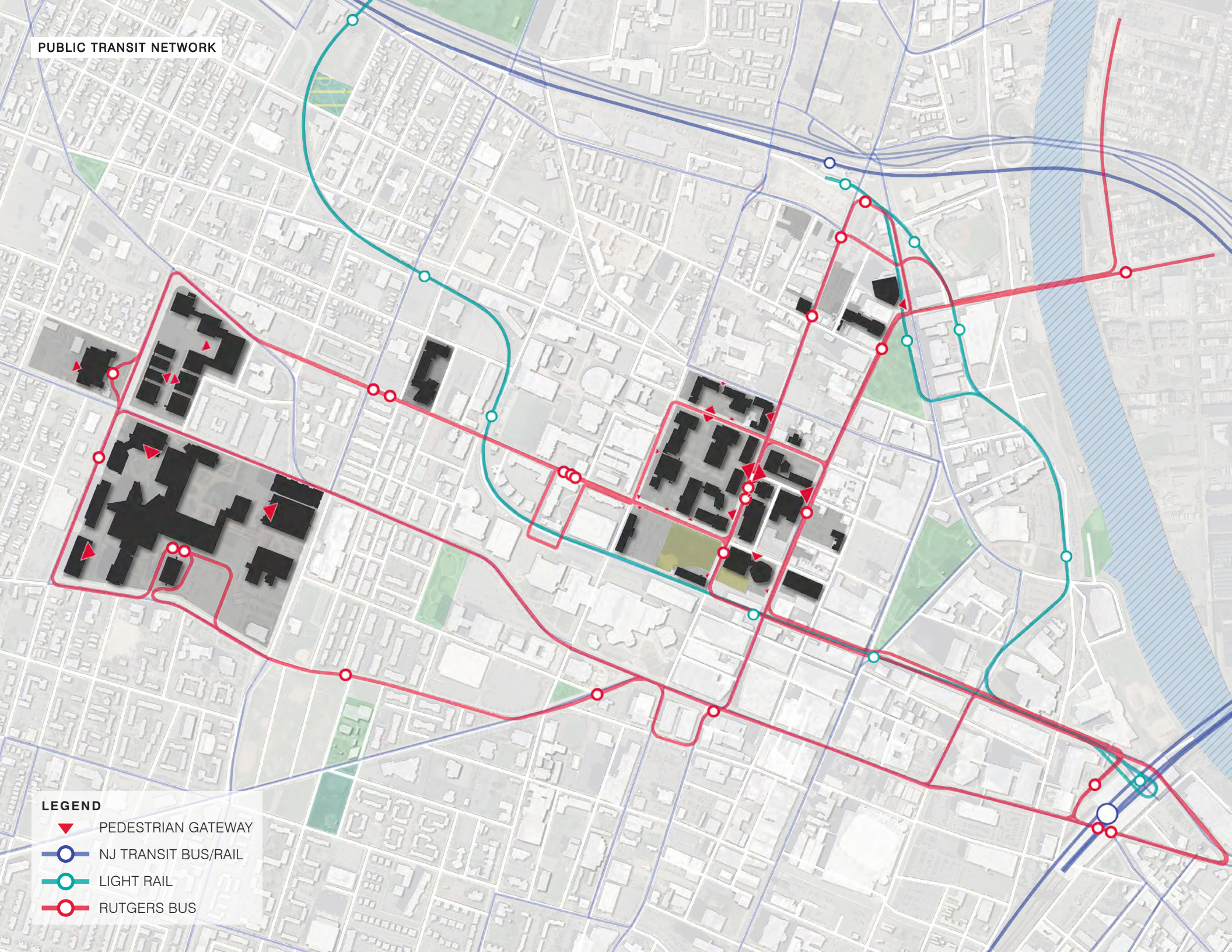


Rutgers University–Newark students in the original Norman Samuels Plaza

PUBLIC TRANSIT NETWORK

LEGEND

- ▼ PEDESTRIAN GATEWAY
- NJ TRANSIT BUS/RAIL
- LIGHT RAIL
- RUTGERS BUS



3.4 Mobility

TRANSPORTATION NETWORK

Rutgers University–Newark, like the City of Newark, sits at the heart of the regional transportation network. The University is directly served by light rail and bus, and is also a short distance from both Penn Station (rail connections to New York and New Jersey) and the Broad Street station (commuter rail and light rail). In addition to transit options, the campus is accessible via a number of interstate highways.

At the same time, many of these connections can be challenging for students and employees alike. The campus draws students and employees from across the region. While the buses can provide a convenient connection for some, many come to campus from outside the service area, or from locations that are not well-served. Most others interested in transit will connect via Penn Station or Broad Street Station. While it is a short walk from the Broad Street Station to 1 Washington Park, it is a half mile to the rest of the campus, stretches of which are seen by many as unpleasant, making a barrier of what is otherwise a relatively easy walk. Similarly, the walk from Penn Station is no more than three quarters of a mile to

most of RU–N, but there is little evidence that any RU–N faculty, staff, or students regularly walk to campus along that route. Most will take the Rutgers shuttles, even though they are regularly caught up in the congestion between Penn Station and downtown Newark. Although the light rail system provides an easy, high quality connection to campus, few use it.

RU–N operates a number of shuttle routes to enhance connectivity to the campus, particularly after dark. Much of the service includes Penn Station, offering multiple routes that connect the station and campus. Additionally, Rutgers University Department of Transportation Services (RUDOTS) operates a connector shuttle, servicing NJIT, RBHS, ECC, Teachers Village and the Broad Street Station. In the afternoons, the University offers a shuttle to Kearny and Harrison, east of the Passaic River, where many students reside.

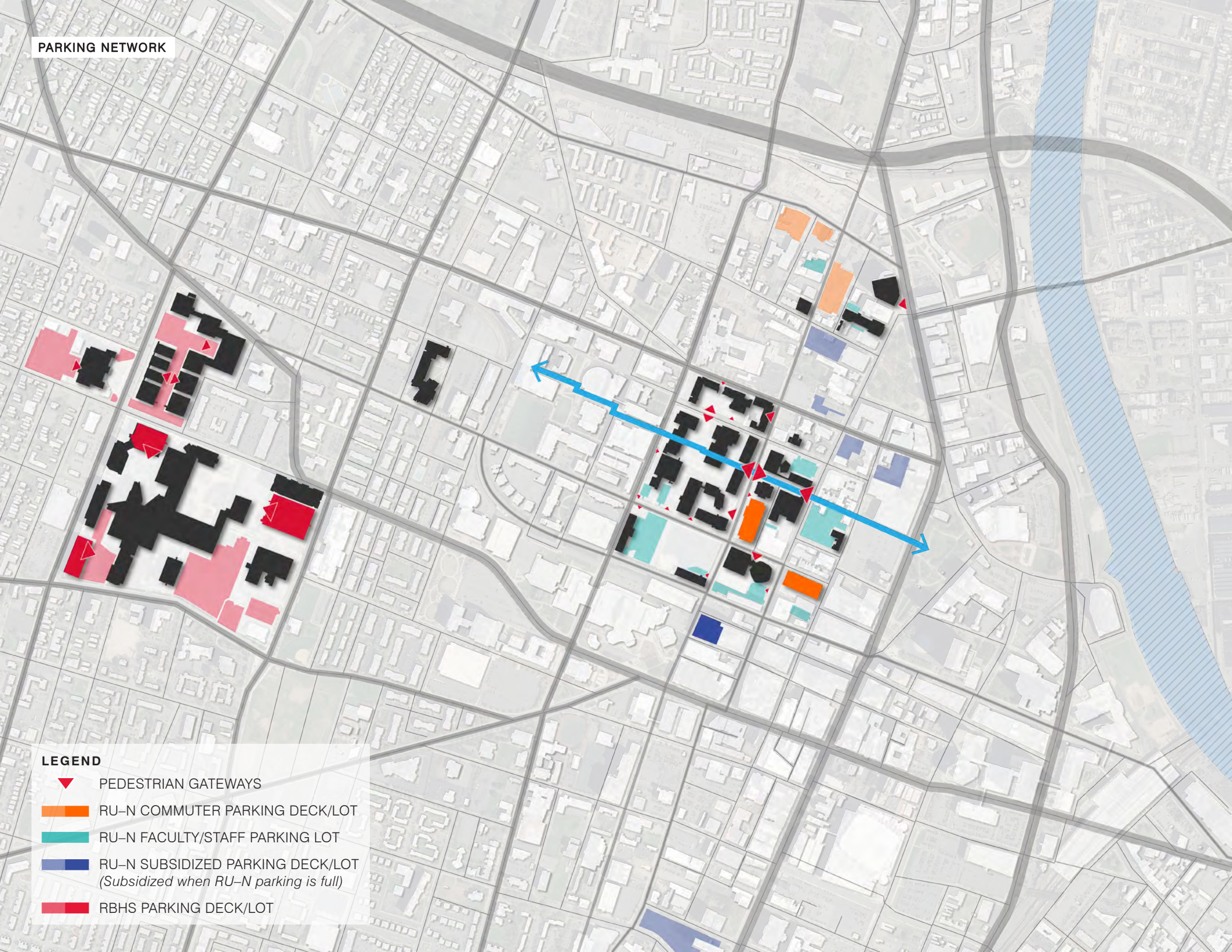
Most commuters arrive at campus via car. The car fits the land use patterns of the region and often better suits the lifestyle needs of the students, many of whom may have part-time jobs or live at a distance from campus. The University offers a number of parking

options for employees and students, though students are frequently required to park far from classes. Parking is at best challenging at the RU–N campus, and an in-depth study should be commissioned in order to implement strategies and solutions to alleviate any issues related to parking.

PEDESTRIAN AND BICYCLE NETWORK

Rutgers benefits from the historic street grid, which provides pedestrians with plentiful paths to navigate the campus and connect to destinations beyond the campus. The City of Newark has worked to improve bicycle infrastructure in recent years. The City collaborated with the University to install one of its first urban bicycle lanes along Washington Street. The goal is to establish a broader network of bicycle lanes, paths, and off-street facilities though most of the current activity lies away from the campus. While Newark has some topography, it is reasonably flat, so bicycles could provide a high-quality alternative commuting mode as they would allow access to a wider range of housing stock than is available on foot. Additionally, most of the bus service radiates in and out of Penn Station such that traveling north to south

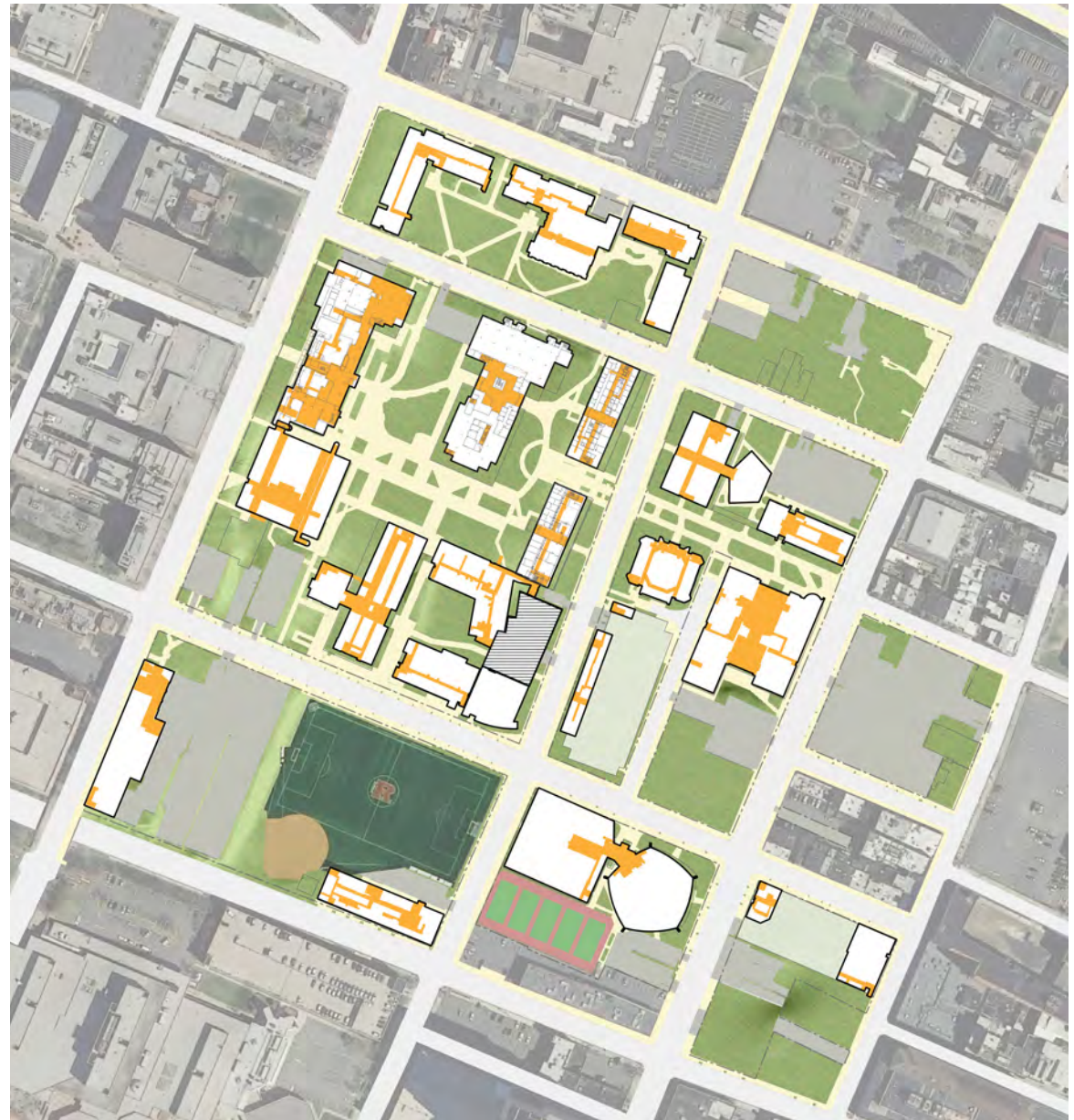
PARKING NETWORK



LEGEND

- ▼ PEDESTRIAN GATEWAYS
- RU-N COMMUTER PARKING DECK/LOT
- RU-N FACULTY/STAFF PARKING LOT
- RU-N SUBSIDIZED PARKING DECK/LOT
(Subsidized when RU-N parking is full)
- RBHS PARKING DECK/LOT

can be challenging – bicycles offer an alternative that could be faster for many. While there are relatively few bicyclists on campus today – or in Newark in general – bicycle use is growing substantially in urban areas, in particular New York City, and that trend is likely to spread to Newark in the long term, fueled by its expanding bicycle infrastructure.



The Nolli plan diagram (right) shows the pattern of movement on the ground level of the campus, in both interior and exterior spaces. It reveals where interior circulation connects to exterior circulation, and where there are opportunities to improve the pedestrian circulation network across the campus.

