



**THE UNIVERSITY OF VIRGINIA**  
**BRANDON AVENUE MASTER PLAN**



*Prepared by Perkins+Will for the  
University of Virginia and the  
University of Virginia Foundation.*

*November 2016.*

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# INTRODUCTION

**Defined as a redevelopment zone in the 2008 UVA Grounds Plan, Brandon Avenue is now ready for its transformation into a vibrant, mixed-use, sustainable district that links the Health System to Central Grounds.**

## LOCATION AND CONTEXT /

Brandon Avenue is a street located off of Jefferson Park Avenue (JPA), with a mix of University and non-University uses. University uses include the Student Health Center (1989) at the top of the street and Bice House (1972) at the bottom, along with large permit parking lots located within a short walking distance of the Academical Village. Non-University uses include the Eunoia Community Center on JPA and multi-family apartment structures built over the span of eight decades.

Brandon Avenue is flanked to the west by the majestic South Lawn complex, which was built in 2010 to extend the Lawn and the College and Graduate School of Arts & Sciences to the south of JPA. To the east, the Health System abuts the study area with the South Garage (1993), a retention pond (South Pond), and the Outpatient Surgery Center (1985). The School of Nursing and the School of Medicine are a few minutes away on foot.

It is this strategic location that led the University of Virginia (UVA) to identify Brandon Avenue as a key redevelopment zone in the 2008 Grounds Plan. Today, UVA owns over ninety-percent of the development parcels on Brandon Avenue. UVA has commissioned this study to help identify an appropriate mix of uses and a redevelopment vision for Brandon Avenue that benefits the University.

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**Fig.1.1 (At left), Aerial view showing Brandon Avenue within the context of Central Grounds, illustrating its proximity to the Lawn, the Academical Village, and the Health System.**

## DESIGN PROCESS /

The consultant team led by Perkins+Will worked closely with a Core Team and an Advisory Board to develop an urban design and development vision for Brandon Avenue between April and September 2015. (A list of participants, including University staff and stakeholders who were interviewed for the study, is included at the end of this report.)

The team identified four key design drivers based on the site assessment, review of past plans, and an analysis of diverse uses suggested by University stakeholders:

- Need for a **multi-functional open space system** that manages stormwater while also providing opportunities for recreation and respite;
- Need for **enhanced pedestrian connections** to South Lawn, Academical Village, and the Health System;
- Opportunity for a **curated mix of synergistic uses** to activate the street; and,
- Opportunity to knit together four distinct character zones—Central Grounds, Health System, JPA corridor, and the historic neighborhood—through **contextual development**.

Three preliminary urban design concepts were evaluated for the key design drivers, development potential, flexibility of phasing, and sustainability, as well as transportation (all modes) and infrastructure impacts. The preferred concept, which is documented in this report,







combines the best aspects of the preliminary concepts into a cohesive design vision that is aligned with the University's mission.

### URBAN DESIGN VISION /

The urban design vision calls for the transformation of Brandon Avenue into a "Green Street"—a one-way loop with a landscaped bioretention area and gathering spaces in the center. The street re-design resolves the misaligned geometries of the surrounding urban fabric, while extending pathways currently terminating at South Lawn to the Health System. The pathways connect existing and new open spaces, opening new views to the South Lawn complex, Kitty Foster site, and South Pond. New buildings are situated to preserve existing mature trees and frame open spaces.

One of the key elements of the new Brandon Avenue district is the "active ground floor," which is inspired by vibrant urban retail streets. The concept considers ground floors of all buildings on Brandon Avenue as a continuous ribbon of diverse, dynamic uses that activate the street at all times of the day. (See "*Urban Design Vision*" on p. 11 for additional details). The plan also identifies safety improvements for the JPA / Brandon Avenue / Ruppell Drive intersection and the eastbound transit stop on JPA at Brandon Avenue.

### DEVELOPMENT VISION /

The master plan provides an optimized development portfolio for Brandon Avenue that accommodates University needs while maintaining the integrity of the urban design vision. The development vision includes a distribution of academic, research, and residential uses

within the district based on adjacencies, context and site constraints. The proposed build-out includes:

- 445,000 GSF new construction; (including new student housing)
- 500 new on-Grounds beds; and,
- 220 new permit parking spaces.

The development vision is aligned with City Zoning. An initial "enabling phase" is recommended for the extension of University utilities to the area to support all future development. (See "*Development Vision*" on p. 22 for additional details).

### NEXT STEPS /

The Brandon Avenue master plan was approved by the UVA Board of Visitors and shared with the UVA Master Planning Council in September 2016. The plan has garnered a broad-base of support within the University, and among City partners. The following next steps are recommended to ensure successful implementation of the master plan vision:

1. Initiate conversations with the City regarding ownership / management arrangements for the public right-of-way;
2. Initiate work on an enabling phase to develop utility and stormwater infrastructure to support future development; and,
3. Prepare a set of District Design Guidelines to ensure alignment of future development with the urban design vision. Include building-level strategies to advance district-wide sustainability goals.

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**Fig.1.2 (Opposite) Brandon Avenue vision plan, shown in existing context of Central Grounds and surrounding neighborhoods.**





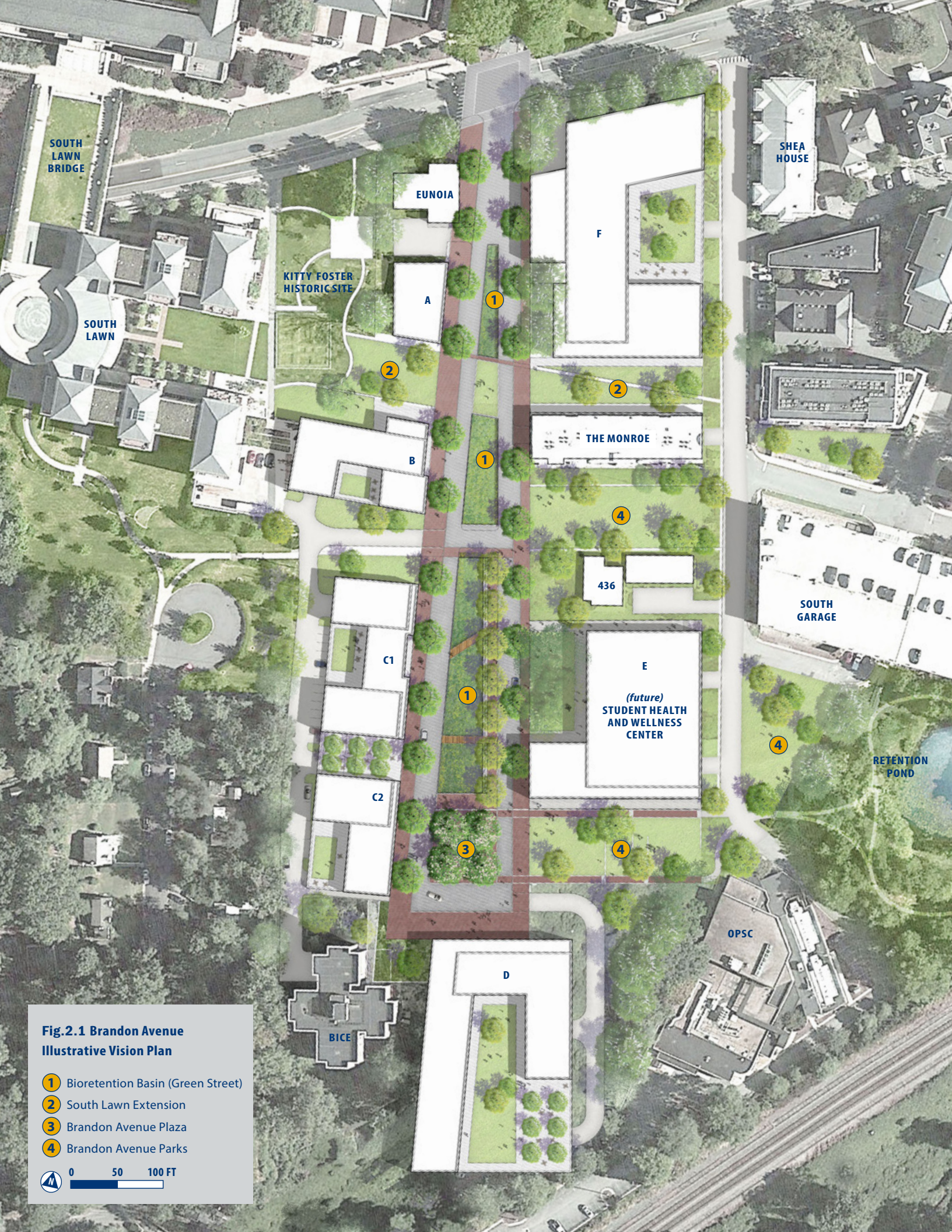
**Fig.1.3 JPA and Brandon Avenue intersection, before and after, view looking south towards Brandon Avenue**





Fig.1.4 Brandon Avenue, before and after. Below, view of Green Street looking south





**Fig. 2.1 Brandon Avenue  
Illustrative Vision Plan**

- ① Bioretention Basin (Green Street)
- ② South Lawn Extension
- ③ Brandon Avenue Plaza
- ④ Brandon Avenue Parks





# URBAN DESIGN VISION

**The Brandon Avenue vision is a 21st century take on the Academical Village: it's an urban, mixed-use street centered on a multi-functional open space. It is designed to showcase sustainability, support learning and promote health.**

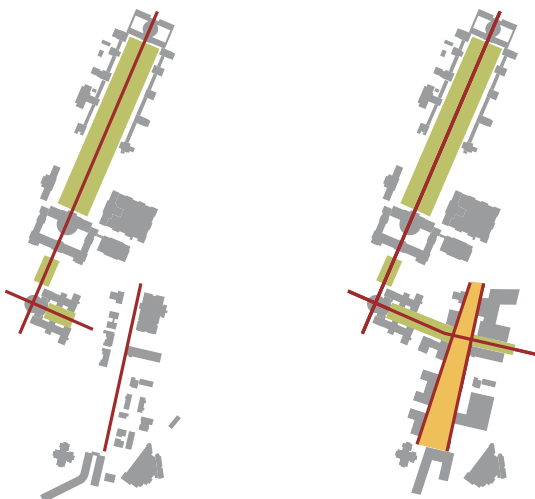
The UVA Grounds play a significant role in the daily experience of students, faculty and staff. The landscape forms the social cohesion of the campus: the Lawn, with its terraced green and curated tree canopy, is the quintessential collegiate open space supporting a variety of activities ranging from group study to large public events. The landscape is also the physical connection of the campus; it links individual buildings and the Grounds, providing a unified sense of place throughout the campus. Recent improvements, like the Dell, have also highlighted the role of landscape in sustainable stormwater management and ecological biodiversity.

The urban design vision for Brandon Avenue builds on these precedents to create a new addition to Central Grounds. The western edge of the street swings outward to align more closely with the geometry of South Lawn and the Lawn. (See Fig.2.2). This grand gesture achieves

multiple goals: it brings South Lawn closer to Brandon Avenue; creates space for stormwater treatment within the street right-of-way; and creates an illusion that makes the street feel more like an outdoor room.

The design aims to extend and add to the rich fabric of pathways and open spaces that define the UVA Grounds. A series of new parks provide views into the South Lawn complex, the Kitty Foster site, and South Pond. Key elements of the open space framework are outlined in the following pages under three headings:

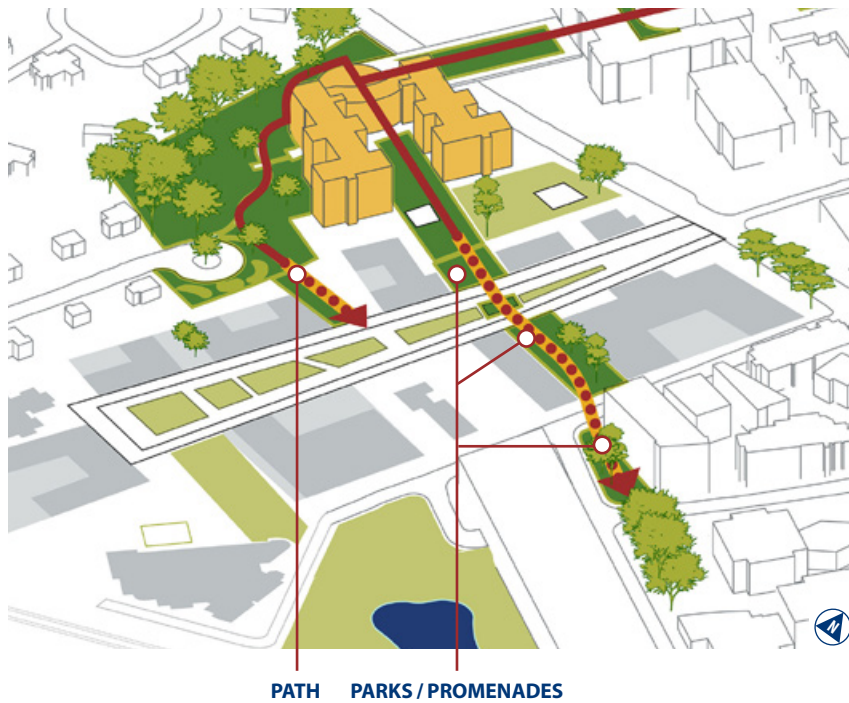
- South Lawn Extension;
- Park and Plaza Connecting to Pond, and,
- Green Street.



**Fig.2.2 Diagram illustrating resolution of misaligned geometries across the re-designed Brandon Avenue**



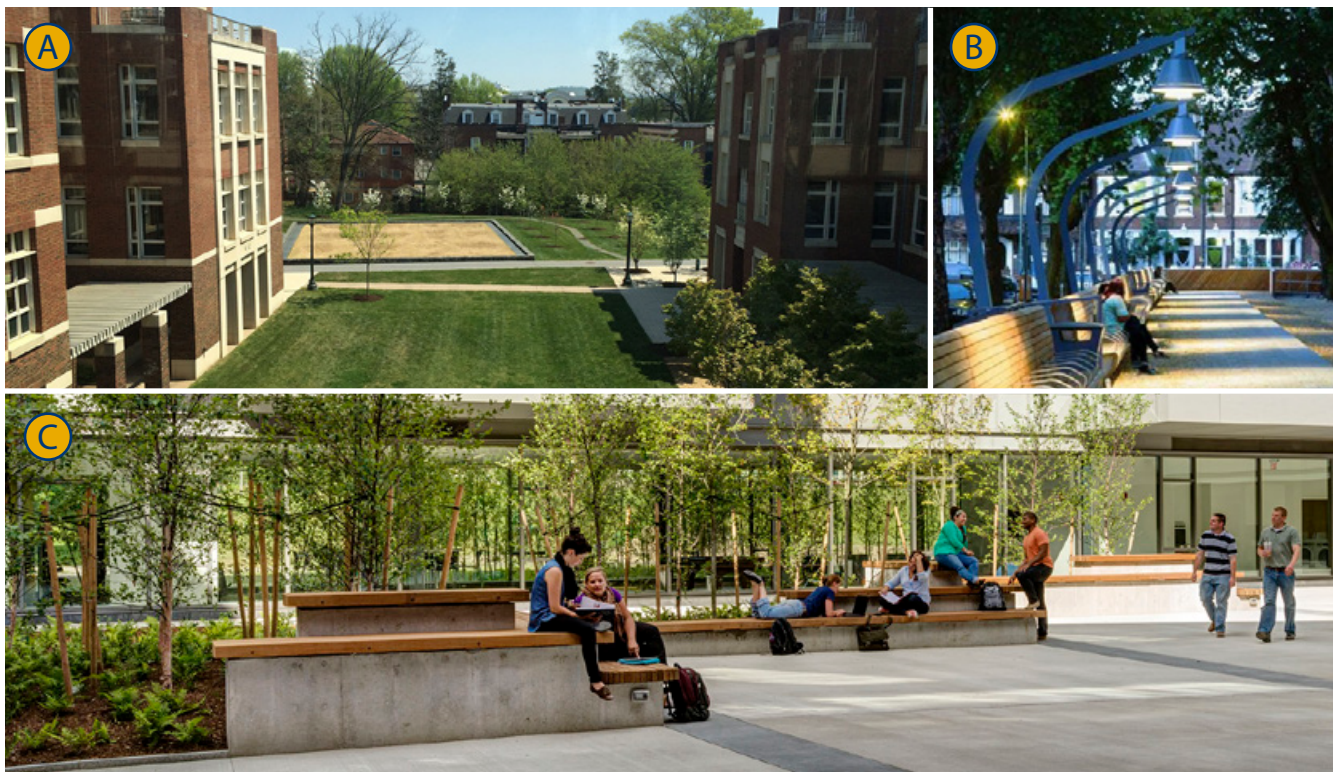
## SOUTH LAWN EXTENSION /



The design opens South Lawn to Brandon Avenue with a series of small parks that replace aging structures and surface parking lots. New pathways connect South Lawn courts and the Kitty Foster Memorial site to the Brandon Avenue District and the Health System.

**Fig.2.3 South Lawn Extension, axonometric diagram showing key connections**

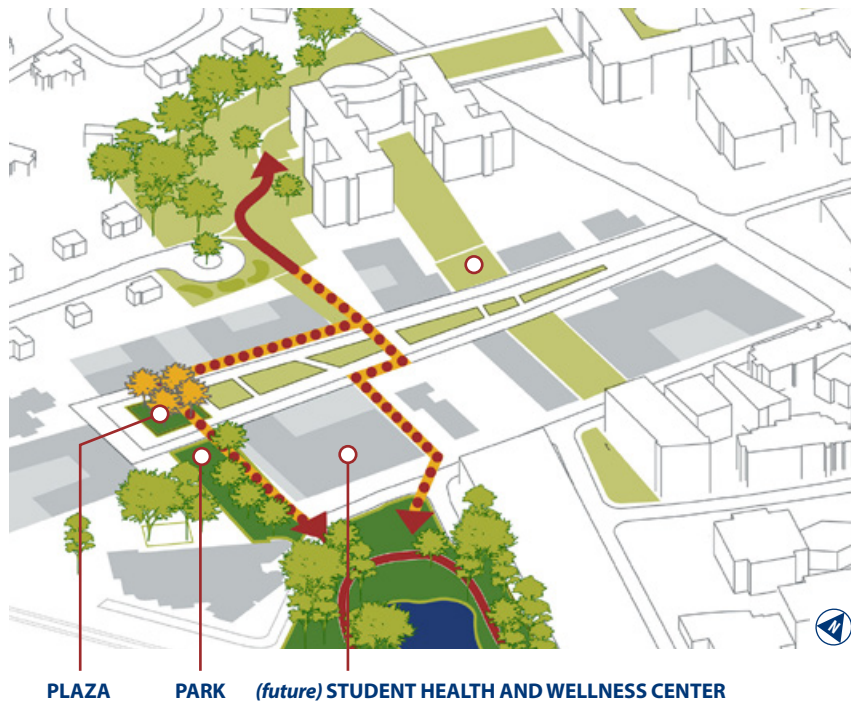
- Existing pedestrian paths
- - - Proposed pedestrian connections



**Fig.2.4 (A) South Lawn, current view looking west towards Brandon Avenue. (B) and (C) Precedent images illustrating design intent for South Lawn extension: pathways through landscape lined with spaces for gathering and socializing.**



## PLAZA AND PARK CONNECTING TO POND /



The design incorporates the South Pond trails into the Grounds' open space network with new landscape spaces at the end of Brandon Avenue. The future Student Health and Wellness Center is located here to provide views of nature for healing, and opportunities for outdoor programming. Proximity to Bice House and new student housing will further activate these spaces.

**Fig.2.5 Axonometric diagram showing new connections to South Pond**

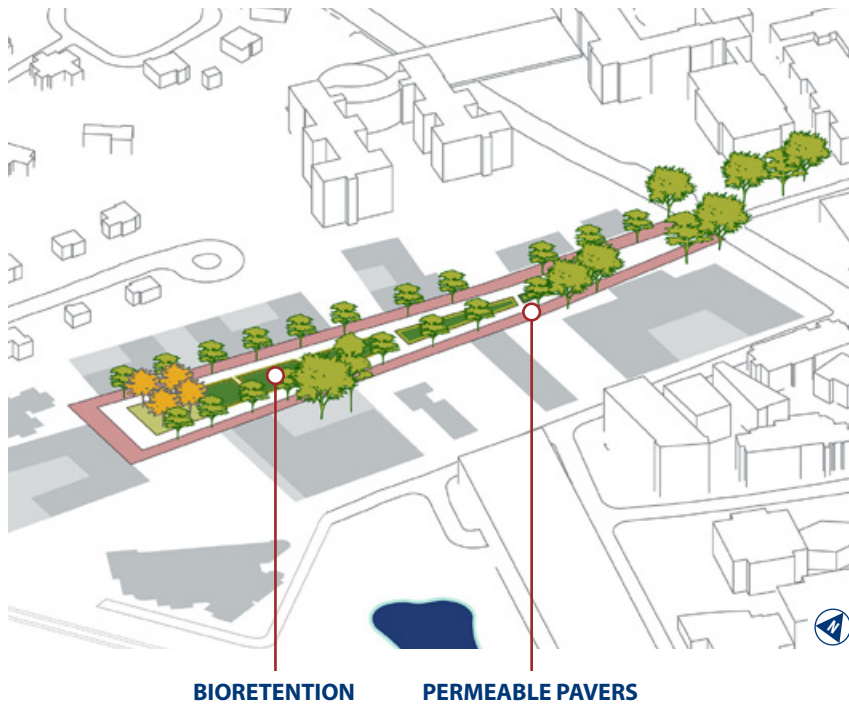
- Existing pedestrian paths / trails
- - - Proposed pedestrian connections



**Fig.2.6 (D) South Pond. (E) Precedent image for hardscape plaza with bosque of trees. (F) and (G) Precedent images for park leading to South Pond, with natural landscape spaces designed for active and passive recreation.**



## GREEN STREET /



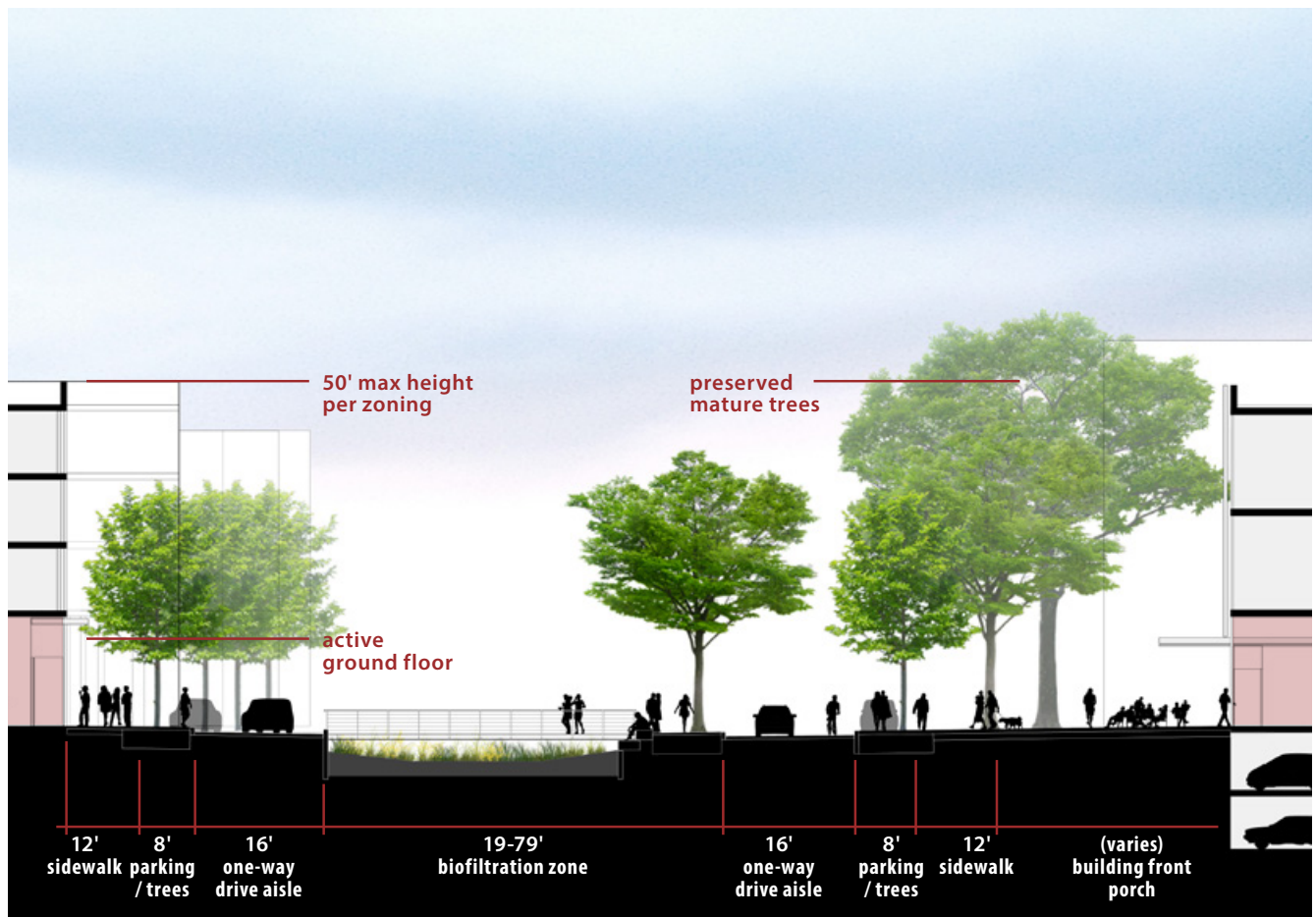
Brandon Avenue will be transformed into a "Green Street"— a street that doubles as stormwater infrastructure. Stormwater from the street, adjoining hardscape surfaces and rooftops will be channeled to a landscaped bioretention median for removal of contaminants and sedimentation prior to discharge into the stormwater system. Use of permeable pavers on sidewalks will further reduce potential impacts of stormwater flows on the Rock Creek watershed. (See pages 16/17 for rendering).

**Fig.2.7 Green Street, axonometric diagram**



**Fig.2.8 (A) and (B) Precedent image for landscaped bioretention area with pedestrian bridges, and night-time lighting. (C) Precedent image for stepped edge of bioretention area.**





**Fig.2.9** Green Street, east-west cross-section looking north.



**THIS IS THE FUTURE BRANDON AVENUE DISTRICT.**

*A vibrant living-learning space that is uniquely UVA with its embrace of working landscapes.*







Fig.2.10 Artists' rendering, Brandon Avenue Green Street



## ACTIVE GROUND FLOOR /



A key element of the urban design vision for Brandon Avenue is the "active ground floor," a curated mix of uses that will occupy the ground floor of University buildings on Brandon Avenue. The inspiration comes from urban retail streets, which are activated by storefronts and restaurants. Brandon Avenue is not planned to include commercial retail, however, there are many "retail-like" University uses that can help activate the street throughout the day. (See list at right for a preliminary list of potential uses.)

Uses lining the street should be accessible to the broader University community, and be flexible. Ground floor spaces should not be permanently assigned to the extent possible to enable changing uses over time. The mix of ground floor uses can be "curated" to create a uniform distribution of foot traffic and activity. The lower portion of the Green Street can also be closed down temporarily to support University events.

Best practices from successful retail streets such as tall ground floor height, flexibility, transparency, spill-out spaces, and frequent entryways will be adapted to Brandon Avenue. These principles will be outlined in the Design Guidelines document to ensure that each new building contributes to a unified pedestrian realm. The goal is to create a pleasant pedestrian environment that is safe, provides amenities and builds community.

***Brandon Avenue will be activated by a curated mix of dynamic, "retail-like" uses facing the street that serve the broader University community, such as:***

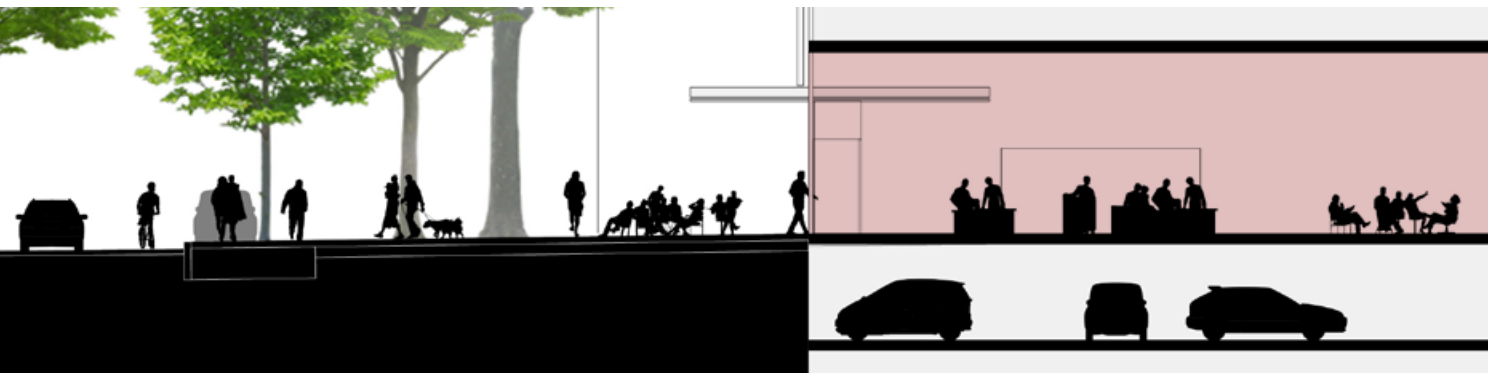
- Small food retail
- Study spaces / classrooms
- Collaboration / meeting spaces
- Pan-Institute touch-down / exhibit space
- Satellite fitness center / group exercise rooms
- Media / sound production studio
- Makerspaces
- Music practice rooms
- Student art gallery
- Flexible performance spaces
- Spaces that enable students to be creative outside the classroom
- Student Health and Wellness Center uses:
  - Student Disability Access Center
  - Office of Health Promotion
  - Pharmacy
  - Teaching Kitchen

**Fig.2.11 (Above) Brandon Avenue street section illustrating synergy between the street space and the active ground floor**

**Fig.2.12 (Opposite) Active ground floor, character precedents**

- (A) Shaded retail street with generous sidewalk frequent entryways
- (B) Transparent lobby space with views to the outside
- (C) Street furniture and spill-out uses framing the pedestrian realm
- (D) Temporary use of street space for community activities







**THIS IS THE FUTURE BRANDON AVENUE DISTRICT.**

*A bridge between Arts and Sciences and the Health System with amenities for the entire UVA community.*







Fig.2.13 Artists' rendering, Brandon Avenue Gateway



# DEVELOPMENT VISION

**The master plan accommodates 445,000 GSF of new construction on Brandon Avenue, including 500 new on-Grounds beds and 220 new permit parking spaces. Uses are distributed based on context and adjacencies.**

## **SITE AVAILABILITY /**

The Brandon Avenue study area includes a total of 12.3 acres of redevelopment parcels. The University and the UVA Foundation together own ninety-two percent, or 11.3 acres of the redevelopment area.

The street includes three privately-owned parcels that are occupied by the Eunoia Community, The Monroe apartment complex, and the 436 Brandon Avenue Condominiums (partially owned by the UVA Foundation). A private cemetery occupies a portion of a vacant parcel. These parcels and sites are excluded from the master plan study.

Bice House and Outpatient Surgery Center are also expected to remain for the foreseeable future. Exclusion of these outlying parcels does not impact the cohesiveness of the urban design vision. Elson Student Health Center site is expected to become available following the Center's projected move to its proposed new location on Brandon Avenue.

The availability of sites for development is illustrated in Fig.3.1 on page 23.

## **ZONING /**

Parcels within the study area are zoned R-UHD (University High Density Residential) with the exception of the Outpatient Surgery Center site, which is zoned B-1 commercial. R-UHD was created to encourage high-density residential developments, including multifamily uses in the vicinity of the University.

UVA is not required to comply with City Zoning but has sought to align with R-UHD requirements in developing the Brandon Avenue master plan. Key requirements of the R-UHD zone include\*:

- Max height limit of 50ft. Up to seven stories is possible with a special use permit provided that floors above level 5 are set back a minimum of 15ft along at least 70% of the length of each streetwall.
- Minimum distance of 50 or 75 feet between the facade of multi-family dwellings and any low-density residential districts (such as Valley Road) for densities of 22-43 DUA and 44-87 DUA, respectively.
- No requirements related to land coverage.

## **DENSITY /**

The R-UHD zoning allows for approximately three times the density of development that exists on the site today.

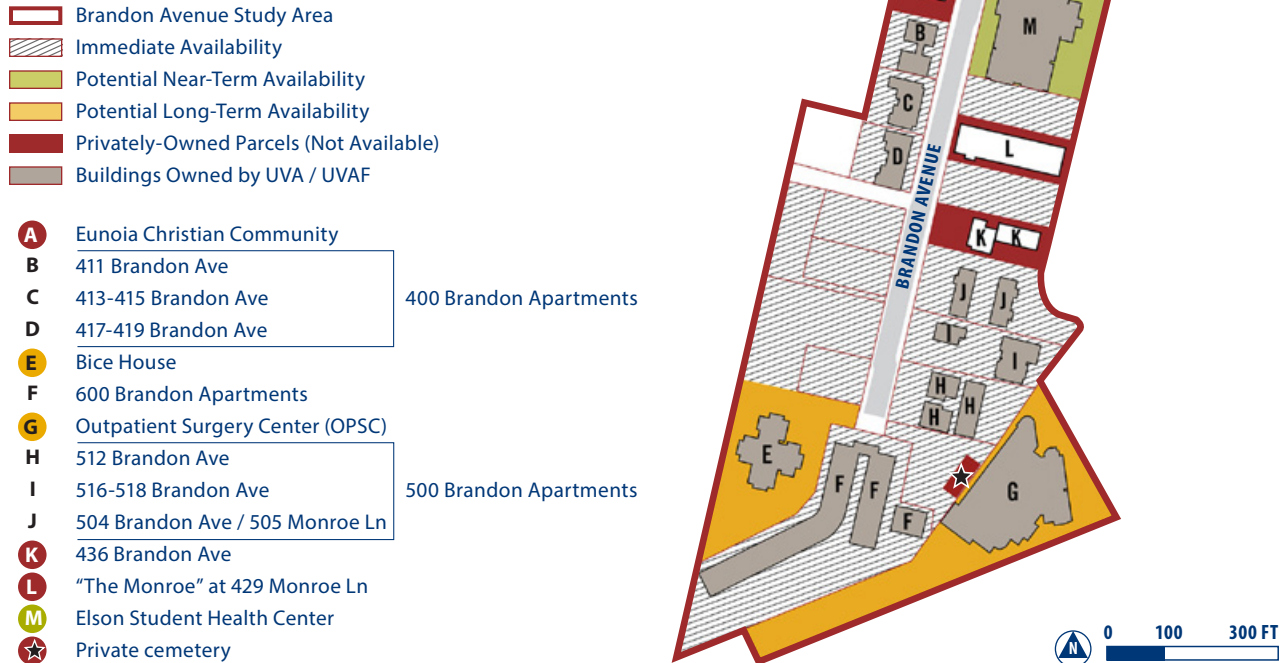
The 2013 Brandon-Monroe Area Plan (BMAP) sought to achieve an intermediate level of density that supports development without compromising the character of the area. (See Fig.3.2 on page 23). The current master plan uses BMAP as a starting point to determine optimal density of development in support of University needs and the urban design vision.

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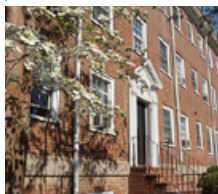
\* Refer to City of Charlottesville Zoning Code for additional requirements.



**Fig.3.1 Site Availability within Study Area**



**IMMEDIATE AVAILABILITY**



400 Brandon Avenue Apartments



500 Brandon Avenue Apartments



600 Brandon Avenue Apartments



Elson Student Health Center

**POTENTIAL LONG-TERM AVAILABILITY**



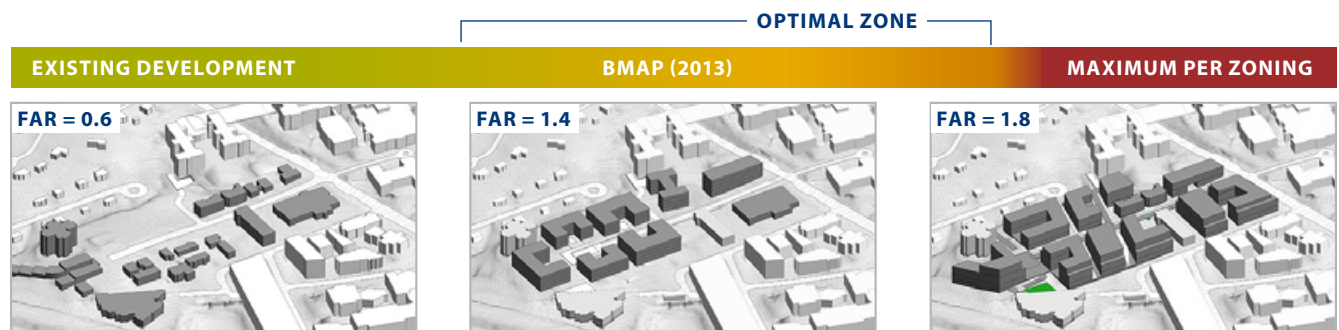
Bice House



Outpatient Surgery Center

**POTENTIAL NEAR-TERM AVAILABILITY**

**Fig.3.2 Range of possible development densities and corresponding floor-area-ratios**





## DISTRIBUTION OF USES /

The study area can be divided into five distinct development zones based on context, adjacencies, parcel depths, and ease of access / parking. (See Fig.3.3 on page 25). These criteria are helpful in determining the types of uses that are most suited to each zone. While some flexibility exists, the following primary uses are recommended for each development zone:

### ***Zone 1 - Academic Mixed Use / Flex Research***

Zone 1 parcels abut South Lawn (A&S) and the historic Kitty Foster site to the west. The shallow parcel depth, and rear adjacency to the historic site limits capacity for development and service access. Private ownership of the prominent corner parcel limits building layout options.

The area is recommended to have lower heights and massing in respect of its historic adjacency. The southern portion can accommodate South Lawn Phase II as initially planned, with limited parking available below the building and accessed from the South Lawn service drive.

The zone's proximity to the College and Graduate School of Arts and Sciences and the McIntire School of Commerce make it ideal for academic mixed-use and interdisciplinary research uses. The zone is not a good fit for uses with large floor plates, such as Student Health.

Architecture in this zone should be transitional with a mix of historic and contemporary design elements that align with South Lawn, New Cabell, Wilson and Cobb Halls.

### ***Zone 2 - Academic Mixed Use / Flex Research***

Zone 2 is currently occupied by the Elson Student Health Center and The Monroe apartment complex, which is under private ownership. The parcels front both on Brandon Avenue and Monroe Lane, providing opportunity for separate pedestrian and vehicular access.

The corner site occupied by Student Health is an excellent candidate for a gateway academic mixed use building given its prominent location on JPA and proximity to multiple Schools. The slope on Monroe Lane can provide access to a parking basement that is not visible from JPA or Brandon Avenue. The adjacency to the Language Houses and private multi-family structures would also support residential uses in this zone.

Architecture in this zone should be transitional with a mix of historic and contemporary design elements that align with Wilson and Cobb Halls.

### ***Zone 3 - Residential (Upper Class Housing)***

Zone 3 is a UVA permit lot that is solely accessible from Brandon Avenue. The parcels abut the boundary for the Oakhurst-Gildersleeve Neighborhood Historic District and the R-1U (University) Residential District.

The height of development in this zone should be compatible with single-family homes on Valley Road. The drop in site elevation enables two levels of parking to be tucked under buildings sitting at grade on Brandon Avenue. The top level of parking can be accessed from the South Lawn service drive; the lower will require an entry drive along the back of the site for access. Parking uses should be screened with landscape elements.

The proximity to Bice House, and the limitations on building height and bulk make this zone most suited to residential use. Architecture in this zone can be more contemporary in style.

### ***Zone 4 - Student Health***

Zone 4 parcels abut the South Pond, an underutilized natural area with mature trees and trails. Parcels in this area are accessed from both Brandon Avenue and



**Fig.3.3 Development Zones in Context**

- College and Graduate School of Arts and Sciences
- McIntire School of Commerce
- Health System
- On-Grounds Housing
- Other UVA Buildings
- Buildings owned by UVAF
- Other Buildings

Recommended uses, by zone:

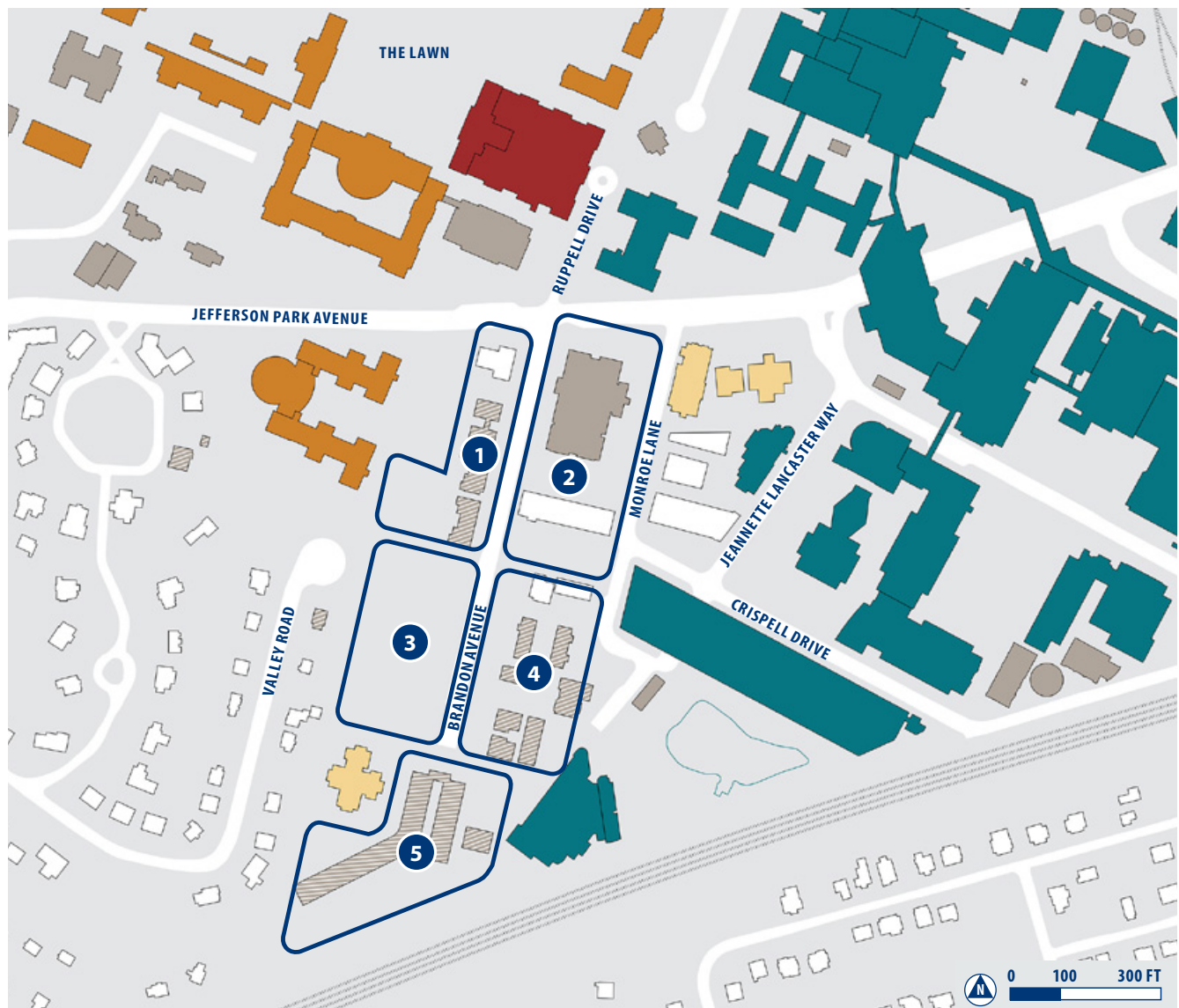
**ZONE 1** Academic Mixed-Use / Flex Research

**ZONE 2** Academic Mixed-Use / Flex Research

**ZONE 3** Residential

**ZONE 4** Student Health

**ZONE 5** Residential





Monroe Lane, providing an opportunity for separating pedestrian and vehicular flows. The zone has sufficient depth to accommodate buildings for larger footprints, which would be in scale next to the South Garage. The drop in site elevation enables two levels of podium parking to be built below buildings sitting at grade on Brandon Avenue. The slope provides separate access to each parking level, making costly ramps unnecessary.

This zone can accommodate all of the uses suggested for Brandon Avenue, including academic mixed use, flexible research uses, and residential. It is, however, the best suited site in the Brandon Avenue District for the future Student Health and Wellness Center. The proximity to South Pond open space, in particular, is a unique opportunity to highlight the Center's growing focus on wellness and prevention. Architecture in this zone can be more contemporary in style.

#### **Zone 5 - Residential (Upper Class Housing)**

Zone 5 is the most distant to JPA and to the core campus. The site slopes significantly towards the railroad tracks, providing an opportunity for at least two levels of podium parking to be placed under buildings. A large parking structure is not recommended, given the limitation of access to Brandon Avenue. (The Outpatient Surgery Center service drive, which connects to Monroe Lane, does not have sufficient right-of-way.)

This zone can be built on immediately, with minimum impact to existing uses including permit parking. Its relatively remote location and adjacency to Bice House make this zone ideal for residential use. Architecture in this zone can be more contemporary in style.

#### **Active Ground Floor (District-Wide, Mixed-Use)**

In addition to the uses outlined above, each building can accommodate a diverse mix of uses on the ground floor. (See "Active Ground Floor" on page 18).

## **PHASING /**

The Consultant Team tested numerous phasing scenarios for the implementation of infrastructure, streetscape / landscape, and building projects. Building D was selected as Phase 1 by the Core Team and the Advisory Committee based on the immediate availability of the site and the need for upper class housing. While the ultimate phasing of the project is unknown, the scenario listed below is offered as a starting point:

### **Enabling Phase**

- Utility Infrastructure (see page 30)
- Intersection and transit stop improvements

### **Phase 1**

- Building D
- On-site stormwater BMPs

### **Phase 2**

- Building E
- Green Street (south of South Lawn service drive, requires some permit parking to shift to Bldg D)

### **Phase 3**

- Building C

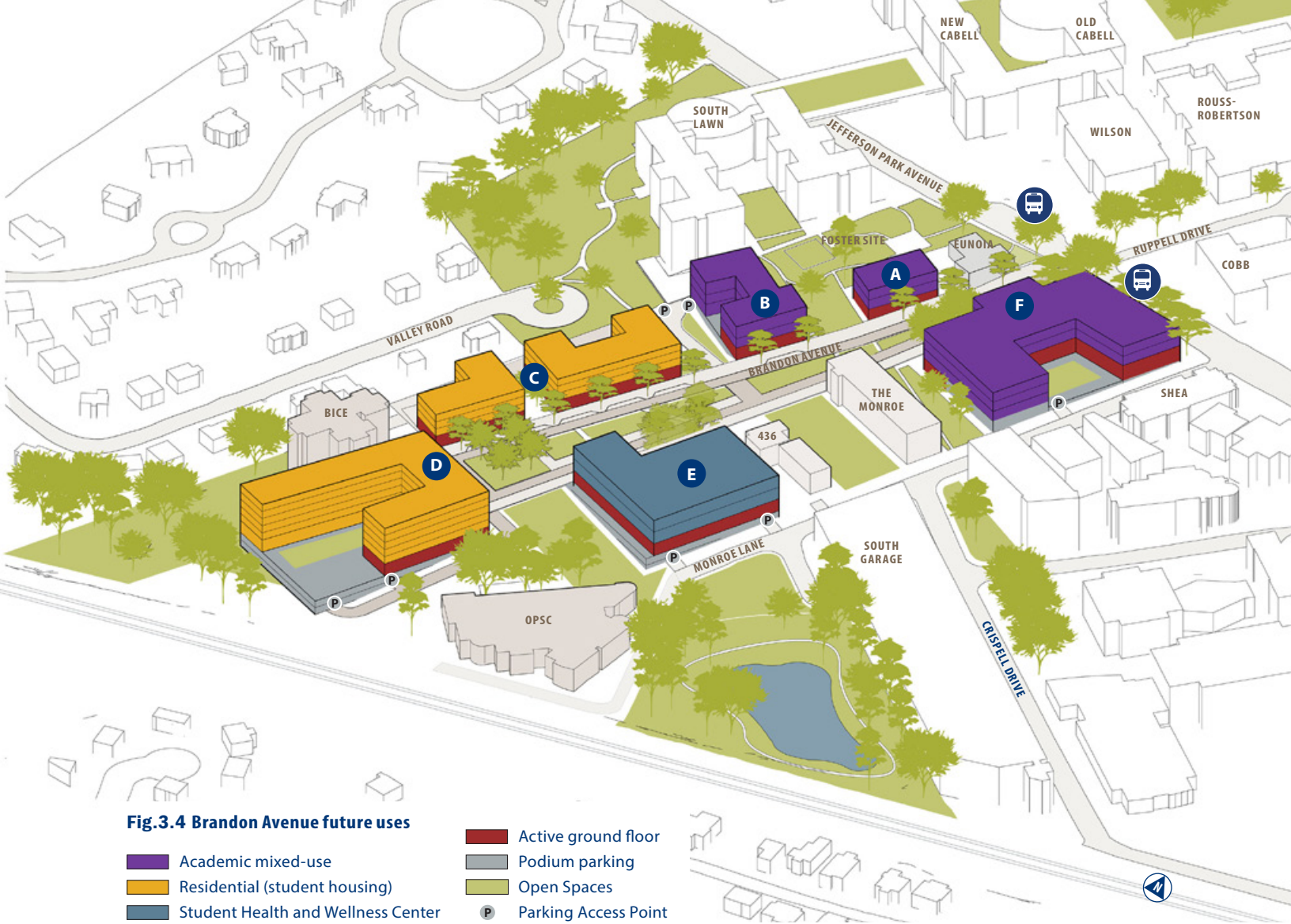
### **Phase 4**

- Buildings A, B, and F

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See Fig.3.4 on page 27 for a breakdown of proposed development based on test buildings. The actual amount of development will vary based on building program, and building, and site design





**Fig.3.4 Brandon Avenue future uses**

- Academic mixed-use
- Residential (student housing)
- Student Health and Wellness Center
- Active ground floor
- Podium parking
- Open Spaces
- P Parking Access Point

ID	BUILDING USE	TOTAL GSF	# FLOORS <sup>1</sup>	# PARKING SPACES <sup>2</sup>	# BEDS <sup>3,4</sup>	TYPICAL FLOOR (GSF)	ACTIVE GROUND FLOOR (GSF) <sup>5</sup>
A	Academic Mixed-Use	17,100	3 (bldg)	-	-	5,700	5,700
B	Academic Mixed-Use	31,700	3 (bldg) + 1 (podium)	30	-	10,565	10,565
C	Residential	90,200	4 (bldg) + 1 (podium)	80	180	22,545	22,545
D	Residential	122,000	6 (bldg) + 2 (podium)	150	316	20,335	7,300
E	Student Health	75,600	3 (bldg) + 2 (podium)	140	-	25,200	included in program
F	Academic Mixed-Use	107,200	3 (bldg) + 1 (podium)	110	-	35,740	20,245
TOTAL		443,800	NA	510	496	NA	66,355

**Notes /**

- 1 Building D will require a special use permit for height shown.
- 2 Includes replacement for 292 permit parking spaces currently on Brandon Avenue.
- 3 Number of beds is based on residential test fits with typical 4-bedroom units. Where possible, ground floors facing Brandon Avenue are set aside for community uses (active ground floor). GSF/bed ratios vary per building based on building efficiency (a factor related to site shape and orientation) as well as the percentage of total GSF allocated to community uses. Number of beds will increase with smaller units and residential use of ground floors.
- 4 Bed count provided here does not account for ~250 off-campus beds lost to demolition of 400, 500, and 600 Brandon Avenue apartments.
- 5 Allocation based on available frontage on Brandon Avenue.



# TRAFFIC AND PARKING /

The planning process for Brandon Avenue involved a comprehensive analysis of vehicular circulation and access, with a specific focus on potential traffic and parking impacts related to development.

## Vehicular circulation and access

The re-design of Brandon Avenue transforms a two-way dead-end street into a one-way loop with a bioretention median at its center. Each leg of the loop is a 16-foot drive lane, which is not wide enough for two cars to drive side-by-side but sufficient space to allow a car to pass another that is pulled to the side. The parking lane is re-configured to include tree bulbouts. (See Fig.2.9 on page 15 for street section). While this arrangement yields fewer on-street parking spaces, it is recommended to provide shade for pedestrians on the sidewalk.

The district design also calls for the removal of the bend at the southern end of Monroe Lane to expand South pond natural area. A vehicular connection between Monroe Lane and Brandon Avenue is not provided to prevent the impact of Health System traffic on the Brandon Avenue district.

## Parking

Today, there are an estimated 630 parking spaces on Brandon Avenue including 292 permit parking spaces. The proposed development is expected to produce an additional 220 permit spaces for the campus-wide

parking pool while removing surface parking associated with demolished buildings. The net difference is estimated to be about 40 new parking spaces in the study area. Some of the vehicular impact is expected to shift from Brandon Avenue to Monroe Lane following the construction of Buildings E and F. (See Fig.3.4 on page 27 for parking access points for proposed development).

## Traffic Impact

Vehicular counts from the 2015 Health System Traffic Study were used as a benchmark to assess potential impact of increased vehicular use of Brandon Avenue on three key intersections on JPA. Traffic projections were generated for AM and PM peak hours based on the number and location of future parking spaces and review of similar parking supply characteristics on Grounds. The analysis did not reveal a significant change to existing traffic conditions on JPA as a result of Brandon Avenue development. (See Fig.3.5 on page 28).

## Improvements to JPA intersection and transit stops

Master plan recommendations include safety improvements for the JPA / Brandon Avenue / Ruppell Drive intersection illustrated on the opposite page. The eastbound transit stop on JPA at Brandon Avenue is also recommended to be upgraded to the standard of the transit stop across the street. (See Fig.3.8 on page 29).

**Fig.3.5 Traffic analysis of proposed development**

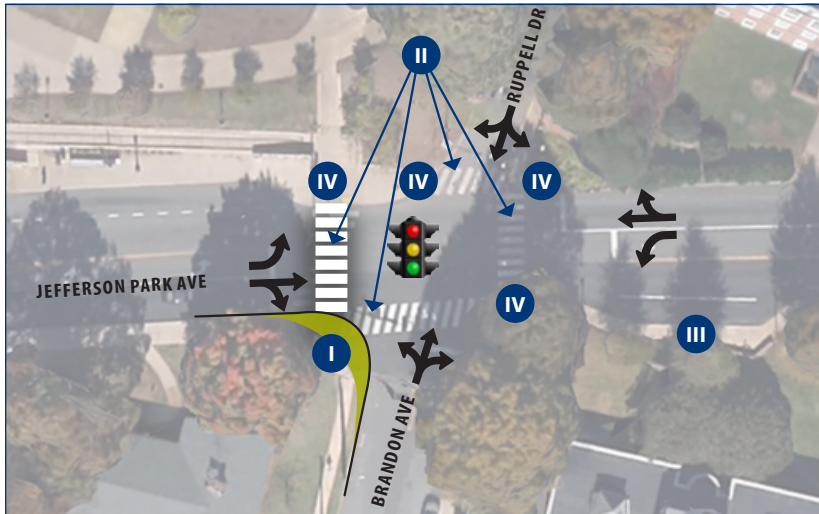
		No Build Scenario (2020)		Build Scenario (2020)	
Intersection name	Control	AM	PM	AM	PM
JPA / Brandon Ave / Ruppell Dr	Signalized	B (NB-C)	B (NB-C)	C (EB-D)	B (NB-C)
JPA / Monroe Ln	Unsignalized	(NB-C)	(NB-C)	(NB-C)	(NB-D)
JPA / Lane Rd	Signalized	A (NB-C)	B (NB-C)	B (EB-D)	B (NB-D)

*X = Overall Level of Service (XX-X) = Worst approach - Worst approach Level of Service NB = Northbound EB = Eastbound. Assumes 60/40 split of traffic from the west and east, respectively.*



**Fig.3.6 Proposed intersection improvements**

- I Reduction of turn radius to reduce pedestrian crossing distance
- II Visible crosswalks
- III Eastbound transit stop improvements
- IV Reconstruction of ADA ramps at all four corners



**Fig.3.7 JPA / Emmet Corridor Study**

The forthcoming study will confirm and add to master plan recommendations for the JPA / Brandon Avenue / Ruppell Drive intersection.



**Fig.3.8 Proposed design character for intersection and improvements to the eastbound transit stop**





## UTILITY INFRASTRUCTURE /

### ***Sustainable Stormwater Management***

Stormwater management is a significant challenge and opportunity for the future Brandon Avenue district. Any new development over an acre will be required to meet Chesapeake Bay TDML criteria for volume and pollutant reduction before discharging into the stormwater system.

The master plan for Brandon Avenue provides a comprehensive approach to sustainable stormwater management that includes:

- A ten percent reduction in the the the amount of impervious surfaces within study area;
- On-site treatment of stormwater with the central bioretention median (Green Street). Use of Level 2 biofilters are recommended to allow UVA to claim extra pollutant credits towards its TDML requirements;
- Permeable pavers on sidewalks, and,
- Upgrades to existing BMPs.

Fig.3.9 on page 31 illustrates stormwater improvements recommended to meet state requirements. Given the sloping nature of the study area, a number of BMPs will be needed to support new development. The size and number of these BMPs can potentially be reduced if stormwater reduction and reuse strategies are incorporated into the building design. Recommended strategies include:

- Green roofs
- Use of permeable pavers on flat paved surfaces within the building sites
- Harvesting rainwater and condensate from rooftops for landscape irrigation or toilet flushing within the building, or for use at the South Chiller plant

### ***Utility Improvements***

Future University-owned buildings on Brandon Avenue will be served by UVA utilities, which are currently located at the periphery of the study area.

While the lack of thermal utilities in particular provides flexibility for future building layout, a high upfront cost can be expected for extension of UVA utilities to the end of Brandon Avenue for first phase of development. Future University buildings in the district will be serviced with the following utility connections:

- Electrical: Connection to UVA network at South Lawn
- Domestic Water: Connection to Crispell Drive line, which has sufficient capacity. Opportunity to loop Crispell Drive line back to JPA.
- Thermal Utilities: Sufficient capacity exists on the South Lawn medium-temperature hot water line for heating service. For cooling, chilled water capacity is available on the Crispell Drive line.
- Sanitary Sewer: Connection to City system on Valley Road and Monroe Lane.

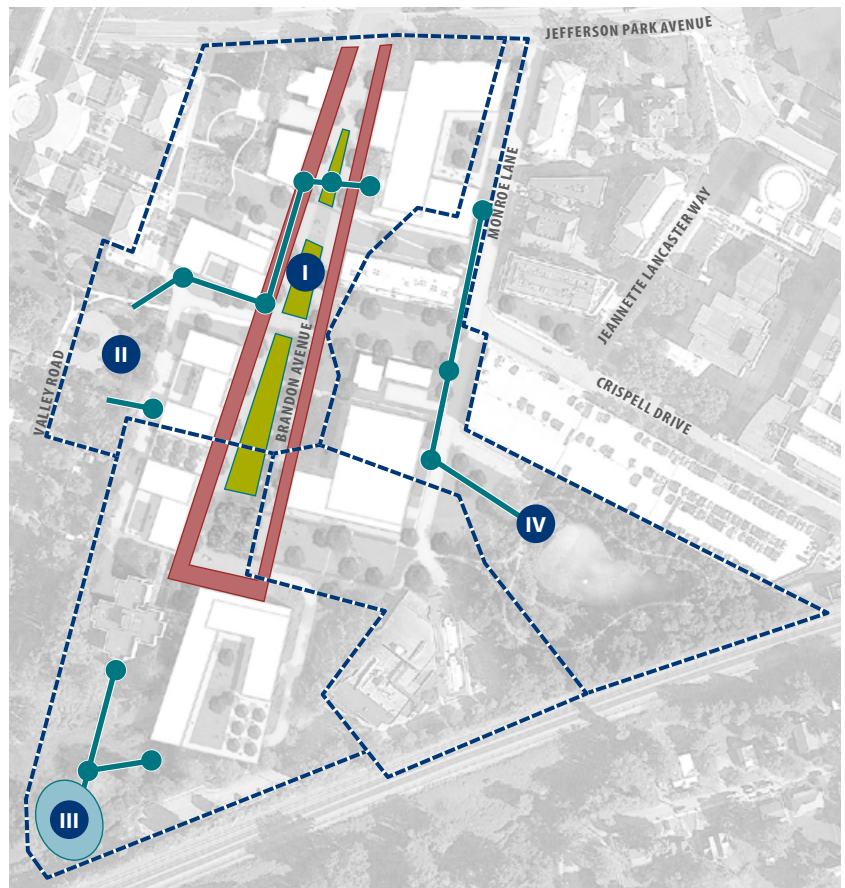
Fig.3.10 on page 31 illustrates infrastructure improvements recommended for an initial enabling phase to support early phases. Utility construction should be coordinated with construction of stormwater infrastructure and streetscape improvements.

Non-UVA utilities serving privately owned structures on Brandon Avenue are expected to remain. These include City-owned water, gas and stormwater lines located within the right-of-way, and overhead power (Dominion) and telecommunications lines. Overhead utilities are recommended to be placed underground as part of Brandon Avenue streetscape improvements.



**Fig.3.9 Proposed stormwater infrastructure to support development vision**

- Micro watersheds within study area
- New stormwater pipelines
- I Green Street
- Bioretention basins
- Permeable sidewalk pavers
- II South Lawn BMP enhancements
- III New wet pond with forebays
- IV South Pond retrofit with sediment forebay



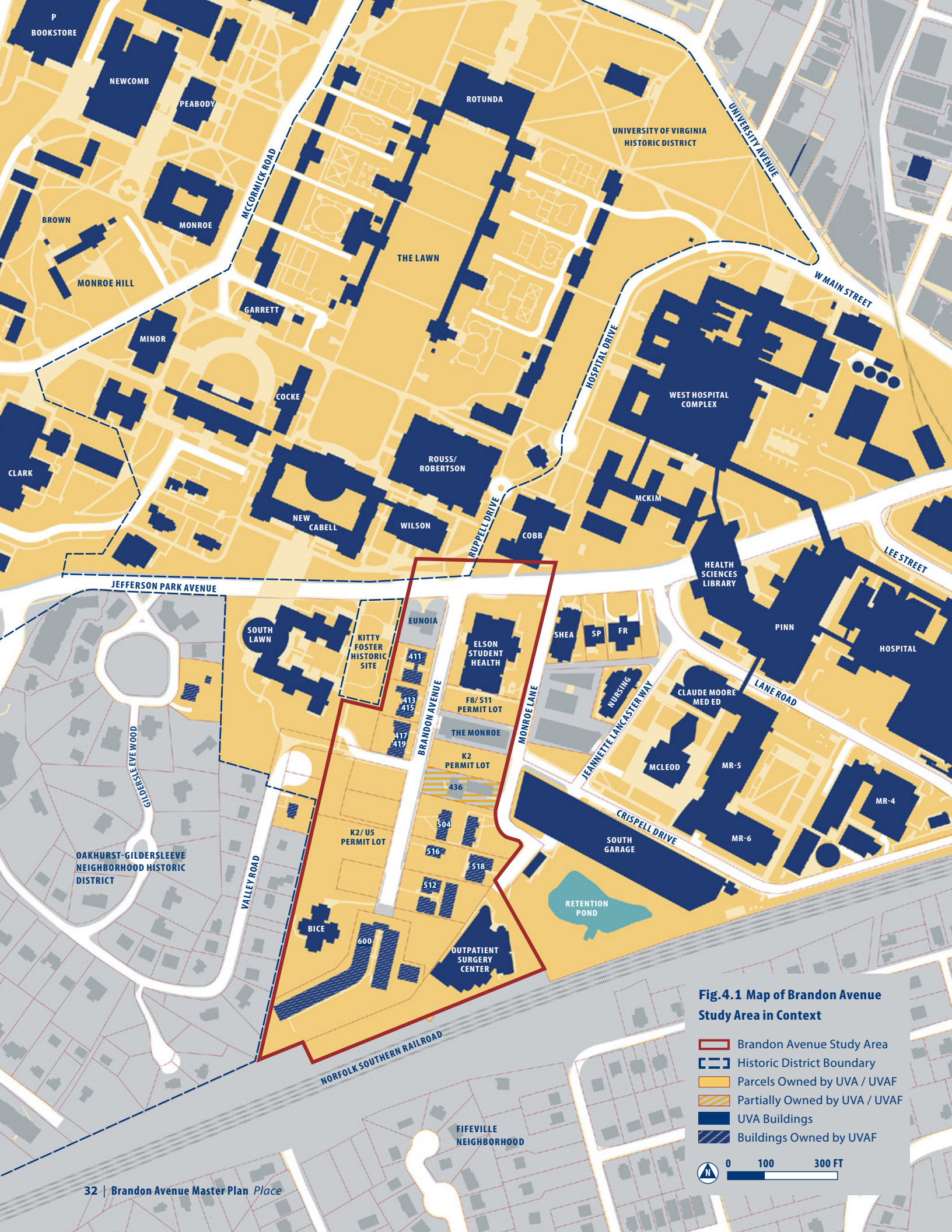
**Fig.3.10 Proposed infrastructure improvements for initial Enabling Phase**

- Phase I development
- Electrical
- Domestic water
- Medium-temperature hot water
- Chilled water
- Sanitary sewer
- Connection points

Note: The extent of stormwater infrastructure investments in Phase 1 to be determined in consultation with the City of Charlottesville.









# PLACE

The area around Brandon Avenue has a long history of residential development dating back to the early days of the University. It also plays a significant part in Charlottesville's African-American history.

## HISTORY AND BACKGROUND /

### **Early History: Foster Homestead and Canada**

The area down the hill from the Academical Village and along Wheeler's Road (today's Jefferson Park Avenue) was inhabited as early as 1819 by contractors and tradesman working on the University's construction. Census information shows that early inhabitants included free African-Americans who provided services to the University. Notable among them was Catherine "Kitty" Foster, a seamstress who purchased a 2-acre site south of Wheeler's Road in 1833. Kitty and her descendants were the only land-owning African-American family in the county until 1867, and lived on Wheeler's Road until 1906. By the 1870s, the area was an established African-American neighborhood known as Canada.

Archaeological digs starting in 1993 have revealed the foundations of numerous homes and a family cemetery with thirty-two burials on the former Foster homestead. The Foster Archaeological Site was registered as a state historic landmark in 2011 and is preserved as a commemorative site honoring Charlottesville's African-American heritage.

### **20th Century Transformation**

Canada succumbed to gentrification by the 1920s as white developers actively assembled land for new development. The four-story brick apartments located at 413-415 and 417-419 Brandon Avenue were built in this period for faculty and staff with modest incomes.

(The apartments transitioned to student housing in the 1970s and 1980s.) By contrast, the abutting Oakhurst-Gildersleeve Neighborhood Historic District was developed with prominent single-family homes, many of which remain today. The remaining single-family homes on Brandon Avenue were replaced in the 1950s and 1960s with low-rise rental apartments aimed at students.

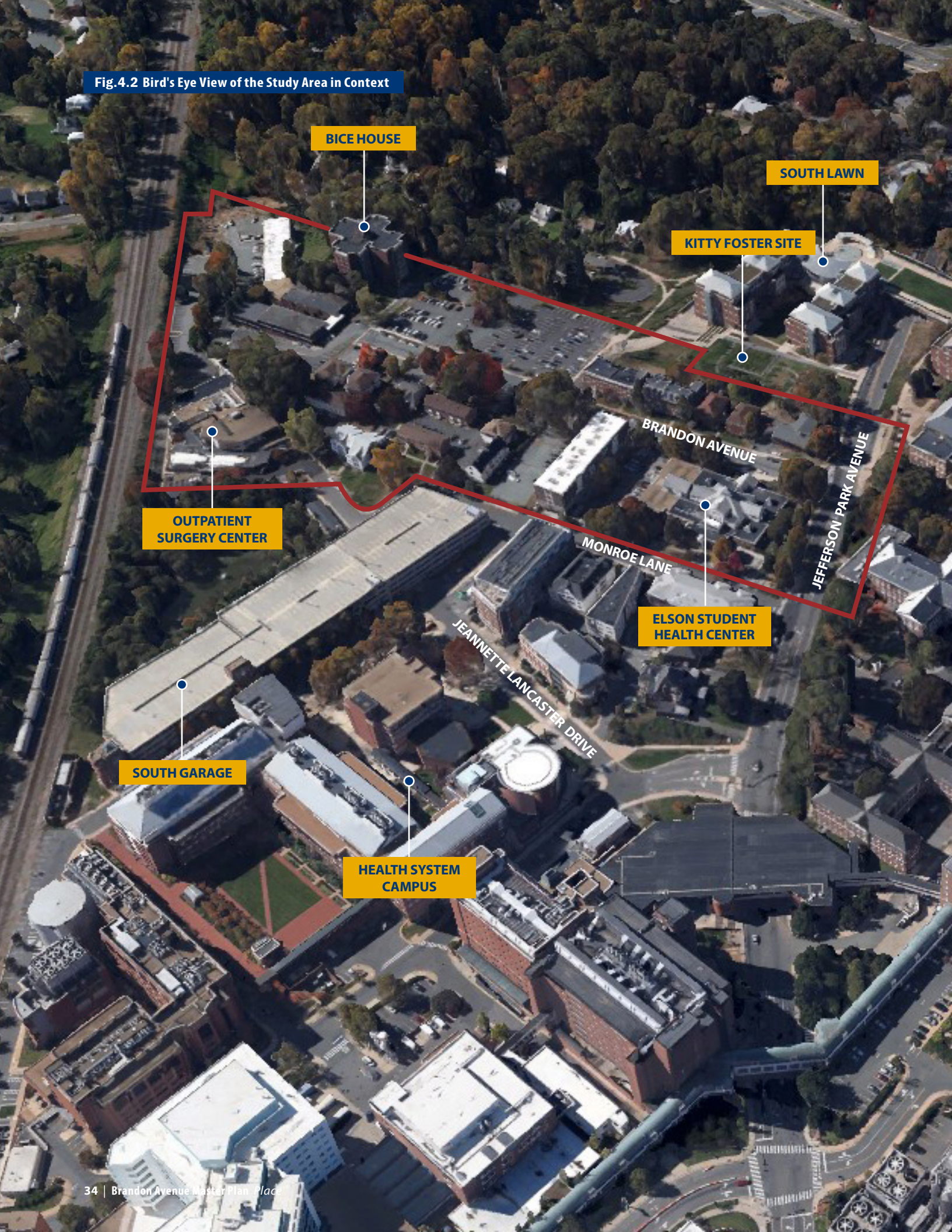
The UVA Health System was the first academic program to expand south of JPA with the construction of Jordan Medical Education Building (now Pinn Hall) and McLeod Nursing Education Building in 1972. Bice House, a nine-story student residence located at the end of Brandon Avenue, was built to house nursing students that same year. The Health System grew rapidly in this area. In 1989, UVA opened its new hospital south of JPA, as well as a new Student Health Center at the corner of JPA and Brandon Avenue.

### **South Lawn and Beyond**

It was not until the launch of the South Lawn Project in 2001, however, that the University actively began to envision the future of the Brandon Avenue area as an extension of Central Grounds. Between 2003 and 2005, the Office of the University Architect (OUA) led stakeholder workshops to identify an urban design vision for the area that aligns with the emergent South Lawn concepts and the Health System plan. The 2008 Grounds Plan identified land controlled by UVA and UVA Foundation south of Brandon Avenue as an academic



Fig.4.2 Bird's Eye View of the Study Area in Context







THE LAWN AND  
THE ACADEMICAL VILLAGE

ROTUNDA

WEST HOSPITAL  
COMPLEX

HOSPITAL DRIVE

THE CORNER

UNIVERSITY AVENUE



## TRANSPORTATION AND MOBILITY /

mixed-use redevelopment zone that connects to the Health System. The Consultant team reviewed the following past studies to identify key take-aways for the current study:

- 2003 • Brandon Avenue Precinct Study
- 2004 / 2005 • Brandon-Monroe-15th Avenue Workshops
- 2008 • UVA Grounds Plan
- 2010 • Health System Area Plan
- 2011 • UVA Precinct Plans
- 2012 / 2013 • Brandon-Monroe Area Plan (BMAP)

Key urban design moves identified in the earlier Brandon Avenue plans were found to be obsolete due to the 2010 construction of The Monroe apartment building in line with the South Lawn courtyard axis. The BMAP study was useful in particular for identifying approaches to density, use mix, connectivity, and sustainability for the current planning exercise. (See Fig.4.3 below).

The University of Virginia has implemented coordinated Transportation Demand Management (TDM) initiatives to reduce the impact of private vehicles on the Grounds, and on surrounding communities. Programs such as bikeshare and the UVA transit system have made alternative modes of transportation more accessible and attractive to the University community. TDM efforts have also resulted in a significant reduction in the number of students seeking parking permits. An estimated ninety-five percent of students walk, bike, or use University Transit Service (UTS) buses to get around campus today.

### ***Pedestrian and Bicycle Access and Mobility***

Brandon Avenue has five-foot concrete sidewalks on either side, with a narrow planting area adjacent to the curb. The western sidewalk, which abuts the K2/S3 permit lot and Bice House, provides ADA-compliant curb ramps. The intersection of Brandon Avenue and JPA has crosswalks and a timed traffic signal to accommodate safe crossing by pedestrians. While the accommodations meet

**Fig.4.3 At right, Brandon-Monroe-15th Avenue Workshops (2005). At left, Brandon-Monroe Area Plan (2013).**





the minimal requirements for safety, there are ample opportunities to improve the pedestrian experience and create a sense of place through re-design.

Site observations have revealed that a considerable number of pedestrians and bicyclists travel across Brandon Avenue to move between the Health System and Central Grounds (including South Lawn). Popular paths include the parking alley behind the Language Houses, and the two UVA permit lots on the eastern side of the street. Redevelopment on Brandon Avenue can be designed to accommodate these east-west flows with dedicated pathways.

### **Transit**

Brandon Avenue has excellent transit service. The area is served by four Charlottesville Area Transit (CAT) and UTS lines that travel down JPA, including the U-Loop, which offers late night and weekend service. The transit stops are also serviced by CAT's Free Trolley and Rte 7 which link the area to the Downtown Mall and to the Downtown Transit Center. The transit stops are located at the intersection of JPA and Brandon Avenue, within 1-4 minute walk of all buildings. The westbound transit stop, which is located across the street, has been upgraded as part of the South Lawn Project, and accommodates five UTS / CAT bus lines. The eastbound transit stop, which currently serves three UTS / CAT lines, is expected to be upgraded to the same standard as part of Brandon Avenue improvements.

### **Parking**

UVA manages a large pool of permit parking spaces that are available for purchase based on the applicant's affiliation with the University.

Brandon Avenue currently hosts three surface parking lots that include about 300 permit parking spaces. The

large surface parking lot abutting Bice House has 216 spaces, 36 of which serve Bice House. The Elson Student Health Center lot includes 22 spaces for patients and 32 spaces managed by the Health System. The remaining 30 spaces are located on a small gravel lot between The Monroe and 946 Brandon Avenue condominiums. (See page 32 for location of parking lots). The parking lots are largely used by daytime users including faculty, with about a quarter of the spaces used by employees or patients at the Student Health Center. After hours and weekend uses include parking for events at South Lawn and Old Cabell Hall, as well as parking for football games.





Redevelopment on Brandon Avenue is required to replace existing permit spaces, or contribute to the University's parking development fund per the UVA Parking Policy for Capital Projects. The policy also calls for the reimbursement of the University Department of Parking and Transportation Services for revenue lost to any temporary loss of parking.

Brandon Avenue has an additional 270 spaces associated with existing multi-family residential structures, as well as an estimated 58 on-street parking spaces managed by the City as part of Permit Zone 1. Parking associated with the Outpatient Surgery Center is accessed only from Monroe Lane and was not included in this study.





**Fig.4.4 Shaded Terrain Diagram with 2-Foot Topographic Contours**

-  Brandon Avenue Study Area
-  Section Cutline (See Fig.4.5)
-  Higher Elevation
-  Lower Elevation





## TOPOGRAPHY AND STORMWATER /

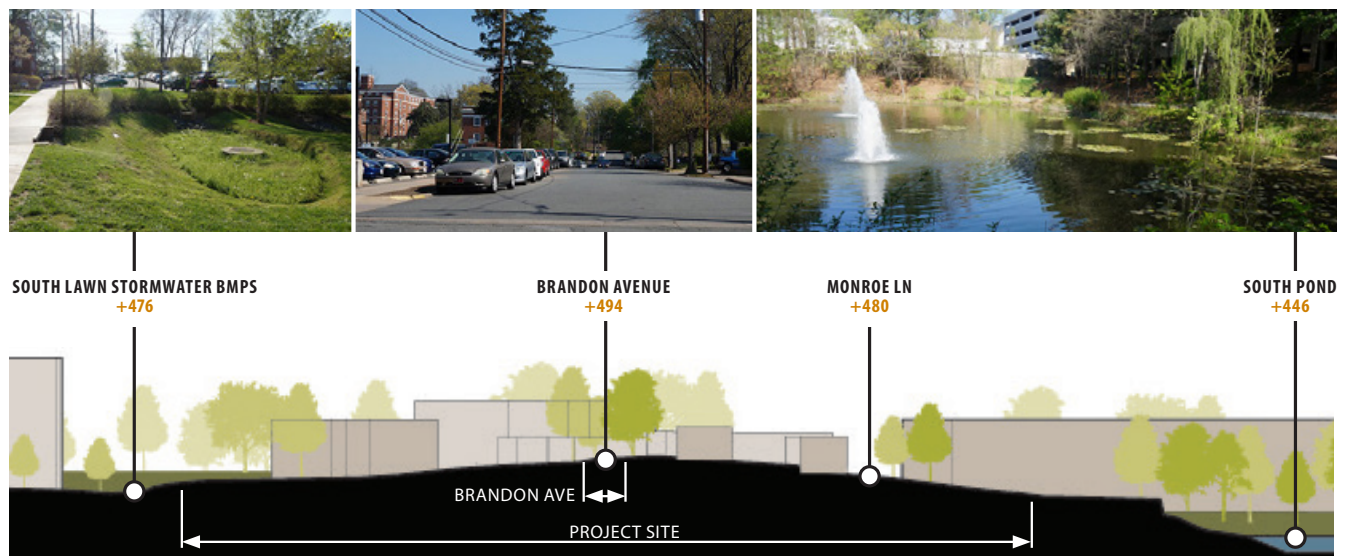
Brandon Avenue is on a ridgeline. Stormwater falling on the west side of Brandon Avenue drains towards Valley Road while stormwater falling on the east side of the street drains towards Monroe Lane. Both flows contribute to two tributaries of Rock Creek that have been heavily impacted and are channeled through the railroad berm.

University-owned stormwater facilities located on Valley Road and Monroe Lane—the swales at South Lawn (2010), and the Health System retention pond (South Pond, 1990s)—also receive stormwater flows from impervious surfaces on Brandon Avenue. The vegetated and biofilter swales are part of a series of stormwater best management practices (BMPs) implemented to treat stormwater locally on the South Lawn site. The BMPs feature a series of channels with weirs behind South Lawn that slow water flowing downhill towards the swales. The system, which contributed to the South Lawn's LEED Gold certification, is negatively impacted by sheet flow of stormwater from the Brandon Avenue surface lot. Both the swales and the pond are currently at capacity, and cannot accommodate redevelopment on Brandon Avenue in their current state.

The 2015 Campus Energy and Utilities Master Plan recommended that the Brandon Avenue District exceed stormwater volume and quality treatment requirements associated with the construction permit, to provide the University credits towards its stringent Chesapeake Bay TDML requirements. The plan called for the reduction of peak flow rate and total volume of runoff from the Brandon Avenue District through reduction in impervious surfaces, capture and reuse of stormwater, green roofs, and the creation of bioretention cells adjacent to impervious surfaces, including buildings.

Brandon Avenue redevelopment is an opportunity for the University to advance its leadership in sustainable stormwater management by implementing innovative green infrastructure solutions. The BMPs at nearby South Lawn provide a design precedent for stormwater infrastructure that mitigates negative impacts such as pollution and sedimentation while also providing landscape space for connections and passive recreation.

**Fig.4.5 East-west cross-section of the Brandon Avenue Study Area, and existing UVA stormwater facilities. See Fig.4.4 for location.**





# PROGRAM

**A variety of University uses can be co-located on Brandon Avenue to support institutional growth, academic success, and innovation. Curating a vibrant mix of uses facing the street can activate the district throughout the day.**

The 2013 Cornerstone Plan aims to place UVA among the top 20 academic institutions in the US and top 40 university recipients of competitive federal research funding by 2023. The Plan's implementation is driving tremendous change across the University as the institution nears its Bicentennial (October 6, 2017). These changes are driving demand for new types of academic, research and community spaces on the Grounds with a focus on student engagement, interdisciplinary collaboration, and research growth.

The Consultant team interviewed University stakeholders to understand how redevelopment of Brandon Avenue can support this transformation. (See Acknowledgements on page 44 for a list of interviewees). The interviews focused on current and projected space needs that could be accommodated in the new district. A summary table of suggested, proposed and unlikely uses for Brandon Avenue is shown on Fig.5.1 on page 41, and described in this section under five headings:

- Academic Uses
- Research Uses
- Student Health
- Student Housing
- Community Amenities

Proposed distribution of suggested and potential uses is described in Section 3 - Development.

## ACADEMIC USES

The interviews highlighted a shared need for instructional space between three major schools—the College and Graduate School of Arts and Sciences (A&S), the McIntire School of Commerce, and the School of Nursing—that about the Brandon Avenue district:

- A&S' initial plans for South Lawn included a 30,000 GSF Phase 2 addition. Phase 2 can potentially meet the College's growing need for large classrooms, smaller active learning spaces, and faculty offices. An academic space needs study is currently underway.
- The McIntire School has identified a need for an additional 60,000 GSF to support projected program and faculty growth by 2024. While expansion to sites adjacent to Rouss-Robertson Hall are preferred, the School could contribute to a shared 350-person classroom if built on Brandon Avenue.
- The School of Nursing has a need for smaller instructional spaces (12-20 students).

Participants emphasized the opportunity to create an environment for interdisciplinary shared learning on Brandon Avenue.



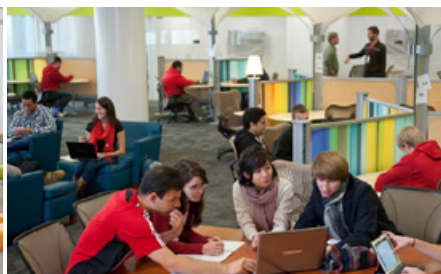
**Fig.5.1 Summary of suggested, potential and unlikely uses for the Brandon Avenue District.**

SUGGESTED USES	POTENTIAL USES	UNLIKELY USES
<ul style="list-style-type: none"> <li>• Student Health Center</li> <li>• Upper class apartments</li> <li>• Large, flexible classrooms</li> <li>• Grab-and-go food retail</li> <li>• Exercise amenities</li> <li>• Permit parking</li> <li>• Limited residential parking</li> </ul>	<ul style="list-style-type: none"> <li>• Flex, interdisciplinary research space</li> <li>• Creative / maker spaces</li> <li>• Media lab / broadcast studio</li> <li>• Graduate / executive housing</li> </ul>	<ul style="list-style-type: none"> <li>• Wet labs</li> <li>• Excess parking</li> <li>• Commerce School expansion</li> </ul>

**Fig.5.2 Types of instructional space needs that can be accommodated on Brandon Avenue.**



- There is a global desire for open informal learning and collaboration spaces to support creativity outside of the classroom



- A&S reports a need for 60 and 120-seat classrooms
- Active learning spaces in demand



- McIntire School of Commerce could participate in a 350-person classroom if built across JPA



## RESEARCH USES /

### **Medical Research**

The interviews included discussion of research space needs identified by the Health System Integrated Space Plan (ISP). If met through new construction, the space need would ideally result in the addition of biomedical research buildings (with wet labs) similar to MR-6 in height and bulk.

Brandon Avenue was deemed to be not ideal for biomedical research buildings for the following key reasons:

- Distance from existing core facilities such as vivaria, and the high cost for replicating those facilities;
- Limitations on building height and bulk due to historic / residential context, and,
- Lack of space and access routes for a large parking structure.

While some dry research labs can be accommodated within academic mixed-use buildings on Brandon Avenue, a dedicated computational facility may also be out-of-scale for the district.

### **Collaboration / Creative Spaces**

Interviews highlighted a need for flexible collaboration space in support of cross-Grounds research initiatives such as the emerging Pan-University Institutes. The first two institutes were established without any dedicated space outside of applicants' individual departments. With its proximity to multiple Schools and Colleges, Brandon Avenue is an ideal location for unassigned touch-down / swing spaces that can bring faculty and students from across the University together, and where research findings can be placed on display for a broad audience. Creative / makerspaces could also be included in a broader portfolio of flexible collaboration spaces.

## STUDENT HEALTH /

The interviews highlighted the growing focus within the University on student and employee health as a foundation for success.

Student Health has identified a significant need for additional space to accommodate growing demand and meet program integration goals in the next 10 years. The Center aims to grow to more than 70,000 GSF, about twice the size of their existing space on Brandon Avenue. Assessment of the current building and site has shown that the Center can't grow in place through renovation and / or addition. Parking capacity is also limited on the current site.

The master plan has studied three options for Student Health: 1) Relocate temporarily while building a new structure in the same location 2) Move to a new building elsewhere on Brandon Avenue, and 3) Move to a new building elsewhere on-Grounds.

The preferred concept identifies a location further down Brandon Avenue that is ideal for the future Student Health and Wellness Center. (See Fig.2.1 on page 10). The sloping site, which overlooks South Pond, accommodates two levels of parking accessed separately from Monroe Lane. The test layout provides a long frontage on Brandon Avenue, with opportunity for a outdoor patio centered on a preserved mature tree. Other benefits of the recommended site include adjacency to student housing and natural outdoor spaces, proximity to the Health System, and opportunity for vertical growth.

## STUDENT HOUSING /

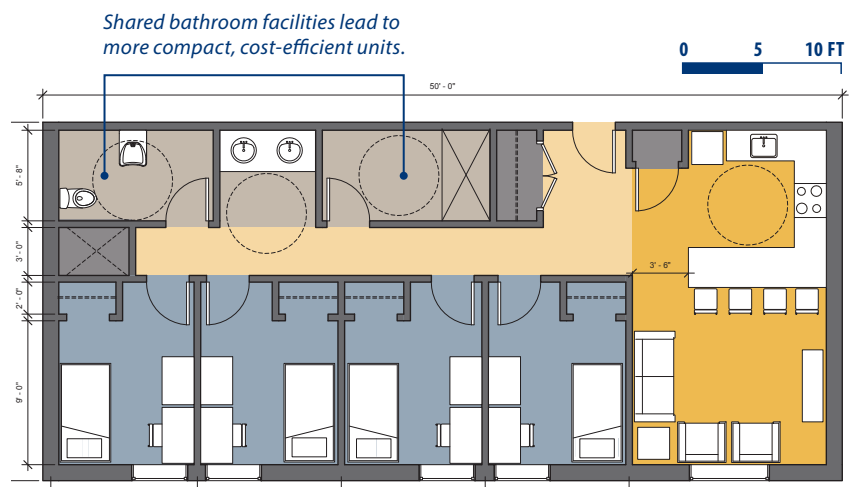
Brandon Avenue currently has 277 on-Grounds beds, all located in Bice House. An additional 142 beds are located at the nearby Language Houses (Shea House, Casa Bolivar, and La Maison Française), creating a sizeable residential community south of JPA.



**Fig.5.3 Perkins+Will test unit for upper class student apartment**

Upper class students surveyed expressed a preference for single bedrooms in four-bedroom apartments with shared living spaces, including a full kitchen.

- Living room / kitchen
- Single Bedrooms (4)
- Washrooms
- Circulation
- Storage



A survey conducted as part of the recently completed Housing and Residence Life Study revealed unmet demand for third and fourth year housing in close proximity to Central Grounds. Participating students identified Brandon Avenue as the most desirable location for new On-Grounds housing. The study showed that recent expansion of off-Grounds options did not impact demand for student housing within or near Central Grounds.

UVA today has a smaller portfolio of upper class beds than in recent past due to the conversion of Gooch / Dillard dorms to first-year student housing. The unmet demand shown in the Housing Study, combined with recent surges in enrollment, are expected to create a significant shortfall in upper class housing by the Fall of 2018. Brandon Avenue's location, existing residential community, and availability for immediate development makes it ideal for future student housing.

A typical UVA residence hall will have at least 200 beds and include community spaces on the ground floor. On Brandon Avenue, these can include academic, research and community uses that can contribute to the mixed-use district.

## COMMUNITY AMENITIES /

All interviewees expressed a desire for Brandon Avenue development to provide amenities lacking in this section of the Grounds, including:

- Year-round food retail. Residential uses can support grab-and-go food retail, at a minimum. A retail location closer to JPA can also serve students and faculty at South Lawn and at the McIntire School of Commerce;
- Open spaces for recreation and respite, accessible from the Health System;
- A satellite fitness facility that is open to students, faculty, and employees; and,
- Flexible spaces for individual / group study, socialization, and informal meetings.

The urban design vision calls for "a curated mix of uses" such as these and other community-oriented uses on the ground floors of buildings across Brandon Avenue to help create an active street environment throughout the day. (See "Active Ground Floor" on page page 18).



## ACKNOWLEDGEMENTS /

### Core Team

**Alice Raucher** • Architect for the University  
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**Mary Hughes** • University Landscape Architect  
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University of Virginia Foundation

### Advisory Group

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**Tom Harkins** • Chief of Environment, Health System  
**Rob Hoover** • Assistant Dean, McIntire School of  
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**Rich Kovatch** • Vice President of Business Operations  
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**Colette Sheehy** • Senior Vice President for Operations  
**Don Sundgren** • Chief Facilities Officer  
**Rebecca White** • Director of Parking and Transportation

### Interviews

We'd like to thank the following stakeholders, who  
provided input on potential uses for Brandon Avenue:  
**Adam Daniel** • Senior Associate Dean for Administration  
and Planning, College and Graduate School of Arts &  
Sciences  
**Dorrie Fontaine** • Dean, School of Nursing  
**Tom Harkins** • Chief of Environment, Health System  
**Rob Hoover** • Assistant Dean, McIntire School of  
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**Gay Perez** • Associate Dean of Students and Executive  
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**Anna Towns** • Director of Space Planning and  
Management, College and Graduate School of Arts &  
Sciences  
**Carl P. Zeithaml** • Dean, McIntire School of Commerce

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### Energy and Utilities Group

### Parking and Transportation Group

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**Andrew Grote** • Architect, Perkins+Will

**Devin Keeler** • Civil Engineer, Dewberry  
**Amy Nelson** • Civil Engineer, Dewberry  
**Diane Linderman** • Managing Director, VHB  
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