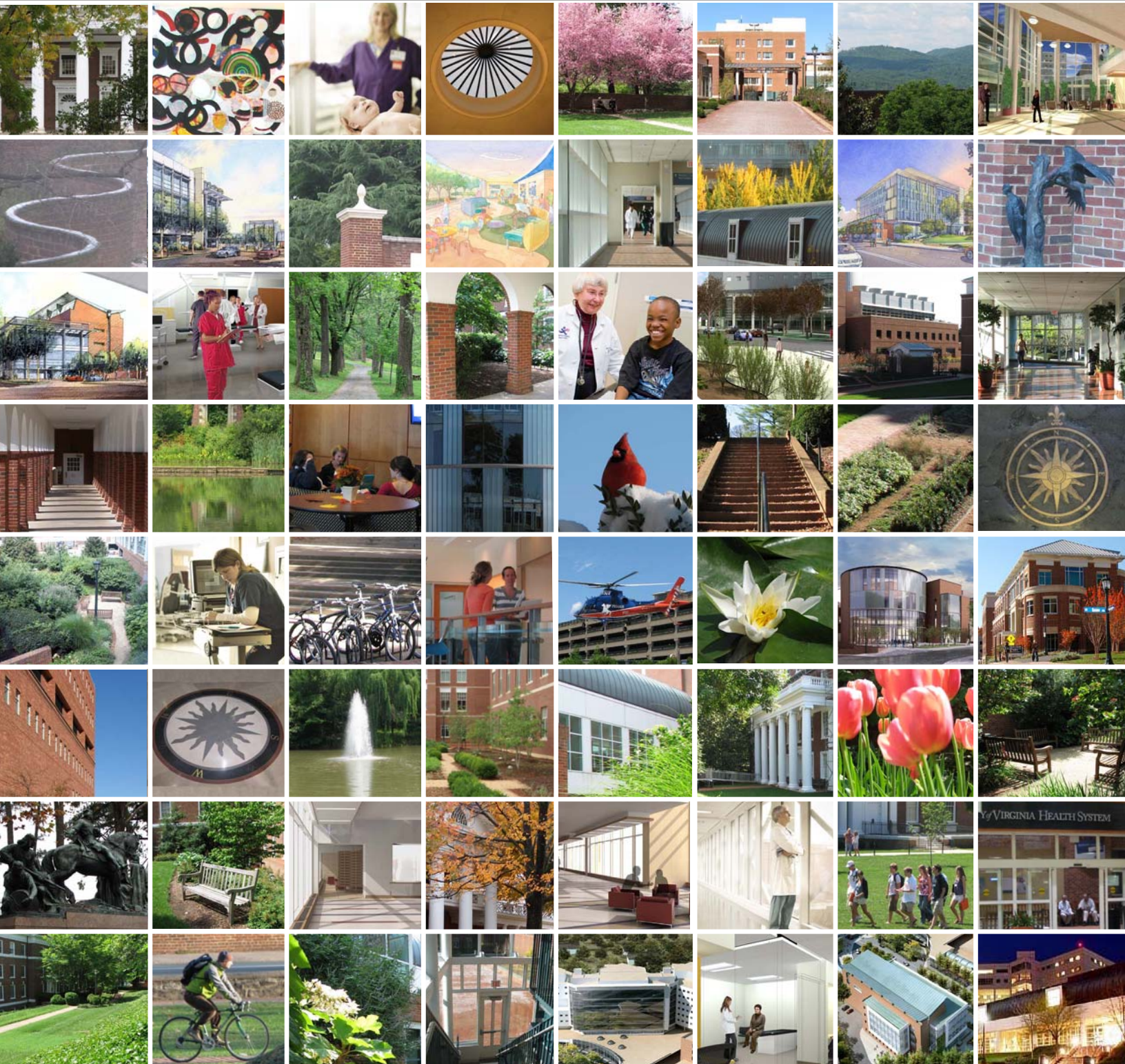
University of Virginia
Health System Area Plan

Office of the Architect for the University

2010



Foreword

In 1825, Thomas Jefferson established the nation's 10th medical school at the University of Virginia, which has become a nationally recognized academic medical center committed to providing outstanding patient care, educating tomorrow's health care leaders and discovering improved ways to treat disease. Physicians at the Health System serve patients from the regional area, southeastern United States and around the world. Many UVa physicians, nurses and other health care professionals are recognized nationally and internationally as leaders in their fields.

The Office of the Architect (OAU) and the Health System (HS) collaborated to create the Health System Area Plan – the first unified planning effort for this medical center. The Plan comprehensively addresses the unique circumstances of supporting a research and patient-serving community in the context of the University Grounds, and City of Charlottesville environs. Previous illustrative site plans have been developed to guide growth, but this Plan focuses on the overall environment to create a district emphasizing health and wellness for its total population of patients, visitors, physicians, staff and students, with a particular emphasis on creating a ***sense of place.***

The timing of this planning effort is critical given the current intensive growth and renewal of the HS district. In the last five years, nine new buildings (630,000 gross square feet) have been developed or are under construction to support the future of this complex medical center.

With this expansive change is the opportunity to create a more holistic environment of wellness and healing. Given its historic progression and large service requirements, past HS development has largely focused on the advancement of buildings without addressing the comprehensive planning and infrastructure needed to form a holistic environment. An example is the need to incorporate ***green space*** to provide respite, relaxation and recreation for the diverse population of this community. Another example is ***wayfinding and access*** for patients, visitors and staff – who are currently challenged by finding their way to and within the complex, interwoven buildings. These and other goals form the basis of the objectives below – to create comprehensive amenities within and throughout this essential community of health and healing. The objectives of the Plan are:

- Enhance visitor and daily user experience
- Improve the safety of pedestrian, bike and vehicular circulation throughout the district
- Implement a unifying design concept for the district
- Strengthen the UVa Health System's image
- Create a campus-like environment
- Develop a landscape hierarchy and recreation opportunities
- Allow for future renewal and replacement of facilities

We believe this Plan embodies these objectives in a bold and creative fashion.

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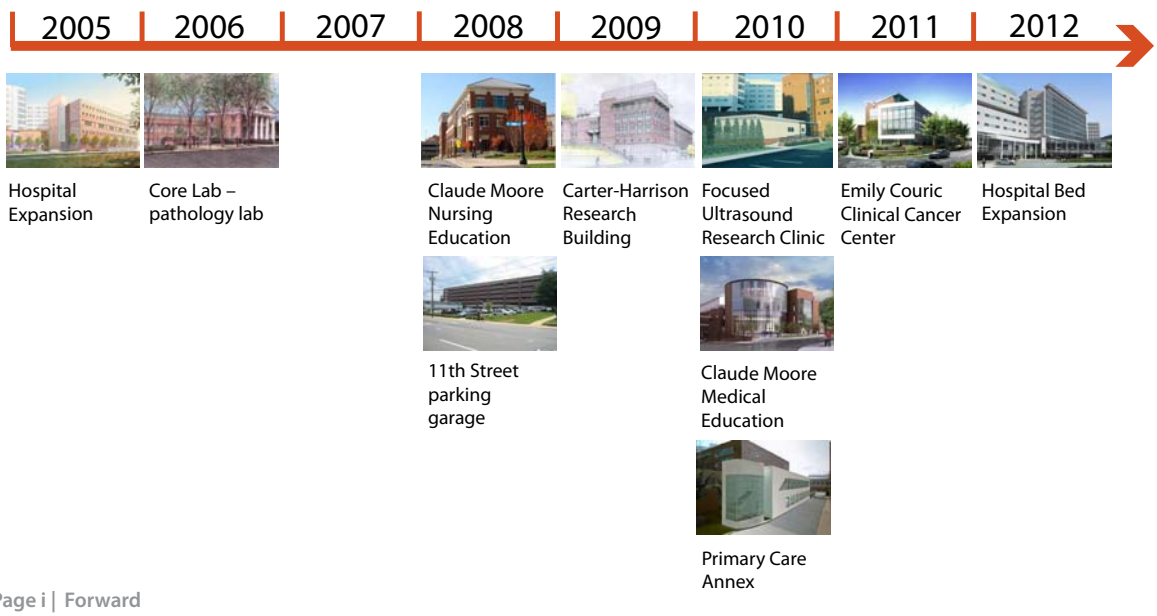
Luis Carrazana, AIA, LEED AP — Senior Facility Planner/Architect for Research and Clinical Programs

Health System Capital Projects: 2005 - 2012



Acknowledgements

The Office of the Architect for the University would like to thank the following departments and groups for the support and knowledge they provided to the development of the Health System Area Plan. The HSAP team for the Office of the Architect for the University included **David Neuman: Architect for the University, Julia Monteith: Senior Land Use Planner, Luis Carrazana: Senior Facility Planner/Architect for Research and Clinical Programs, Helen Wilson: Landscape Architect, Bill Palmer: GIS Planner**

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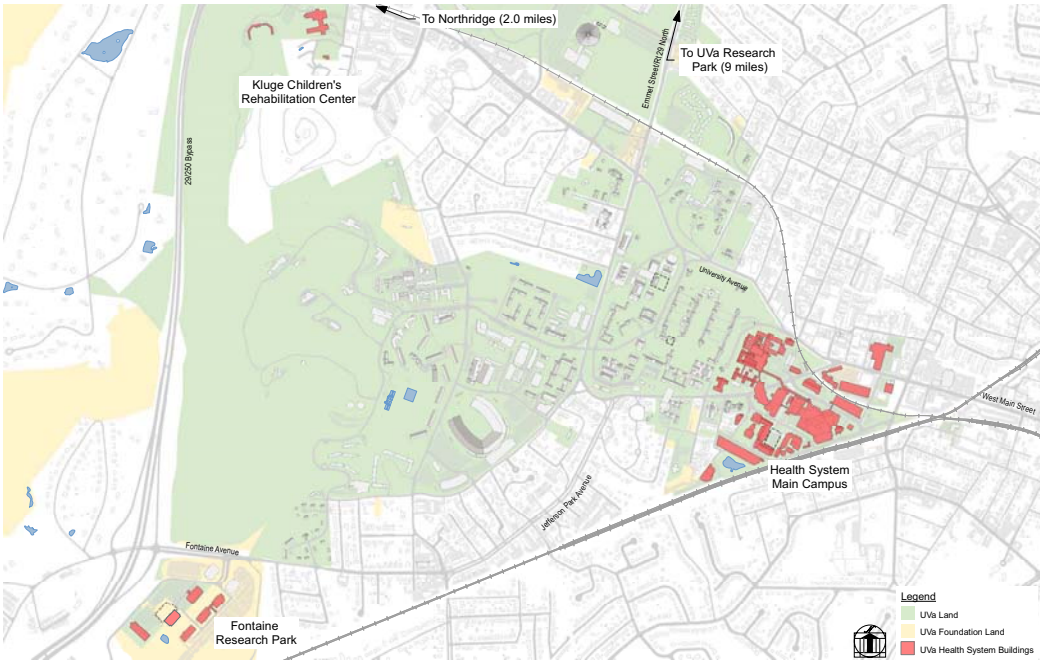
The University of Virginia Health System has its origins in the early 1800's – including the Thomas Jefferson-designed Anatomical Theater, followed by the establishment of the first free-standing infirmary (Varsity Hall) in 1857. The Health System (HS) today includes major hospital facilities, outpatient clinics and services, the School of Medicine (SOM) and the School of Nursing (SON), which are predominately located on the University of Virginia (UVa) Grounds with additional facilities distributed in adjacent communities. As a center of health care, teaching and research, the UVa Health System embodies the fundamentals of translational medicine. This continuum of applying biogenetic insights from laboratory discovery to clinical care—"bench to bedside"—relies on interdisciplinary and cross organizational collaborations. It is this premise of fostering collaboration among the academic, research and clinical functions of the Health System, coupled with the opportunity to create an environment that is welcoming and conducive to healing, that underlies the guiding principles for this 2010 Health System Area Plan.

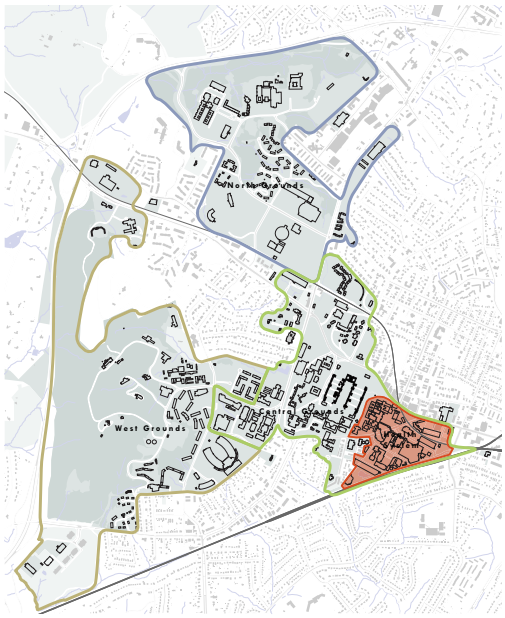
Today's **Health System** is a nationally recognized academic, research, clinical and acute care center. The **medical center** is an integrated network of primary and specialty inpatient and outpatient care services, including the hospital, ranging from wellness programs and routine checkups to the most technologically advanced care. The Health System facilities total more than 5 million square feet, expanding to several diverse clinical services and research facilities in the regional area and greater Virginia.

The core of the University Health System district is the most densely developed and urbanized portion of the University Grounds. The future expansion of this 60-acre district will increase its density, but will be balanced with the addition of green space, wellness and recreational amenities.

In 2008, the University completed the Grounds Plan, which guides future land use planning/physical growth for the University, capitalizing on the potential of existing and new facilities to offer superior



Health System locations map



2008 Grounds Plan precincts with the Health System highlighted

environments for future academic, residential and related programs. The Grounds Plan establishes three precincts for the University Grounds – the Central Grounds (which includes the Health System), the West Grounds and the North Grounds. This Plan addresses the HS as a **district,** due to its unique needs and responsibilities that pertain to health care and its related educational programs. The intent of this district Plan is to provide guiding principles and a vision for the future growth of the expanding health care facilities within the HS.

The Health System Area Plan (HSAP) is a continuation and further development of several planning efforts and projects. These include the 2004 Lee Street and Brandon Avenue studies, as well as the planning and design of the Claude Moore Nursing and Medical Education buildings, the Emily Couric Clinical Cancer Center, the Hospital Bed Expansion and the Battle Building at the UVa Children's Hospital. All these studies and developments acknowledge the need for, and contribute towards, creating a healthy and healing environment as an essential premise to the well-being of patients and other daily inhabitants of this community: faculty, staff, researchers, students and visitors.

This can be achieved by improving the Health System environment through a number of means, both inside and outside of buildings, as well as promoting clear and inviting connections to the University community and the City and County beyond. While continuing to expand the facilities at-large, the HSAP recommends the following strategies:

- Strengthen the UVa Health System image
- Create an enhanced campus-like environment
- Implement a unifying design concept for the district
- Enhance visitor and daily use experience
- Improve the safety of pedestrian, bicycle and vehicular circulation throughout the district
- Develop a landscape hierarchy and recreation opportunities
- Allow for future renewal and replacement of facilities
- Incorporate planning and design standards that support sustainable development principles

Long term objectives for the HSAP include strengthening the core medical center and SOM / SON clinical, teaching and research operations on Grounds, while achieving a more effective use of the limited available land and building areas. Over the next decade, the primary HS growth will occur in acute and specialty care. Due to its high level of demand, inpatient services and facilities will continue to provide a major source of revenue. Ambulatory clinics will be developed in locations where patient access can be accommodated more easily. Overall, facilities will be developed to leverage strengths of location, service clusters and accessibility for patients.

The Health System district planning process included the analysis of several sites for redevelopment in support of future growth needs. Through analysis of these potential sites, the HSAP established that there is sufficient capacity to support the Health System for the next ten to twenty years. The sites selected, shown in the diagram on page 9, are located throughout the Health System area and provide four types of redevelopment opportunities: renew, replace, renew/replace and landscape enhancements, with the first three opportunities pertaining to building sites. The renewal of sites includes major renova-

tions, generally related to both well-constructed flexible structures and historic buildings that are planned for reuse. Replacement refers to the removal of an existing building with a new building providing more efficient and effective use of the site. In the case of the West Complex, it is likely that a combination of these two strategies - renew/replace - will be used. The fourth opportunity provides for replacement or supplementing other facilities (such as surface parking) with landscape enhancements to provide more recreational and green space within the HS.

Planning for the location of future facilities and green space opportunities will conform with the five zones established by the Plan. These zones are defined as:

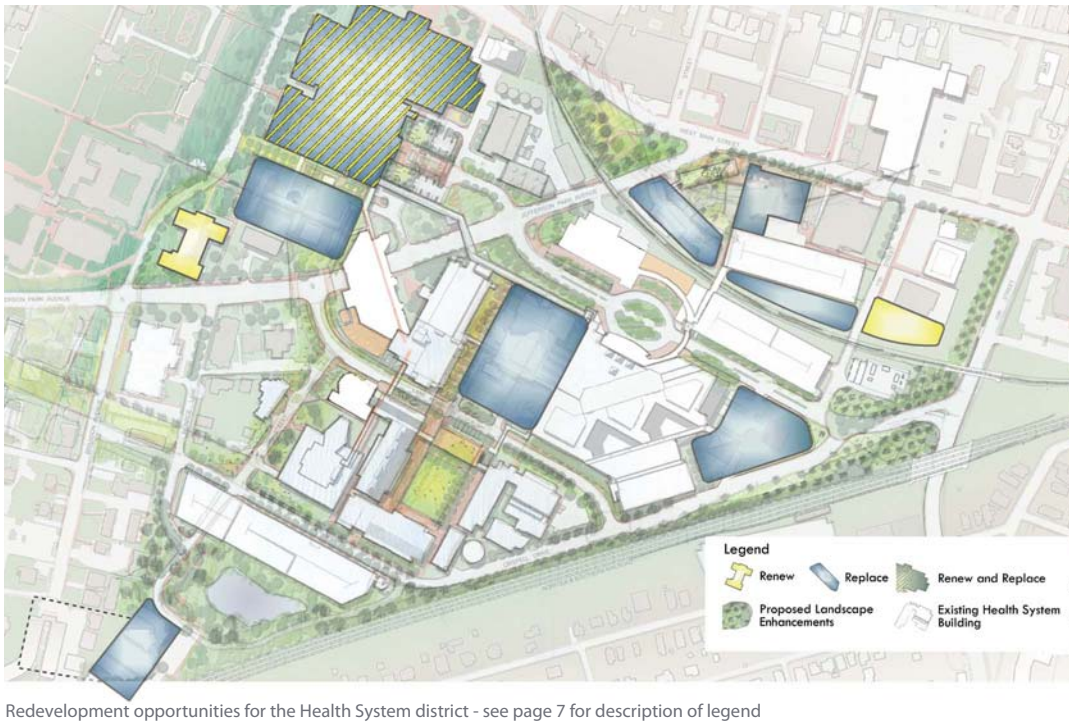
- **Hospital/Clinics Zone** (mix of inpatient and outpatient care)
- **Research and Academic Zone** (clustering of recent new lab and academic buildings)
- **West Zone** (consisting of the West Complex, McKim Hall, Cobb Hall and the Central Plant)
- **South Zone** (known for its green space retention basin and existing UVa Outpatient Surgery Center beyond the South parking garage)
- **West Main Street Corridor Zone** (includes the new Battle Building, 1224 JPA, Stacy Hall and other properties along West Main Street)

The HSAP provides district planning guidance with the following five measures, relating to the district at-large:

- Rationalize functional distribution and organization of uses by aligning future development with current HSAP zoning
- Locate functions to enhance synergies between existing and future uses
- Restore clarity and continuity in addition to extending the internal circulation network, commonly referred to as the 'link'
- Animate the 'link' system with specific locations that provide amenities for collegial interaction
- Integrate sustainable measures to improve the health and well-being of the HS community

Other recommendations of the Health System Area Plan include integration of the West Main Street zone with the Health System district. In support of the HSAP, the current circulation plan will be clarified by enhancing and managing streets to create a clear hierarchy, while at the same time defining bike routes, pedestrian routes, recreation paths and improved wayfinding. Incremental enhancements will also be developed to improve the quality of the environment and experience within this district.

Zones of the Health System



Redevelopment opportunities for the Health System district - see page 7 for description of legend

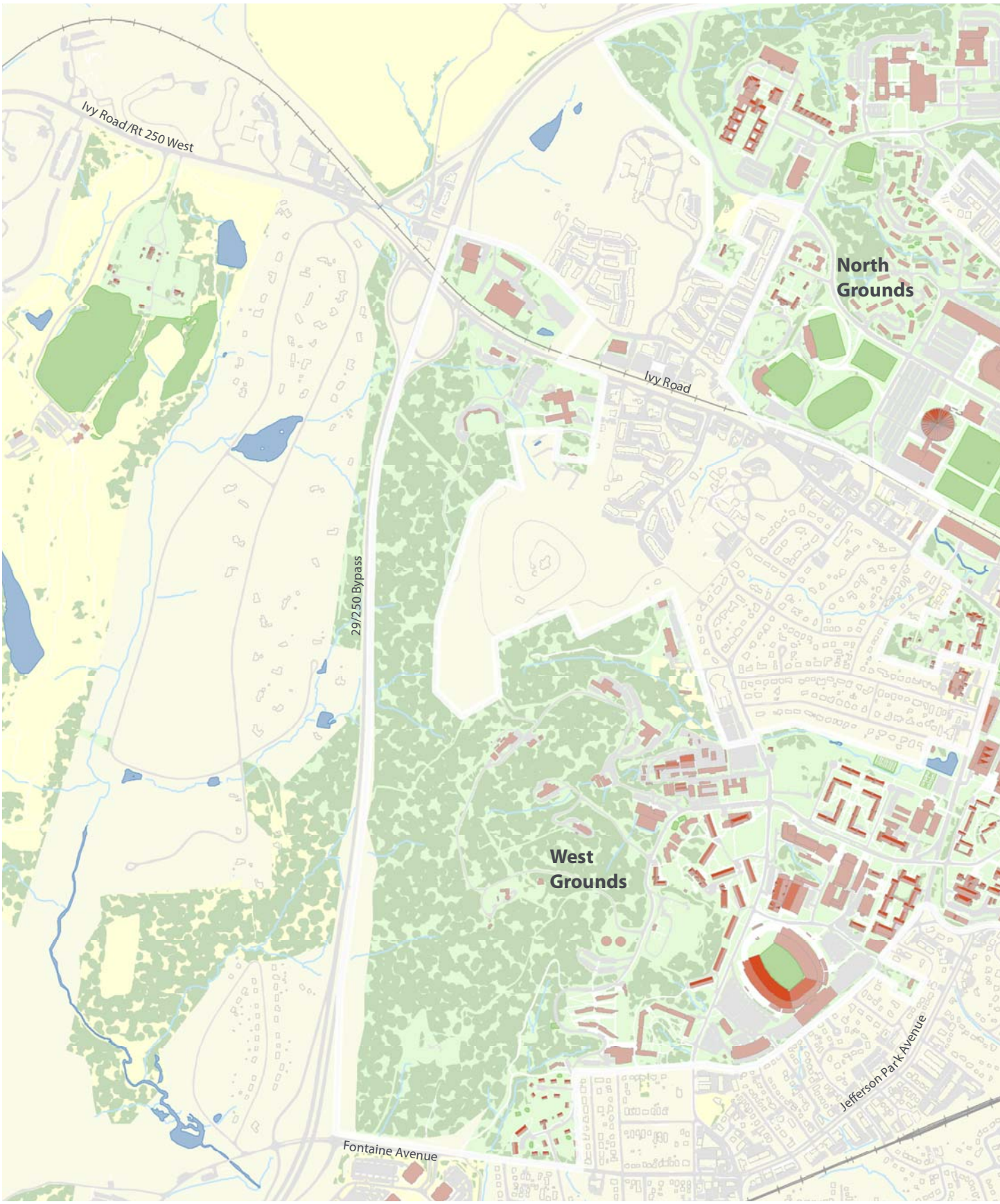
The Health System Area Plan consists of four sections and this introduction, which provides a summary of the document. A description of each section is provided below.

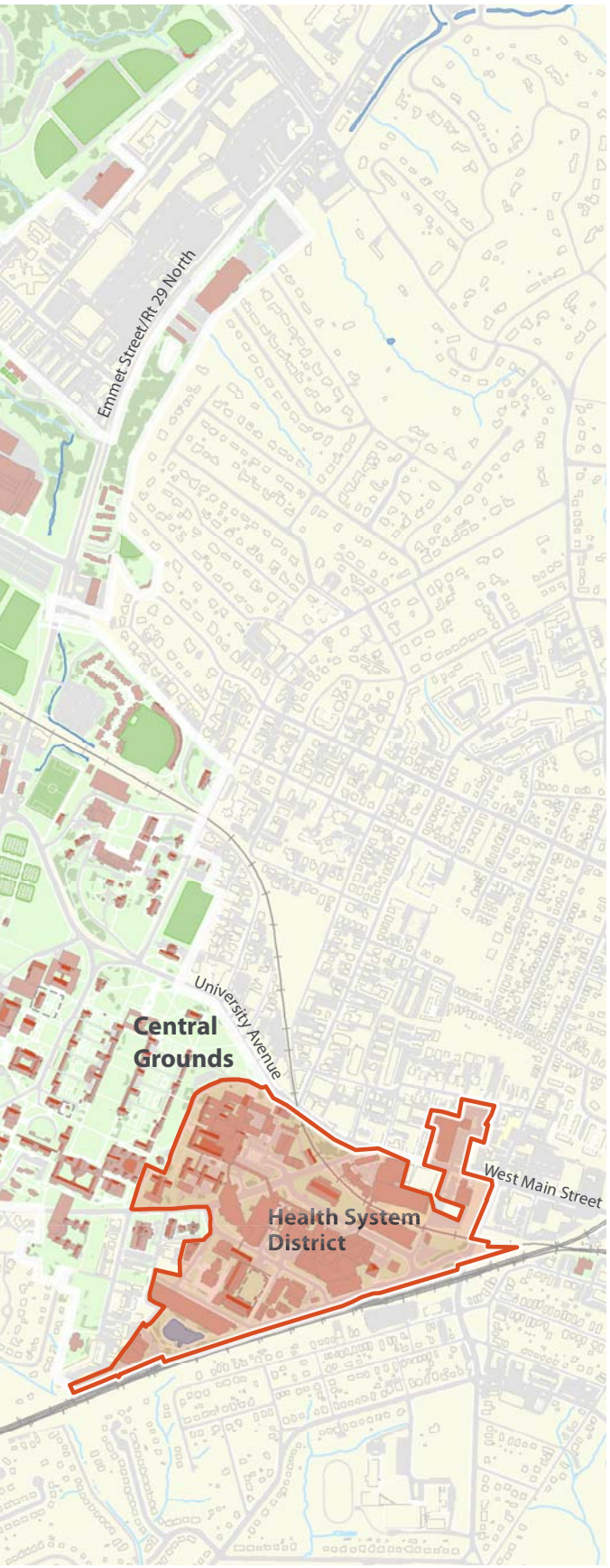
- *Section 1 provides the intent of the Plan, and the history and context of the Health System, as a basis for the comprehensive planning.*

- *Section 2 and 3 provide the overall principles for planning and renewal or replacement of facilities. Section 2 primarily focuses on the exterior environment: the HS image, the green space system, landscape, streetscape and circulation. Section 3 focuses on the interior functionality of buildings, signage and wayfinding. Both of these sections include principles of sustainability to be addressed in the process of designing additional facilities.*

- *Section 4 provides the phasing for the development of facilities, background on the infrastructure and support and the implementation Design Guide for the architecture and landscape of the HS district.*

Aerial rendering of the Health System with Lee Street enhancements


Ivy Road/Rt 250 West
North Grounds
Ivy Road
29/250 Bypass
West Grounds
Jefferson Park Avenue
Fontaine Avenue



Section 1 | Health System Development Strategy

1 | Mission and Goals

2 | The Health System Today

3 | The Health System in the University Context

4 | Growth Scenario Strategy and Health System Zones

5 | Potential Future Redevelopment Sites

One of the primary goals of the Health System district is to create an environment that is welcoming and conducive to healing. This can be achieved by creating places for gathering, respite and recreation, while allowing more natural light into all areas; fostering connections between the buildings and neighboring landscapes; improving the circulation and clarity of the interior and exterior organization; upgrading the views and visual quality of the environment and promoting clear and inviting connections to the resources of the larger University of Virginia Grounds, the City of Charlottesville and County of Albemarle.

As a community of teaching and research, the UVa Health System focuses on translational medicine as a means for improving patient care. By fostering collaboration between the patient care and research facilities, doctors and nurses will bring medical innovations "from bench to bedside," providing patients with the benefit of receiving care in a teaching community. Creating a healthy and healing environment is essential to the well-being of patients as well as the other daily inhabitants of this community: faculty, staff, researchers and students.

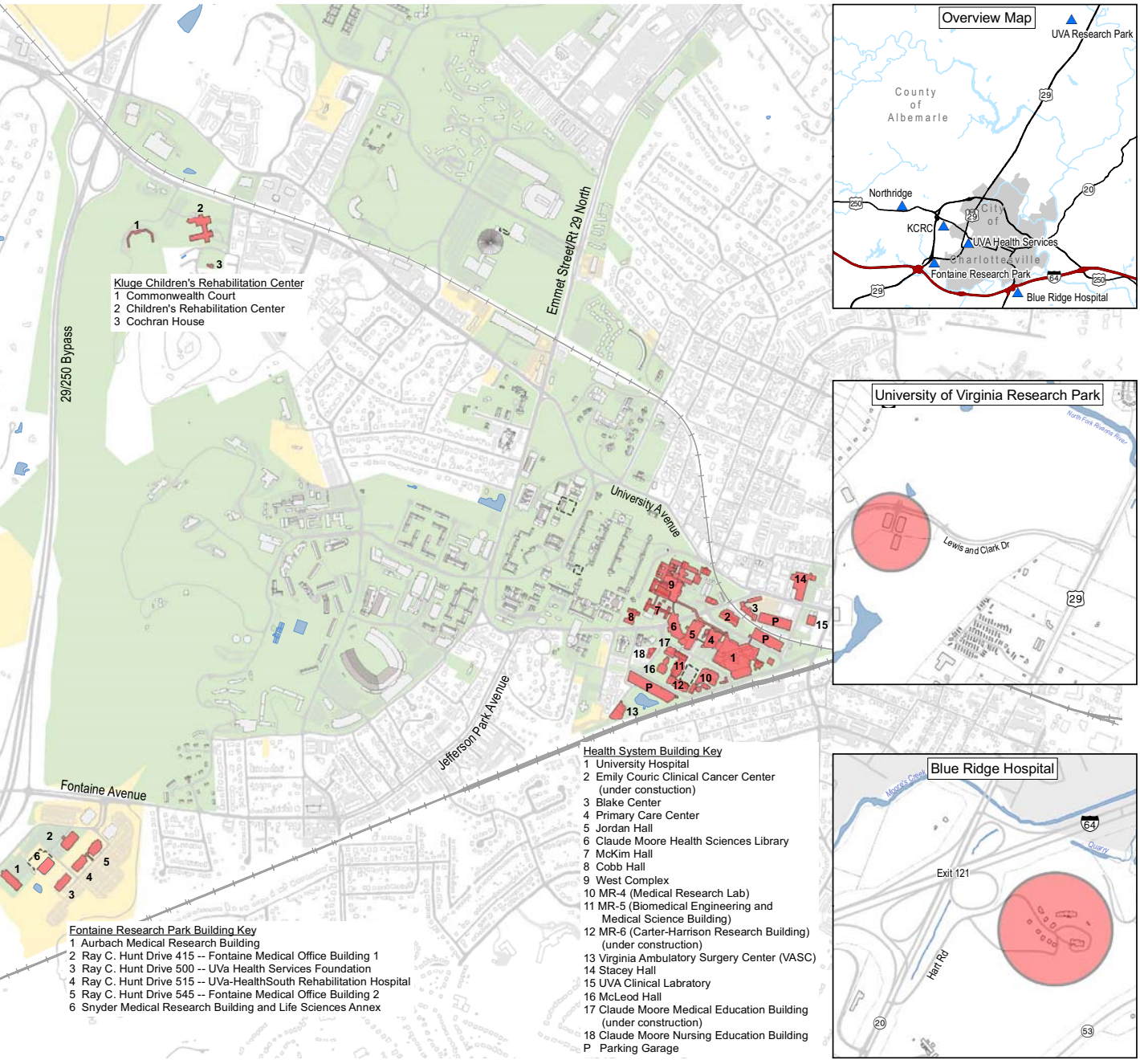
The following strategies will strengthen the Health System image by providing a unifying framework plan for the district. While continuing to expand the facilities that are needed to support the Health System at-large, this Plan recommends the following measures:

- Incorporate elements that promote wellness for patients, faculty, staff and students;
- Enhance visitor and daily user experience by improving safe pedestrian, bicycle and vehicular circulation;
- Improve connections and relationships to the larger UVa Grounds through landscape and connective elements, both at and above grade, to create a more campus-like environment;
- Incorporate planning and design standards that support sustainable development principles and the intentions of the UVa Environmental Footprint Reduction Plan (2010).


SPIRE 3D

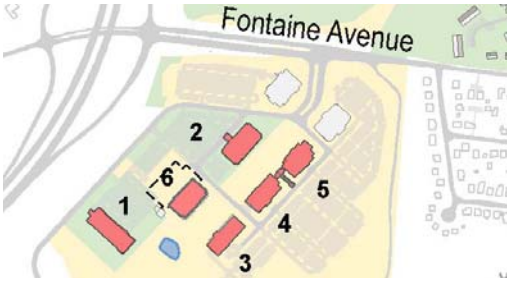
The University of Virginia Health System traces its beginnings to the founding of the nation's tenth medical school by Thomas Jefferson in 1825, followed by the establishment of the first free-standing infirmary (Varsity Hall) in 1857. In 1899, ground was broken on a new hospital and two years later, the School of Nursing was founded at UVa. Over the next 75 years the hospital received a series of additions as it continued to grow. Finally, in the 1980s, the University embarked upon a campaign to construct a new, modern hospital. The location chosen was east of the original hospital, across Jefferson Park Avenue. With its distinctive white metal façade and brick-clad surroundings, the new hospital built up a dense, urban-scale edge on either side of Jefferson Park Avenue. This complex forms the core of the Health System that we know today.

Today's Health System is a nationally recognized academic, research, clinical and acute care hospital. The Health System is comprised of the medical center, the School of Medicine, the School of Nursing, the Claude Moore Health Sciences Library and the Health Services Foundation. The medical center is an integrated network of primary and specialty inpatient and outpatient care services ranging from wellness programs and routine checkups to the most technologically advanced care. The hub of the medical center is the main hospital with 566 beds and a state-designated Level 1 trauma center. The School of Medicine is ranked 10th in the nation among state-assisted medical schools. Its 23 research centers are devoted to making discoveries resulting in new and better therapies, especially in the areas of cancer, cardiovascular disease, neurodegenerative disease and vaccine development. The School of Nursing is ranked among the nation's top 25 public nursing schools and has earned a national reputation for excellence in education, research and practice. The Claude Moore Health Sciences Library offers information services in every area of medicine and serves the entire Health System and University community. Finally, the Health Services Foundation is the physician group practice which manages medical office and buildings and billing for UVa's physicians.


Kluge Children's Rehabilitation Center
1 Commonwealth Court
2 Children's Rehabilitation Center
3 Cochran House
29/250 Bypass
Emmet Street/Rt 29 North
University Avenue
Jefferson Park Avenue
Fontaine Avenue
Health System Building Key
1 University Hospital
2 Emily Couric Clinical Cancer Center (under constuction)
3 Blake Center
4 Primary Care Center
5 Jordan Hall
6 Claude Moore Health Sciences Library
7 McKim Hall
8 Cobb Hall
9 West Complex
10 MR-4 (Medical Research Lab)
11 MR-5 (Biomedical Engineering and Medical Science Building)
12 MR-6 (Carter-Harrison Research Building) (under construction)
13 Virginia Ambulatory Surgery Center (VASC)
14 Stacey Hall
15 UVA Clinical Labratory
16 McLeod Hall
17 Claude Moore Medical Education Building (under construction)
18 Claude Moore Nursing Education Building
P Parking Garage
Fontaine Research Park Building Key
1 Aurbach Medical Research Building
2 Ray C. Hunt Drive 415 -- Fontaine Medical Office Building 1
3 Ray C. Hunt Drive 500 -- UVa Health Services Foundation
4 Ray C. Hunt Drive 515 -- UVa-HealthSouth Rehabilitation Hospital
5 Ray C. Hunt Drive 545 -- Fontaine Medical Office Building 2
6 Snyder Medical Research Building and Life Sciences Annex
Overview Map
UVA Research Park
County of Albemarle
Northridge
KCRC
City of Charlottesville
UVA Health Services
Fontaine Research Park
Blue Ridge Hospital
University of Virginia Research Park
Lewis and Clark Dr
Blue Ridge Hospital
Exit 121
Hart Rd

The UVa Health System comprises approximately 60 facilities totaling more than 5 million square feet. In 2008, the medical center admitted 30,000 inpatients and nearly 700,000 outpatients. There are 7,640 faculty and staff required to support the Health System, including residents and fellows on staff with nearly 1,000 volunteers. Over time, the Health System has expanded to several locations around the Charlottesville/Albemarle area and region. Each of these locations offers a diverse set of clinical services and research facilities.

University Health System district: Forming the core of the Health System and straddling the University's eastern boundary with the City of Charlottesville, this area houses most of the functions of the Health System, including the Main Hospital (1), the West Complex of clinics (9), the Primary Care Center (4), The School of Medicine (5), The School of Nursing (16, 18), several research buildings (10, 11, 12) and The Claude Moore Health Sciences Library (6). The 60-acre Health System district consists of approximately 45 facilities totaling 4.5 million square feet. Recent and ongoing development projects in this area are extensive and include the construction of a medical education building (17), a clinical cancer center (2) and the expansion of the main hospital (1). Additional projects addressing the Lee Street landscape and circulation around the Health System are underway or planned. The Health System district is the most densely developed and urbanized portion of the University Grounds, and its future expansion will further increase its density.

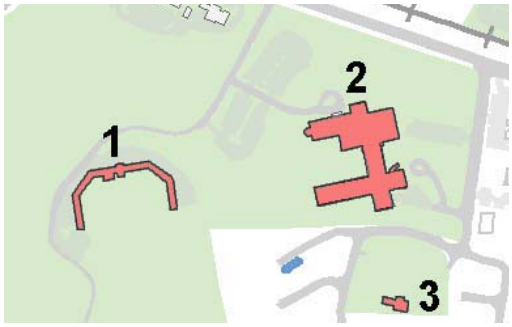


Fontaine Research Park: Fontaine Research Park, jointly owned and developed by the University of Virginia Foundation and UVa, sits on a 54-acre site just south of the University. Development of this research park began in the 1990s (the most recent building was completed in 2009). Currently, the park has reached its zoning capacity based on its approved site plan with the County of Albemarle. Work is underway to entitle the site for additional development. Of the eight buildings in the research park, six are currently used by the UVa Health System. In total, there are approximately 400,000 gsf of space devoted to Health System clinical care, research, and administration. The six buildings consist of:

- The Health Services Foundation headquarters (3)
- The UVa-Health South Rehabilitation Hospital: a 50-bed unit with physical therapy and rehabilitation facilities (4)
- Medical Office Building 1: houses facilities including the Hand Service, Musculoskeletal Radiology, Orthopedics, Pain Management, Physical Medicine and Rehabilitation and Physical Therapy (2)
- Medical Office Building 2: contains a number of medical clinics of the University Health System, including the UVa Imaging Center, Endocrinology and Metabolism Clinic, Pituitary Neuroendocrine Center, Diabetes Education and Management Program, Audiology Services and Otolaryngology (ENT) Clinic (5)
- The Aurbach Medical Research Building: houses the The School of Medicine Division of Endocrinology and Metabolism (1)
- The Snyder Building: utilized by several departments of the School of Medicine for research (6)

Northridge: The Northridge Medical Park is located 2 miles west of the University in the County of Albemarle along Route 250. It was developed for the medical center's use in the 1990s. There are currently four buildings located there: Northridge Medical Clinic (2), Moser Radiation Therapy Center (4) and the Sieg Warehouse (3). The Medical Clinic and Moser

buildings, which combine for 70,000 gsf of space, house out-patient clinics. The Sieg Warehouse provides 25,000 gsf of storage space. The new 40-bed UVa Transitional Care Hospital (1) is under construction with plans to open in 2010. This facility will add another 64,000 gsf of space to the Northridge Medical Park.

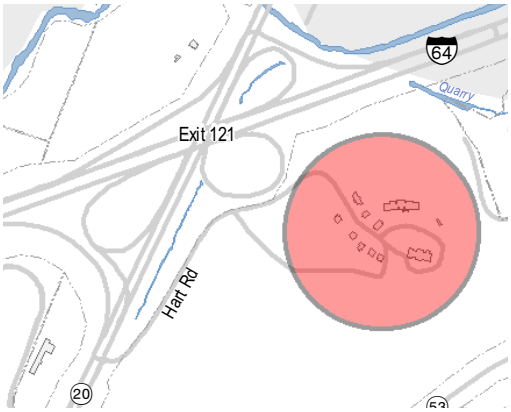


Kluge Center: The Kluge Children's Rehabilitation Center (KCRC) serves children from all over the United States. The Center is located on the west side of the University on Ivy Road. It includes a 23-bed inpatient unit and an outpatient unit with 22 different clinics caring for more than 10,000 outpatients annually (2). Children are seen at KCRC for outpatient care in orthopedics, dentistry, developmental pediatrics, cerebral palsy, autism, and ADHD, as well as audiology and speech/language concerns. In addition to the main building, KCRC also maintains the Commonwealth Court building (1), which serves as a hotel for families of KCRC patients. In total, there are 87,000 gsf of space at KCRC.

UVa Research Park: The UVa Research Park is located 10 miles north of the University on Route 29 and is owned and developed by the University of Virginia Foundation. Health System functions at the research park consist of a Behavioral Medicine and the UVa Center for Addiction Research (CARE) facilities.

Culpeper Regional Hospital: Culpeper Regional Hospital is an independent, not-for-profit hospital located approximately 45 miles north of Charlottesville in the town of Culpeper. For the past 10 years, the UVa medical center has maintained a 49% share of Culpeper Medical Associates and, in 2009, committed to a $40 million investment in Culpeper's Regional Hospital. In the coming years, this investment will expand the Culpeper Regional Hospital emergency room and inpatient capacity to further integrate clinical services and allow more patients to receive treatment closer to their homes.

Blue Ridge Hospital site: Located to the southeast of Charlottesville, along Route 20, Blue Ridge Hospital was originally acquired to house the new hospital that was ultimately built at its present location adjacent to the University. The Blue Ridge Hospital was a sanatorium that operated throughout the first half of the 20th century. The medical center utilized the hospital for clinical uses during the 1980s, but ceased operations in the early 1990s. There are currently no Health System functions at this location, and many of the original buildings were demolished in 2007. Those remaining have historic value and are currently "mothballed".



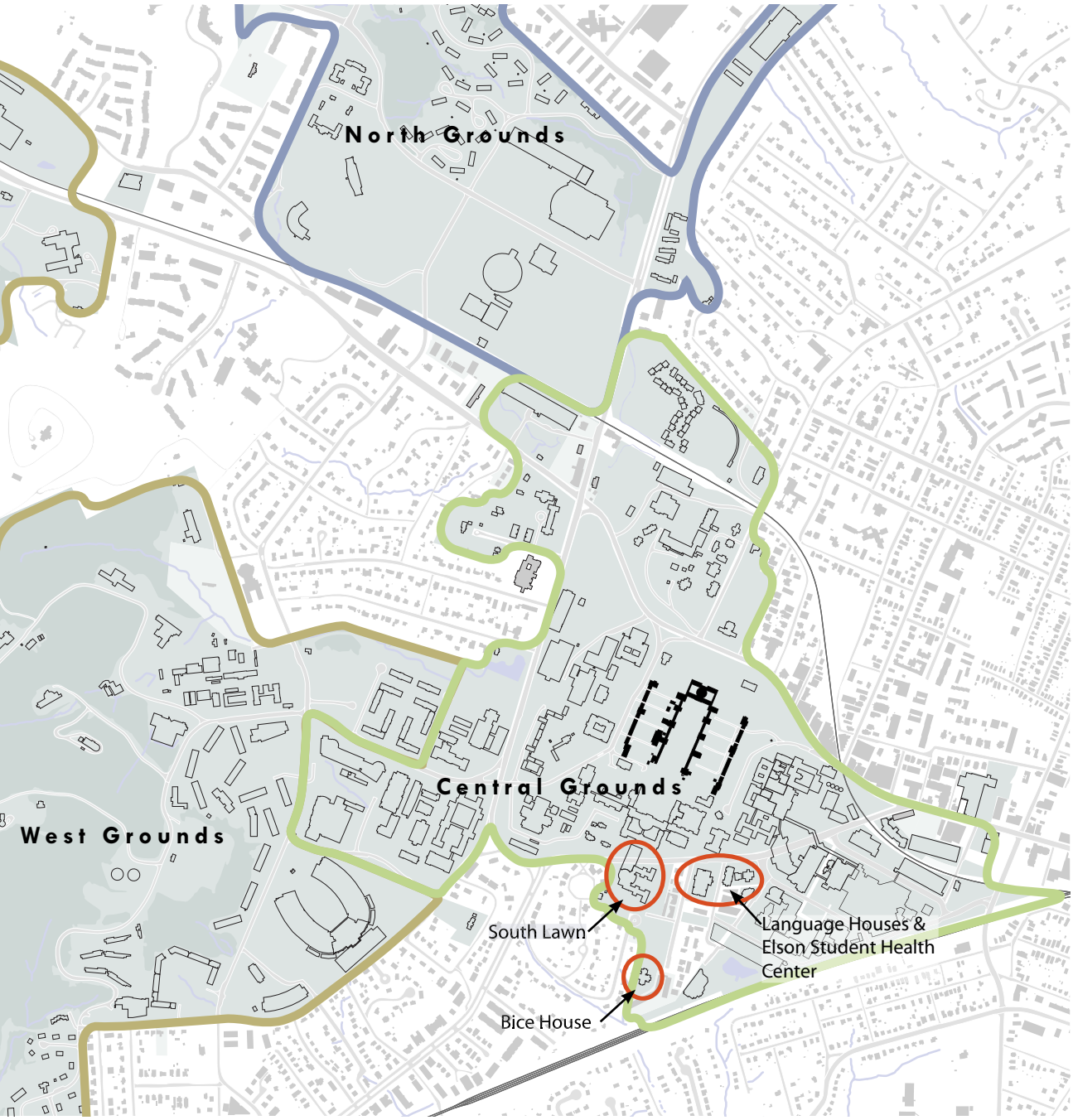
Located in the southeast corner of the University, the Health System district is part of the Central Grounds, and also borders the adjacent City of Charlottesville. The University Grounds are comprised of three planning precincts: the Central, West and North Grounds. These precinct boundaries are established by geographic features rather than academic or use distinction. Of the three precincts, Central Grounds is the most heavily developed. It includes the historic Academical Village and the majority of libraries and student services, along with academic, residential, administrative and Health System facilities. Central Grounds also hosts an array of green spaces ranging from the iconic civic spaces of the Lawn and libraries' quadrangle to the more scenic pavilion gardens. While these green spaces are key elements of this precinct and the Grounds-at-large, the area south of Jefferson Park Avenue is in need of additional green space. Three new landscape spaces within the South Lawn project will provide key opportunities and connections for this precinct: the terrace crossing (an important pedestrian connection across Jefferson Park Avenue), the courtyard and the memorial park. Additional landscape spaces are also planned for new facilities in the Health System. Adequate capacity for new academic and Health System facilities is demonstrated through the infill of underutilized parcels and the replacement of existing structures with higher density buildings. Redevelopment opportunities include those noted in the Grounds Plan as redevelopment zones and the sites designated by this Health System Area Plan.

Housing within Central Grounds is provided along the Lawn, at Brown College, Bice House, Lambeth Field Apartments, McCormick Road Residence Area, the International Residential College and the Asian, French and Spanish Houses. Additional adjacent community housing is located in the Jefferson Park Avenue area and in The Corner commercial district. The circulation system throughout Central Grounds offers a multitude of facilities for pedestrians, bicycles and the University transit system, but has limited parking and vehicular access. This presents challenges for the Health System in particular, since providing good access for staff, patients and visitors to the medical center and its related facilities is vital.

The South Lawn provides academic facilities for the College of Arts and Sciences, green spaces for University use, and a pedestrian link between Central Grounds and the Health System

Bice House provides undergraduate housing in close proximity to the Health System

Elson Student Health Center and the language houses - Shea House, Casa Bolivar, and Maison Français - adjacent to the Health System

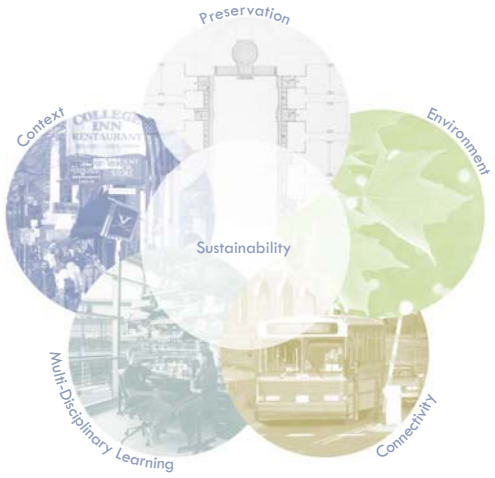

North Grounds
Central Grounds
West Grounds
South Lawn
Language Houses &
Elson Student Health
Center
Bice House

Internally, the Health System facilities are served by a connective system of enclosed and elevated walkways called "the link", which will continue to be extended and updated with the development of new facilities. Externally, planning for new development includes the provision of additional streetscapes. Currently, the area is being served by the University Transit System (UTS), Charlottesville Transit System (CTS) and Jaunt, a para-transit and regional service.

The other two University precincts are West Grounds and North Grounds. West Grounds provides a large percentage of University teaching and research facilities, student residences and athletic/recreation uses. North Grounds is the most recent precinct developed on Grounds with the relocation of the Law School, Judge Advocate General's School and the Graduate School of Business Administration. While these Graduate Schools benefit from their expanded facilities, the suburban scale of this precinct results in a sense of separation from the Central and West Grounds. North Grounds also accommodates housing facilities, athletic/recreation fields and the recent John Paul Jones Arena. These three precincts are all located within the 1,135 acres of the core Grounds where all future development for UVa is planned to occur.

Future land use planning and physical growth at UVa will be guided by the 2008 Grounds Plan, which capitalizes on the potential of existing and new facilities to offer superior environments for future academic, residential and related endeavors. The core of Central Grounds possesses the UNESCO World-Class heritage site of historic buildings and landscapes that create a unique identity and serve as a model of the living-learning environment central to the vision of the Academical Village. In accommodating the physical growth and redevelopment that are essential to fulfilling the University's mission, the Grounds Plan views the campus as an integrated, contiguous series of multi-functional facilities and green spaces linked by a network of natural and man-made systems. Viewing these systems in a holistic relationship will yield more efficient use of available resources, creating a richer, more dynamic environment on Grounds. To accomplish these goals at the scale of the University requires a strategic approach based on five primary principles established in the Plan. Linking these principles is the overarching concept of sustainability, which asserts that growth and change can be accommodated while resources are conserved for future generations. The following five primary principles established in the Grounds Plan pertain to and support the campus-at-large.

Environmental Quality: to protect and restore our natural environment
Connectivity: to increase the quality and continuity of linkages throughout the Grounds
Context: to promote beneficial physical relationships with the surrounding community
Multi-disciplinary Collaboration: to develop mixed-use facilities in support of academic interaction and collaboration
Preservation: to maintain and enhance the University's cultural, building, and landscape resources



The **history of the Health System** begins with the completion of Thomas Jefferson's designs for the University of Virginia and his provision for the Anatomical Hall. Completed in 1826, this building contained a theater for anatomical and medical demonstrations given for University students. At that time, the community of Charlottesville was too small and isolated to support a hospital, so the medical courses at the University proceeded on theory and anatomical study rather than on practical experiences offered by hospital treatment. However, UVa's first medical school professor - Dr. Robley Dunglison - opened a dispensary in the Anatomical Hall and saw patients from the community for several hours each week. He and his assistants provided medicines to these local patients who also served as models for the medical classes.

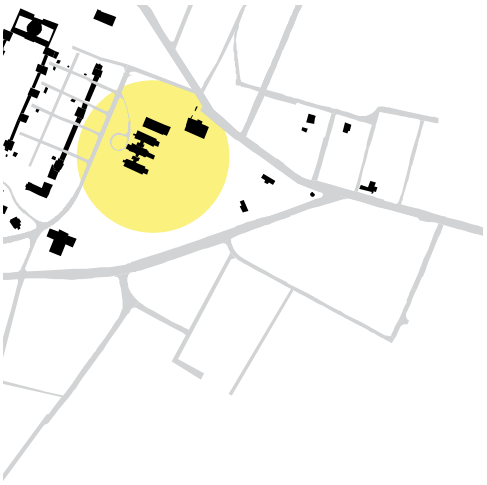
Dispensary services for local residents continued at the University over the following decades, but during this period, it became increasingly clear that the lack

of medical care facilities for students was a detriment to the health of the on-Grounds population. In 1857, the University's Board of Visitors authorized construction of an infirmary (Varsity Hall) for students. The infirmary offered beds and meals to sick students along with physicians' services and nursing care.

In 1889, Dr. Paul Brandon Barringer joined the University faculty as a professor of physiology and surgery. Instrumental in establishing modern clinical facilities, he saw the idea of a University hospital through to completion. Among the many improvements in medical education he instituted at the University were increased attention to laboratory investigations including the use of the microscope, and a steady expansion in the years of study required for a medical degree; from one year in 1891 to four years in 1899. Barringer particularly valued clinical work and as Chairman of the Faculty, then the University's highest administrative position, he promoted the establishment of modern clinical facilities at the University.

From 1891-1892, the Board of Visitors (BOV) approved funds for a new Dispensary building. Construction began immediately on the University Avenue site, and the structure soon opened with several examining rooms, a large lecture hall and facilities for sterilization and pharmaceutical storage (a remnant of which remains as a portion of the West Complex). In 1893, the medical faculty recommended to the BOV that a modern hospital be constructed on the University Grounds. Architect Paul J. Pelz developed the designs for a 150-bed facility consisting of a central building linked by a single corridor to a pair of flanking pavilions, which opened in 1901 on Thomas Jefferson's birthday. This first building of the complex contained an operating theater, solarium, and laboratories. Pelz's scheme provided a master plan for growth, but the rapid success of the hospital and the demand for new spaces outstripped the relatively diminutive pavilions he had envisioned. The 1905 and 1907 flanking wings serving as patient wards were built with two stories rather than the one originally designed.

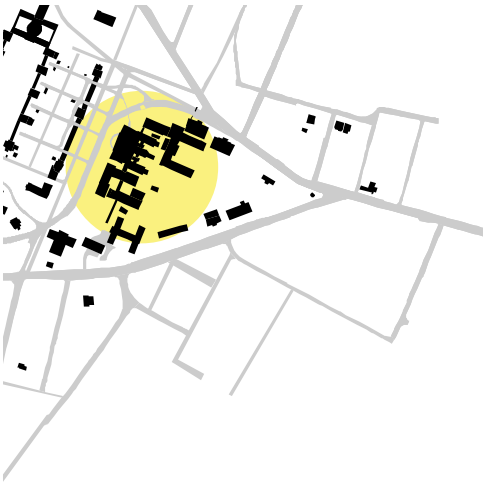
Subsequently Pelz presented an enlargement of the original scheme for the hospital, expanding the composition to include nine pavilions linked by an enclosed corridor. His intention was to restate in a modern yet complementary architectural language Jefferson's original conception for the University buildings —the Rotunda, pavilions, and dormitory rooms linked by covered passageways.



Health System development 1895 to 1920

Central wing, University Hospital, ca. 1900

The 1906 Manning Plan focused on Hospital Drive - note the differences between the layout of the hospital in this plan, Pelz's pavilion scheme and eventual build-out of Hospital Drive



Health System development 1920 to 1945

Health System development 1945 to 1965

In 1906, President Alderman engaged landscape architect Warren H. Manning to begin a study of the University Grounds. Manning, immersed in the City Beautiful tradition, was particularly well-versed in horticulture and plantings. According to landscape historians, Manning's conception of the City Beautiful focused more on regional and neighborhood centers than on monumental civic buildings. His work at the University demonstrated his facility with beaux arts quadrangles. Only portions of the Manning master plan were ultimately built, but his plan included the Hospital Drive area where the first hospital was developed. William Lambeth - Professor of Medicine, Chairman of the Department of Physical Education, and Superintendent of Buildings and Grounds - also worked with Manning. Due in great part to the efforts of Lambeth and Manning, the landscape of the University became an important design consideration.

In their plans, the University's landscape began evolving into a more urban design. Thus, Manning's rational beaux arts planning modules were not organized by either ornamental promenades or productive agricultural lawns, but as small units within a whole that was linked to the broader urban fabric. With the increasing density of the University and the encroaching development of the town, green space and landscape features became important design elements, forming the experience within and between the buildings along with balancing architectural assemblages inside and outside the University boundaries.

Following the construction of the south wing in 1907, Pelz's repeating pavilion scheme was abandoned for larger, self-contained additions. The first of these was the 1916 Steele Wing. The largest building to date, the Steele Wing doubled the capacity of the hospital and accommodated in its basement the outpatient department formerly housed in the Dispensary. Next, the McIntire Wing was completed in 1924 for obstetrical, pediatric services and interns' quarters. The Teachers' Preventorium was constructed in 1928. Connected by a corridor and bridge to the McIntire Wing, the Preventorium had a flat roof with a large deck for heliotherapy treatment, exposing patients to sunlight and fresh air. Constructed with a payroll deduction from Virginia's teachers, this facility provided low-cost health care for the state's poorly paid teachers (a valuable service in the era before health insurance).

The vital and complementary relationship between medical care and medical education, so firmly established in 1901, attained a tangible architectural expression in 1929. That year, a substantial addition to the hospital complex was completed to house the Medical School. For the first time, all of the medical departments were brought together in a single

Elevation drawing, west facade, University of Virginia Hospital, ca. 1904, Paul J. Pelz, architect

Health System development 1965 to 1980

The Health System today

structure and linked to the hospital. The new Medical School contained extensive laboratory facilities, lecture halls, administrative offices and a library. Along with these new facilities, the surgical and x-ray suites in the existing hospital were modernized and the outpatient department expanded.

In 1901, to ensure adequate staffing of the hospital, the University of Virginia opened a training school for nurses. Student nurses learned on the job, working ten to twelve hours a day for two years before obtaining their degree. These nurses lived on the premises. Intensely interested in the professionalization of nursing care and the improvement of nursing education, Ms. Josephine McLeod served as Superintendent of Nurses from 1923 to 1937. Under her leadership, the hospital improved working conditions and raised standards for nursing practices. Ms. McLeod instituted graduate nursing degree courses and sought accreditation for the entire nursing school curriculum.

With the opening of the hospital, practical clinical experience was incorporated into the medical degree program. Observation of clinical procedures remains vital to contemporary medical education. Throughout the Depression, steadily increasing usage of medical services put considerable pressure on the hospital's aging facilities, particularly the wards of the first hospital buildings. Consequently, over the 1930s and the first half of the 1940s, University leaders successfully raised funds for five substantial building campaigns to expand and modernize the complex. The first of these buildings was McKim Hall for the Nursing School, which was completed in 1931. That year, it accommodated the largest nursing class in the school's history, 53 students, and the program's first full-time faculty member. The final and most extensive building campaign of the 1930s was the construction of the West Wing, which opened in 1941. Located in the green space directly in front of the original hospital pavilion, it was directly connected to all three structures.

In approximately 1942, Medical School dean Harvey Jordan appointed a building committee to assess the spatial needs of the hospital and Medical School. By 1947, plans were under development for a substantial new hospital building, a multi-story structure to be sited at the center of the existing complex, facing Jefferson Park Avenue. The ground-breaking ceremony took place in June 1958. The building reached completion in November 1960.

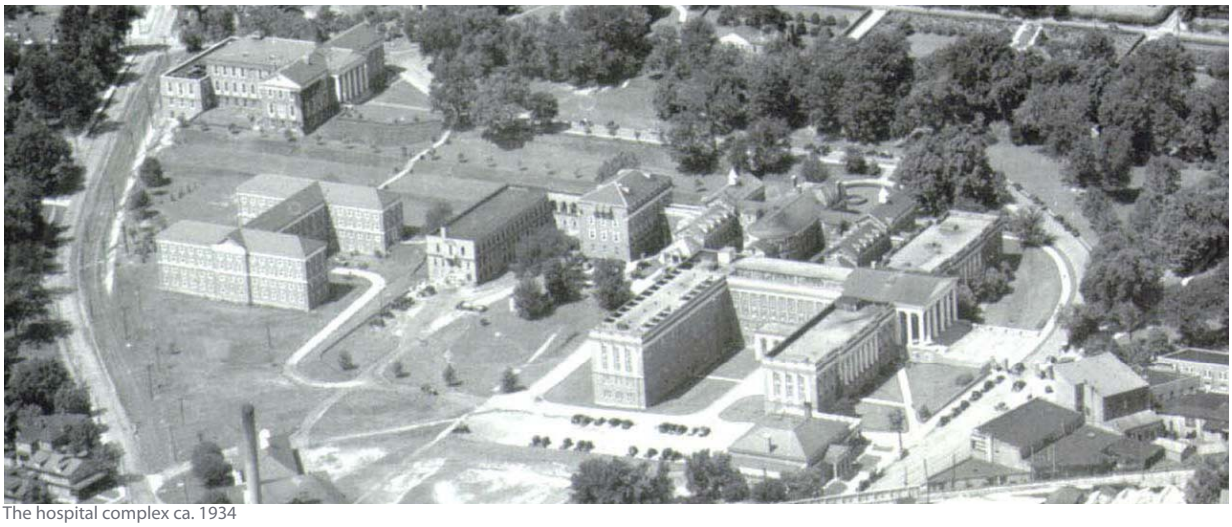
Panoramic photograph of the hospital, ca. 1929

Beginning in the 1970s, the hospital complex grew southward, across Jefferson Park Avenue. The Josephine McLeod Nursing Education Building and the Harvey Jordan Medical Education Building were dedicated in 1972. Four years later, the Health Sciences Library linked the multi-story hospital to Jordan Hall by a structure built over Jefferson Park Avenue. This innovative use of space was made possible by air rights granted by the Charlottesville City Council. The Primary Care Center, next to Jordan, opened in January 1980 with seven outpatient clinics and support services.


Medical School portico under construction, ca. 1928

Within ten years of the multi-story hospital dedication, additional space was needed. By the early 1980s, the situation had become critical. After seriously considering building a new complex on the Blue Ridge Hospital grounds, medical faculty and University administrators determined to keep the medical center an important presence within the University's Central Grounds. Expansion would be on land next to the Primary Care Center. In March of 1984, the State Health Commissioner issued a certificate of public need for a $200 million facility, with the state legislature and governor giving their approval. Originally designed to be six stories tall, the new hospital building gained two additional stories nearly four years later. In 1989, more than 140 patients moved from the multi-story building to the new University hospital through the 700-foot link. Almost two years after the first patient was moved, the last inpatient was transferred to the eighth floor of the new hospital.


Medical School rendering, 1927



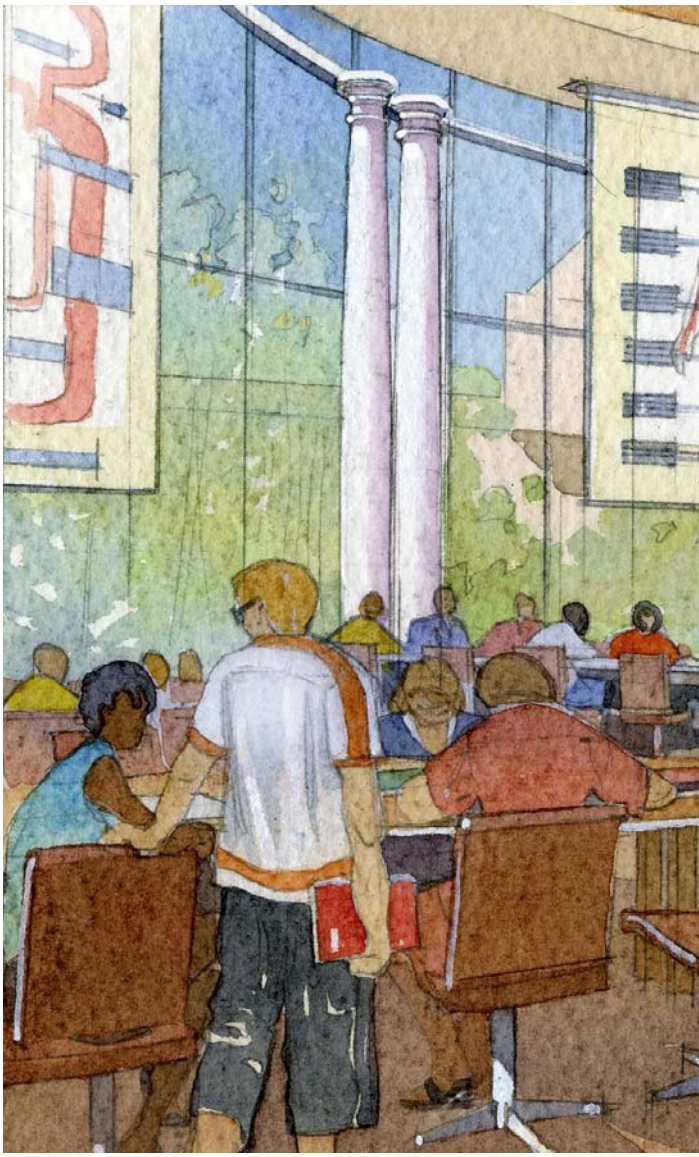
The hospital complex ca. 1934

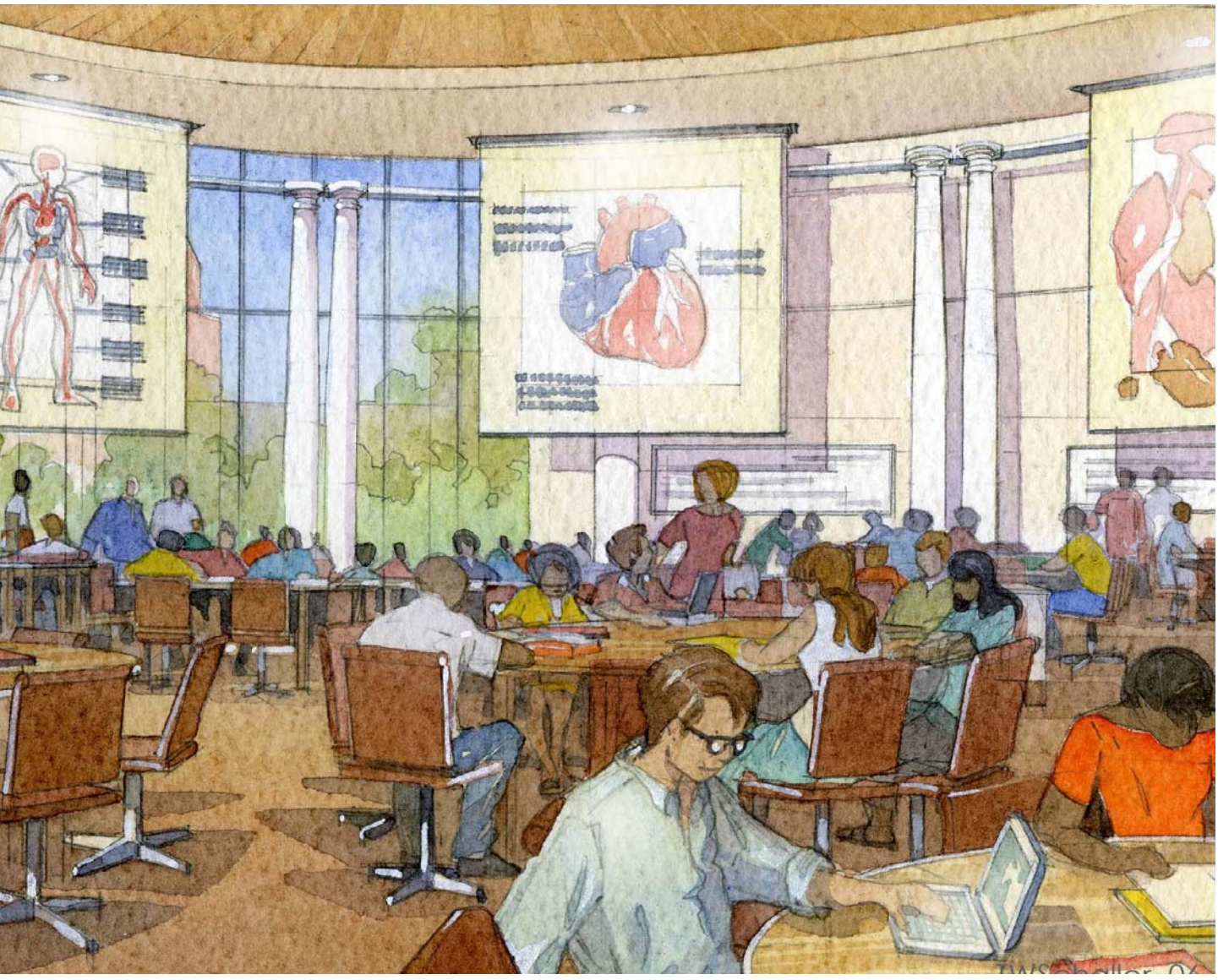
Aerial view of the multi-story addition, looking Northwest ca. 1962

The Health System, ca. 2004

The long term objectives for the Health System Area Plan are to strengthen the core clinical, teaching and research operations on Grounds, while achieving a more effective use of the limited land and building areas available. After exploring various potential scenarios, a preferred growth option has been defined for future use. Over the next decade, the primary growth for the academic medical practices will occur in acute and specialty care. Inpatient services and facilities will be in high demand, continuing to provide a major source of revenue. Ambulatory clinics - a continuous high priority - will be developed in locations where patient access and growth can be accommodated more easily. Growth in translational research remains a high priority and development of future research facilities will seek to maximize the opportunities for interaction between researchers and clinical staff. Administrative and departmental office spaces will be consolidated into the West Complex and other facilities that are not in the core of the Health System district, allowing more space for expansion of critical care services. Overall, growth of properties will be developed to leverage strengths of location, service clusters and accessibility.

The Health System Area Plan defines five basic zones which comprise the district on Grounds today (see diagram on page 29). The first zone is the **Hospital/ Clinics Zone** with its mix of inpatient and outpatient care. The second zone is the **Research and Academic Zone**—to the south—with its clustering of recent new lab buildings and academic structures. The third zone is the **West Zone**, consisting of the West Complex and Hospital Drive buildings adjacent to the Academical Village. The fourth zone, the **West Main Street Corridor Zone**, includes the new Battle Building, 1224 Jefferson Park Avenue (the Blake Center) and other properties along West Main Street. Finally, the fifth zone is known as the **South Zone**, known for its green space retention basin and the existing UVa Outpatient Surgery Center beyond the South parking garage.





The planned uses of HS facilities are provided below - please see the map on page 14 for current locations and uses of all Health System services.

Fontaine Research Park: The Fontaine Research Park will continue to be developed for research and outpatient facilities. The long term plan identifies potential building sites in addition to the existing buildings currently used by the Health System. The proximity to the HS facilities on Grounds (1.5 miles) enables physicians involved in both inpatient and outpatient care to travel back and forth. Some clinics may be relocated from the West Complex into the two Fontaine medical office buildings, providing complementary services. The UVa Health Services Foundation is considering options that may include relocation or further development.

Northridge Medical Park: The park currently has three buildings including the new, transitional care hospital. This facility will accommodate patients who need acute care, without providing operating rooms and other services located at the main hospital. The Northridge building will be renovated for continued outpatient care, adding some beds for family medicine. The Moser Radiation Therapy Center has gained two vaults for additional capacity at this site. This may be a potential site for a future medical office building.

Kluge Children's Rehabilitation Center: At this location, the clinics in the existing children's center will be relocated once the new Battle Building is constructed. Special rehabilitation functions will remain here until modern facilities can be realized for those purposes at either the main hospital or the Fontaine Research Park.

University of Virginia Research Park: Currently only one School of Medicine researcher is located within the Park. Its location near the airport (~10 miles north of Charlottesville) will influence long term decisions about how this property is utilized.

Culpeper Hospital: The UVa medical center and the Culpeper Regional Hospital began implementing a partnership between the two hospitals in 2009. The partnership provides for the expansion of the Culpeper Regional Hospital emergency room and inpatient capacity, as well as the integration of clinical services which will allow more patients to receive treatment locally.

Blue Ridge Hospital Site: Intended as a third Research Park, this property is owned by the UVa Foundation. However, there are currently no plans for its use. The historic buildings, including an old medical hospital and tuberculosis facility, have been stabilized and vacant since 1985. Other non-historic structures were demolished in 2007.

One intent of the HSAP is to clarify the Health System zones, giving them stronger coherence and functionality. The five zones are listed below with details on the expansion of their use according to the Health System Area Plan.

Hospital/Clinics Zone: The Hospital/Clinics Zone (currently at over 1,000,000 square feet) will provide for expansion of inpatient capacity and other support services. By relocating outpatient functions off-Grounds to Fontaine Research Park and other locations - allowing easier access for patients and parking - space will be available in the core to allow further development of acute care functions. The Hospital Bed Expansion is currently under construction and will provide for a total of 638 beds in the hospital for patient services once complete.

Research and Academic Zone: The Research and Academic Zone will be relatively complete with the new Claude Moore Medical Education Building, however the complex of buildings needs to be tied together and connected into the Hospital Zone more effectively. This zone is planned with a green space pedestrian spine linking McLeod Hall, the new Claude Moore Nursing Education Building and the Health Sciences Library. McLeod Hall is currently used by undergraduates in the College of Arts and Sciences for large lectures, so the surrounding green space will continue to be a connector. The new Claude Moore Medical Education Building will also house its new simulation center, which will train residents, house staff and first responders as well as pre-clinical students in continuing education programs.

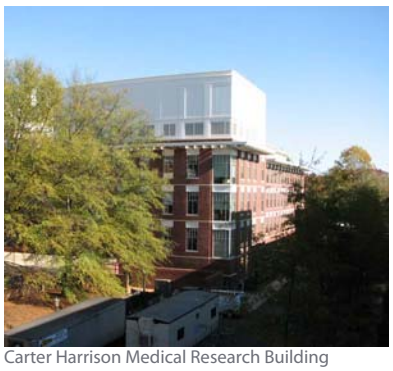
West Zone: The West Zone consists of the facilities to the north of Jefferson Park Avenue. The primary facility is the large West Complex (the site of the original hospital building) which has grown by successive wing additions into approximately 738,000 gsf of space. McKim Hall, also in the West Zone, was originally built as a dormitory for nurses but has been converted over time to house administrative functions. The spaces are small scale and limited to a double-loaded corridor layout with cellular offices. McKim Hall's location between the Academical Village and the HS makes it an ideal site for redevelopment to improve the connectivity between the two areas and encourage greater interaction between them. Other buildings in this zone include historic Cobb Hall - with aging lab facilities in need of renovation or replacement - and the Corner Building, which

houses administrative functions. The rest of this zone consists of vehicular circulation, open parking near the entry to the West Complex, the Heat Plant on Jefferson Park Avenue and Clark Park.

West Main Street Corridor Zone: The properties in the West Main Street corridor consist of the new Battle Building (in design), 1224 Jefferson Park Avenue (administrative), 1222 Jefferson Park Avenue building (clinical and administrative services), the Core Lab building (research), the recently renovated Patton Mansion (support) and Stacey Hall (administrative).

South Zone: The primary structure in this area is the UVa Outpatient Surgery Center, which will be vacated when this use is relocated to the Battle Building in 2013-2014. It can temporarily be used for swing office space but is currently targeted for redevelopment. The green space and retention basin is intended to become part of the green space system ringing the district and connecting to the South Lawn project.

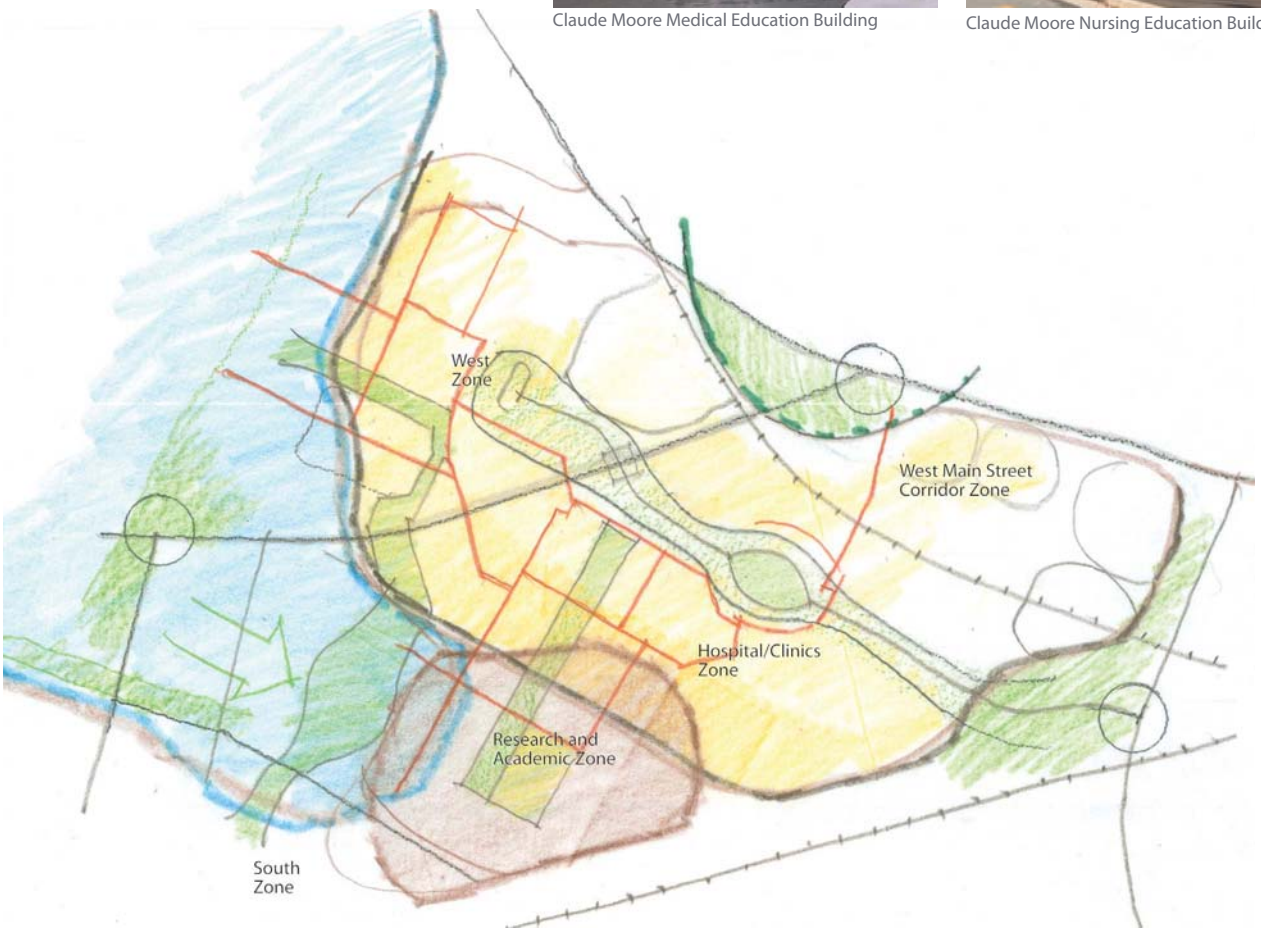
Battle Building



Carter Harrison Medical Research Building

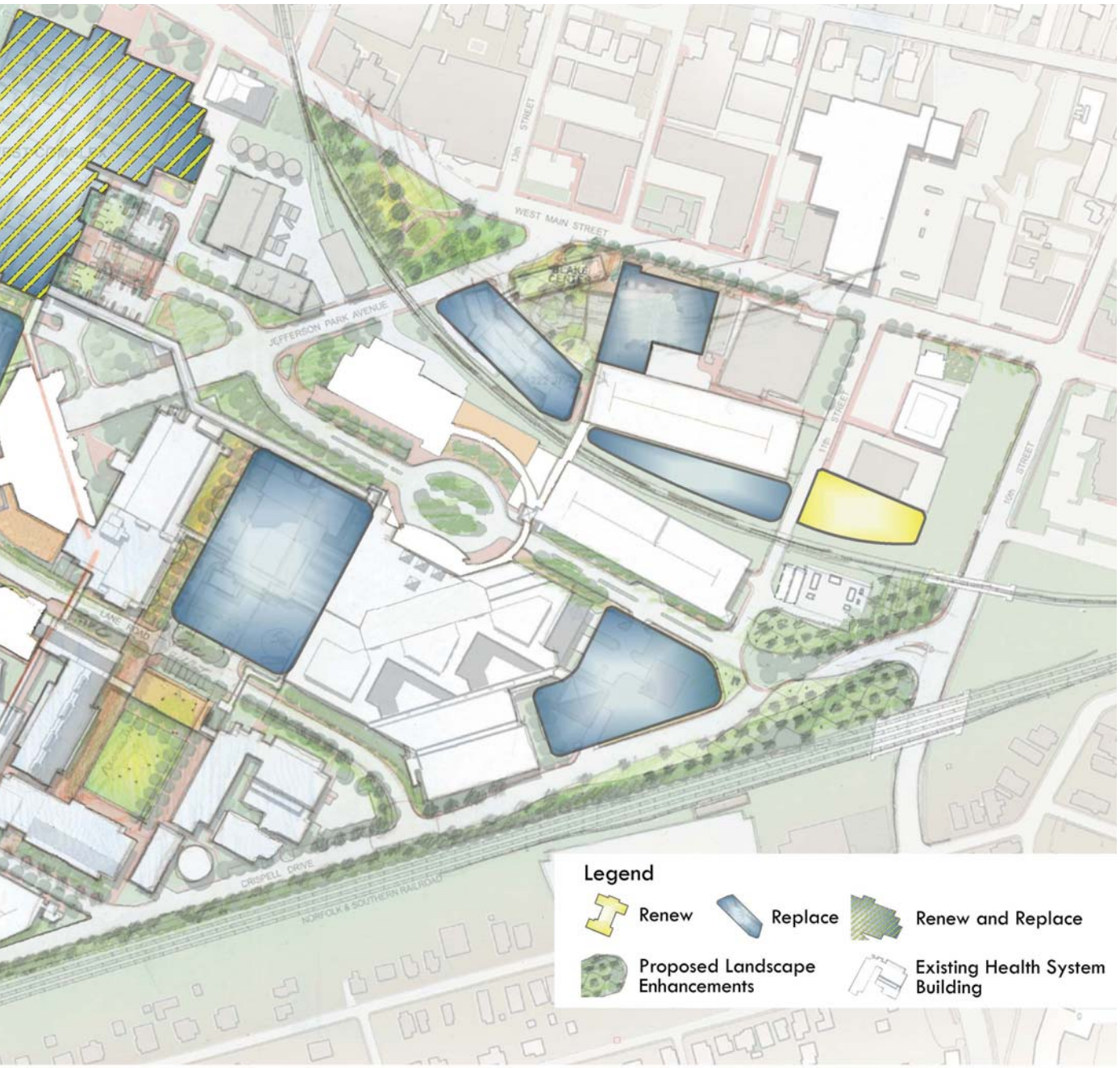
Claude Moore Medical Education Building

Claude Moore Nursing Education Building



5 | Potential Future Redevelopment Sites

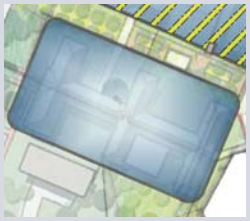
The Health System Area planning process included the analysis of several sites for redevelopment over the next 10 – 15 years. The sites selected, shown in the diagram to the right, are located throughout the Health System district and provide four types of redevelopment opportunities: **renew, replace, renew/replace, and landscape enhancements,** with the first three opportunities pertaining to building sites. The renewal of sites includes major renovations, generally related to historic buildings that are planned for reuse. Replacement refers to the removal of the existing building and construction of a new building with more efficient and effective use of the site. In the case of the West Complex, it is likely that a combination of these two approaches, renew and replace, will be used. The fourth opportunity provides for replacement or supplementing other facilities (such as surface parking) with landscape enhancements to provide for additional recreational and green space within the Health System, creating a more campus-like environment.


WEST MAIN STREET
JEFFERSON PARK AVENUE
13th STREET
11th STREET
10th STREET
LANE ROAD
CRISPELL DRIVE
NORFOLK & SOUTHERN RAILROAD
Legend
Renew
Replace
Renew and Replace
Proposed Landscape Enhancements
Existing Health System Building

The potential sites are listed below with the related strategies for redevelopment:

Primary Care Center:
The existing Primary Care Center (PCC) houses mixed functions on a central site next to the hospital, which offers great potential for redevelopment. The current size of the Primary Care Center is 130,000 gsf and the site could accommodate as much as 380,000 gsf. The HSAP proposes that some outpatient functions and clinics will be relocated to other facilities off-Grounds. Non-vital medical functions and offices (for both departments and services) will be relocated to other facilities in either the West Zone or other locations. Functions vital for acute care services will remain in proximity to the hospital. Development of this site could provide growth for both research and clinical functions with direct adjacency to existing core facilities.

Cobb Hall
Currently, Cobb Hall contains 62,240 gsf. The maximum area available after its renovation would likely not exceed the existing square footage of Cobb Hall. Because the building is not appropriate for modern laboratory functions, the HSAP recommends that the building be repurposed to administrative office or academic use. The southern wing, which was an addition to the original structure, is recommended for demolition to restore the structure to its original form. This building is designated as fundamental by the UVa Historic Preservation Framework Plan.

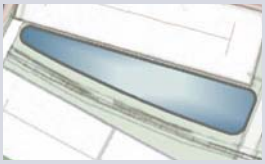


McKim Hall
McKim Hall contains 90,400 gsf. If redeveloped, the site could accommodate as much as 230,000 gsf. Originally constructed as a dormitory for nurses, McKim Hall was converted to office space. Its narrow building form with small cellular spaces is not easily adaptable to other functions, and its aging infrastructure will be in need of long-term renovation. The HSAP proposes that McKim Hall be considered for major redevelopment given its critical location at the interface of the Grounds with the Health System. This building is designated as contributing by the UVa Historic Preservation Framework Plan.

West Complex
The West Complex site contains 740,000 gsf. The complex is a group of buildings developed over time, that function as one continuous space, connected by the link and hallway systems. This complex supports clinical and research uses, office, and other related facilities. The future plan is to remove some of the existing structures and reorganize the space, primarily planned for administrative uses.

1222 Jefferson Park Avenue Building
This building has 91,400 gsf of space, and the redevelopment potential is approximately 100,000 gsf. This building may be retained for the foreseeable future, utilizing existing space for mixed-use functions such as offices and specialty clinics associated with the adjacent new Cancer Center and the Battle Building.

1224 Jefferson Park Avenue Building
This building has 55,650 gsf of space and occupies a prime site at the entry to the Health System on the corner of West Main Street and Jefferson Park Avenue. It may be a candidate for redevelopment as a new green space when its administrative functions are relocated. Reduction of office space in this location will be dependent on provision of replacement space elsewhere, such as in the West Complex.



Proposed Recreation/Wellness Center
This site is proposed as a recreation/wellness center to support patient physical therapy needs and recreation center uses for the Health System faculty, staff, students and visitors. It could potentially be developed to link to adjacent facilities with a podium for additional parking.

Proposed Infrastructure Site
The use of this site has not yet been determined, but it is reserved for potential infrastructure upgrades.

Helipad Site
In the long term, the helipad site may be developed for additional space for the Emergency Department or specialty care (e.g. expanded surgery with inpatient beds above). If developed to a similar scale as the hospital, this site could accommodate up to 200,000 gsf. However, construction here is likely to pose challenges with the disruption to existing emergency medicine rooms and other functions, due to both construction and the potential need to reorganize connecting corridors through them.

UVa Outpatient Surgery Center
Currently, the building contains 28,100 gsf. The development potential for this site is 130,000 gsf. The building will be vacated following the construction of the Battle Building. Located in the South Zone, this will be a key site for new development in concert with nearby UVa and UVaF owned parcels.

The sites listed below are not considered redevelopment sites at this time, but are noted based on the necessity of system upgrades, or other long term potential.

Stacey Hall
This site contains 60,800 gsf of Health System and IT data center use. The intention is that some of the minor labs will be moved out of this former Sears building. The existing building will not be used for clinical purposes or bench research, but primarily for office functions or computation-intensive research.

Please note in discussing future development plans that the Health System Area Plan assumes no development to the north side of West Main Street. However, there may be an opportunity in the future to use this site for a mixed-use development which could combine office, commercial and parking functions, enhancing the West Main Street corridor with a new complex and improved retail frontage. If feasible, this would need to be carefully planned to respond in scale to the existing building fabric surrounding the site, mitigating any impact from parking or service traffic.

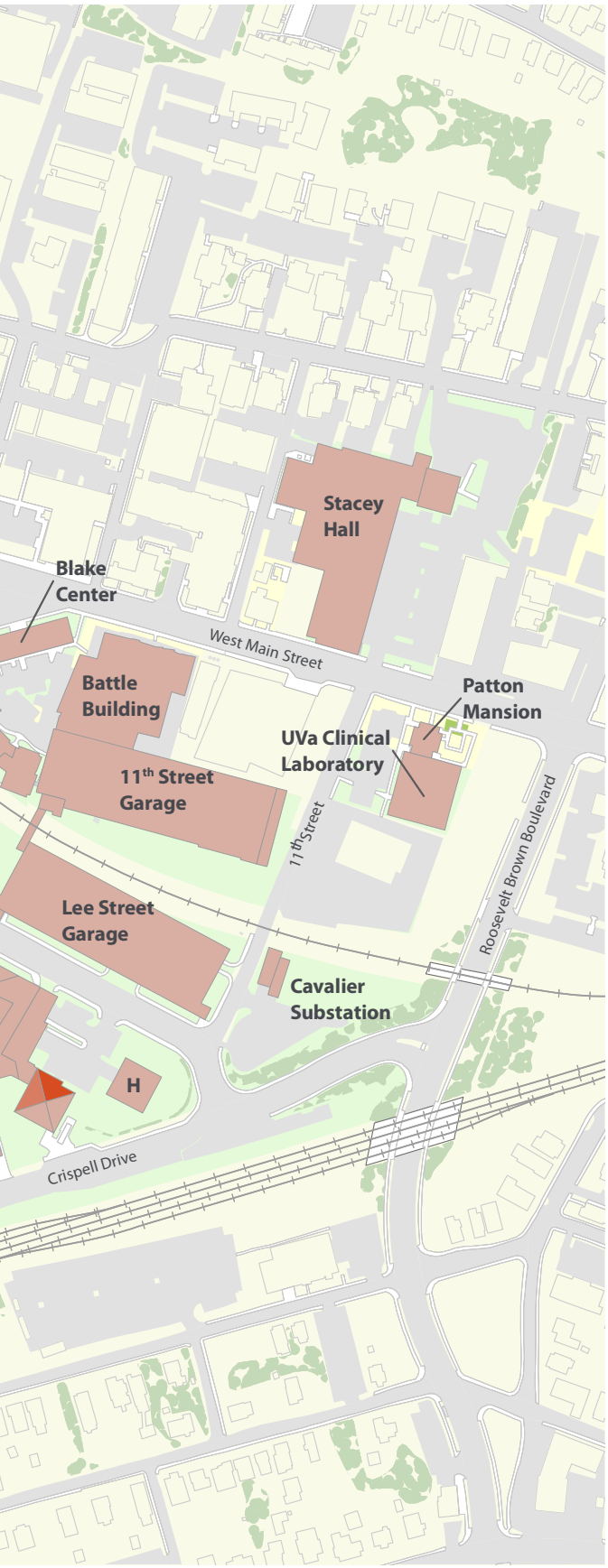
Jordan Hall
Portions of Jordan Hall and its building systems have been or will soon be renovated to extend the life of this building for research purposes. Over the long term, its critical position may suggest that it becomes a future redevelopment opportunity as its labs, anatomy lab and conferencing facilities age. For example, its steeply raked lecture halls, which have functioned well for traditional lectures, will be difficult to renovate for the multi-screen projection of comparative images (especially with the new wide aspect ratio) that future data visualization will require.

Claude Moore Health Sciences Library
The Library has recently converted some stack space to team learning rooms, for both medical education classes and group study. In the future, there may be potential to extend the building out towards the roadway, but it would need to be used for a function within the library security envelope if it was to be added without disrupting the whole circulation pattern of the building. Originally planned for modest expansion, the lower level is predominantly stacks and solid walls. An animation of glass façade areas with populated functions would make adjacent pedestrian paths more pleasant, especially at night.

McLeod Hall
McLeod Hall is currently undergoing renovation of its building systems, but will continue to be used for lectures, office functions and other existing uses now accommodated there serving the School of Nursing. Renovation plans include adding a café that will utilize the podium terrace. Given these improvements, it is unlikely that this will be considered a redevelopment site in the future.

Corner Building
The Corner Building is 18,300 gsf and houses the University of Virginia Women's Center. Future projects will upgrade mechanical, electrical and plumbing systems to meet current code, life-safety requirements and University standards. The building and landscape will be designed for barrier-free access and egress. Thoughtful maintenance will ensure the integrity of the roof, walls and windows, preserving the architectural character of the building. This building is designated as essential by the UVa Historic Preservation Framework Plan.


Rotunda
The Corner
University Avenue
The Lawn
Old Medical School
Corner Building
Hospital Drive
West Complex
Heating Plant
North Chiller Plant
1222 JPA
McKim Hall
Cobb Hall
Ruppel Road
Emily Couric Clinical Cancer Center
Claude Moore Health Sciences Library
Lee Street
Jefferson Park Avenue
Jordan Hall
Primary Care
South Lawn
Catherine Foster Memorial Park
Elson Student Health
Claude Moore Nursing Education
Claude Moore Medical Education
University Hospital
Lane Road
Jeannette Lancaster Way
Brandon Avenue
Monroe Lane
McCloud Hall
MR-5
MR-4
Crispell Drive
Carter-Harrison Medical Research
South Garage
South Chiller Plant
UVa Outpatient Surgery



Section 2 | District Planning Principles: Exterior

1 | Develop Entrances, Connectors and Boundaries

2 | Integrate the Academic Campus and the HS District

3 | Integrate West Main Street and the Larger Community

4 | Clarify Circulation and Wayfinding

5 | Improve the Quality of the Environment and Experience

6 | Promote Wellness and Sustainable Strategies

1 | Develop Entrances, Connectors and Boundaries

The Health System district currently adjoins the academic portions of the University of Virginia Grounds and the adjacent community in an indistinct manner. There is nothing in particular that defines arrival to the district or that gives it a special identity, unlike some of the historic portions of the Grounds. Similarly, there are not obvious connections from the outside of the district or within the Health System grounds at the pedestrian level.

There are opportunities for three major entrances at the intersections of the main roadways surrounding the Health System district. These locations are also junctures where the proposed greenbelt supporting pedestrian and bicycle travel could meet. The major entrance locations are at Jefferson Park Avenue (JPA) and West Main Street, Jefferson Park Avenue and Lane Road, and at the Roosevelt Brown Boulevard and Crispell Drive junction. The JPA and West Main intersection is also indicated in the 2008 University of Virginia (UVa) Grounds Plan as one of four major University gateways (see inset diagram). As an alternative to extending the urban character of the Health System, there is an opportunity at the perimeter of the district to create distinct woodland entrances, which would also relate to the historic agrarian roots of the UVa campus and to help unify this district with the rest of the Central Grounds.

Greenbelt and major entrances


North Gateway
Central Gateway
City Gateway
Fontaine Gateway
Jefferson Park
University Entry
Crispell Entry

A: Define the Health System district by establishing a "greenbelt" boundary using Hospital Drive and Brandon Avenue to a future connection with Crispell Drive, the length of Crispell next to the railroad, Roosevelt Brown Boulevard and the extension along West Main Street to Clark Park.

A1: Redesign roadways and other linkages to accommodate a greenbelt system supporting recreational use. This system could be designed and constructed in phases as adjacent projects are being developed.

B: Create distinctive major entrances to the Health System district at three primary vehicular/pedestrian/bike intersections.

B1: Expand the park/woodland at Jefferson Park Avenue and West Main Street to encompass both sides of JPA, forming an entrance to the campus while also providing a recreation resource for the Battle Building and HS community.

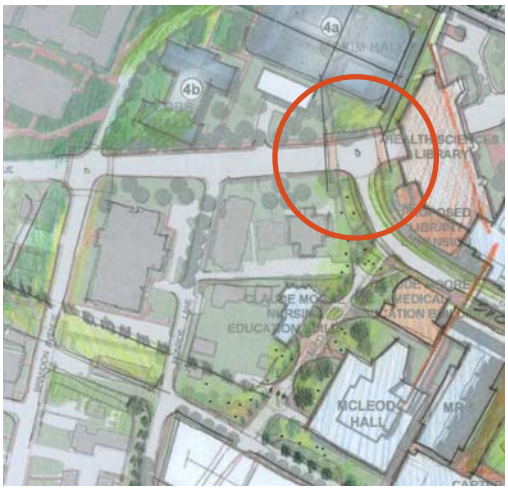
B2: Create a similar woodland at the realigned Roosevelt Brown Boulevard, Lee Street and Crispell Drive intersection to form the southeast entrance.

B3: Carry a forested green across the road to form the third major entrance where Lane Road joins with Jefferson Park Avenue.

B4: Develop an iconic entrance vocabulary that references other UVa historic gates with design elements that would be repeated at each of the three entrances.

B1: Entrance at West Main Street and Jefferson Park Avenue

B2: Entrance at Roosevelt Brown Boulevard, Lee Street and Crispell Drive



B3: Entrance at Jefferson Park Avenue and Lane Road

B1: Enhanced major entrance at Jefferson Park Avenue and West Main Street

B2: Enhanced major entrance at Roosevelt Brown Boulevard, Lee Street and Crispell Drive

B3: Jefferson Park Avenue at Lane Road with a new pocket park and landscaped median

C: Reinforce Lee Street as the primary patient and hospital connector.

C1: Develop Lee Street as visually distinct from all other parts of the Health System district so that it is clearly the focus of patient arrivals and orientation. Enhance with sculpture, lighting and graphics while establishing the landscape centerpiece of the HS district; including plantings and furnishings to create a comfortable, appropriately scaled environment for pedestrians.

C2: Realign Lee Street and Crispell Drive at Roosevelt Brown Boulevard to create a direct connection onto Lee Street, simplifying access and improving wayfinding for patient and visitor destinations.

C3: Provide access to the Emergency Room from Lee Street to create visitor recall and simplify locating it when needed.

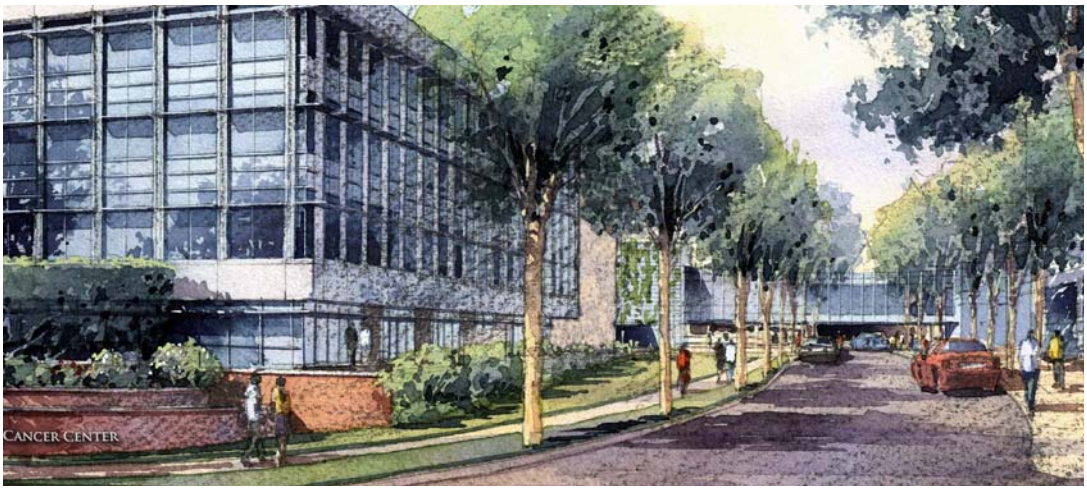
C4: Consider expansion of the 11th Street parking garage to respond to the concentration of resources on Lee Street and with the incorporation of a health club/rehabilitation facility.

C5: Incorporate special pavements at Lee Street entry points and the central plaza to distinguish it as the patient and visitor street plaza of the HS district, while creating a 'slow' pedestrian priority zone.

C5: Location of the special pavement and central plaza along Lee Street

C: Conceptual rendering of the future Lee Street corridor

C: Rendered view of the hospital from the Emily Couric Cancer Center with the Hospital Bed Expansion and Lee Street connective elements



C: Rendering of Emily Couric Cancer Center and the Lee Street entrance at Jefferson Park Avenue

D: Establish a major new north-south green space connector that spans Lane Road and links the research area to the hospital and clinics.

D1: Extend elements of the green space and adjacent pedestrian travelway within the research complex, across Lane Road and under the interior overhead links to connect with the Lee Street sidewalk.

D2: Reinforce greening of the north-south link by providing for full size trees and canopies that extend to the upper levels of bordering buildings.

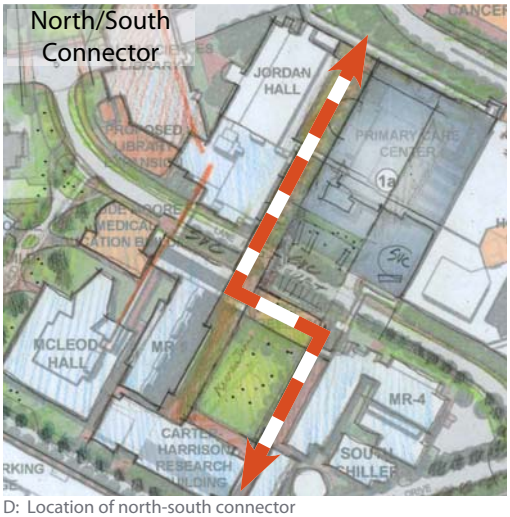
D3: Enhance the travelway with nodes for activity that could serve as the primary interaction and/or respite spaces for physicians, nurses, students, researchers and staff, separate from the patient travelways.

D4: Screen and/or bridge over service areas in this corridor. Relocate impacted parking to an alternate location.

D5: Enhance the at-grade, tree-lined connector between Medical Research Unit 4 (MR-4) and the new terrace/connector to link Crispell Drive and the South parking garage to Lane Road.

D1: Looking south toward the link and Jordan Hall/Primary Care Center alley

D1: Jordan Hall/Primary Care Center alley looking south



D: Location of north-south connector

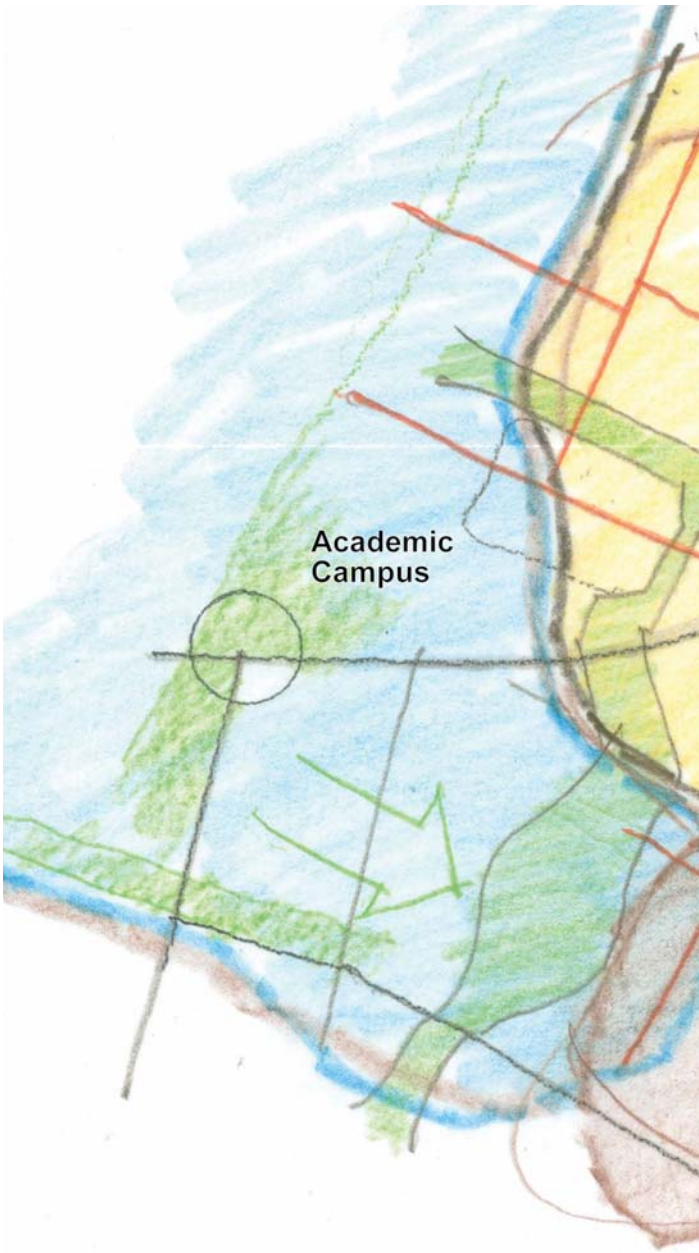
D1: North-south pedestrian connector between Jordan Hall and the Primary Care Center

D5: Existing condition at MR-4 between Crispell Drive and Lane Road

2 | Integrate the Academic Campus and the HS District

The 2008 Grounds Plan for the University of Virginia describes the relationship of the Health System district with the larger campus plan for the University as a whole. At the same time there have been a variety of focused area studies in and around the district that identify potential growth concepts including the Brandon Avenue Study, the South Lawn Plan and the West Main Street Study. All are focused on carrying forward axes, travelways, visual quality and a campus environment in the spirit of the original Thomas Jefferson University of Virginia plan. The Health System district sits in the middle of these studies and at one of the four main entrances to the University, providing the opportunity to tie the whole of Central Grounds precinct together. This can be done in a manner that both supports and enhances the program of the very active and demanding Health System district.

Given the density and unique patient travel and proximity issues, the connections to the larger University are more effective wrapping around the core rather than moving through it. Likewise, there seems to be a natural progression from the UVa academic campus to the academic portions of the Health System district, including the research focused portions and the patient serving facilities. This can be emphasized by developing a hierarchy of travel that moves from automobile intensive at the hospital core area, to pedestrian priority as one approaches the more academic student areas. The greenbelt could help stitch together different densities while also providing continuity, allowing circulation to move around the denser center.




Hospital/Clinics
Research/Academic

A: Extend the academic campus character, linkages and green spaces to meet and interconnect seamlessly with the academic portion of the Health System district, specifically the Schools of Medicine and Nursing.

B: Provide green campus connections between the South Lawn buildings and the Health System district, while replacing temporary parking in an alternate location.

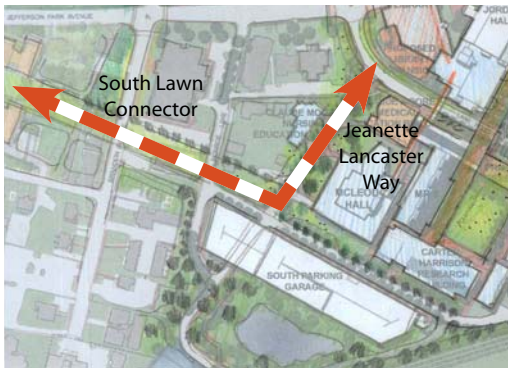
C: Close Jeanette Lancaster Way to vehicles to create a campus-like quad that unites the Claude Moore Buildings, McLeod Hall and the South Lawn expansion area. This will give the Schools of Medicine and Nursing and their research facilities a stronger campus identity. An alternate access road would be provided to achieve this project.

C1: Develop the street as a landscape space with large trees and a pedestrian walkway/bikeway that moves through it. Incorporate typical pedestrian amenities including seating areas and possible recreation spaces. Relocate impacted parking to an alternate location.

C2: Bridge the gap to unite existing and future nursing facilities on both sides of the street and create pedestrian linkages between front doors.

C3: Consider developing Deans' offices and related areas as part of an addition to the Health Sciences Library fronting Lane Road and facing the new academic quad.

B: South Lawn connector existing conditions



A: Location of proposed improvements

C: Jeanette Lancaster Way existing conditions

B: South Lawn connector proposed conditions through the existing temporary parking area

C: Jeanette Lancaster Way proposed conditions

D: Develop pedestrian greenways that connect to the Lawn and main academic campus.

D1: Restore the Hospital Drive frontage of the West Complex with future buildings and landscape planned to form a greenbelt connection to the historic UVa campus.

D2: Recreate the historic landscape and front door character of the buildings along Hospital Drive. Remove "temporary" patient parking lot as soon as the majority of outpatient clinics are moved from the West Complex and replace impacted parking to an alternative location.

D3: Redevelop the Hospital Drive corridor as a major bikeway /pedestrian pathway that connects from West Main Street to Brandon Avenue and beyond.

D: Hospital Drive looking north (model of the University as it existed in 1923)

D: Location of Hospital Drive

D: Existing condition of Hospital Drive

D: Existing connection between the Lawn and the West Complex

D: Hospital Drive (realigned, narrowed and landscape-enhanced)

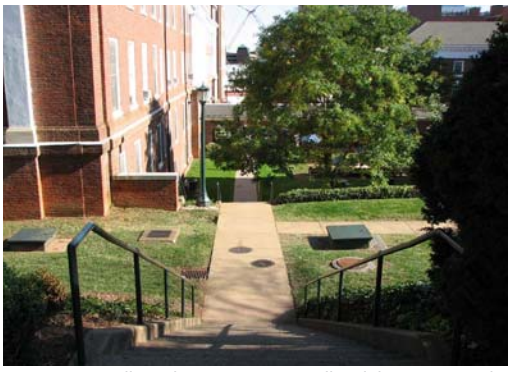
D: (continued) Develop pedestrian greenways that connect to the Lawn and main academic campus.

D4: Develop cross connections that relate to and connect to the grid of the Lawn with building entrances and spaces between buildings.

D5: Develop an enhanced secondary pedestrian route that extends from the Lawn across Hospital Drive between McKim Hall and the West Complex, continuing south down Lane Road to the proposed Jeanette Lancaster Way mall. Relocate impacted parking and service in this area to an alternate location.

D5: Existing parking/service between McKim Hall and JPA

D5: Route of proposed walkway



D5: Existing walkway between McKim Hall and the West Complex

D5: One option for proposed walkway improvements between McKim Hall and the main campus

D5: Alternate stairway option for proposed improvements between McKim Hall and main campus

E: Extend the HS district westward towards Brandon Avenue in order to engage the South Lawn and expand the Health System resources southwest of the South parking garage.

E1: Create visual and physical connections to the open space beyond the South parking garage.

E2: Develop research facilities and/or housing that is related to and supports the HS programs.

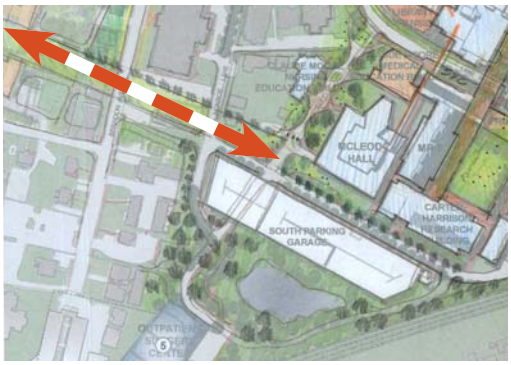
E3: Visually and physically connect the research facilities and/or housing area through the garage to engage and align with the Nursing School, Jeanette Lancaster Way axis.

E4: Consider removing the small western South garage addition to accommodate a direct pedestrian link and create building sites for future academic expansion aligned with the Claude Moore Nursing Education Building. Relocate the impacted parking to an alternate location.

E5: Connect new facilities to a developed park / 'greenbelt' that includes bicycle and pedestrian paths both to the hospital area via Crispell Drive and to the West Complex and Lawn via Brandon Avenue. Relocate the impacted parking to an alternate location.

F: Adopt a landscape materials, furniture, lighting and sign palette that is consistent with the design guidelines for the larger UVa campus.

E5: Proposed greenbelt around the Health System



E: Relationship between the HS and the South Lawn to the west

E5: Existing conditions on Crispell Drive

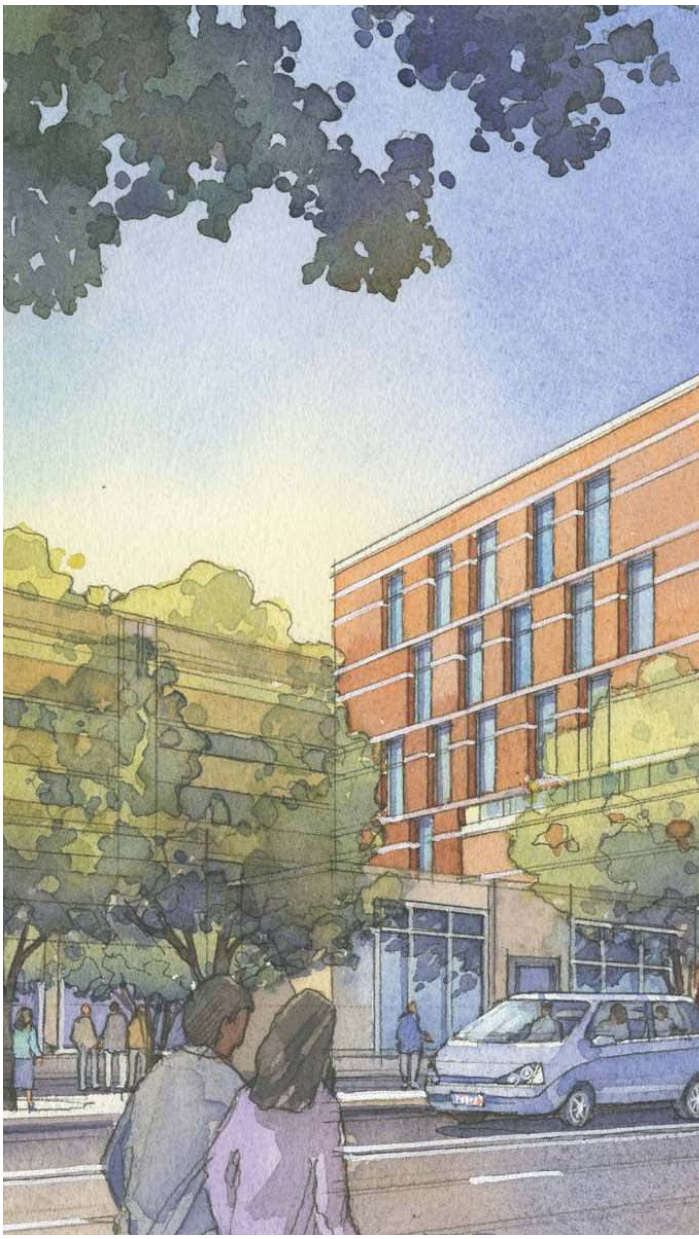
E1: Green space and the stormwater pond adjacent to the South parking garage

E5: Proposed conditions of the 'Greenbelt' along Crispell Drive

The University of Virginia has a long standing relationship with the City of Charlottesville, the County of Albemarle and the larger regional community. Much of the campus population eats, lives, shops and works in the neighboring communities. Similarly, members of the community attend cultural, educational and service oriented activities hosted at the University. In the Health System district, this is particularly important as many of the doctors, nurses, researchers and patients come from the surrounding neighborhoods, cities and regional area.

Since the early 1990s, UVa has been engaged with the City of Charlottesville in a planning process for the West Main Street corridor - an important link between downtown Charlottesville and the University. There have been three studies developed in this process – the first was the award winning West Main Street Corridor Study (William Rawn, 1993), which targeted specific infill efforts for vacant and underutilized sites from JPA to McIntire / Ridge Street. The overarching urban design strategy of continuous, street-oriented, mixed-use development continues to inform the overall planning of the corridor. The second study, West Main Street (WRT, 2004), summarizes the urban design and streetscape and green space approach for the long-term use of West Main Street as a key development and transit corridor. The third study, the West Main Street Medical Center Analysis (Kimley-Horn, 2004) supported the development of new facilities within the HS - removal of the West garage and the additions of the Cancer Center, the 11th Street garage and the Battle Building. This study addressed the specific transportation planning and the transportation and streetscape amenities needed to support these developments.

West Main Street planning concepts are being implemented by the Health System in several projects along the corridor. These include the restoration of the historic Patton Mansion and construction of a pocket park next to the mansion by the University of



The proposed Battle Building looking southwest across West Main Street

Virginia Foundation in 2008. In 2009, streetscape enhancements, including undergrounding utilities, tree planting and pedestrian improvements were completed at the intersection of West Main Street and JPA. This project was jointly funded by the City, UVa and the UVa Foundation.

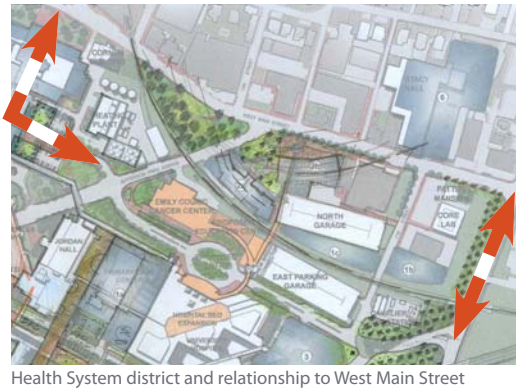
These enhancements will be continued east upon completion of the Battle Building. The Battle Building project will convert a surface parking lot on West Main Street into a 150,000 gsf clinical facility with ground level, mixed-use space. This project will greatly enhance the Health System's connection to West Main Street and provide opportunities to further revitalize this corridor.

Since patients and their families may be under stress, not feeling well and often are not frequent visitors to the area, wayfinding and orientation are particularly important to reduce stress. Some patients may be at facilities for multiple days so the ability for family members to get lunch, walk around or even just get fresh air is also important. For staff with very long hours, the proximity of going to a variety of eating places, along with walking outside and exercise, is equally important. There is great opportunity for the Health System to be a part of the community and every effort should be made to enhance these relations and turn a positive front to their interfaces.

A: Develop building fronts, landscape and entries to interact with the West Main Street and the City's design guidelines.

B: Create a Health System pedestrian entrance at the Old Medical School that faces University Avenue and at the West Complex Entry, allowing travel through the building and connecting Lee Street to The Corner commercial areas.

B1: Reconfigure the West Complex entry to provide useable gardens adjacent to the building and to reinforce the pedestrian connection from Lee Street



Health System district and relationship to West Main Street

C: The Corner Building

by relocating parking to an alternate location.

B2: Frame, develop and improve views to and from the West Complex lobby to the central plaza and surrounding buildings of Lee Street.

C: Explore opportunities to expand use of The Corner building as a community resource. It currently houses Teen Health Center/Women's Center and School of Medicine Office of International Health.

D: Expand Clark Park to encompass both sides of Jefferson Park Avenue.

E: Create an entry plaza facing West Main Street for the Battle Building at the UVa Children's Hospital.

F: Work with the City to complete the 'greenbelt' and 'mall' from the Lee Street/Roosevelt Brown Boulevard intersection along West Main Street to Clark Park.

G: Preserve and enhance views to significant architectural landmarks and identity points including the University Baptist Church as seen from JPA and the Old Medical School façade and gates (as seen from University Avenue and The Corner).

B2: West Complex entry looking east toward the hospital

A: Patton Mansion restoration and the Pocket Park on West Main Street, completed in 2008

B, G: Old Medical School Building front facade

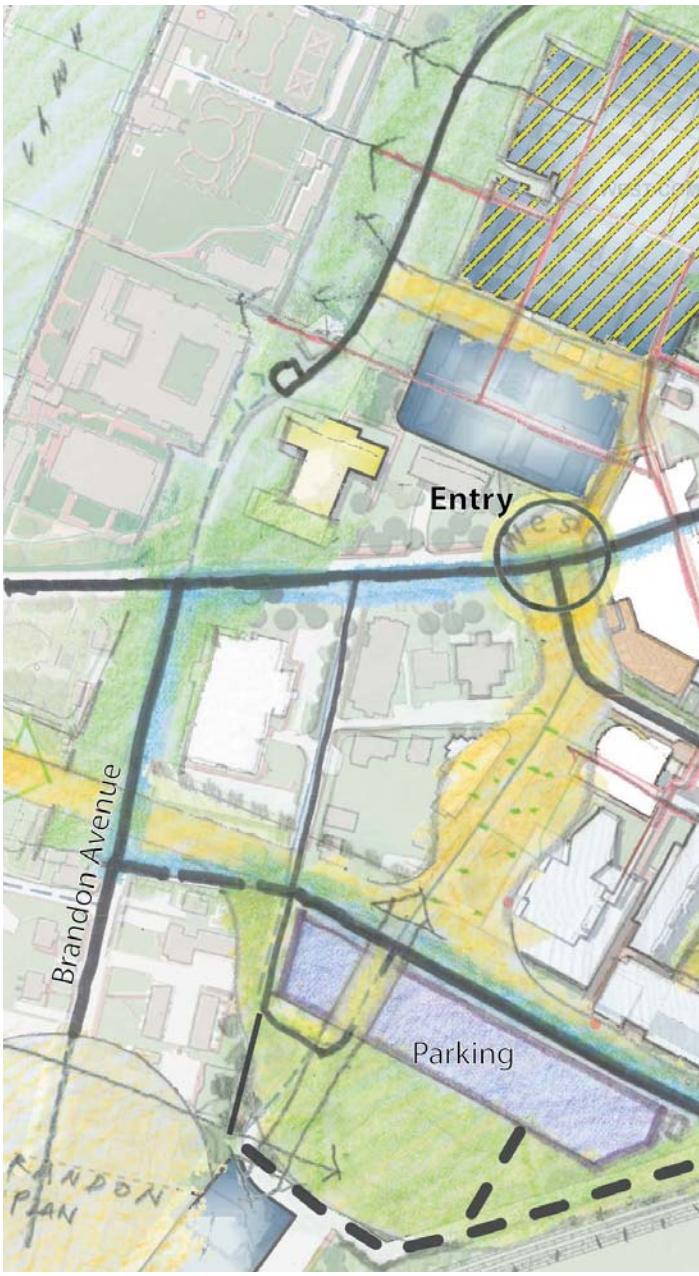
E: Conceptual view of the Battle Building and entry plaza

4 | Clarify Circulation and Wayfinding

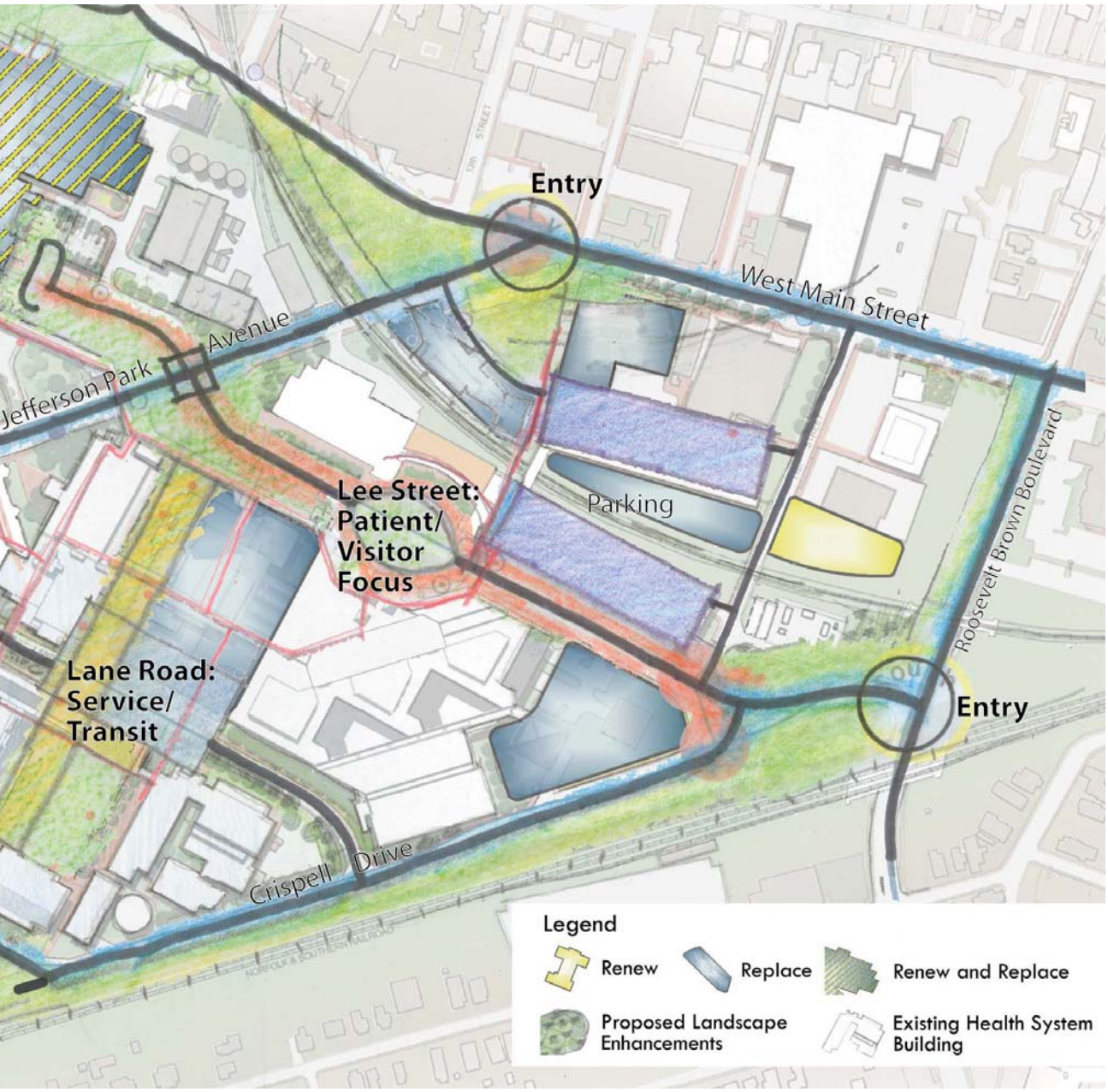
In support of sustainable principles of development, it is common in current planning to encourage multi-modal transportation opportunities wherever possible. In the Health System district, this might include vehicles, bikes, shuttles, buses and pedestrian travel. The current circulation patterns within the Health System include a web of streets, many of which feature multiple lanes, along with right and left turn pockets at scales that do not reflect their importance within the district. This makes wayfinding for a visitor difficult and makes it even more challenging for a cyclist to navigate their way through the street system. The pedestrian environment at ground level is challenging to navigate and is in need of improvements. The shuttle/bus system is in place, but needs ongoing evaluation to reflect the entrance ways and changes in new development, with the possibility of incorporating inviting waiting places.

The concepts for improvement include enhancing, reducing, extending and/or even eliminating some streets to create a clear hierarchy, while at the same time defining bike routes, pedestrian routes and recreation paths. Visual cues and orientation should come from the environment, landscape and architecture, with wayfinding signage used only to support the larger more memorable moves.

Pedestrian wayfinding signs and maps should be located at key decision-making points and should be consistent with the design elements of interior wayfinding signs. Exterior maps should show the connections to the major interior link system as well.



Circulation and transit framework : The vehicle network is shown with solid black lines - the dashed black lines show new roadway connections, such as Crispell Drive connecting to Monroe Lane behind the South parking garage and to Brandon Avenue


Entry
West Main Street
Avenue
Jefferson Park
Lee Street:
Patient/
Visitor
Focus
Parking
Roosevelt Brown Boulevard
Entry
Lane Road:
Service/
Transit
Crispell Drive
Legend
Renew
Replace
Renew and Replace
Proposed Landscape Enhancements
Existing Health System Building

A: Establish a primary boundary for vehicle access defined by Jefferson Park Avenue, West Main Street, Roosevelt Brown Boulevard, Crispell Drive and Brandon Avenue, bisected by only one major public travelway: Lee Street.

B: Size, program and design other streets within the district to be secondary and possibly even one-way.

C: Reroute some traffic from the proposed Jeanette Lancaster Way pedestrian mall to Brandon Avenue in the future, while relying on Crispell Drive for primary access.

D: Consider extending Crispell Drive to the southerly site area currently occupied by the UVa Outpatient Surgery Center.

E: Consider narrowing Lane Road, or potentially closing the portion that extends from the north-south connector to Jefferson Park Avenue to all vehicles with the exception of transit buses, shuttles and emergency service. Relocate impacted parking to an alternate location. Lane Road is proposed as an integrated pedestrian and bicycle campus-like environment, which reinforces Lee Street as the primary vehicle route within the district.

F: Develop a major service court mid-block on Lane Road that provides adequate delivery opportunities and sufficient turnaround space. Crispell Drive to Lane Road would become the primary service/access route for the district.

G: Clarify bike circulation and define a specific "improved" route through the Health System. Along key travelways, provide adequate and secure bike parking facilities along routes and in close proximity to building entrances.

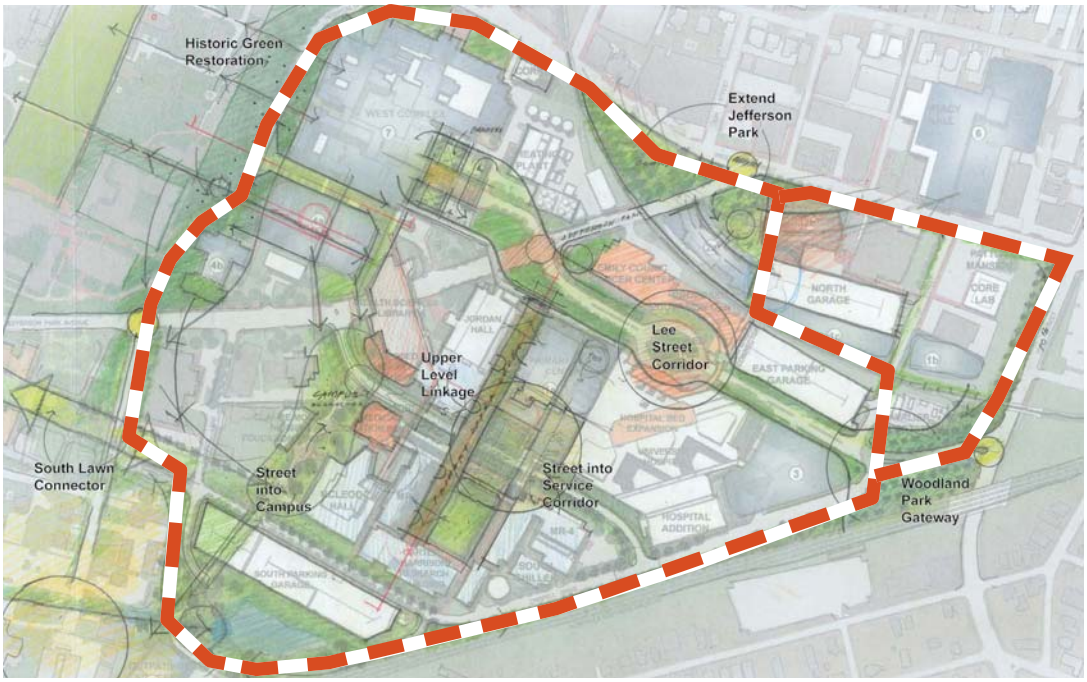
H: Develop transit routes and stops, consistent with user needs and reinforced with improved and consistent transit stop amenities.

I: Develop a major park/bikeway/jogging loop within the green space perimeter.

E, F: Illustration of vehicular management on Lane Road between JPA and the north-south connector

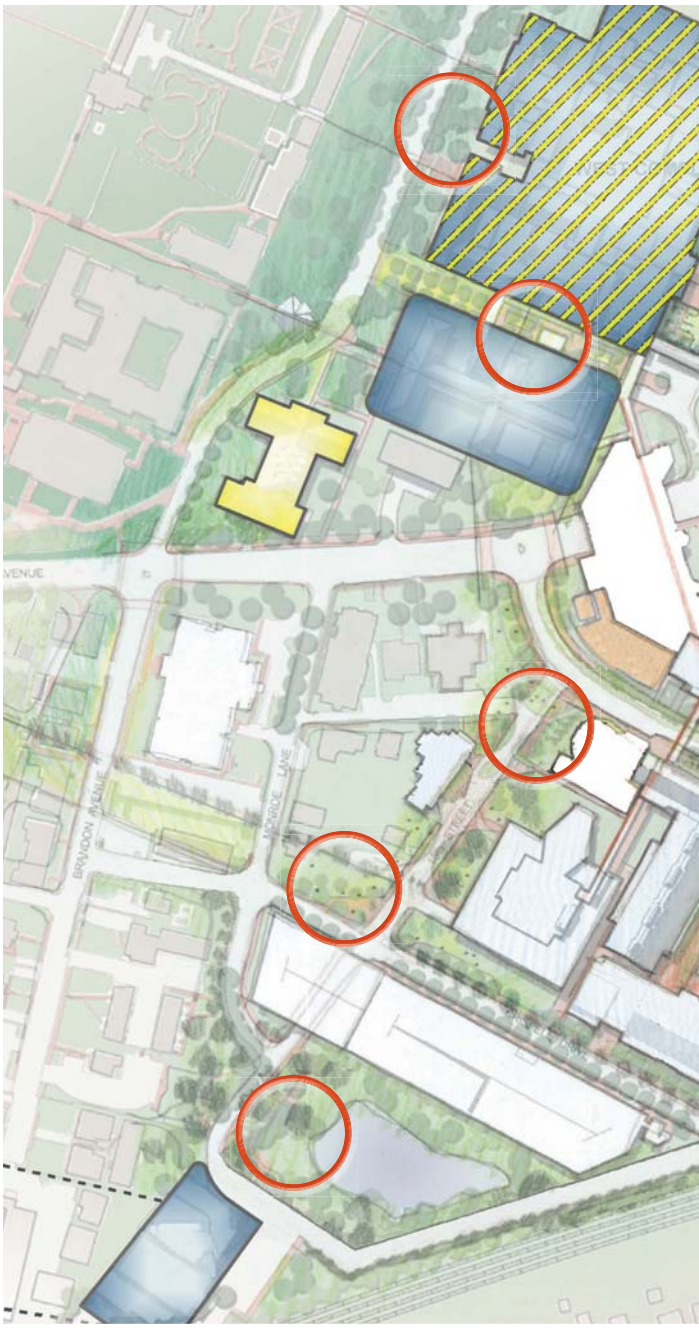

G: Prototypical bike parking facility at South Lawn adjacent to entrance of Nau Hall

H: Recently improved bus stop near the Health System

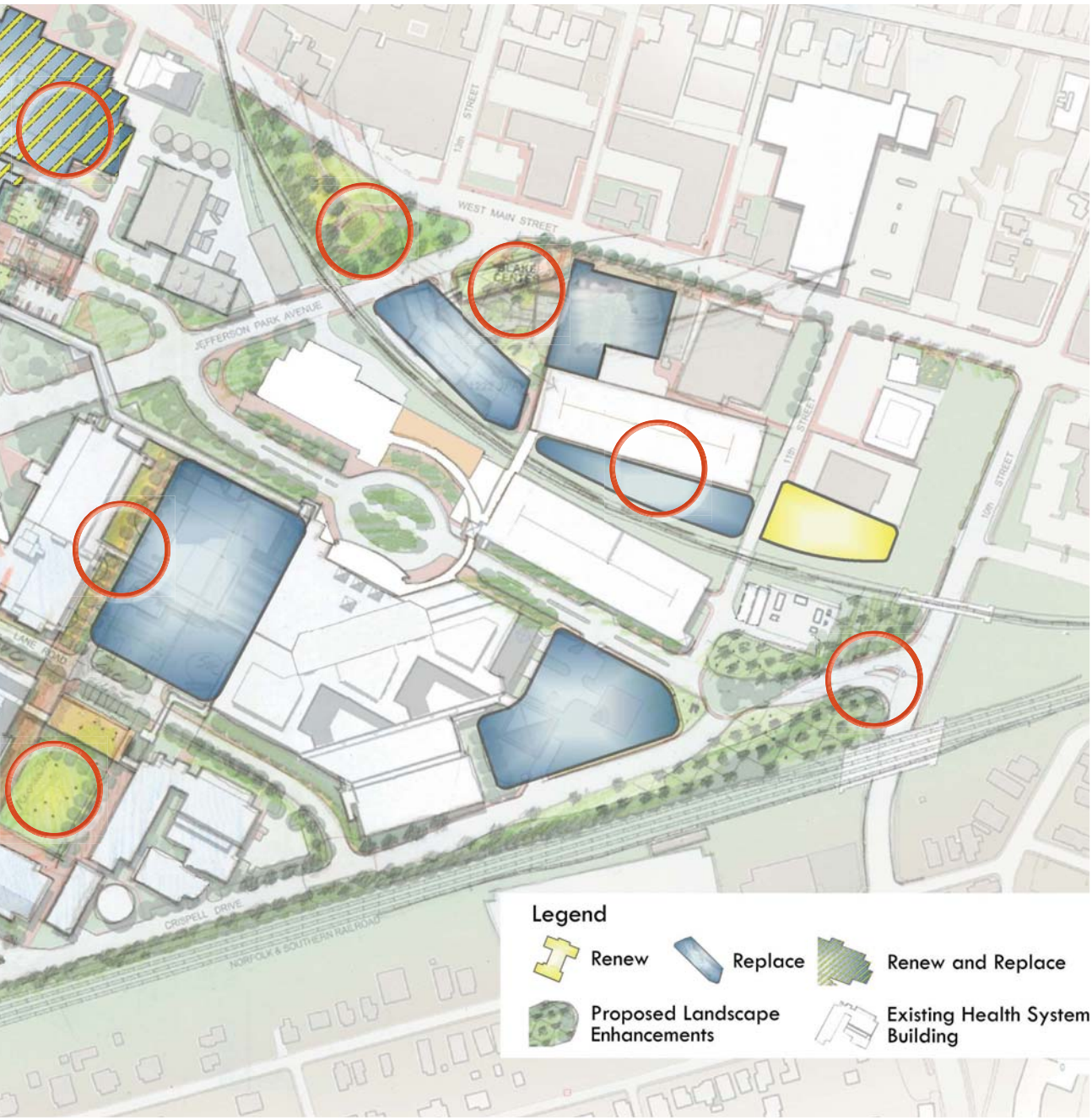


I: Proposed route of the recreation circuit around the Health System district

Many improvements and enhancements in a neighborhood can come from smaller individual moves that together create an improved quality of place and the comfort one feels within it. These types of improvements can be completed at different times, under different budgets, attached to new capital projects, or stand-alone projects. They include developing both intimate and grander scale user areas; adding outdoor recreation facilities; refurnishing, programming or outfitting existing use areas; adding planting to provide shade and environment while also screening, framing or creating new views; and developing visual cues and/or signs at key junctions to ease wayfinding anxiety. There are opportunities throughout the Health System for these enhancements to occur.



Potential recreation sites throughout the Health System district


WEST MAIN STREET
JEFFERSON PARK AVENUE
10th STREET
11th STREET
LANE ROAD
CRIPPELL DRIVE
NORFOLK & SOUTHERN RAILROAD
Legend
Renew
Replace
Renew and Replace
Proposed Landscape Enhancements
Existing Health System Building

A: Design future buildings and streetscape along Lee Street to provide a pedestrian scale environment.

B: Improve streetscape planting by adding shade trees where none currently exist.

C: Provide opportunities for outdoor recreation, exercise and enjoyment consistent with a wellness approach for faculty, staff, students, patients and visitors.

C1: Consider locations for volleyball, bocce, basketball, children's play, soccer, tai chi, jogging paths, and such.

D: Seek opportunities to include additional purposeful and useable outdoor spaces.

D1: Develop a series of distinct green spaces located along the pedestrian travel ways.

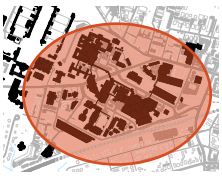
D2: Develop a network of secondary or 'found' spaces for seating, lunching or conversing with colleagues.

D3: Provide outdoor areas where doctors and staff can relax or take breaks separate from patient environments.

D4: Relate green space landscape treatments to program uses which could include: volleyball east of MR-5, a play structure at the Battle Building, lunch space between the Nursing buildings, improved landscape between McKim Hall and the West Complex, basketball between MR-5 and the Medical Education Building, a jogging path along Crispell Drive and a sculpture garden along Lee Street. Relocate any impacted parking to an alternate location.

E: With the Jefferson Park Avenue and West Main Street improvements, provide a sidewalk and streetscape amenities. Adopt Clark Park as a part of the recreation space of the Health System neighborhood and consider a par course, bocce ball, horseshoes or other use oriented functions.

F: Create a linked recreation circuit in the "greenbelt" perimeter that connects Clark Park, a potential children's park across the road, recreation and wellness facilities adjacent to or in the 11th street garage, along an improved Crispell Drive, west past the South garage engaging the stormwater natural area, up Brandon Avenue to Hospital Drive and back to Clark Park. (see graphic on page 61)



G: Develop planting concepts to enhance and/or screen views from overhead walkways, to help provide scale for larger building facades and to provide passive solar heating and cooling of south and west facing building and walkway walls.

H: Improve wayfinding throughout the Health System district.

H1: Use the framework plan and landscape/urban design/architectural elements previously described to create hierarchy and landmarks for identity.

H2: Develop a marked pedestrian and bike circulation network within and through the district.

H3: Develop a pedestrian sign system and/or graphic program that is consistent for both at-grade and link destinations.

H4: Simplify vehicular circulation within the Health System and develop a vehicular sign system that identifies key destinations for the Health System and the UVa Grounds. Provide key multi-destination directional signs at the 3 major entrances and at both ends of Lee Street. Rely on prominent landscape treatment and visual elements to symbolize entry.

I: Enhance views to significant features and landmarks as visual cues to location.

A, B: The Emily Couric Clinical Cancer Center will be setback from Lee Street and the streetscape will feature shade trees

D1, D2: Example of green space/seating area

D2: Claude Moore Medical Education Building with green space amenities

D2, D3: Existing secluded seating area

G: Conceptual sketch of well-screened elevated walkway

D1: Example of urban green space

6 | Promote Wellness and Sustainable Strategies

Sustainability is a desirable and required component of planning for the future at the University of Virginia. The goal is to use resources wisely and to plan for a future where such resources will become increasingly scarce. As a teaching institution it is important that these messages are embodied in the everyday environment. Furthermore, as a health institution, the social aspects of sustainability, more particularly "wellness" and the promotion of a healthy environment, gain even more importance as a message of the University.

These suggestions are intended toward replacing the existing 20th century car/building/street environment with a more pedestrian and restorative realm, providing opportunities for energy efficiency and an emphasis on wellness and healing.

Perimeter greenbelt around the Health System


city
south

Built Environment

A: All future HS buildings will be LEED certified at a minimum - strive to achieve a higher rating than the Board of Visitors mandate - silver, gold or platinum rating.

B: Integrate green roof systems. Rooftop plantings combined with waterproof membranes and sophisticated drainage systems offer many benefits from aesthetic to environmental to economic. Green roofs can provide cost savings by providing increased insulation and can extend the life of the roof two or three times by shielding the membrane from the damaging effects of the sun. Green roofs can also greatly reduce the heat island effect and plantings improve air quality. In addition water run-off can be reduced with water stored to be released slowly to plantings later as necessary. Another advantage is the attractive appearance which can greatly improve views from interior spaces.

B: Example of a green roof in an urban environment

C: Develop the perimeter "Greenbelt" as a forested circuit that borders the Health System district providing the opportunity to include a bikeway, jogging path, wildlife habitat and drainage swale for stormwater cleansing and recharge.

C: Conceptual sketch of the greenbelt concept around the HS

D: Emphasize wellness and healing through exercise opportunities, contemplative spaces, improved visual quality and stronger connections to nature. Consider providing a Wellness Center that serves both rehabilitation patients and staff.

D: Pocket Park on West Main Street

E: Improve air quality and carbon reduction by the addition of substantial numbers of framework trees, and use tree plantings to control heat gain on the south and west side of glass links and building faces.

F: Improve visual quality using architectural and landscape materials including trees, shrubs, fences, and green screens to shield views of parking, service, trash, recycling and other utilitarian areas.

G: Develop gardens in appropriate locations as educational tools, healing spaces, meditation spaces and even edible herbs or produce gardens. Locate vegetable or herb gardens near food service spaces.

H: Develop rental housing along with medical facilities, providing an integrated live-work environment.

E: Example of street trees providing shade for nearby buildings

F: Recently installed green screen hedge along Hospital Drive

G: Recently planted garden within the HS research zone

E: An example of a well screened section of the hospital link

I1: Example of a bike locker system installed in a parking garage

Transportation

I: Promote multi-modal transportation opportunities including enhanced and well located shuttle and bus stops, reduction of parking in favor of bike and pedestrian connected pathways.

I1: Include convenient bike parking and commuter bike lockers/parking in covered garages.

I2: Consider locating bike lockers adjacent to gym facilities to enable showers / lockers for commuters.

I3: Prioritize proximate vehicle parking for patients, visitors and night-time staff only.

I4: Improve bus stops to encourage travel by transit including review of stop locations, seating set back from street, added amenities such as proximity to cafes, newspapers, shelter and adequate seating.

I5: Extend transit and bike connections to the Fontaine Research Park.

Energy and Materials

J: Continue use of the UVa central infrastructure for energy requirements, along with supplemental geothermal and solar components.

K: Favor local vendors, architectural and landscape materials, align with regional food sources to the extent available.

K: The UVa Fine Arts Cafe makes use of regional food sources


M
Old Medical School
M
Corner Building
West Complex
Hospital Drive
Heating Plant
M
North Chiller Plant
1222 JPA
McKim Hall
The Link
Emily Couric Clinical Cancer Center
Claude Moore Health Sciences Library
Lee Street
M
M
Jefferson Park Avenue
Jordan Hall
Primary Care
M
Claude Moore Medical Education
Claude Moore Nursing Education
Lane Road
University Hospital
Jeannette Lancaster Way
McCloud Hall
MR-5
Crispell Drive
MR-4
Carter-Harrison Medical Research

Section 3 | District Planning Principles: Interior

1 | Reinforce Clarity of Internal Circulation and Wayfinding

2 | Animate Circulation Spaces

3 | Identify Opportunities to Support Interior Place Making

4 | Improve Interior Design and Branding of Public Spaces

5 | Integrate Sustainable Interior Strategies

1 | Reinforce Clarity of Internal Circulation and Wayfinding

The Health System buildings have been constructed over time on a project by project basis, reflecting a lack of interior design cohesiveness in the public spaces. This inhibits clear wayfinding for patients, visitors, faculty, staff and students and fails to provide the appropriate identity for the entire system. Improving the interior design of the main circulation corridors will create an identity for the Health System that reflects the natural, earth-themed palette developed and outlined in the separate Interior "Design Master Plan" by the Smith Group, April 2009. This new, consistent palette will serve to unify the Health System identity and will support clarity in the wayfinding system.

Growth over time of Health System district buildings


500
Year of Construction
Pre 1910
1910 to 1930
1930 to 1940
1940 to 1960
1960 to 1980
1980 to 1990
1990 to 2000
2000 to 2009
Under construction
Planned

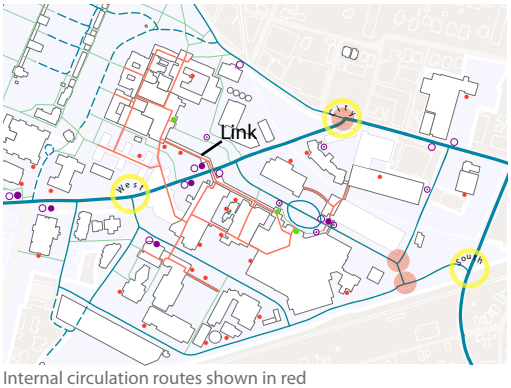
A: Improve design identity
Improve the design identity of the interior circulation by drawing from one consistent color/materials palette that unifies and defines the main public spaces, creating a cohesive design statement for the circulation spines. These spaces should have a consistency of design, yet a richness of variety that will make areas distinctive to aid in orientation. Flooring materials should be of consistent color, if not material, and paint schemes should be similar throughout. Accent colors should be soft, natural hues. Trendy colors/materials should be avoided in favor of providing a consistent, classic and timeless design statement.

B: Provide orienting maps
Provide orienting maps at key intersections to facilitate ease of navigation from one facility/building/function to another. These maps should include all major buildings, landmarks and clear delineation of the "links" system by level between and through the major buildings.

C: Name the "links"
Improve interior wayfinding by naming the links in a similar manner to streets in a city. Use the naming initiative to provide opportunities for fundraising and/or for recognizing key research initiatives, historic discoveries or medical achievements.

D: Enhance views to exterior landmarks
Create views from link corridors to exterior landmarks when possible while screening views to service areas to allow visitors to develop a mental map of their location and help with spatial orientation. Key landmarks should also be noted on the links map to aid with directional orientation and contribute to users' understanding of the Health System.

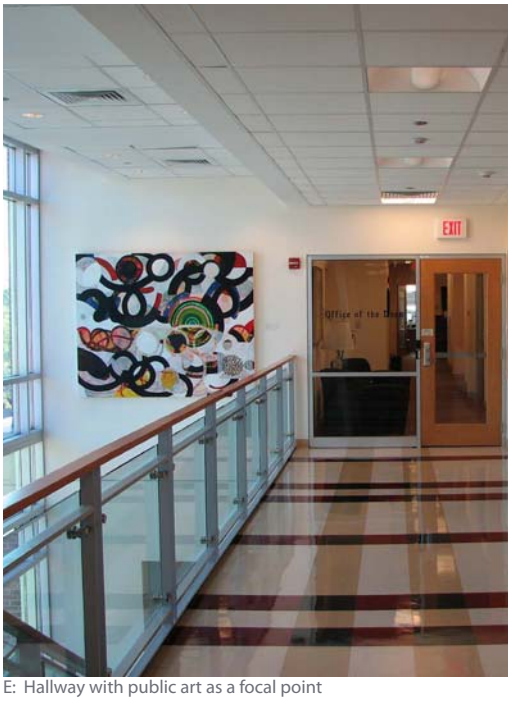
E: Create interior landmarks
Provide opportunities to create interior landmarks at key intersections. These can be functional, historical, whimsical or educational in nature. Highlight the interior landmarks with feature lighting and prominent placement. Find ways to use these landmarks to engage both first time and regular users, foster awareness of research and clinical initiatives, encourage collaborative relationships and build community.



Internal circulation routes shown in red

F: Use lighting to enhance public spaces
Provide consistent lighting throughout the public spaces that enhances and differentiates their character. The lighting should support functions but not be overbearing or clinical. Indirect lighting in circulation spaces is preferable with added task lighting where needed for specific functions. Areas of respite are better supported by lighting with a more residential feeling so the use of table lamps or task-specific lighting should be encouraged in these locations. Use photocell-dimming sensors that adjust electric lighting in accord with the amount of natural light available and add systems that allow more sensitive control such as occupancy sensors, dimmers and timers. When replacing lamps, use full color spectrum lighting sources to better approximate daylight. Also, natural daylighting is critically important and should be increased wherever possible. Windows along and at the corridor ends not only provide natural light but also support visual access to exterior landmarks, provide respite and aid in connecting users to the outdoors.

G: Continue update of signing systems
Continue the implementation of signing and way finding systems as noted in "Wayfinding Strategic Plan" prepared by Corbin in 2005.



E: Hallway with public art as a focal point

A, D, F: Example of hallway with improved finishes and design, natural daylighting, views to exterior landmarks and amenities

D, F: This link provides natural daylighting and ample views to exterior landmarks

2 | Animate Circulation Spines

Some of the existing "links" in the corridor system are activated by a variety of uses which create busy, interactive and inviting spaces. These links are opportunities to encourage interaction among the various constituencies that use them. Many of the circulation corridors are wide enough to accommodate the addition of pockets of activity or quiet spaces for waiting, respite, study or brief touchdown. Identify areas with potential for improvement and activate them with a variety of new destinations, program elements and community service functions.

The inner links corridor system is a highly visible organizing element. Its northern leg is a second level glass enclosed walkway, which directs patients between the hospital entry and clinics in the West Complex. The southern leg is embedded within buildings and tends to be used more by staff than patients. The cafeteria, a major destination within the Health System, is at the eastern joint between these two, adjacent to the hospital entry. At the other end, these two legs converge at a corner of the West Complex, not far from the main entry, but without adequate receiving space for orientation. Enhancing the extension of this primary loop will help clarify and animate circulation.


UNIVERSITY of VIRGINIA
HEALTH SYSTEM

A: Improve existing areas of respite and communal activity

Numerous areas of respite and activity along the links exist in a variety of forms such as the waiting areas off the main circulation link of the hospital, team/lunch/study tables outside the library, benches and booths along other areas of the circulation spines. Improve and activate these areas by focusing on the furnishings and amenities provided in each to ensure support of the functions are accommodated as desired. Provide power, additional lighting, screening, acoustical treatments, interior planting or other amenities to make these areas more functional and inviting. Create visible means of access to available outdoor spaces adjacent to links to further enhance the use of these seating areas and provide areas of respite from the corridor traffic. Survey current users to ascertain which amenities would be more valued in each area and upgrade as possible.

Example: The main link from the hospital drop off is the most visually pleasing link but could still be significantly improved. Floor-to-ceiling windows provide good views and daylight and bench areas are provided but the space is little used for respite because it is too linear and sterile. In order to make this artery more functional and inviting for users, provide more appropriate seating and arrange it in groupings rather than along the edges of the corridor. Group the interior planting at these areas and selectively break exterior plantings to enhance views from within. Provide new electrical outlets to allow these spaces to become a place for users to work or connect while transitioning between activities.

B: Expand areas of communal activity

Where possible, provide for places for communal activity, such as the team/study/eating tables outside the library. Provide new electrical outlets to allow these spaces to become a place for users to work or connect while transitioning between activities. Improve and activate these areas by focusing on the furnishings and amenities provided in each to assure support of functions that are varied and desirable. Survey current users to ascertain which amenities would be more valued in each area and upgrade as possible.

C: Introduce new program elements along circulation spines

Identify opportunities where new program elements could be accommodated and create a cohesive and magnetic system of new program areas to support the community as a whole and function as social and academic crossroads. New program elements should draw in users. Food facilities are effective for bringing people together and they can be provided in a variety of scales from the full cafeteria in the hospital to a simple grab and go coffee cart outside a major meeting place. Tie the design of these places together with the use of similar materials, lighting and interior furnishings to further aid in the establishment of the overall design/branding of all public spaces in the system.

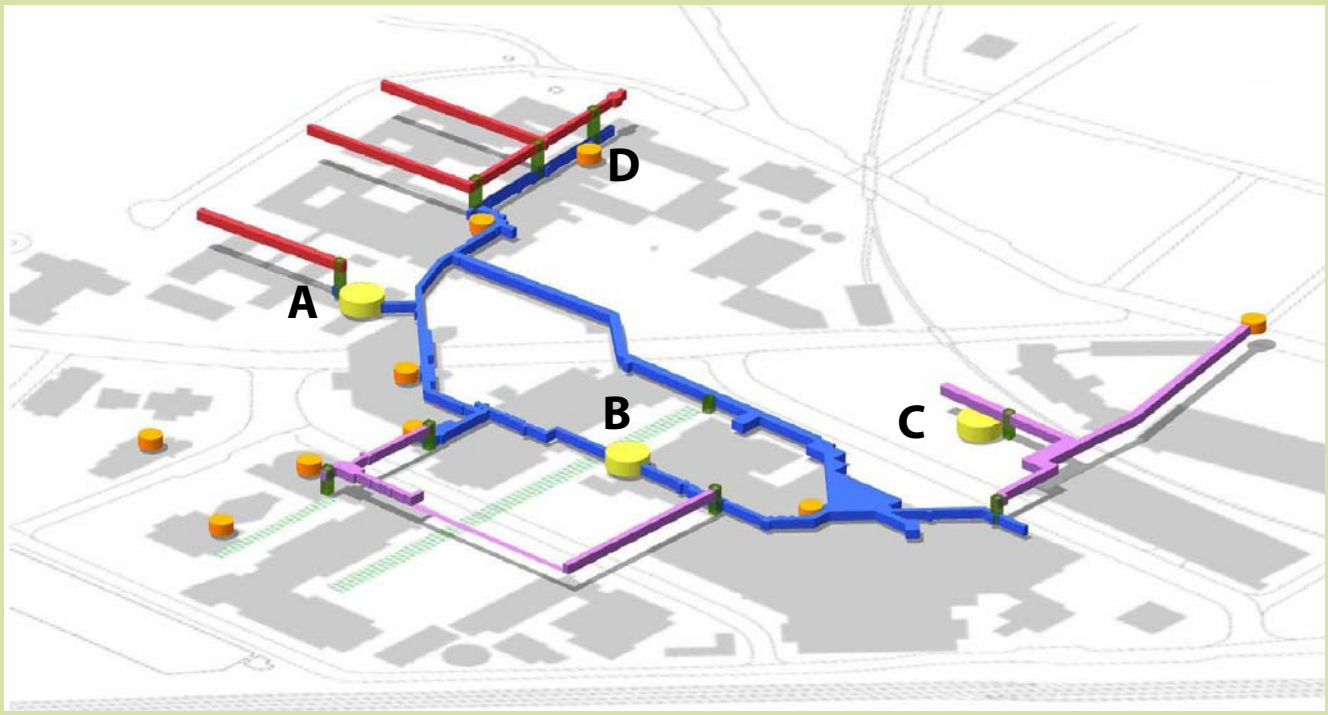
Example: "Hubs" for collaborative work between scientists and clinicians can become key destinations if fitted out with effective spaces to support knowledge sharing. See the next pages for proposed hub locations and program distribution strategies with a description of possible hub types.

D: Widen corridor areas of the West Complex

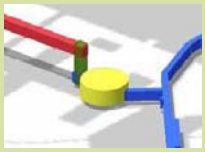
The West Complex corridors should have the same share of amenities as the links throughout the rest of the Health System to serve the users there, create landmarks and reinforce clear circulation and wayfinding. As groups relocate and functions are re-organized, devote some program space to enlarging corridors at major intersections or near new roof gardens to create seating areas where passing colleagues can linger and talk, take a call, do some work in transit or wait near a view of green space. In addition, these re-organized and widened areas can aid in directing users to new program areas created by implementing the new system of district centers and neighborhood collaborative places which support collaboration and community buildings.

A: Existing seating designed for communal activity

A: Proposed seating area in hallway of the Emily Couric Cancer Center - seating is grouped to promote use and comfort



Proposed Health System Hubs



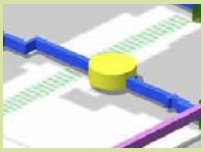
Health System Academic Hub:

Location

HUB A will be found at the juncture of the Health System and the main campus, providing an opportunity for educational interaction. Replacing the existing McKim Hall, this new space will have through circulation from the west entries at multiple levels, connecting to the West Complex and Library building. HUB A will bring together faculty from Medicine, Nursing and other Health Sciences (with faculty from related disciplines and sciences located on main Grounds). It will also offer up a new location for the Dean of the School of Medicine's office as well as bringing together Continuing Medical Education (CME) program participants and first responders/other trainees receiving initial briefings on using the new simulation center.

Activities/Technologies Supported

Many activities will be supported here including faculty interaction relating to education; interdepartmental discussions in support of interdisciplinary initiatives; supplementary CME activities that allow for expansion of current offerings; swing space for renovation of Jordan Hall facilities and their replacement long term; presentations; guest speakers; seminars and retreats. There will also be a center for teaching and learning/curriculum development (supported by associated offices for academic technology support, instructional design). In terms of the enabling settings and technologies, a presentation room for 100 is suggested (perhaps as a case study room for better interaction); flat floor space to allow breakout sessions; meeting rooms of various sizes (with flexible furnishings); and a collaboration suite with lounge and reservable work areas. It should be noted that the tight circulation through Jordan Hall at the existing CME meeting spaces is likely to get worse after the new Medical Education Building becomes an operational destination, drawing people through its corridors. A new facility incorporated into this hub could relocate the related food serving activity. The Jordan Hall meeting spaces could be retained and renovated as a secondary hub, or be converted to some other possible use.



Translational Medicine Hub:

Location

HUB B will be centrally located to the hospital, in a new development on the existing Primary Care site. It will be accessible from the south corridor connecting the cafeteria to Jordan Hall and the new north-south exterior connector, with views onto the research quad's green space. The space will bring together clinicians in the hospital and acute care facilities, along with basic science and clinical researchers in various research buildings (on and off-Grounds).

Activities/Technologies Supported

The activities supported in this hub will include knowledge sharing (presentations, seminars, guest speakers) along with group deliberations and analysis involving high definition graphics (e.g. clinical diagnostic images, lab or database analyses). Communication between remote teams will be encouraged (e.g. during surgery or other procedures where commentary by multiple parties in several locations during real-time is constructive). There will be luncheons for topics of interest and mini-conferences on special areas of investigation, which will benefit from the convenience of its location for busy practitioners/easy access to patient areas for groups to visit. HUB B's future lecture room for 100 will be equipped to allow switching between multiple participants, images and databases (for example, with Access Grid type technology). There will be meeting spaces of various sizes, enabled with visualization capability (e.g. to view digital simulations of various types or 3D stereoscopic images) along with breakout rooms with flexible furnishings and a collaboration suite.

Clinical Education Hub:

Location

HUB C will be located in the connector building between the Cancer Center and the East parking garage. Its function will be to bring together the public, clinicians and hospital staff for educational purposes.

Activities/Technologies Supported

In HUB C, the following activities will be supported: lectures, seminars and other educational presentations along with symposiums and roundtables. Events engaging the public on health issues will be hosted here along with displays of educational material being put up around the HUB. The meeting spaces itself will vary in sizes, with flexible furnishings, while public exhibit areas will hold flexible display systems.

Health System Discipline Hub:

Location

HUB D's future location will be a new multilevel conferencing facility, replacing the existing auditorium block in the northeast courtyard. The courtyard itself would be converted into a pedestrian green space with major trees, providing better views for those in the surrounding offices and a grade-level plaza for spill-out of events or group work outside in good weather. Exterior walls of the courtyard would be cleaned and masonry restored, including removal of exterior ductwork that has accumulated over time, to be replaced with interior systems with incremental renovations. This would bring together members of departments or organizations that are within the School of Medicine, most of which will be housed in the West Complex in the future.

Activities/Technologies Supported

Future activities that would be supported here would include activities that would stimulate interdisciplinary interaction; discussions that increase awareness of potential initiatives between disciplines; the sharing of research findings and press conferences. Displays would be made to celebrate discoveries and innovation, for internal purposes as well as public-facing. There would be smaller, accessible meetings to allow attendees at larger sessions to be productive with colleagues between meetings or afterwards (especially if they have to travel from other areas of Grounds) along with drop-in work stations. The auditorium itself will have easy access from the West Main Street entry. As with the other hubs, there will be multiple meeting spaces of various sizes with flexible furnishings, breakout spaces for smaller groups, a collaborative lounge (with a suite of reservable workspaces) and a patio for receptions to be held outside.

3 | Identify Opportunities to Support Interior Place Making

Throughout the Health System, opportunities exist to create functional, inviting spaces for staff, students, faculty, patients and the public. Identify, reclaim, and improve these spaces for a variety of uses; to improve views, create exciting points of entry and support healthy activities.

The Health System buildings and grounds are alive with a multitude of activities 24 hours a day, 7 days a week. The variety of uses includes all aspects of University, hospital, clinical, research, outreach and management functions. In addition, patients and the general public are present in many parts of the Health System buildings at all hours for a variety of reasons.

In support of interior place making, opportunities exist to improve the connection to the natural world through enhanced views, natural daylighting and increased access to outdoor spaces. This is desirable and healthy, but will need to be balanced with security concerns for students, staff and professionals working late into the night. Create safe, functional, inviting spaces in appropriate areas, for staff, students, faculty, patients and the public, while supporting healthy activities throughout the Health System buildings and district.

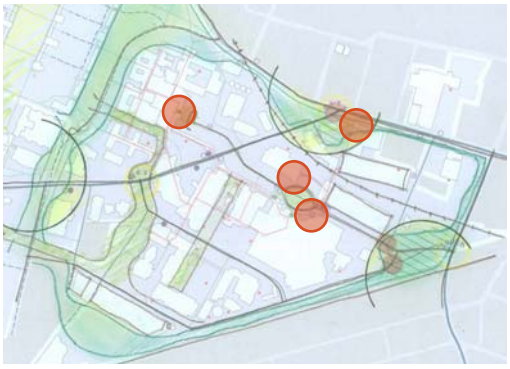
Conceptual sketch of the Emily Couric Clinical Cancer Center main entrance

A: Improve the main entry points

At all main public and patient-serving entry points, create a consistent branded space that immediately defines the identity and character of the Health System. This can be accomplished with interior finishes, lighting, furnishings, signing and graphics. A good example of an appropriate entry point is the main hospital drop-off and lobby. This area is filled with natural light, makes use of appropriate materials (terrazzo flooring, warm wood tones, cream colored walls, white trim) and is inviting and well-designed. The Jordan Hall conference center entrance is also nicely designed, but uses teal green/blue as a major architectural finish in paint and tile, which fails to tie this space to the more natural-themed palette that would be appropriate in defining this as a UVa Health System entrance. The West Complex entrance from the main Grounds is a significant entry point to the Health System as well, but the point of arrival appears as more of a back door rather than a key entry. In order to improve this neglected entry point, enlarge it to give it more prominence and apply a standard color/materials palette and level of amenity that includes signing, lighting, seating and meeting spaces.

B: Reclaim courts and upper level roof areas in the West Complex

Amenities should be provided consistently throughout all of the Health System buildings. There are numerous upper level roof areas in the West Complex that could be reclaimed to provide outdoor garden areas. Some may even be appropriate for outdoor dining/meeting spaces with areas of hardscape or decking and perimeter planting. In other areas, green roofs could be added to achieve a variety of benefits. Rooftop plantings combined with waterproof membranes and sophisticated drainage systems offer many benefits from aesthetic to environmental and economic. Green roofs can provide cost savings by providing increased insulation and extend the life of the roof two or three times by shielding the membrane from the damaging effects of the sun. Green roofs can also greatly reduce the heat island effect while plantings improve air quality. Water run-off can be reduced by releasing stored water slowly to plantings as needed. Another advantage is the attractive appearance which can greatly improve views from interior spaces. The positive psychological benefit to users cannot be quantified, but is believed to be significant for those who will view these green spaces daily from otherwise landlocked offices and laboratories.



Location of main public and patient-serving entry points

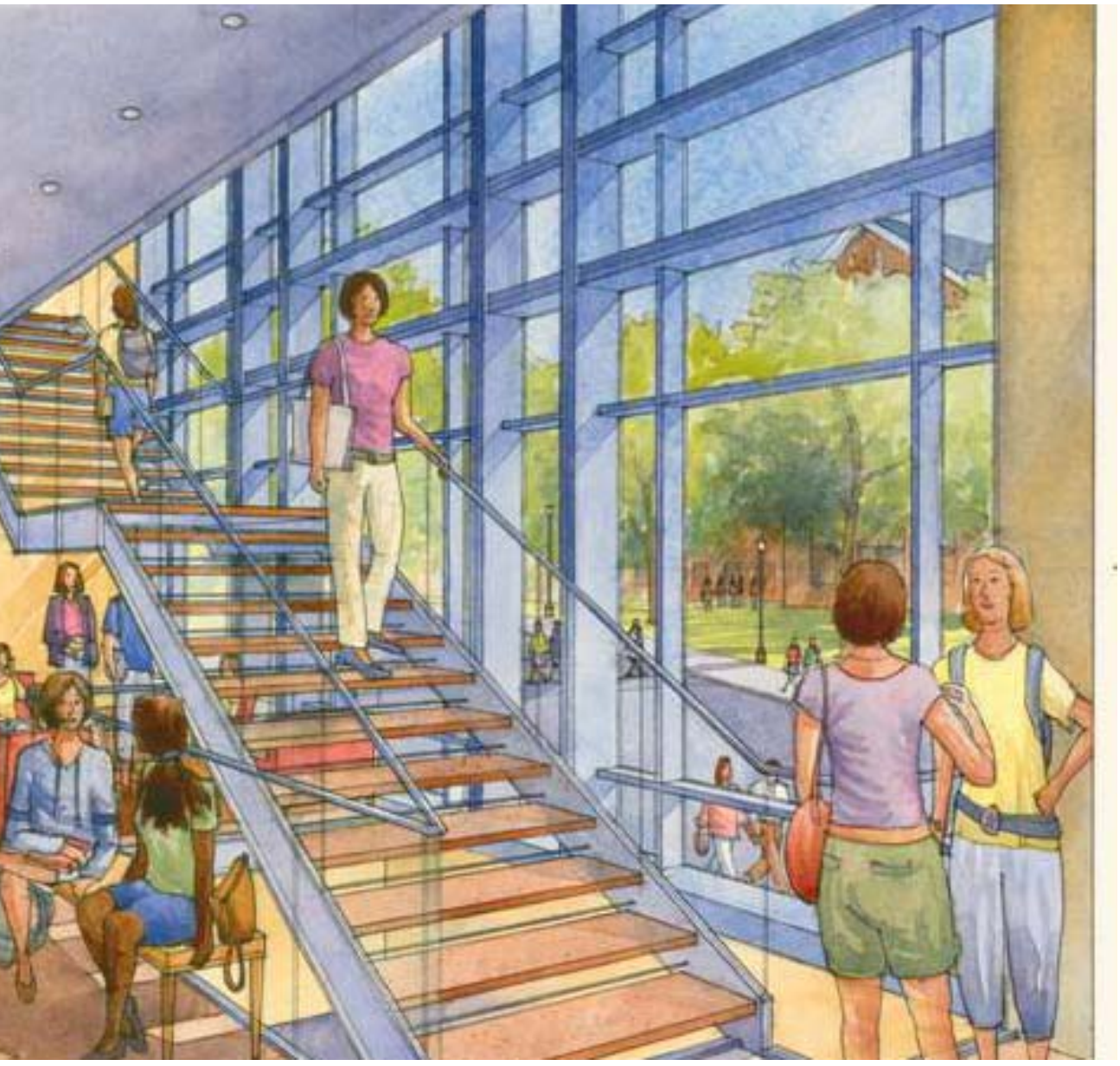
B: Rooftop terrace at Clemons Library

A: The design of the main hospital drop-off and lobby creates a consistent, branded space

B: Future terrace at the Emily Couric Clinical Cancer Center: an example of creative use of a rooftop area

4 | Improve Interior Design and Branding of Public Spaces

The interior design of the Health System is inconsistent in look and quality. Upgrade and standardize the interior finishes of the public spaces including entries, corridors, waiting areas and other shared functions such as meeting rooms, library and food service; to define and enhance the UVa Health System's appearance to users and to the public.



A: Improve and standardize the interior materials finish palette

The finishes throughout the public spaces of the Health System are not unified and have been selected individually without regard for the overall look and aesthetic of the entire system. This inconsistent appearance contributes to confusion about the Health System on a number of levels. First, there is no identifiable finish palette that instantly communicates arrival to the Health System, reinforcing the main public circulation areas. Second, the stature of the UVa Health System "brand" or identity is not supported by the varied looks of the spaces. Some spaces are professional, light and pleasing while others are dismal, dark and dated. Third, wayfinding throughout the system is so confusing that it is nearly impossible to direct someone from one function or service to another without physically accompanying them from point A to point B. The varying finishes in some areas give the impression of "back of the house" space rather than Health System public circulation areas.

Adopt standards for all color/materials finishes, lighting, accessories (such as planters/trash/recycling etc.) stairwell finishes, railings and signing. If higher level materials cannot be provided in every area, select alternatives of the same color family for consistency. For example, if terrazzo flooring throughout is not feasible, tile or linoleum of the same color family should be provided in areas as necessary. This continuity of color of finishes will serve to define the public spaces and identity of the Health System brand. The standard palette should be drawn from the traditional UVa materials vocabulary of brick, terrazzo, slate, cherry wood, white trim, charcoal accents and soft cream wall colors. Draw the overall color palette from the natural landscape colors that occur in the surrounding Virginia countryside. Avoid trendy colors in architectural built-in backgrounds. If these colors are selected, use them in easily replaced materials such as paint, upholstery or art. Create a separate and distinct color/materials palette for the research and educational areas.

A: Example of the appropriate color/materials palette for public spaces (main hospital lobby)

A: Example of an appropriate color/materials palette for public spaces

5 | Integrate Sustainable Interior Strategies

The following interior sustainability strategies have been extracted from the Guidelines for Sustainable Buildings and Environmental Design produced by the Office of the Architect for the University of Virginia and endorsed by the University's Board of Visitors in January 2007. Where possible, follow and incorporate these strategies as buildings are developed and renovated.

B1: Integrating daylighting

Energy

A: Conserve energy with passive solar heating and cooling, and efficiency measures.

A1: Use roof surfaces that reflect light and reduce cooling loads (for example, green roofs that also moderate stormwater runoff).

A2: Use features such as "air-lock" entrances to reduce heating and cooling gain/loss.

A3: Design exterior wall openings so that natural ventilation is available.

A4: Consider mechanical systems that are compatible with natural ventilation and can be controlled accordingly.

A5: Select equipment and appliances that meet EPA ENERGY STAR criteria.

A6: Use efficient heat and water equipment to service buildings - solar heaters / tankless and prohibit the use of electric water heaters.

Lighting

B: Coordinate and integrate daylighting with electric lighting and use efficient equipment.

B1: Integrate daylighting and prioritize artificial lighting for evening and task needs.

B2: Design electric lighting systems to complement natural lighting.

B3: Specify high efficiency lighting such as T8 or T5 fluorescent.

B4: Use photocell-dimming sensors that adjust electric lighting in accord with the amount of natural light.

B5: Use systems that allow more sensitive control such as occupancy sensors, dimmers and timers.

B6: Use lamps / luminaries with electronic ballasts.

B7: Use lighting fixtures that illuminate ceilings and walls for low ambient lighting levels where appropriate (such as corridors).

B8: Use full color spectrum lighting sources.

B9: Reduce the use of incandescent light bulbs.

Indoor Air Quality

C: Improve indoor air quality and natural ventilation through a variety of methods.

C1: Add large walk-off mats at all entrances.

C2: Avoid off-gassing and VOC-emitting materials when selecting interior finishes.

C3: Reduce and control moisture to prevent microbial growth.

C4: As possible, add operable windows to permit natural ventilation in appropriate seasons.

C5: Add interior plantings for air-quality and aesthetic benefits.

Indoor Water Use

D: Minimize indoor water use by selecting water conserving plumbing fixtures and systems.

D1: Provide automatic shut-off controls on faucets, toilets and urinals.

D2: Include waterless urinals in high-use restrooms.

D3: Consider pressure-assist toilets and composting toilets.

D4: Provide lavatory faucets with flow restrictors and low flow showerheads.

D5: Include ozonation in laundering systems.

D6: Provide water-efficient dishwashers.

E1 & F1: Daylight strategy concept in the Battle Building and the accessible landscaped terrace

Views

E: Improve views to the exterior.

E1: Provide as much natural daylighting to as many occupants as possible. Daylight is an effective way to keep occupants connected to the outside world and is known to increase work and classroom productivity.

E2: Allow for outside view access from all regularly occupied spaces and combine interior and exterior view spaces.

E3: Provide visual and physical connections to the natural environment.

E4: Views to the exterior from stairwells and main circulation corridors assist with grounding and wayfinding**.**

Access

F: Improve access to the outdoors.

F1: Where possible, add terrace and garden areas from interior spaces to allow users to step outdoors without having to traverse long distances to get outside. For example, add doors to the outdoor terrace area adjacent to the main Hospital cafeteria and reclaim the West Complex exterior court areas.

Materials

G: Evaluate and specify sustainable materials.

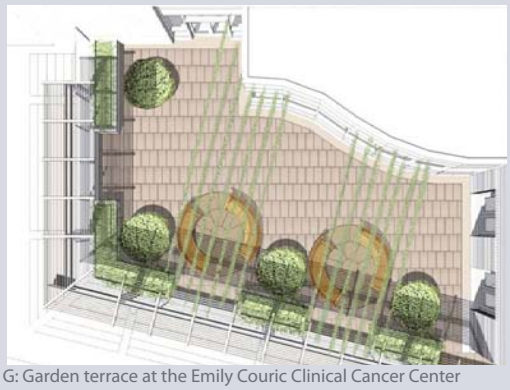
G1: Specify locally manufactured/recycled materials including salvaged and remanufactured products.

G2: Specify recycled-content materials and products (post-consumer is preferable to other recycled material sources).

G3: Specify reusable, recyclable and biodegradable materials.

G4: Make use of materials made from renewable sources that replenish themselves faster than demand for their extraction (such as wheat, cotton, cork and bamboo).

F1: Interior courtyard allows access to the outdoors and provides daylighting to interior spaces



G: Garden terrace at the Emily Couric Clinical Cancer Center

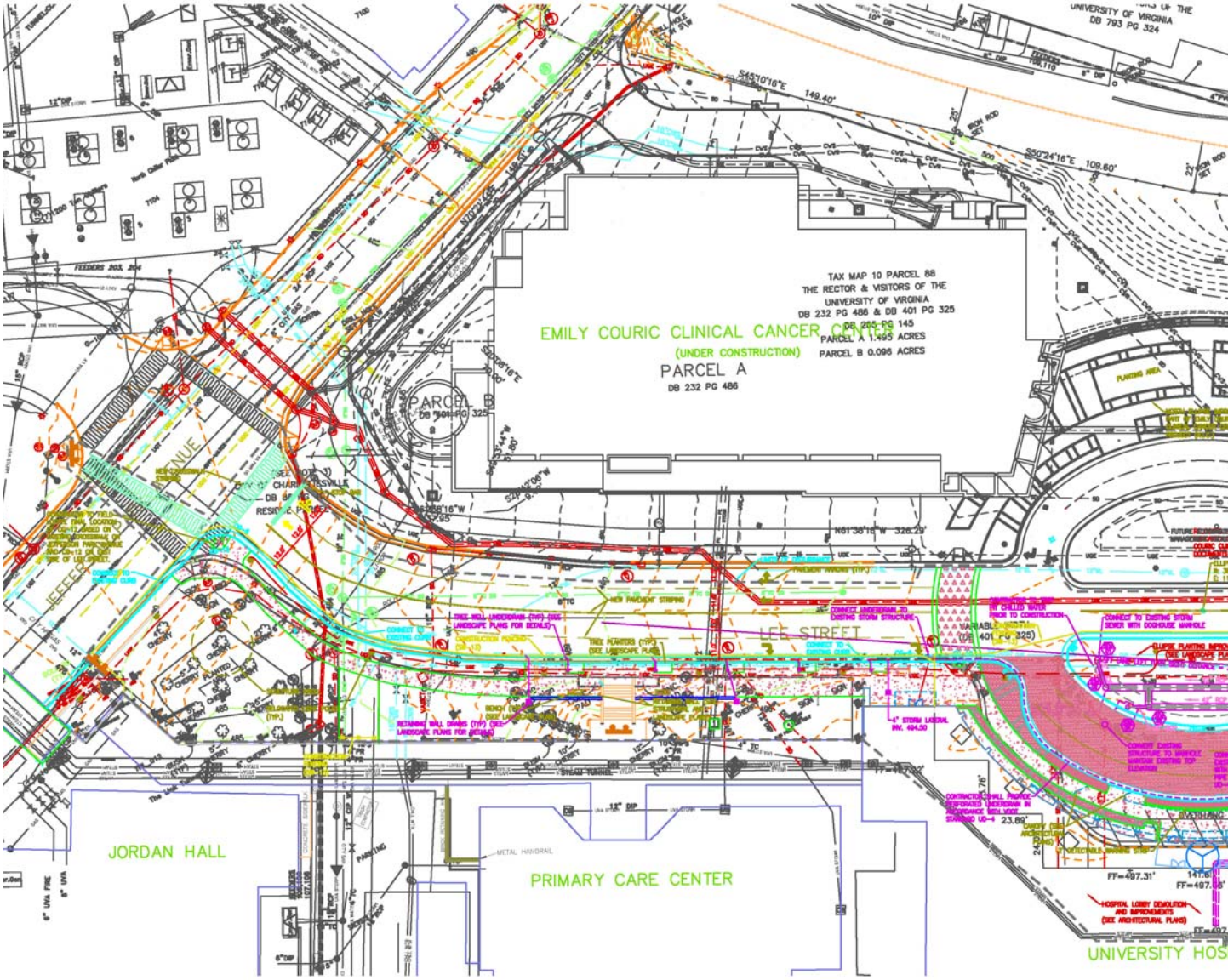
G5: Specify FSC certified woods and veneers.

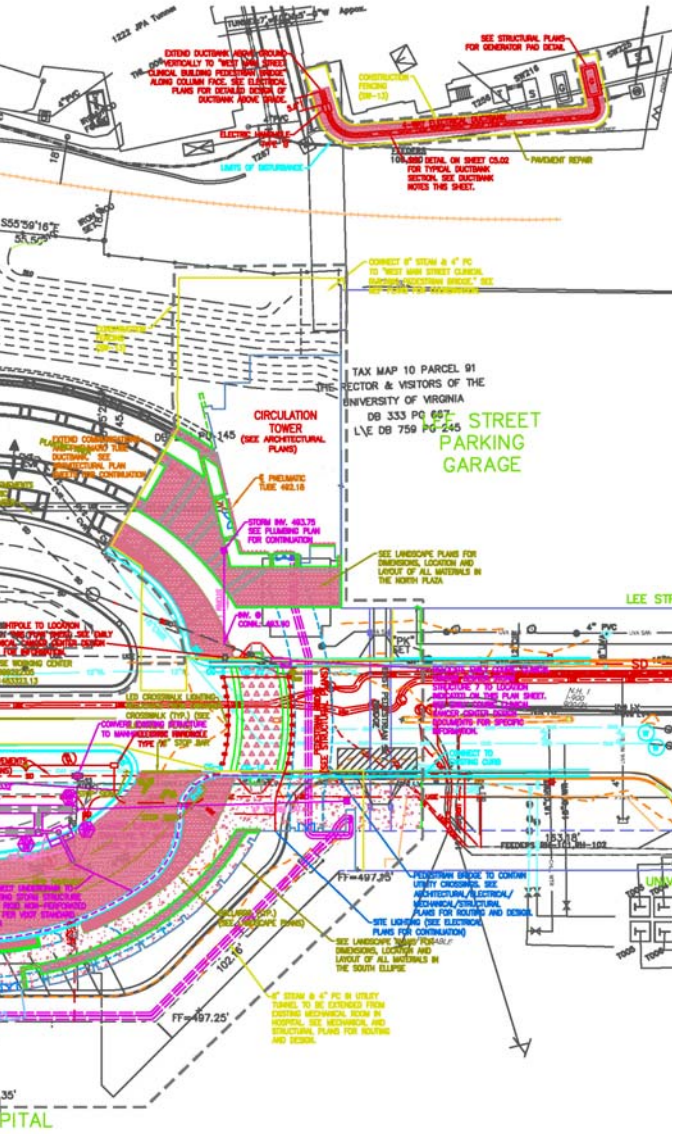
LEED EB and CI

H: Strongly encourage certifying buildings with LEED for Existing Buildings or LEED for Commercial Interiors.

H1: The LEED for Existing Buildings Rating System helps building owners and operators measure operations, improvements and maintenance on a consistent scale, with the goal of maximizing operational efficiency while minimizing environmental impacts.

H2: LEED for Commercial Interiors is the green benchmark for the tenant improvement market. It is the recognized system for certifying high-performance green interiors that are healthy, productive places to work; are less costly to operate and maintain; and have a reduced environmental footprint.


EMILY COURIC CLINICAL CANCER CENTER
(UNDER CONSTRUCTION)
PARCEL A
DB 232 PG 486
TAX MAP 10 PARCEL 88
THE RECTOR & VISITORS OF THE
UNIVERSITY OF VIRGINIA
DB 232 PG 486 & DB 401 PG 325
DB 265 PG 145
PARCEL A 1.495 ACRES
PARCEL B 0.096 ACRES
JORDAN HALL
PRIMARY CARE CENTER
LEE STREET
JEFFERSON AVENUE
UNIVERSITY OF VIRGINIA
DB 793 PG 324
UNIVERSITY HOS



Section 4 | Implementation

1 | Recommended Capital Plan and Green Phasing

2 | Infrastructure and Support

3 | Design Guide: Architectural Standards, Materials and Color Palette

4 | Design Guide: Landscape Standards and Materials

The following diagrams represent a recommended approach to phasing the development of the Health System Area Plan, responding to opportunities and the logical relocation of functions. The initial phases summarize work already in planning stages. Proposed development of the green space concepts is integrated incrementally in association with adjacent planned construction. This phasing is a coordinated approach to the redevelopment opportunities provided on page 32-33, Section 1.

1 Lee Street Development

- Develop the Cancer Center
- Develop the Hospital Bed Expansion
- Redevelop Lee Street and streetscape
- Complete the new elevated link connectors to the garages
- Decant spaces in the West Complex that are moving to the Cancer Center

2 Battle Building Development

- Repurpose vacated space in the West Complex
- Develop the Battle Building and related plaza
- Improve the JPA/West Main Street intersection to create a major entry to the Health System
- Decant the UVa Outpatient Surgery (UVaOS) Center facility and repurpose
- Relocate 1224 JPA occupants into the West Complex, demolish and redevelop site

3 Recreation-Wellness Development/Transition

- Develop the Recreation-Wellness Center
- Decant additional clinics from the Primary Care Center into the Battle Building
- Continue to repurpose the West Complex and redevelop the front plaza
- Improve the green space connector from Hospital Drive to JPA
- Develop connections to form a recreation greenbelt loop around the HS
- Realign the Roosevelt Brown Boulevard/Crispell Drive/Lee Street intersection to create the south major entrance into the HS area
- Develop the Health System Education Center

4 Primary Care Center Replacement Building

- Redevelop the PCC site and design/develop a replacement facility
- Decant affected functions to the West Complex, Fontaine or affiliated sites
- Develop the pedestrian connector from the PCC redevelopment site to MR Building 6 plaza
- Extend HS library functions with an addition on Lane Road

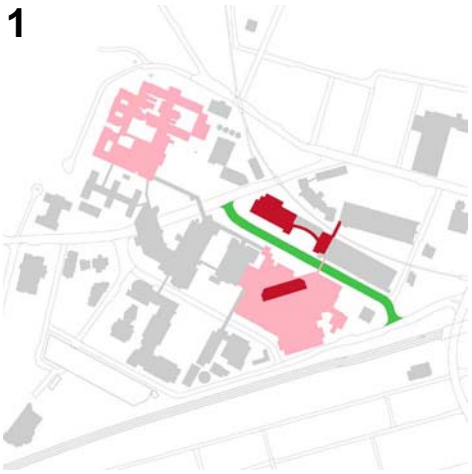
5 McKim Transition

- Demolish Cobb Hall's rear addition and restore the building
- Renew The Corner Building
- Decant McKim Hall functions
- Redevelop the McKim Hall site and green space connector
- Redevelop the 1222 JPA site

6 Brandon/VASC Redevelopment

- Redevelop the UVa Outpatient Surgery (UVaOS) site for research or a related complementary use
- Develop the green space connector from Brandon Avenue to the Jeanette Lancaster Mall
- Improve the Lane Road/JPA intersection to create a major entry into the Health System
- Extend Crispell Drive to the current UVaOS site
- Redevelop Jeanette Lancaster Way into the Jeanette Lancaster Mall

1



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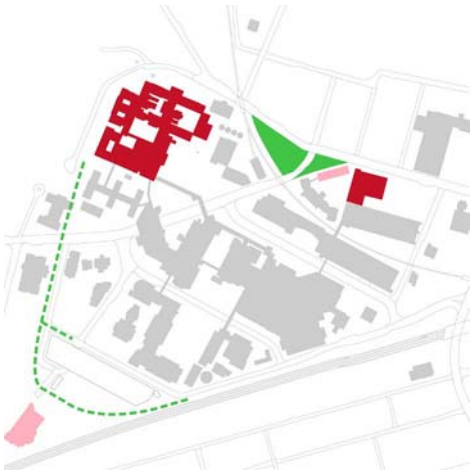

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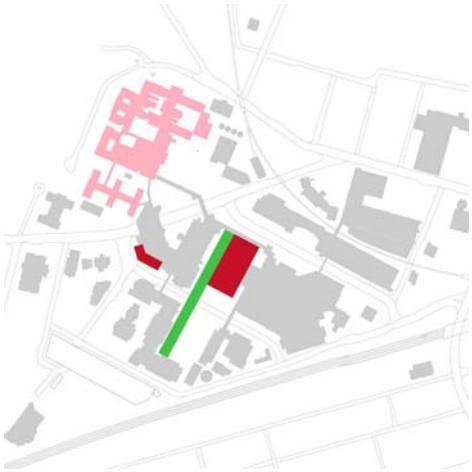

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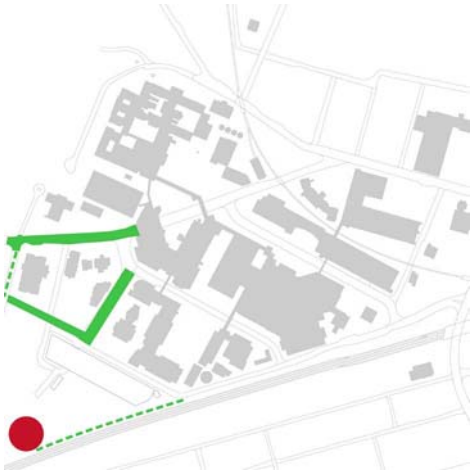


2 | Infrastructure and Support

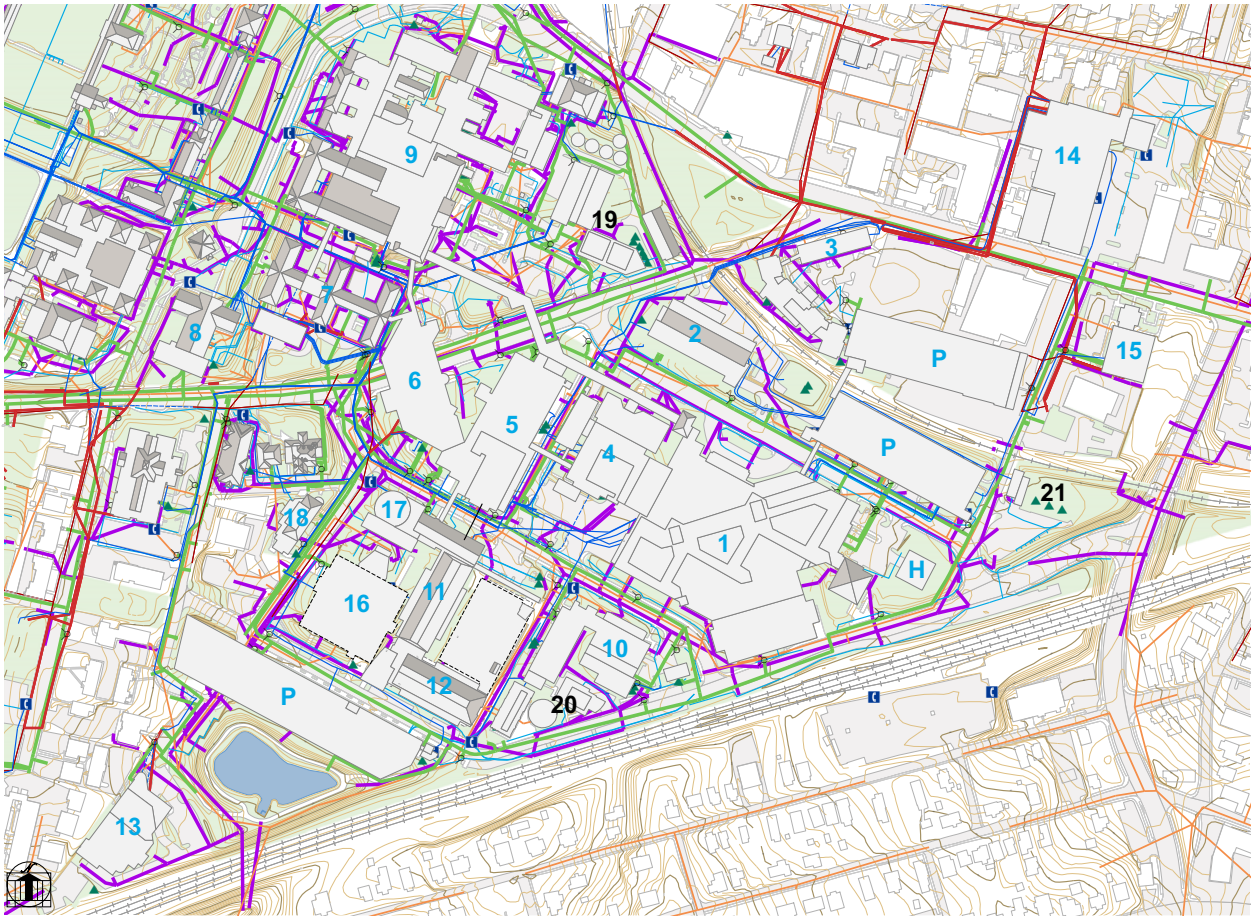
The University infrastructure systems provide energy, telecommunications, water and manage the flow of sanitary sewer/stormwater for the Health System. The districts' infrastructure systems - telecommunication, electrical, heating, cooling plants and utility corridors, as well as waste, recycling, stormwater management and parking - represent both the key to infill development in the Health System and its limit. Efficient, reliable and innovative management of these systems is crucial to the continued expansion and improvement of the Health System's academic, research and clinical facilities.

There is extensive, centralized infrastructure in the district for heating, cooling, power distribution and telecommunications. Heat and hot water are provided to all buildings by the central heating plant (19). Most of the buildings in the district are connected to the HS chilled water loop, which consists of the north plant (19) and the south plant (20). Power for the district is supplied by the Cavalier Substation (21), which is one of three substations on Grounds. All three substations are equipped with redundant service from Dominion Virginia Power, significantly increasing service reliability to University facilities. The Communications and Systems Division of the Information Technology and Computing Department (ITC) and Health System Communication Services are responsible for providing a broad range of modern computing and communications services to the Health System, ranging from the support of high performance research computing environments to the provision of cable television services and phone systems for hospital staff and patient rooms. To support the exchange of information, Communications and Systems maintains a network of cable (copper and optic fiber), telephone switches, high-speed routers and other network equipment.

All HS water, stormwater and sanitary sewer systems are maintained by the University. In general, stormwater runoff is conveyed to the stormwater management pond located behind the South parking garage. The sanitary system conveys to the City of Charlottesville sanitary system, which is maintained and operated by the Rivanna Water and Sewer Authority.

Natural systems, specifically streams and related hydrological networks within the Grounds, act as green infrastructure, helping to perform critical stormwater management functions. Based on a "Water Balance" model, a strategic plan has been created for the University to help minimize net stormwater impacts and demonstrate the value of alternative management techniques involving natural system restoration for developed areas, like the Health System, that sustain large amounts of stormwater run-off.

The University Department of Parking and Transportation provides parking and transit facilities for patients, visitors, staff and students throughout the HS. Charlottesville Transit Service also provides service through the district and the HS provides a shuttle for patients between the parking garages and the clinical facilities. The transit services are prioritized to serve Lee Street, West Main Street and Jefferson Park Avenue.



Health System Utility Map

Health System Building Key

1 University Hospital
2 Emily Couric Clinical Cancer Center
3 Blake Center
4 Primary Care Center
5 Jordan Hall
6 Claude Moore Health Sciences Library
7 McKim Hall
8 Cobb Hall
9 West Complex
10 MR-4 (Medical Research Lab)
11 MR-5 (Biomedical Engineering and Medical Science Building)
12 MR-6 (Carter-Harrison Research Building)
13 Virginia Ambulatory Surgery Center (VASC)
14 Stacey Hall
15 UVA Clinical Labratory
16 McLeod Hall
17 Claude Moore Medical Education Building
18 Claude Moore Nursing Education Building
19 Central Heating Plant/North Chilled Water Plant
20 South Chilled Water Plant
21 Cavalier Substation
P Parking Garage

Legend

- Hydrant
- Electric Transformer
- Emergency Telephone
- Cable TV Overhead
- Telephone Overhead
- Cable TV Underground
- Telephone Underground
- Low Voltage Electric Line
- Domestic Water Line
- Sanitary Sewer Line
- Stormwater Lines
- Buildings
- Railways
- Index Contour (10' interval)
- Intermediate Contour (2' interval)
- Sidewalk/Walking Path
- Road/Parking
- UVA Property

The Health System should implement a consistent set of design guidelines related to form and massing, materials, colors and details/standards for buildings and landscape in the public and semi-public realm; reinforcing a strong sense of order, an aura of excellence in management and concern for the safety and well being of the patients, visitors and staff.

Aerial view of the Lawn

Lee Street existing conditions

Lee Street planned conditions 2012

Architectural Character

A: Form and Massing:
Thomas Jefferson designed the University of Virginia's Academical Village around an integrated and connected series of simple geometric forms ranging in scale from the pavilions to the hotels to the student rooms along the Lawn and in the Ranges. A strong harmony is achieved through a number of devices ranging from studied proportions to classical composition (base/middle/top) to a shared material and color palette. Yet, one of the most pronounced and successful features is the device of layering, in which solids and voids, light and shadow, color and texture are manipulated skillfully to aid the observer in sensing the humane character of the architecture and its relationship to the site and landscape.

While the contemporary 'Health System' buildings, mandated by the complex programs of patient care and research, are much larger in size in bulk and height (than even the Rotunda), their designs can be tempered and informed by Jefferson's skill and its outcome in the nearly two-hundred year old Academical Village. Layering, connection, solid to void…. all must be carefully studied and related delicately to the overall composition and its functionality.

Architectural details that lend a sense of scale become increasingly important, as they add to the qualities of light and shadow on a structure's façade, as well as contribute to the weathering capacity of the overall building envelope. Well-designed copings, window heads and sills and roofline cornices are essential to thoughtful and aesthetically-pleasing architecture. Though no specific "standards" apply in this instance, traditional, time-proven examples exist in many places at UVa and form the background for both a successful and contextual outcome.


Pavilion IX on the Lawn


Rendering of the Emily Couric Cancer Center

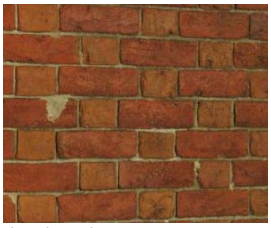

An Academical Village colonnade

Exterior Materials: Architectural

A: Brick

The University of Virginia has been consistently identified over its history with locally-produced molded brick in a variegated blend of natural colors ranging from russet to dark red and charcoal flashed terra cotta. The mortar from local gold sand has given the walls its warm tan color and subtle details when struck with a 'grapevine' joint. All major wall areas on UVa buildings have used a Flemish bond pattern accented at times with soldier courses, jack arches or corbelling. Common bond is only used in less prominent locations or where a modest juxtaposition with the Flemish bond serves to enhance the architectural character of the wall, such as used at the base of a three or more story building.

Use of brick on the new Medical Education and Nursing School buildings



Flemish Bond

Common Bond

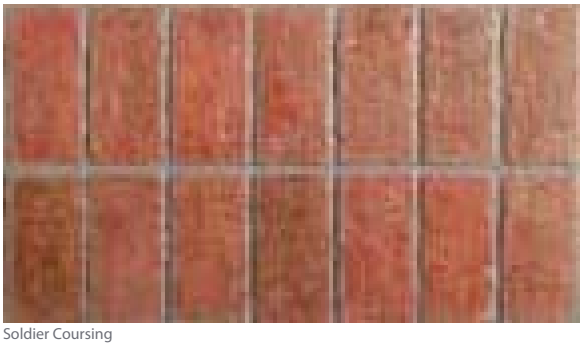
B: Roofing Treatments

By tradition and expedience, roofing has been limited to metal cladding within the Health System, as a number of the structures have copper standing seam roofs and/or appurtenances. Copper gutters and downpipes (as required) are likewise viewed in keeping with that consistency in materials. By necessity of their large HVAC requirements, many Health System structures warrant accessible flat roofs and large mechanical penthouses. Older structures have done little to mitigate this appearance, but newer ones integrate these necessities into the overall scale and massing of the building. Utilizing the roof form on the penthouse to actually catch and store rainwater for subsequent landscape irrigation use has been pioneered at the Couric Cancer Center. Accessible flat roofs must be considered for green roof treatments and/or stormwater abatement potential, along with having a high degree of heat reflectivity.

Corbelling

C: Windows, Curtain Wall and Metal Panels

These exterior materials are being consistently specified to create a more unified and contemporary appearance. An important consideration in their use is to emphasize sustainability in terms of their responsiveness to solar orientation; to integrate interior functions to the exterior environment in order to maximize the energy of the 24/7 activities inherent to the Health System; and to dramatize the relationship of the rigor of industrial components when organized with degrees of Palladian logic in terms of symmetry and balance. Employ consistent use of clear anodized aluminum and/or stainless steel; clear glazing with (and without) white fritting; channel glass; and white porcelain-derived metal panels. Additionally, regionally-sourced sandstone, both fieldstone and honed material, has been an accent material that references the regional traditions, as well as the University's agrarian origins.



Soldier Coursing

D: Color Palette

While the architectural materials are, by their nature, neutral in their coloring from soft terra cottas (brick) to matte silvers (curtain wall and sunscreens), this is intentional to create a stable backdrop for the selected introduction of strong "color prints" related to landscape and/or outdoor sculpture. Also it is intended that some strong hues be utilized on major interior walls that will read through the curtain wall, especially at night. This emphasizes again the 24/7 nature of the Health System and gives the passerby a sense of the vitality within the buildings themselves. It is further to emphasize the strength of "life" in an area of caring for the sick and researching the causes of disease. The overall effect needs to be both thoughtfully managed and carefully maintained.

The Couric Cancer Center and Lee Street

Green roof on the Couric Cancer Center

The Hospital Bed Expansion

A detail of the Medical Education building

Relationships to Landscape

The Academical Village is the paradigm of a well-planned integration of siting, landscape and architecture. It serves as a model for the Health System Area Plan despite its differences in age, function and size because it so successfully balances the integration of indoor and outdoor space for a wide variety of users. For the Health System to implement the "lessons of the Lawn" in this regard, each facility must be seen by its designers as an integral part of a much larger "whole." This has not been the case in the recent past as nearly all buildings ignored their landscape and setting, resulting in no real sense of place. This has been dramatically changed with the design of the Couric Clinical Cancer Center, the Hospital Bed Expansion and the new main lobby and the Moore Nursing and Medical Education projects. These have spawned the Lee Street improvements and the Jeanette Lancaster Mall concept. Future projects such as the Battle Building will likewise contribute to their landscape surroundings in the recognition that the Health System must be a healthy environment both indoors and outdoors.

Public Spaces

Exterior public spaces are an integral component of the Health System's buildings and landscape. Such spaces should be as carefully considered and designed as the buildings that sit within them to provide usable and valuable outdoor places. Pedestrian connections between destinations are critical to integrate into Health System area planning. Such connections should be designed to be enjoyable and sufficient to facilitate movement and alleviate vehicular congestion. Likewise, entrances to the Health System from the City should be made visible, easily navigable and inviting. Outdoor plazas are important landscape features that provide exterior social options for staff, faculty and visitors and can also support patient drop-off and pick-up. Active or passive recreation can be integrated into the green space of the Health System to provide an option for physical activity for users.

A: Green Gateways

Entrances into the Health System from City streets will be defined with green canopy and ground plane to signify a shift from strictly urban to building complexes set within a framework of green space and pedestrian ways. Such strategies recall the agrarian past of the University of Virginia and emphasize the importance of landscape, exterior spaces and pedestrian movement in relation to the massive buildings. Precedents include Clark Park, the eastern end of Brooks Hall Lawn and the Senff gates.

- *Lighting:*
  King Edgewater
- *Paving:*
  largely tinted concrete; brick banding as appropriate
- *Landscape Amenities:*
  Hyde Park teak bench
- *Plantings:*
  will consist of high canopied trees, lawn and low spreading shrubs or groundcover suited to urban sites

B: Streetscape

Streetscapes within the Health System will be defined by tree lawns, street trees, lighting and predominantly concrete sidewalks. Tree lawns shall be of sufficient depth to support shade trees and sidewalks of sufficient depth to accommodate anticipated pedestrian traffic. Tree pits are to be detailed to maximum tree growth and health, including proper structural soil mix, drainage, irrigation/moisture supply, size of rooting zone. Tree grates are discouraged; where a walking surface is required over a tree pit, a flexible paver system such as granite setts are acceptable.

- *Lighting:*
  King Edgewater
- *Paving:*
  largely tinted concrete; brick banding and brick paving as appropriate
- *Landscape Amenities:*
  Hyde Park teak bench
  Victor Stanley Ironsites waste receptacles and Windsor Barrelworks rectangular recycling bins
  Bike-arch bike hoops
- *Plantings:*
  will consist largely of high-canopied trees of proven durability, suited to urban sites
  any ground cover will be low-maintenance and durable

C: Pedestrian Corridors

Pedestrian corridors provide safe and enjoyable linear connections between destinations with integrated seating. Walkways may be a combination of materials and patterns to define the corridor design. Seating areas will be integrated into pedestrian corridors so that such spaces accommodate movement as well as rest and socialization. Safe and efficient lighting will be provided. Plantings will provide shade and interest while emphasizing the corridor's function of linear movement.

- *Lighting:*
  King Edgewater
- *Paving:*
  tinted concrete or asphalt pavers; brick or stone banding or accents as appropriate
- *Landscape Amenities:*
  Hyde Park teak bench
  Victor Stanley Ironsites waste receptacles and Windsor Barrelworks rectangular recycling bins
  Bike-arch bike hoops
- *Plantings:*
  will consist largely of shade trees; ornamental trees and low-growing, low maintenance shrubs and groundcover may be incorporated as appropriate, especially at seating areas.

D: Plaza

Plazas provide important transition spaces between buildings and streets, supporting gathering and organizing pedestrian movement. Plazas will contain seating and planting and may also provide drop-off/pick-up. Paving patterns will reinforce gathering areas and circulation and may be scored concrete or asphalt pavers with brick or stone or some combination that is appropriate to the adjacent architecture. Lighting will either be a contemporary or traditional standard, depending on the adjacent architecture.

- *Lighting:*
  King Edgewater (traditional); Bega pole (contemporary)
- *Paving:*
  tinted concrete or asphalt pavers; brick or stone banding or accents as appropriate
- *Landscape Amenities:*
  traditional or contemporary standard
- *Plantings:*
  will consist largely of shade trees; ornamental trees and low-growing, low maintenance shrubs and groundcover may be incorporated as appropriate, especially at seating areas

E: Active and Passive Recreation:
Where demand exists, accommodation for recreation and exercise may be incorporated into the landscape. Currently, no active recreation, either interior or exterior, is provided in the Health System district. Popular sports that utilize small courts are the most easily accommodated here, such as basketball, volleyball and tennis. Trails for walking, running and biking should be provided where possible.

Refuge and Retreat

All users of the Health System, including those that are employed and those that visit, benefit from intimate outdoor spaces. Small gardens and courtyards, integrated with building design, provide relief from stressful and large scale HS buildings. Seating and more ornamental plantings are important features in such spaces in support of private conversation, contemplation, reflection and calm.

A: Gardens and Courtyards

Gardens, pocket parks and courtyards will be incorporated into building site designs to provide much-needed intimate exterior places for the benefit of both visitors and staff. Ornamental paving of brick or stone is appropriate for such small, contemplative places. Honeystone paving can be used if there is no issue with this material tracking into a building. Lighting will be of appropriate scale and will provide sufficient and safe illumination. Seating will be an important component of such spaces, whether utilizing standard benches or seatwalls designed for the area.

- *Lighting:*
  ELA globe fixture (traditional) or an approved contemporary fixture
- *Paving:*
  Brick or stone or combination; honeystone for secondary paths
- *Landscape Amenities:*
  Hyde Park teak bench
  Victor Stanley Ironsites waste receptacles
- *Plantings:*
  may be of a more ornamental nature, including perennials and annuals along with shade trees, understory trees and shrubs

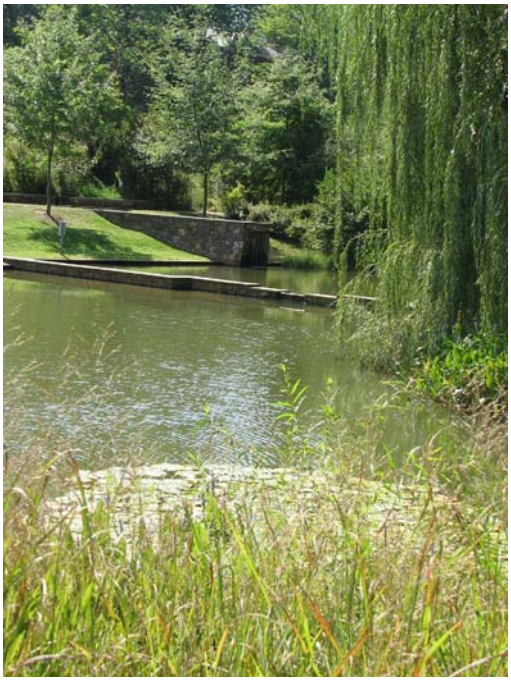
B: Roof Gardens

Ornamental vegetated roofs provide additional garden space elevated from ground level. Such spaces will be designed with the same care and professionalism as any at-grade garden or courtyard. Seating areas are important elements of a roof garden for gathering, contemplation or study. Lighting must provide sufficient and safe illumination. Special care must be given to plants that are suited to the growth media that is used in roof top gardens as well as the specialized and often harsh microclimates. Irrigation for intensive vegetated roofs is required and it is preferable to use non-potable water sources. Such systems require planning and commitment in the early stages of building design.

- *Lighting:*
  building-mounted, in-wall or pole fixtures of appropriate scale and design
- *Paving:*
  typically raised pedestal system of concrete pavers
- *Landscape Amenities:*
  traditional or contemporary standard
- *Plantings:*
  will provide shade and ornament but must be suited to roof garden cultural conditions

Naturalistic Landscapes

While the Health System district is generally thought of as an urban environment, opportunities exist for naturalistic landscapes that have both environmental and public benefit. Stormwater facilities have the opportunity for surface water features that can provide diverse habitat and human enjoyment. Likewise, vegetated roofs can provide habitat for birds and insects which can then be enjoyed by human visitors.



A: Stream/Wetland

Stream corridors and wetlands will be incorporated or enhanced where possible for both the benefit of stormwater management and daytime public enjoyment/use. Plantings should be largely low-maintenance natives that benefit wildlife and provide ornamental interest for visitors. Although designed as a naturalistic landscape, safety and security consideration needs to be given for daytime visitors to such spaces; dead ends and hiding places are to be avoided.

- *Lighting :*
  if required, Bega pole standard for natural areas
- *Paving :*
  asphalt, #10 stone or mulch
- *Landscape Amenities:*
  Hyde Park teak bench
  Victor Stanley Ironsites waste receptacles
- *Plantings:*
  will consist largely of native species that are low-maintenance and durable

B: Extensive Vegetated Roofs

Vegetated roofs that are inaccessible and non-viewable to the public can provide wildlife habitat in an otherwise heavily developed district. Such roofs are not ornamental but can provide functional benefits such as stormwater management and reduced cooling load. It is critical that such roofs have appropriate maintenance access. Extensive vegetated roofs are shallow, 4", and planted largely with a variety of dependable sedum species.

APPENDIX: MATERIALS PALETTE

I Lighting

Traditional street/path light-standard for University streets and pathways.

King Edgewater K-56, metal halide or LED on 12' cast aluminum or cast iron octagonal pole.

Rookwood Shutter green factory finish.

Traditional path/garden light-appropriate for smaller scale spaces and paths.

ELA UVa cast aluminum pole and globe.

Rookwood Shutter green factory finish.

Pole light for use in contemporary plazas associated with non-traditional buildings.

Bega metal halide pole top with indirect cut-off optics.

Standard silver finish.

Contemporary bollard light for non-traditional areas where pole light standards cannot be accommodated; limited allowable use.

Bega square metal halide or LED with shielded light source.

Dark bronze factory finish.

APPENDIX: MATERIALS PALETTE

I Lighting

Contemporary pole fixture for parking areas.

Lithonia KAD arm-mounted square metal halide or LED full cut-off on 20' square straight steel pole.

Bronze or Rookwood Shutter green factory finish.

Contemporary pole light for natural areas.

Bega square metal halide with shielded light source, full cut-off.

Dark bronze factory finish.

II Paving

Poured concrete for general sidewalk paving, with Canvas colorant by Soloman

Brick pavers for formal/traditional/historical areas, 4x8 modular Pinehall, flash range

Cut bluestone pavers for accent or traditional paving associated with building courtyards or plazas, thermal or sandblast finish

Concrete pavers for roof and deck plazas, Hanover Prest roof paver in varying colors as appropriate

APPENDIX: MATERIALS PALETTE

III Benches

Traditional teak bench standard for University Grounds, Hyde Park by Kingsley-Bate, made from sustainably harvested teak.

Bench standard for use in contemporary plazas associated with non-traditional buildings, Neoliviano by Landscape Forms, made from jarrah wood.

Backless bench standard for use in contemporary plazas associated with non-traditional buildings, Palisade by Landscape Forms, made from FSC certified redwood

IV Bike Racks

Traditional bike rack standard for University Grounds.

2" diameter steel pipe Bike Arch, surface mounted, black thermoplastic coat.

Bike rack standard for contemporary landscapes.

Dero heavy duty hoop, stainless or powder coat silver finish.

APPENDIX: MATERIALS PALETTE

V Bollards

Traditional standard bollard for University Grounds.

Spring City Newburyport.

Cast aluminum, Rookwood Shutter green powder coat finish.

Contemporary bollard for plazas associated with non-traditional buildings.

Bega square metal halide with shielded light source, full cut-off.

VI Waste Receptacles

Traditional standard waste receptacle for University Grounds.

Steel Victor Stanley Ironsites.

Steel, Rookwood shutter green powder coat finish.

Waste receptacle standard for contemporary plazas associated with non-traditional buildings.

Landscape Forms Petoskey.

Silver finish.

Traditional standard recycling receptacle for University Grounds.

Windsor Barrelworks Rectangles.

Cast aluminum lid with recycled plastic surrounds in dark green.

Recycling receptacle standard for contemporary plazas associated with non-traditional buildings.

Landscape Forms Petoskey.

Silver finish.

Health System Area Plan

University of Virginia