







UNM HEALTH SCIENCES CENTER MASTER FACILITIES PLAN



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EXECUTIVE SUMMARY

BACKGROUND

The University of New Mexico Health Sciences Center (UNM HSC) is devoted to improving the lives of New Mexicans by educating future health care providers, discovering new treatments through research and providing high-quality care. To accomplish this, the UNM HSC needs a top workforce, well-developed programs and modern facilities.

The 2015 UNM HSC Master Facilities Plan updates the 2010 UNM HSC Master Plan and includes many changes that reflect the growth experienced by the entire U.S. health care sector over the past five years. This update is entirely consistent with the "intent statement" from Chapter 3 of the 2010 plan: "To create a long-term facilities vision and development strategy to provide the best patient care experience for the people of New Mexico."

This Master Plan update does not change the conceptual framework of buildings, utilities and infrastructure for the UNM HSC Core Campus. As such, the district plans for education, research and patient care that were extensively reviewed in public town hall meetings remain the same.

Only two projects affect the UNM HSC Core Campus: the location of UNM HSC's highest-priority project, the Adult Acute Care and Behavioral Health replacement hospital on land west of University Boulevard, which will relieve some congestion in the hospital district, and the Brain and Behavioral Health Institute addition to Pete and Nancy Domenici Hall.

This update is intended to guide development and provide high-level recommendations for campus growth over the next decade — and beyond. It offers a framework for creating a coherent, attractive and functional setting for teaching, research and patient care, enabling UNM HSC to continue meeting its obligations to the state.

UNM HSC is an integral part of the University of New Mexico, the state's flagship institution of higher education. The university architect provided valuable input to this plan, which is aligned with both the overall university Master Facility Plan and UNM 2020, the strategic innovation led by President Robert G. Frank. The university's strategic goal for UNM HSC is for it to become a national model for public health and care for diverse populations, and be regarded as the state's premier health care choice.

UNM HSC fulfills a unique role as the state's only academic health center, an accredited, degree-granting institution of higher education that offers training in all health professions, translates research and discoveries into clinical practice and

>> UNM HSC is a major economic driver: it contributes nearly \$1.6 billion annually to New Mexico's economy, generating some 10.000 iobs.

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delivers superb clinical care accessible to all state residents. Other entities provide an array of medical services, but only UNM HSC delivers complex care in a teaching hospital while maintaining a safety net for New Mexicans of every income level.

UNM HSC is also a major economic driver: UNM's Bureau of Business & Economic Research estimates that UNM HSC accounts for about 19,500 jobs in the state. The 2015 Master Facilities Plan provides crucial guidance that will help shape facility management, construction and investment to maintain these critical missions.

These factors are all reflected in UNM HSC's highest-priority project for the next 10 years: the design, funding and construction of a new 360-bed replacement for the adult acute care beds in the main hospital, with an additional 48 beds to replace the ones housed in the adult psychiatric hospital.

This project is necessary to address the chronic overcrowding and substandard infrastructure that make it increasingly difficult to provide state-of-the-art patient care. This plan presents in detail the clinical conditions and background assumptions that support this recommendation.

UNM HSC's facilities are aging. Nearly two-thirds of the buildings on the Core Campus were constructed more than 50 years ago, and many no longer conform to academic and health care standards. At UNM Hospital, medical teams perform a daily "dance" as they maneuver patients within a crowded facility. These space constraints, exacerbated by increasing demand, have made the construction of new facilities and the renovation or repurposing of older facilities an urgent priority.

Another factor to be considered in planning for new facilities and infrastructure is the need to remain competitive with other universities and research institutions. Students and faculty increasingly base their decisions on where to study and work on both the location and quality of an institution and its facilities. UNM HSC must upgrade its campus and provide an attractive educational, research and clinical care environment if it is to maintain its nationally competitive rankings for the School of Medicine and related programs.



Education is central to UNM HSC's mission, which is focused on meeting New Mexico's health care workforce shortage as more patients gain access to care. Each clinical setting will need to provide sufficient space to accommodate students who need clinical training to fulfill their degree requirements. This space must also support interprofessional teambased care, reflecting an integrated, multi-disciplinary workforce that includes physicians, nurses, nurse practitioners and physician assistants.

As UNM HSC builds the state's primary care workforce, it is preparing to make full use of the UNM West Campus in conjunction with expanded clinical activities at UNM Sandoval Regional Medical Center (UNM SRMC). UNM HSC is working in partnership with the City of Rio Rancho and Central New Mexico Community College to create new educational space to accommodate training for community behavioral health providers, as well as the College of Population Health.



UNM HSC expects to grow its programs in prevention, wellness, evidence-based care and population-based care, as well as interprofessional education. These will create increased demand for teaching facilities over the next decade, along with a need to renovate existing facilities.



UNM HSC's research mission directly improves health care, setting it apart from other health providers and universities in New Mexico. It has a long history of innovation and scientific breakthroughs that have spurred economic growth and social improvement throughout the state. The research enterprise has seen dramatic growth in sponsored research, from \$45 million in FY 1998 to \$161 million in FY 2015.

While many of the research facilities are in need of replacement or renovation, UNM HSC anticipates research will grow by 22 percent over the next decade. Major growth will occur in the Brain and Behavioral Health Institute, where program enhancements will require the renovation of older laboratory space and the expansion of existing facilities.

The animal research, clinical trial and cancer research spaces will also need to be expanded over the next decade. A new research building on the UNM M Parking Lot will be necessary to accommodate future growth.



The UNM Health System operates hospitals and clinics that provide specialized care, help educate students and host clinical trials that bring patients the latest treatments. The Health System provides care to the state's most complex and chronically ill patients — more than 200,000 different patients and nearly 900,000 clinical visits annually. It also operates both adult and child acute inpatient psychiatric units.

It is estimated that the clinical enterprise will grow by roughly 3 percent annually, creating increased demand for clinical space. As UNM evolves to meet emerging value-based health care trends, it will spur the need for more modern spaces to enable the delivery of superlative care.

Replacing outdated facilities will improve effectiveness, efficiency and access. New public-private partnerships in post-acute care and other areas will help UNM HSC make more efficient use of its available facilities.



Administration primarily provides for the needs of our 24/7 learners and workforce, while supporting patients and families with amenities and mixed-use businesses around our campuses in Albuquerque and Rio Rancho. The UNM HSC has increasingly consolidated its administrative functions to improve operational efficiencies.

The buildings on the congested UNM HSC Core Campus were constructed piecemeal over the course of 60 years. The campus layout is difficult to access, confusing to navigate and does not allow for cost-effective facility expansions. In addition, previous

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facility expansions have supplanted surface parking, creating a dire need for parking structures.

Visually unified outdoor spaces, signage that helps visitors easily find their destinations and more exercise and dining options within walking distance will alleviate these problems.

SIX TOP PRIORITIES

UNM HSC has identified its top six priorities from a long list of projects to address its needs. These are:

- 1. Building the Adult Acute Care and Behavioral Health Hospital
- 2. A new health care education building at the UNM West Campus in Rio Rancho, N.M.
- 3. Building five to six new Albuguerque-area community clinics through 2025.
- 4. Forming public-private partnerships to build new post-acute care facilities.
- **5.** Expanding Domenici Hall for Brain and Behavioral Health Institute laboratories.
- Backfill and Repurposing examples include old UNM hospital areas for education/research/offices, HSLIC, Med II

REPLACEMENT HOSPITAL

A replacement adult acute care and behavioral health hospital has become inevitable — and is UNM HSC's top priority. UNM physicians and nurses simply cannot provide patients with state-of-the-art 21st century care in crowded, substandard mid-20th century buildings.

Portions of the existing hospital were built in the early 1950s: in the oldest sections proportions and floor-to-floor heights cannot accommodate modern health care equipment and practices. Operating rooms and most patient rooms are too small. Many patient rooms are still semi-private, which no longer meet hospital design standards and increase the risk of hospital-acquired infections.

These structures are not suitable for renovation as a licensed acute care inpatient facility.

Based on an extensive assessment by the management consulting firm of Kurt Salmon, the Master Facilities Plan recommends building a new 360-bed adult acute care hospital west of University Boulevard and north of Lomas Boulevard, with an additional 48 beds allocated for patients with psychiatric and behavioral health needs.

The bigger, better-designed replacement hospital is one component of a four-fold plan to improve overall efficiency. Additional measures will include increasing the number of discharges per bed by reducing length of stay, increasing the proportion of mediumand high-acuity cases — in part by partnering with the Lovelace and Presbyterian health systems — and entering into public-private partnerships to build new facilities to provide more post-acute care capacity. These added efficiencies would enable UNM HSC to continue to meet the highest standards of education, research and patient care.

The replacement facility, along an associated medical office building with between 200,000 and 300,000 square feet, is estimated to cost about \$600 million." UNM HSC proposes to finance the new hospital with a combination of internal funds and FHA bonds.



The annual debt service on the bond portion of funding is estimated \$24 million, or 2 percent of UNM Hospital's total net revenue. The site identified by the Master Facilities Plan provides sufficient acreage to accommodate the new hospital and has the required utility infrastructure in place.

CONCLUSION

The 2015 update to the Master Facilities Plan finds that many UNM HSC facilities — especially the main adult acute care and adult psychiatric hospitals — are old, outmoded and too small to accommodate the many critical services they offer. Considering the important role it plays in the state, it is crucial that UNM HSC have the tools it needs to perform and operate at the highest level.

This plan identifies six top-priority projects, the highest of which is the replacement Adult Acute Care and Behavioral Health Hospital. Moving ahead with this project will ensure that UNM HSC will be able to meet its longstanding responsibility to provide education, conduct research and improve the health and well-being of all New Mexicans.

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FIGURE.1 PROPOSED IMPROVEMENTS ON THE UNM HSC CORE CAMPUS 2015-2025

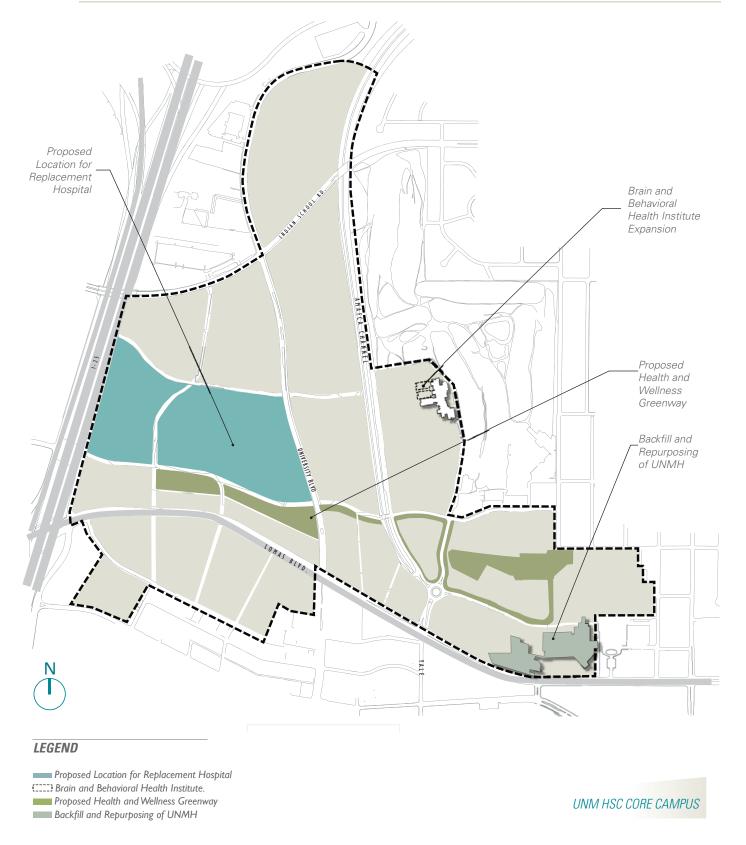




FIGURE.2 PROPOSED IMPROVEMENTS ON THE UNM HSC WEST CAMPUS/UNM SRMC 2015-2025



LEGEND

Existing UNM SRMC Facilities

Proposed UNM Education and UNM SRMC Facilities

UNM HSC West Campus

UNM Lands Managed Under Joint Control of UNM and UNM HSC

UNM HSC WEST CAMPUS



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ABBREVIATIONS

ABQ Albuquerque	Assessment of Healthcare
ACA Affordable Care Act	Providers and Systems
ACC Ambulatory Care Center HSLIC	Health Sciences Library &
ADA Americans with	Informatics Center
Disabilities Act HSSB	Health Sciences &
AHC Academic Health Centers	Services Building
ALOS Average Length of Stay MA	Master of Arts
AMAFCA Albuquerque Metropolitan MRCO	DG Mid-Region Council
Arroyo Flood	of Governments
Control Authority MRF	Multidisciplinary Research
ARF Animal Resource Facility	Facility
BA Bachelor of Arts NRPH	,
BBER Bureau of Business and NCI	National Cancer Institute
Economic Research NIH	National Institutes of
BBHI Brain and Behavioral	Health
Health Institute NMDO	
BBRP Barbara and Bill	Health
Richardson Pavilion NSF	Net Square Feet
BRF Biomedical Research OR	Operating Rooms
Facility PAT	Parking and Transportation
BRT Bus-Rapid Transit	Services
BSL Biosafety Levels RIB	Research Incubator
CNM Central New Mexico	Building
College SF	Square Feet
CRF Cancer Research Facility SOM	School of Medicine
CTRC Cancer Research & UNM	HSC University of New Mexico
Treatment Center	Health Sciences Center
CTSC Clinical and Translational UNM	SRMC UNM Sandoval Regional
Science Center	Medical Center
DDS Doctor of Dental Surgery UNM	HS University of New Mexico
ER Emergency Room	Health System
FAR Floor Area Ratio UNM	MG University of New Mexico
FGI Faculty Guideline	Medical Group
GRT Gross Receipts Tax UNM	,
GSF Gross Square Feet	Hospital
HCAHPS Hospital Consumer	







CHAPTER 1

1.1 INTRODUCTION

The University of New Mexico Health Sciences Center (UNM HSC) is an integral part of the University of New Mexico, the state's flagship institution of higher education. UNM HSC provides an impressive array of health education, research and clinical services that have benefited the state's residents in multiple ways through the years.

The 2015 update to the 2010 UNM HSC Master Facilities Plan describes the basis for this and other new construction and renovation projects to be carried out over the next 10 years. This plan is aligned with both the overall university Master Facility Plan and UNM 2020, the strategic innovation led by President Robert G. Frank. The university's strategic goal for UNM HSC is for it to become a national model for public health and care for diverse populations, and be regarded as the state's premier health care choice.

This plan presents six major construction priorities. UNM HSC has identified the construction of a new Adult Acute Care and Behavioral Health replacement hospital as its highest priority so that it can continue providing superlative service to New Mexicans.

This Master Plan update does not change the conceptual framework of buildings, utilities and infrastructure for the UNM HSC Core Campus. As such, the district plans for education, research and patient care that were extensively reviewed in public town hall meetings during the 2010 planning process remain the same.

UNM HSC is New Mexico's only academic health center — one of fewer than 100 nationwide. It offers nationally recognized educational programs in medicine, nursing, pharmacy and many other health-related careers, training more than 2,000 health care providers each year. It conducts cutting-edge biomedical research, receiving more than \$161 million in annual external funding. And it provides state-of-the-art clinical care to more than 200,000 New Mexicans each year.

UNM HSC was created in 1994 with the consolidation of all of UNM's health-related activities into a single administrative unit. Today, with nearly 10,000 employees and annual expenditures of nearly \$1.6 billion, it is a major contributor to New Mexico's economy as well as the state's leading health care provider. Biotechnology startups spun off from basic and translational research add to its cumulative economic impact.

The organizational structure is highly integrated, with close alignment among the educational, research and clinical missions.

>> UNM HSC is New Mexico's only academic health center. An academic medical center is defined as having a school of medicine and an affiliated flagship teaching hospital, along with at least one other professional school, such as nursing or pharmacy. «

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Figure.3 UNM HSC Organizational Chart



UNM HSC is organized into two major units: the Health Sciences Center Academic Unit and the UNM Health System. As illustrated in Figure 4, the HSC Academic Units focus on the education and research missions. The UNM Health System manages the clinical components, from hospitals to primary care clinics.



>> Our most important value is a steadfast duty to improve the health of all New Mexicans. We will serve our patients and the public with integrity, accountability and the highest level of professionalism. We will strive as an institution and as individuals to recognize, cultivate and promote all forms of diversity; to fully understand the health needs of our communities; and to advance clinical, academic and research excellence. We are committed to performing our duties with compassion and respect for our patients, learners and colleagues. (UNM HSC's core values) ≪

1.2 VISION, MISSION AND VALUES

UNM HSC's devotion to meeting the health and educational needs of New Mexico's residents is reflected in its vision, mission and values.

Its **vision** states that it will "work with community partners to help New Mexico make more progress in health and health equity than any other state."

Its *mission* is "to provide an opportunity for all New Mexicans to obtain an excellent education in the health sciences. We will advance health sciences in the most important areas of human health with a focus on the priority health needs of our communities. As a majority-minority state, our mission will ensure that all New Mexicans have access to the highest quality health care."

UNM HSC identifies its *core values* this way: "Our most important value is a steadfast duty to improve the health of all New Mexicans. We will serve our patients and the public with integrity, accountability and the highest level of professionalism. We will strive as an institution and as individuals to recognize, cultivate and promote all forms of diversity; to fully understand the health needs of our communities; and to advance clinical, academic and research excellence. We are committed to performing our duties with compassion and respect for our patients, learners and colleagues."

1.3 ACADEMIC HEALTH CENTERS

Academic health centers are unique. They reside within universities, fulfilling the core academic functions of providing education and conducting biomedical research while also providing clinical care. An academic health center is defined as having a school of medicine and an affiliated flagship teaching hospital, along with at least one other professional school, such as nursing or pharmacy.

Academic health centers are relatively few in number, but they are the incubators of the most important advances in education, research and medical treatment, accounting for about one-third of all U.S. health-related research. They also account for 47 percent of all organ transplant centers, 60 percent of all Level I trauma centers and 67 percent of all burn beds.

Academic health centers provide a substantial community benefit that extends beyond providing education, research and health care. They employ highly skilled, well-paid faculty and staff and fuel local economic development.

The obligation to provide patients safe, high-quality care also imposes upon academic health centers a particular requirement to maintain a modern, specialized physical infrastructure in the form of hospitals and clinics.





>> UNM HSC has nationally ranked programs in family and rural medicine. Nearly 2,500 students and residents are enrolled in its programs. «



1.4 EDUCATION

UNM HSC educates a substantial proportion of New Mexico's health care workforce.

Nearly 40 percent of the state's physicians graduated from the UNM School of Medicine, founded in 1964 with the express purpose of providing clinical care and providing a medical education for New Mexicans. Today, it has nationally ranked programs in family and rural medicine and enrolls more than 1,600 residents and students in its MD, BA/MD, biomedical sciences, dental hygiene, physician assistant, physical therapy, occupational therapy, medical laboratory sciences, emergency medical services, radiological sciences and public health programs.

The College of Pharmacy, founded in 1945, is UNM's oldest health-related program, and the state's only pharmacy school. Most of its 350 students pursue the PharmD degree, with a small number doing additional graduate-level work. The College conducts substantial pharmacological research and operates essential clinical services, including the New Mexico Poison & Drug Information Center.

The College of Nursing, founded in 1955, offers a broad range of bachelor's, master's and PhD degree programs, preparing its 500 enrolled students to become registered nurses, advanced practice nurses, certified nurse midwives and health policy researchers. It plays a major role in growing the number of BSN-educated nurses in the state's workforce and has led the way in establishing the New Mexico Nursing Education Consortium, which created a unified curriculum for nursing programs in the state's universities and community colleges.

The College of Population Health, approved by the UNM Board of Regents in September 2015, will be a multidisciplinary program offering the Bachelor of Science in Public Health, Master of Public Health and Doctor of Public Health Sciences degrees.

The School of Medicine and Colleges of Nursing and Pharmacy also play an important role in providing continuing professional education to New Mexico's health care practitioners in their disciplines.

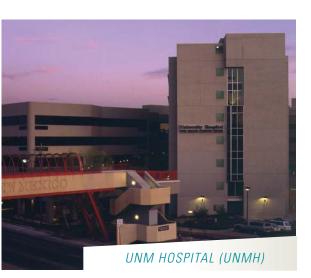
1.5 RESEARCH

UNM HSC faculty members conduct nationally acclaimed research that has brought therapies, technologies and innovations in medical practice to New Mexico that otherwise would not have been available. This allows New Mexicans access to cutting-edge treatments that are only available through sophisticated clinical trials

In FY 2015 the research enterprise received a record \$161 million in grant funding from the National Institutes of Health and other governmental, corporate and non-profit entities — at a time when overall funding for scientific research has been declining nationwide.

Much of the credit for UNM HSC's success in attracting funding is due to its Clinical and Translational Science Center, established in 2010 with the help of a competitive Clinical and Translational Science Award from the National Institutes of Health. It creates a special mechanism for supporting focused research directed at the most important diseases, mentoring and advancing junior researchers and providing pilot funding to open the door to new avenues for scientific exploration.





The UNM Cancer Center is home to a world-class team of researchers who are developing novel cancer treatments tailored to a patient's unique genetic profile. The Brain and Behavioral Health Institute meanwhile is building multidisciplinary teams capable of tackling complex neurological diseases and injuries.

This scientific research brings significant benefits to New Mexico's economy, as much of the grant funding comes from out-of-state sources. This funding provides for faculty and staff salaries, as well as the local purchase of goods and services.

In addition, patented inventions of new drugs and biomedical technology developed at UNM HSC have led to new business startups in New Mexico -38 over the past decade - that create additional jobs and stimulate the state's economy.

UNM HSC also conducts extensive school- and community-based research throughout New Mexico. This work examines the causes and prevention of childhood obesity, cardiovascular disease, diabetes, exposure to environmental toxins and many other chronic health problems.

1.6 CLINICAL CARE

UNM HSC's clinical mission is coordinated through the UNM Health System, comprising UNM Hospitals, UNM Sandoval Regional Medical Center, UNM Medical Group and community-based clinics throughout the Albuquerque metropolitan area.

UNM Hospitals include the main hospital, UNM Children's Hospital, UNM Adult Psychiatric Center, UNM Children's Psychiatric Hospital, Carrie Tingley Hospital and the UNM Cancer Center. Collectively, the hospitals handle 22,000 surgical cases, 100,000 emergency room visits and nearly 900,000 outpatient visits per year.

UNM Hospital is home to New Mexico's only Level I trauma center, the state's only burn center and its most advanced stroke center. As a public teaching hospital, it is also the destination for tertiary and quaternary care referrals from hospitals throughout the state, due to its unique capabilities in oncology, neurosciences, stroke, psychiatry and critical care medicine.

UNM Cancer Center is one of just 42 programs in the U.S. to have received an elite "comprehensive" designation from the National Cancer Institute. It annually provides care for more than 10,000 cancer patients, including virtually all of the state's pediatric cancer patients.

UNM Sandoval Regional Medical Center (UNM SRMC) is a 72-bed community teaching hospital opened in 2012 on the campus adjacent to the Rio Rancho City Center complex. In addition to comprehensive community hospital services, its specialties include bariatric surgery, an orthopedic joint replacement program, a breast disease center, the minimally invasive spine center, otology and geriatric inpatient behavioral health. It provides improved access and service to Sandoval County and the state's Native American communities.

The UNM Medical Group is the physician practice organization of the UNM School of Medicine. It is the state's largest medical practice, with more than 1,100 physicians and providers representing 152 specialties. It provides the medical staff to UNM

>> The UNM Medical Group is the state's largest medical practice, with more than 1,100 physicians and providers representing 152 specialties. «

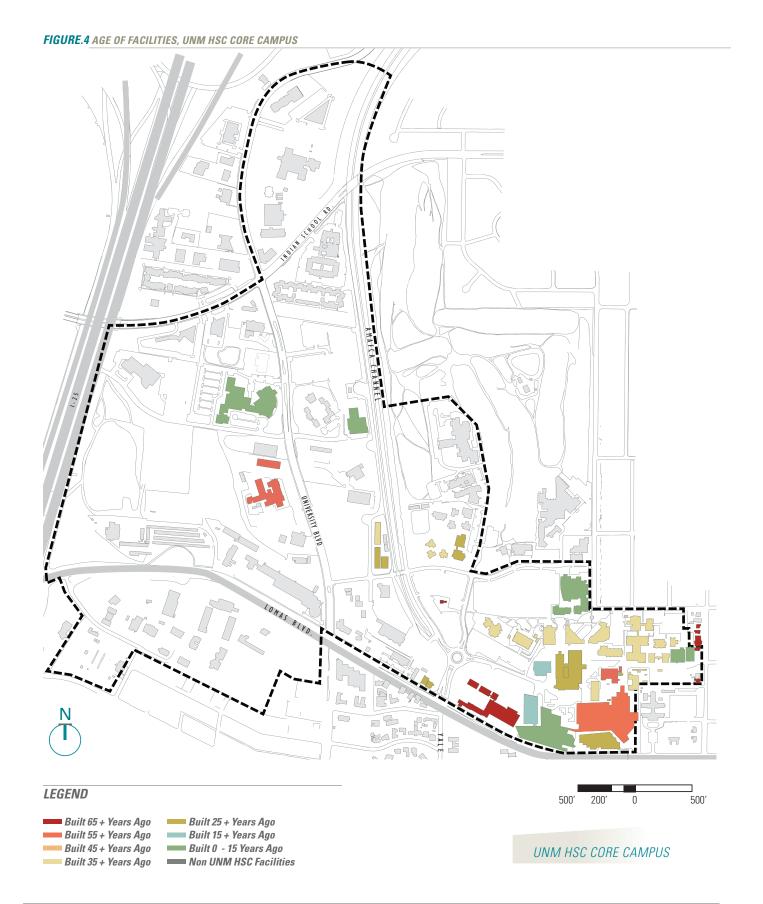
UNM HSC IN NUMBERS

* Nearly 900,000 outpatient visits/yr.

* 22,000 surgical cases/yr.

*** 90,000** emergency room visits/yr.







Hospitals, UNM SRMC, UNM Medical Group clinics and the Raymond G. Murphy VA Medical Center.

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1.7 PHYSICAL INFRASTRUCTURE

UNM HSC maintains a substantial physical presence in the Albuquerque metropolitan area, occupying more than 4 million square feet of space. Its primary physical presence is on the UNM North Campus, directly across Lomas Boulevard from UNM's Main Campus, with additional facilities at UNM West and at various satellite locations.

The largest single structure is the sprawling UNM Hospital (UNMH), which includes sections that date back to the 1950s, as well as the modern Barbara and Bill Richardson Pavilion. It includes inpatient beds, surgical suites, intensive care units, the Emergency Department, ambulatory care clinics and faculty office space. The age and physical limitations at UNMH — explored at greater length below — create an urgent need for a modern replacement hospital.

Research is conducted in Reginald Heber Fitz Hall, the Biomedical Research Facility, the Surge Building and other HSC Core Campus laboratory buildings. The educational mission is supported by the Health Sciences Library & Informatics Center and the Domenici Center for Health Sciences Education.

Other major structures include Pete and Nancy Domenici Hall (adjacent to UNM North Golf Course), the UNM Cancer Research and Treatment Center (located across University Boulevard), the Nursing & Pharmacy Building and the Health Sciences and Services Building. Other ambulatory care clinics are located in and around campus, with additional community clinics located throughout the city.

Many of these buildings are showing their age, especially those constructed before 1989: more than 1 million of the 1.7 million square feet in the academic buildings (60 percent) are at or nearing the end of their design life. Nursing & Pharmacy and Fitz Hall have a significant amount of wet lab research space that will most likely have to be upgraded within the next 10 years to support the research mission.

Utilities are provided from a variety of sources, with linkages to Main Campus domestic water, power, chilled water and IT systems in many of the academic buildings. The hospital has its own utility plant with chillers, boilers and emergency power, but is connected to UNM's District Energy System for electrical services.

1.8 STRATEGIC GOALS

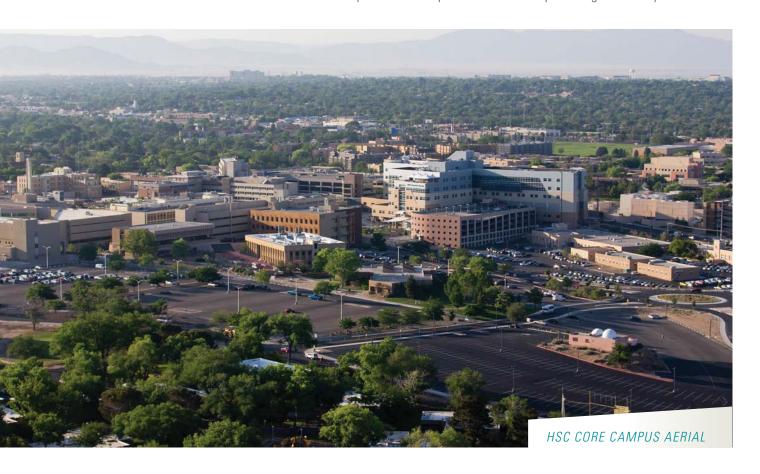
UNM HSC's **strategic goals** reflect the institution's vision, mission and values. These are to:

Improve public health and health care for those we serve. Due to Centennial
Care, 250,000 more New Mexicans have health coverage now than in 2010, creating
increased demand for health care. UNM HSC has begun building new primary care
clinics for these patients, while remaining the state's leading destination for high-acuity
patients. The strategic plan sets a goal of five or six new community-based clinics by



2020, while increasing telehealth opportunities and expanding the clinical specialties and number of beds at UNM SRMC.

- Build New Mexico's workforce by providing a premier education. The increased demand for health care has driven the need for more doctors, nurses, pharmacists and other health care providers. UNM HSC educates the full spectrum of health providers, enrolling nearly 2,500 students and residents. These academic programs have grown by 8 percent since 2010, and combined with curriculum changes mandated by accrediting bodies, have created the need for greater physical capacity. This will require increasing the size of hospital rooms and surgical suites, as well as the training and research space used in the clinical setting. It also influences the overall campus layout, so that teaching, research and clinical functions can occur within the HSC Core district as well as throughout the state.
- Translate our research and discoveries into clinical or educational practice.
 The research enterprise will discover, create and introduce state-of-the-art therapies, technologies and evidence-based care models to New Mexico.
- Provide the environment for our people and programs to do their best. Faculty
 and staff satisfaction is a priority: they need a modern replacement hospital to do
 their work more efficiently and to improve patient experience. Value-based purchasing
 underpins most of the changes brought on by health care reform. It assumes that health
 care payers will buy services from providers based on the quality of the outcomes for,
 and the experience of their patients. Value-based purchasing and delivery of services





will bridge the gap between safety and quality to reduce patient stress, enhance patient and staff safety, improve staff effectiveness and increase the quality of the care experience in all settings.

- Deliver high-quality clinical care and service while being accessible to all New Mexicans. In 2014, UNM HSC conducted 430 programs in 152 communities, including education and patient care locations, telehealth sites, community research and health extension rural offices. The proposed replacement hospital will follow adaptable design principles for patient rooms and surgical suites to better integrate academics into the clinical setting. UNM HSC will also provide medical office buildings for clinical and administrative purposes, all located within a well-designed campus with open space, convenient access and parking for all users.
- Nurture and embrace an environment of diversity, integrity and transparency. These initiatives are intended to improve the recruitment, retention and composition of the student body, faculty and staff and to promote academic depth and capabilities.

1.9 SUMMARY

UNM HSC employs thousands of highly skilled and motivated faculty and staff who are focused on advancing the health and well-being of all New Mexicans while handling more than a million hospital admissions and outpatient visits each year.

To accomplish their mission with maximum effectiveness and ensure the best outcomes for their patients, they must have access to the right tools and a reliable modern physical infrastructure. Plans for expanding or renovating physical facilities must account for new developments in health and information technology and whatever health care challenges may lie just over the horizon.

Meeting these needs over the next decade in a thoughtful and methodical fashion will enable UNM HSC to continue benefiting the people of New Mexico for generations to come.







CHAPTER 2

2.1 MISSION

Education is the foundation of the UNM HSC mission. UNM-trained providers make up much of New Mexico's health care workforce. Today, the School of Medicine, College of Nursing and College of Pharmacy offer the full spectrum of health care education, which is tightly integrated with the research and clinical care missions.

UNM HSC offers the state's only doctoral programs in medicine, pharmacy and physical therapy, the only public physician's assistant program, the only advanced practice registered nurse degrees for family nurse practitioners, pediatric nurse practitioners, gerontology, acute care nurse practitioner and nurse midwifery, and the only nursing administration track. These programs are nationally ranked and attract the top tier of students and faculty.

2.2 BACKGROUND ASSUMPTIONS

Learning occurs in classrooms, hospitals, clinics, radiology suites, operating rooms, pathology labs, pharmacies, research laboratories and in the community. All HSC clinical settings should be able to accommodate students from those programs that require clinical placements as part of their degree requirements.

UNM HSC will have to meet new and emerging challenges in health care over the next 10 years if it is to maintain and expand its educational mission. These include:

- Changing demographics and increased patient access to health care.
- The need for more health care workers (and larger health professions class sizes).
- Online programs.
- More adaptable classrooms and labs for expanded interprofessional and teambased education.
- The need for sufficient clinical space to provide hands-on experience for residents, medical students, student nurses and others.
- Sufficient capacity to provide continuing professional education for the health care workforce.

>> Expanded enrollment has already created a ripple effect, increasing demand for classrooms and simulation labs. «

Legislative funding has enabled larger class sizes for the College of Nursing and Combined BA/MD Program, as well as more medical residents. UNM HSC has also expanded the interprofessional opportunities for its students. For example, the Colleges of Nursing and Pharmacy offer a joint class in the acute-care lab geared to simulate a hospital setting. Expanded enrollment has already created a ripple effect, increasing demand for classrooms and simulation labs.





UNM HSC STUDENTS

Images courtesy of UNM HSC Communications and Marketing

>> UNM HSC trains more than 1,800 health care providers per year. «

The growth of these educational programs will depend not only on legislative funding but the availability of modern clinical training sites. Each program has unique needs:

- Undergraduate Medical Education The ability to graduate more MD students
 depends on having enough clinical sites for third- and fourth-year students. These
 training sites must have modern facilities, with sufficient patient volume to teach
 the full spectrum of medical conditions.
- Graduate Medical Education The School of Medicine trained about 580
 residents in 53 separate specialties during the 2014-2015 academic year. The
 ability to provide intensive specialty training for physicians after medical school is
 vital to keeping physicians in New Mexico. The Accreditation Council for Graduate
 Medical Education prescribes standards for each residency program. Each site
 must have the facilities, technology and patient volume necessary to maintain
 accreditation and prepare residents in their chosen specialty.
- Nursing Nurses receive on-the-job training similar to that received by medical students and residents in clinical settings called preceptor sites. Nurse training must occur in an organized, evidence-based, outcome-driven setting to assure competent practice.
- Pharmacy Two new undergraduate degree programs are being developed. These
 programs will enhance employment opportunities for graduates.
 - The Bachelor of Science in Pharmacy Studies. Students currently can be admitted into the PharmD program after completing the necessary undergraduate courses and passing an entrance exam. Many enter the program after three years of undergraduate work and never complete their degree. In the future, students will complete their undergraduate requirements in their first year of pharmacy school. Those who do not wish to continue in the PharmD program will have the degree and the skills to allow them to apply to graduate programs and apply for various positions in pharmacy research.
 - The Bachelor of Science in Pharmaceutical Sciences. This will provide an undergraduate degree for students seeking careers in drug development and discovery. These graduates can expect to compete for positions as biotechnicians, helping to develop new drugs and therapies.
- Dental Medicine New Mexico lacks its own dental school, but recent dental
 program graduates may elect to pursue a one-year general residency at UNM through
 the Department of Dental Medicine. This program has placed graduates in rural
 settings, helping to meet the state's dental needs. New programs could include:
 - Oral Surgery Residency. There is statewide support for a UNM residency in oral surgery. It is estimated that this project would follow a five- to seven-year timeline as funding becomes
 - Pediatric Dental Residency. A pediatric dental residency is a longer-term goal.
 - Dental Therapist Program. This program would create a new mid-level dental practitioner. Dental therapists fulfill a role comparable to that of a nurse practitioner, licensed to perform more procedures than a dental hygienist, but fewer than a dentist.
 - Special Needs Dentistry. A five-year \$2.5 million Health Resources and Services Administration grant will help train dentists to treat patients with severe physical and mental developmental disabilities.





Images courtesy of UNM HSC Communications and Marketing

- College of Population Health This program will bring together faculty from UNM HSC and the UNM Main Campus for transdisciplinary research and education to address the social determinants of health, train public health professionals and improve patient-centered care across entire populations.
- Department of Physical Medicine and Rehabilitation This proposed
 department would provide care to children seen at Carrie Tingley Hospital for
 chronic conditions, such as cerebral palsy, spina bifida and multiple birth defects, as
 well as provide care to adults. It would also create new educational programs.

2.3 CURRENT FACILITIES

UNM HSC students fulfill many of their clinical requirements in the UNM Hospitals and clinics, UNM Cancer Center and the UNM Dental Clinic. Additional practice experience may occur at UNM SRMC and other clinical sites throughout New Mexico.

Classroom and simulation lab instruction occurs in Fitz Hall, the Health Sciences Education Center, the Nursing & Pharmacy building, the Health Sciences and Services Building, Novitski Hall, the Family Practice Center, Med II and the Health Sciences Library and Informatics Center, as well as in research labs located throughout the HSC Core Campus.



2.4 FUTURE FACILITY NEEDS – INSTRUCTIONAL SPACE

The School of Medicine, College of Nursing and College of Pharmacy all face space constraints in trying to provide education in aging facilities that require substantial improvements. A key assumption is that these buildings will be renovated and upgraded wherever possible to extend their design life, increase their energy efficiencies and improve their functionality.

Future UNM HSC instructional facilities projects may include:

- Health Sciences Education Center. The Phase 3 expansion will include state-of-the-art classrooms, laboratories and simulation space. It will accommodate greater enrollments, allow for modest growth in the near term and help alleviate existing classroom and simulation space shortages. The expansion will be designed with flexible teaching spaces that may be modified to respond to different teaching needs. It will also include much-needed space for student gatherings, food service and fitness facilities.
- UNM West Campus. UNM HSC leadership is working with the City of Rio Rancho and Central New Mexico Community College to relocate instructional programs to the Rio Rancho campus, adjacent to UNM SRMC. Plans are underway to align university-wide prerequisites for all health profession programs into a standard set of courses that would allow students to satisfy all requirements for certain degrees at that location. The College of Nursing and the Emergency Medical Services Academy already offer instruction there. The primary need is for a classroom building to deliver house the new College of Population Sciences, lab facilities and faculty offices. These educational programs are being coordinated with the expansion of UNM SRMC.
- School of Medicine Offices. Departments located in UNM Hospital's Ambulatory
 Care Center face severe overcrowding. Many departments will eventually relocate
 to the replacement hospital and medical office building. Those that remain
 (supporting the Women's and Children's hospital) will be able to expand into the
 vacated areas.
- Health Sciences Library & Informatics Center (HSLIC). Libraries and
 information technologies have changed significantly since 1998, when HSLIC was
 last comprehensively upgraded. HSLIC will annually assess the need for new
 physical collections, records or media that require storage within the physical
 HSLIC facility or the HSSB annex. As technology changes, additional portions of
 the library's collection may be converted to digital media and/or moved to remote
 storage. HSLIC will repurpose any space to better serve faculty, staff, students and
 community members.

2.5 FUTURE FACILITY NEEDS - CLINICAL SPACE

Each clinical facility must have appropriate space to accommodate students and residents. Educational space is needed in the hospitals and specialty clinics, as well as community clinics. Key clinical facilities with educational support requirements include:

College of Nursing and College of Pharmacy all face space constraints in trying to provide education in aging facilities that require substantial improvements. A key assumption is that these buildings will be renovated and upgraded wherever possible to extend their design life, increase their energy efficiencies and improve their functionality.

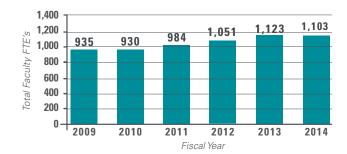


UNM HSC CORE CAMPUS



- UNM Hospitals and UNM SRMC. Educational space must be incorporated in
 each patient room to accommodate students, as well as nurses, physicians, techs
 and families. The hospital also needs dedicated spaces for medical students,
 residents, fellows and faculty clinicians. These should include:
 - In-House Accommodations. Sleeping quarters for medical students, residents and fellows is essential for patient care and to meet accreditation requirements for teaching hospitals. A sleep room contains a bed, desk, access to a restroom and shower and Internet access. The number of sleep rooms determines how many students, residents and fellows can be present during a 12-hour shift. Secure lockers are essential and access to lunchrooms and common spaces equipped with computers to access educational/research materials through the Internet must be provided.
 - Within Patient Care Areas. Inpatient nursing stations should accommodate shared workstations for student charting and connections to electronic medical records and other patient care systems. Small conference rooms for trainees in nursing, radiology, physical therapy, occupational therapy and pharmacy who require team and interprofessional meetings will keep hallways and patient waiting rooms uncongested and quiet. Access to video conferencing technology is essential.
 - In-Hospital Offices. Private and/or shared space that is easily accessible to
 faculty clinicians and the chief resident of each division enables more efficient
 patient care because the provider does not have to return to an academic office
 to finish charting.
- **Community Clinics.** These facilities must meet flexible design standards to accommodate diverse uses. Features should include:
 - Community Rooms. Meeting rooms to be available for faculty education and training, public education and neighborhood meetings. Community meeting rooms require an exterior entry to allow for after-hours use and seating for at least 50 patients and their families.
 - Educational Space. The need to accommodate students and residents at UNM community clinics differentiates these clinics from those operated by other health care organizations. Meeting rooms should be available for interprofessional consultations, and resources for the residents should include a library, individual workstations and a center table for discussions. Educational spaces also should have Internet access and audio/visual capabilities for remote learning opportunities.

FIGURE.5 HSC FACULTY GROWTH 2009-2014





- Specialty Clinics. Outpatient specialty clinics also require educational space, but
 it differs in some respects from what is needed for primary care clinics. Internet
 access and library services are essential, as well as space for students (who are
 generally residents or fellows in specialty rotations).
 - Student Space. Meeting areas for discussions with clinician educators and interdisciplinary teams. This requires enclosed spaces for residents and
 - fellows with a small library, individual workstations and a center table for team discussions. Student workstations must have Internet access for dictating and charting, as well as audio/visual capabilities for remote learning.
 - Flexible Offices. Flexible offices are needed in community-based specialty clinics to meet the needs of clinic administrators and physician leaders.
- Dental Medicine. Supporting oral surgery residency, pediatric dental residency, special needs dentistry, dental hygiene and dental therapy programs will require expanding Novitski Hall and the Camino de Salud Dental Clinic.

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CHAPTER 3 RESEARCH

3.1 MISSION

UNM HSC conducts cutting-edge biomedical research that drives innovation and scientific breakthroughs and benefits the people of New Mexico in myriad ways. Its work is tightly integrated with the educational and clinical missions, training the next generation of researchers while bringing hope in the form of new devices and therapies.

3.2 BACKGROUND ASSUMPTIONS

The UNM HSC research enterprise has a long history of growth, innovation and scientific breakthroughs. The research mission is critical to improving health care in New Mexico and UNM HSC's research enterprise is unique among the state's health care providers.

With the primary goal of developing nationally acclaimed research programs, the UNM HSC research enterprise has brought state-of-the-art health care and technologies to our state. These discoveries and breakthroughs have already led to economic growth, social improvement and improved health care for all New Mexicans.

These capacities and accomplishments have enabled UNM HSC to become one of only 29 U.S. institutions that have obtained two prestigious awards from the National Institutes of Health: an NIH-funded Clinical and Translational Science Center (CTSC) and an NCI-designated comprehensive cancer center.

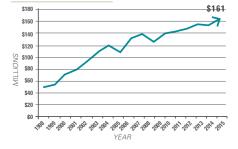
The Signature Research programs concentrate on brain and behavioral illnesses, cancer, cardiovascular and metabolic disease, child health, environmental health and infectious disease and immunity. They advance research from basic laboratory discovery to new drugs and clinical trials in our hospitals to improved ways of delivering health care throughout the state. UNM HSC conducts community-based research in every county in New Mexico.

The research enterprise has seen dramatic growth in research grants and contracts, from \$45 million in 1998 to \$161 million in FY 2015, despite dwindling federal funding and intensified competition for grant support. UNM HSC was one of only four applicants to receive full, five-year funding from the NIH in a recent competition for Clinical and Translational Science Awards .

The UNM HSC research mission has continued to grow primarily as a result of its ability to form teams of scientists who address the most important issues in health care for New Mexico, and then successfully compete for grants and contracts. Most of this funding comes from sources outside of New Mexico, representing a significant

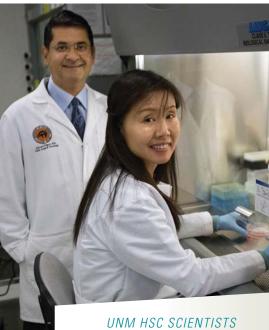
>> The research enterprise has seen dramatic growth in research grants and contracts, from \$45 million in 1998 to \$161 million in FY 2015.

FIGURE.6 UNM HSC HISTORY OF AWARDS (FY98-FY15)









Images courtesy of UNM HSC Communications and Marketing

>> We now face a dual challenge: the need for new space to accommodate expansion plans, as well as the need to renovate some of the older space. <<

source of economic growth and jobs in the state. UNM HSC research discoveries have resulted in the startup of 38 new biotechnology companies in the state since 2004.

Nearly 240,000 square feet of space were allocated to UNM HSC research over the past five years, primarily in reconditioned facilities. Priorities for the next decade will focus on additional square footage for wet labs, clinical trials and community-based intervention research. Our ability to recruit top-notch scientists is critical to our ability to continue to grow. New and/or renovated space will greatly assist in this regard.

To continue our upward trajectory, we will need additional room to:

- Continue the growth of the Clinical and Translational Science Center. The CTSC has built the capacity of our scientific faculty to compete at a national level and bolstered our ability to obtain funding and bring new health care discoveries to New Mexico. Under the CTSC's leadership, UNM has also emerged as a hub for the Mountain West Regional Consortium, which unites 13 state universities throughout the western U.S., and builds clinical and translational research throughout the region. New space will also help in recruiting nationally acclaimed researchers.
- Continue the growth of the UNM Cancer Center. Achieving comprehensive
 National Cancer Institute designation in 2015 was a major milestone, an indication
 that our cancer research programs are poised to expand.
- Build a Brain and Behavioral Health Institute. After achieving two of the most
 prestigious NIH awards (the CTSA and the NCI-designated Cancer Center), we
 now wish to build a preeminent Brain and Behavioral Health Institute to address
 diseases such as stroke, trauma and psychiatric disease.
- Address the changing research landscape. The federal research emphasis has
 been re-balanced to emphasize practical discovery of drugs, finding new ways to
 deliver care and developing school-based interventions in diseases such as obesity
 and diabetes to a much larger degree than previously. We will need to develop new
 types of research space in order to build programs in these areas.
- Address the need for a biomedical research workforce. As New Mexico's biotechnology economy expands, we will need to produce a capable and proficient biomedical workforce — and the research space to train these students.

3.3 CURRENT FACILITIES

Major UNM HSC research facilities include Fitz Hall, the Basic Research Facility, the Clinical and Translational Science Center, the Cancer Research and Treatment Center, Pete and Nancy Domenici Hall, the Surge Building, the Nursing & Pharmacy Building, the Research Incubator Building, the Multidisciplinary Research Building and the Innovation, Discovery and Training Complex.

More than 40 percent of the core campus research facilities are dedicated to wet lab research. Most of the remainder involves a mix of clinical trials space and dry lab space that supports community- and school-based research, as well as a significant amount of population science research. Wet, dry and clinical trials research space has increased since 2009. This expansion was welcomed and has been fully occupied. We



>>> For new research facilities, the highest priorities in the next 10 years will include the Brain and Behavioral Health Institute, expansion of wet and dry lab facilities, expansion of the Animal Resource Facility and expansion of the Cancer Center's research capacity. « now face a dual challenge: the need for new space to accommodate expansion plans, as well as the need to renovate some of the older space.

With the help of federal funding over the last 10 years, we have been able to renovate the former Cancer Research & Treatment Center building into our Clinical and Translational Science Center, renovate wet laboratories in Fitz Hall and the Basic Research Facility, renovate and upgrade our Animal Research Facility, expand brain and psychiatric research facilities in Domenici Hall and build a multidisciplinary research building. Much of the work was needed to bring labs up to code, replacing casework, countertops and flooring and performing electrical and plumbing upgrades.

3.4 FUTURE FACILITY NEEDS - NEW CONSTRUCTION

The UNM HSC will have to meet many infrastructure challenges over the next 10 years if it is to maintain and expand its research capacity to serve the people of New Mexico. These will include upgrades to aging and/or inadequate existing facilities and new construction to accommodate new and expanded programs.

With existing funding constraints, internal laboratory remodels will need to be prioritized based upon a grading system. For new research facilities, the highest priorities in the next 10 years will include the Brain and Behavioral Health Institute, expansion of wet and dry lab facilities, expansion of the Animal Resource Facility and expansion of the Cancer Center's research capacity.

All projects will depend upon the availability of funding, some of which will come through federal CO6 and G20 grant mechanisms.

The highest needs for new research construction include:

- Pete and Nancy Domenici Hall. The construction of a 58,000-square-foot
 addition to Domenici Hall for the Brain and Behavioral Health Institute will help
 bring together top UNM researchers, educators, clinicians and community members
 to tackle brain disorders such as Alzheimer's, autism, epilepsy, fetal alcohol
 syndrome and mental illness. We hope to grow this Institute to the stature of the
 Clinical and Translational Sciences Center and Cancer Center. The project will not
 have any impact on the UNM North Golf Course.
- New Research Facility. More wet and dry lab space will be needed. The 'M' parking lot immediately north of the Innovation, Discovery and Training Center building has utility infrastructure suitable for high-intensity research needs. Positioning the next major research facility here is cost-effective and logical: its proximity to our shared facilities, including clinical trial units, biostatistics support, animal housing facilities and many other core facilities, eliminates the need to duplicate resources. As with other construction, funding is the limiting factor, and will occur when federal opportunities for grant funding are re-established.
- CTSC Clinical Space. Our major clinical trial units are in the CTSC and Cancer
 Center. We will need to expand our CTSC clinical trial space alongside our growing
 clinical care mission, as clinical trial activity growth parallels growth in clinical care
 at academic medical centers.



- >> Many of the older structures that house research facilities are physically sound but in need of major mechanical and infrastructure upgrades to meet current standards. «
- Animal Research Facility (ARF) expansion. Due to its importance in biomedical research, ARF plays an ever-expanding role in UNM HSC's operations. This specialized lab needs 33,000 square feet of additional space in the next three to 10 years. The central ARF in Fitz Hall will need to be expanded to meet our wet lab needs. A smaller expansion of the satellite ARF in Domenici Hall will also be needed as the BBHI grows. Funding will be generated in a phased approach through G20 grants.
- Cancer Treatment and Clinical Research Center. The UNM Cancer Center, with its comprehensive National Cancer Institute (NCI) designation, has outlined three high-priority projects over the next 10 years to necessary to maintain its NCI status. Planning will begin in 2016 for radiation oncology expansion, as well as expanded dry and wet labs. Funding for these projects would come development and philanthropy, general obligation bonds and clinical and research revenues. The Cancer Center expects to develop a 10-year plan that addresses clinical, wet lab, dry lab and administrative facility needs.

3.5 FUTURE FACILITY NEEDS - RENOVATIONS

Many of the older structures that house research facilities are physically sound but in need of major mechanical and infrastructure upgrades to meet current standards. The renovation priorities are:

- Fitz Hall (formerly BMSB). This 179,527-square-foot facility constructed in 1967 has never been comprehensively updated. HVAC, plumbing, electrical, mechanical and fire protection systems need improvement to bring its 88 laboratories to meet modern standards. A 2010 study rated Fitz Hall as a facility that partially met current needs and calculated the cost of a comprehensive upgrade at about \$49 million (that figure has not been recalculated since that time). The 2015 Master Facilities Plan continues to see Fitz Hall as an integral component of the HSC. This extraordinarily viable building deserves to be upgraded to extend its design life and continue its important mission of providing modern laboratories and administrative offices for the School of Medicine.
- Nursing & Pharmacy Building. This 40-year-old structure totals 96,279 square feet and contains the administrative and faculty offices for the Colleges of Nursing and Pharmacy, as well as classrooms, the radiopharmacy and 18 wet labs. Its electrical, lighting, mechanical, plumbing, drainage and ventilation systems need updating to bring laboratories to modern standards. In 2010 it was estimated that it would cost about \$10 million to address these and other building needs. That figure has not been recalculated. The 2015 Master Facilities Plan continues to see Nursing & Pharmacy as an integral component of the HSC. This is a viable building that with infrastructure and interior upgrades can serve well into the future.





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CHAPTER 4 CLINICAL CARE

4.1 MISSION

UNM HSC provides state-of-the-art health care to the people of New Mexico through its hospitals, clinics and community-based programs. This mission is tightly integrated with the educational and research missions, providing the next generation of health care providers with critical hands-on experience while enabling important clinical trials and community research.

4.2 BACKGROUND ASSUMPTIONS

U.S. health care is undergoing rapid transformation as reform measures take hold. With the advent of value-based purchasing, providers are increasingly focused on patient outcomes and satisfaction. It is meanwhile estimated that UNM's clinical enterprise will grow by roughly 3 percent annually. UNM HSC will have to meet many infrastructure challenges related to providing patient care over the next 10 years if it is to maintain and expand its capacity to serve the people of New Mexico. These will include:

- Meeting new, higher hospital capacity standards to maintain accreditation and serve patients. Such improvements should include increased surge capacity, larger surgical suites, large single-patient rooms and sufficient room for students and residents.
- Continuing to provide quality health care to a growing and aging patient population.
- Adding new primary care and community clinics throughout the Albuquerque metropolitan area — one per year through 2020.

Health care reform has resulted in *more insured patients*. Centennial Care has provided an additional 250,000 New Mexicans with access to health providers. The state has historically had low utilization rates for hospitalization. The population older than age 65 is growing at a faster rate than the national average. This will increase demand for both primary care and more specialized service lines

Health care reform is accelerating trends toward *consolidation* within the U.S. health care industry. Academic medical centers, which have the ability to provide highly specialized services, are seeing greater growth and patient volume. At UNM, these service lines include high-complexity patients, particularly within trauma, oncology, pediatrics, high-risk obstetrics, cardiovascular and neurovascular specialties.

>> U.S. health care is undergoing rapid transformation as reform measures take hold. With the advent of value-based purchasing, providers will have a greater bottom-line incentive to focus on patient outcomes and satisfaction. <





Images courtesy of UNM HSC Communications and Marketing

Value-based purchasing adds urgency to the need to improve the patient experience. The Hospital Consumer Assessment of Healthcare Providers and Systems (used to calculate reimbursement rates), shows a significant deviation in ratings for UNMH, with its semi-private rooms, common showers and high noise levels, versus UNM SRMC (opened in 2012), with UNMH scoring significantly lower than UNM SRMC. The potential loss in reimbursements to UNMH due to lower patient satisfaction and outcomes ranges from \$4 million to \$20 million annually — an annual "penalty" that drains money away from critical operations.

National standards for quality medical education require that residents be taught in a clinical setting, not in a traditional classroom. This creates the need for additional training space within clinics, affecting everything from the size of operating rooms to the number of conference rooms.

UNM HSC is adding *new students and residents*. Legislative funding increases have resulted in an 8 percent growth in more than 15 degree programs within the School of Medicine and Colleges of Nursing and Pharmacy between Fall 2010 and Fall 2014. Expanded enrollment has created a ripple effect, with increased demand for classrooms and the need to ensure sufficient clinical space to provide hands-on experience for students and residents.

Lower population growth in New Mexico will be offset by an **aging population and higher rates of insurance coverage**. The state's population is projected to grow at approximately 1 percent per year for the next decade. This modest growth rate is offset by an aging population, which generally requires more health care services for more complicated conditions, as well as the expansion of access to health care due to Medicare/Medicaid and health care reform.

UNM Hospital *provides access to health care to everyone* regardless of their ability to pay. However, Medicaid expansion will enable many patients to access services at any of the region's health care providers. This drives the UNM Health System to become more cost effective."

Primary care and community clinics average about 17,000 square feet and cost about \$5 million. These facilities located throughout the Albuquerque metropolitan area are a cost-effective way to treat patients and lessen the demand for Emergency Department services at UNMH and UNM SRMC.

PRIMARY CARE CLINICS require specific design features, including:

- Team Pods. The team pod represents a decentralized model of care. It is modular
 and flexible in design, consisting of centralized, multifunctional workspaces that
 are adjacent to four exam rooms. The workspace replaces the traditional nursing
 station and offers room for providers, medical assistants and nurses.
- Standardized Exam Rooms. Standardized exam rooms are equipped and laid out in a uniform way, with enough space to accommodate families and students.
- Flexible Offices. Flexible offices reduce the need for dedicated office space.
 Offices are not exclusively devoted to one function or person, but are shared by everyone. Space can also be configured for telemedicine sessions, or for private patient and behavioral health consultations.
- Pharmacy. Onsite pharmacies enable community clinics to serve as one-stop locations



- for health care and contribute to the patient's holistic service and well-being.
- Diagnostics. Onsite laboratories also contribute to the patient's ability to receive
 all health care services in a single, convenient location. Spaces must be large
 enough to accommodate family members and strollers for pediatric blood drawings.
- Information Technology. IT support is critical for these community clinics, which
 must be fully integrated into the UNM Health System for diagnostic and patient
 support.

COMMUNITY CLINICS. The community clinic model rests on three components:

- Medical Home. Medical home elements are patient-focused, culturally sensitive and confidential, wellness-centered and located within the community.
- Interdisciplinary Team. An advantage of community-based clinics is the
 interdisciplinary team approach to care. Generally, providers, nurses, medical
 assistants, pharmacists, med and X-ray techs and medical students are on site to
 help provide care.
- Integrated Delivery. In addition to providing primary care and behavioral health services, community clinics employ patient representatives to help coordinate care and insurance/reimbursement issues. Some clinics have community rooms for neighborhood use and social workers to help with other health-related issues. Community clinics also serve an educational function, as students are part of the health care team.

Projected Demand for Health Care Services. Kurt Salmon, a nationally prominent health care consulting firm, studied projected volumes and demands for UNM inpatient beds and clinics. UNM Health System facilities received 900,000 clinic visits in 2015, with the volume of clinic visits projected to rise 5 percent per year due to population growth and the aging of the population.

Assuming moderate population growth through 2024 and accounting for an aging population, overall demand for health care in the Albuquerque metropolitan area is projected to grow by almost 12 percent over the next decade. *Kurt Salmon projects the need for UNMH to have a minimum of 360 adult medical surgery beds and for UNM SRMC to have a minimum of 72 beds.*

Kurt Salmon has made the following recommendations:

- Inpatient Capacity. Increase the overall throughput of UNMH's inpatient units
 to reduce the average length of stay for hospital admission. To implement these
 changes, UNMH should undertake several operational steps, such as making
 greater use of post-acute care facilities. These provide a cost-effective transition
 from inpatient care to full recovery. Post—acute care facilities may be operated by
 providers who contract with or enter into joint ventures directly with UNM HSC in
 independently owned and operated facilities.
- Increase Clinical Visits/Room/Day. An incremental increase in the annual
 throughput for clinical visits can reduce the need to construct additional clinical
 space. The annual throughput averages 3.8 visits per day for adults and 4.7 visits
 per day for pediatrics. Increasing these averages would positively affect overall
 efficiencies and reduce the need for additional clinic capacity.
- Behavioral Health. Behavioral health issues have reached a crisis point in the community. UNMH and UNM SRMC are an integral part of any comprehensive community-wide solution to improve access and outcomes for mental health. Any

>> The volume of clinic visits is projected to rise 5 percent per year due to population growth and the aging of the population. «



solution will require a multilayered approach, from integrating mental health services into primary care clinics in order to address emerging mental health conditions to expanding inpatient bed capacity to treat acute mental health conditions.

4.3 CURRENT FACILITIES

UNM Hospital, a 527-bed teaching hospital that provides a broad array of services and is the centerpiece of the clinical care provided by the UNM Health Sciences Center. It has 308 adult acute care beds, 89 pediatric beds, 39 obstetric beds and 91 mental health beds. It also has 101 bassinets, of which 62 are in neonatal intensive care.

The hospital provides care for patients through more than 100,000 visits to the Emergency Department (including the urgent care center) each year. The hospital also provides 900,000 clinic visits per year while accepting patients from throughout the state for specialty care that includes trauma, cancer, stroke, burn and transplants. The facility must be able to manage patients with the most complex care needs while also being available to handle mass casualty situations.

Of the 308 adult inpatient beds, 236 are in the oldest parts of the facility, and 120 of these beds are in semi-private rooms. These rooms are not suited for the current required level of care.

UNM SRMC, a modern 72-bed community teaching hospital in Rio Rancho, provides advanced care to Sandoval County residents and is a good place to practice state-of-the-art medicine. UNM SRMC provides convenient access to all Sandoval County residents, with a focus on providing improved access for Native Americans. UNM SRMC has the county's only inpatient psychiatric beds and provides much-needed care for people with behavioral health disorders.

UNM Children's Hospital part of UNM Hospital, provides advanced and specialized pediatric care to children from throughout New Mexico and neighboring states — nearly 60,000 patients each year. It is the state's only pediatric rehabilitation hospital, offering coordinated care to children and adolescents with complex musculoskeletal and orthopedic conditions, developmental issues and long-term physical disabilities.

The **UNM Adult Psychiatric Center** has 48 inpatient beds to treat people with acute psychiatric conditions. **The Children's Psychiatric Center** provides care for children who suffer from severe mental illness and is the only acute inpatient child psychiatric unit in the state. It was constructed in 1976 and has 43 beds that will also need replacement. This could be accommodated by backfilling as older wings of the hospital are vacated

The **UNM Cancer Center** provides outpatient oncology services to most of the adult and virtually all of the pediatric cancer cases in New Mexico.

UNM Medical Group operates 14 clinical sites throughout the Albuquerque area, including six school-based health clinics, and records about 50,000 patient visits per year. UNM HSC operates 12 primary care clinics in the community and has 60 specialty clinics located on campus and in the community.





is the UNM HSC's highest priority. The existing facility was constructed piecemeal starting in 1954 (and added on to in 1966, 1976, 1984, 1991 and 2007). The two newest sections are in good condition, but the rest are not suitable for providing acute care in a 21st century teaching hospital. «



Images courtesy of UNM HSC Communications and Marketing

4.4 FUTURE FACILITY NEEDS

UNM HOSPITAL. Replacing UNM Hospital is the UNM HSC's highest priority. The existing facility was constructed piecemeal starting in 1954 (and added on to in 1966, 1976, 1984, 1991 and 2007). The two newest sections are in good condition, but the rest are not suitable for providing acute care in a 21st century teaching hospital. Factors driving the need for this replacement include:

- Capacity. UNM Hospital routinely runs at greater than 90 percent of adult acute
 care capacity, which leads to excessive patient waiting times in the Emergency
 Department due to a lack of available beds. Long wait times also result in patients
 leaving without being seen. National standards call for keeping occupancy below
 80 percent for optimal patient care.
- Health care technology. Hospitals and clinics must have adaptable space in order
 to incorporate new technology. This is impossible in the older wings of UNMH, due
 to the age and overall layout of the facilities. Hospital rooms designed for medical
 practice in the 1950s cannot be adapted to meet current standards of medical care.
- Physical limitations. The older structures are out-of-date and undersized, creating exorbitant repair and maintenance costs. The semi-private rooms (in which patients must share bathrooms) do not meet current design standards and increase the risk for hospital-acquired infections. The proportions and floor-to-floor heights cannot accommodate current health care requirements and practices. They are inflexible and do not lend themselves to renovation.
- Layout. Patients and visitors routinely complain about the difficulty of gaining
 access to the hospital and finding their way around once inside. The hospital has
 grown by accretion over the last 60 years, creating a confusing labyrinth of corridors
 and floors.
- Parking. Patients and visitors must choose between a parking garage with tight dimensions and surface parking that is far removed from the hospital entrance.
- Logistics. The delivery area and the food preparation areas are on one end
 of the hospital, resulting in long trips to stock areas and inefficiency in patient
 meal delivery. The back-of-house support areas are aged, congested, difficult to
 access and too small. Congested development surrounding the hospital limits
 transportation access for patients, family and suppliers. These factors, and the
 presence of a major drainage canal through the property that cannot be built over,
 make it impractical to construct a replacement hospital at the current site.
- Educational space. The continuing challenge is to provide adequate academic space in facilities that are focused on providing health care. Students gain clinical experience through rotations in various hospital and clinical settings. The spaces within clinical sites designated for learning are at a premium and limit the number of students that can be educated.
- Ambulatory Clinics. There are substantial challenges associated with operating
 ambulatory clinics that are embedded within an aging acute care hospital platform.
 The clinical infrastructure is dated, patient access is difficult and the blending of
 ambulatory care with acute inpatient care presents space and logistical issues.
- Operating Rooms. Only 15 of the 17 operating rooms in the main adult hospital are functional. Located in the hospital's 1954 wing, they average 420 square feet, while contemporary operating rooms average 625 square feet. They also have serious electrical and mechanical limitations. Their physical layout does not support clean corridors and lacks sufficient storage space. The sterile processing unit is not located within the venue. These physical constraints lead to inefficiencies and difficulty in providing support. This is the principal venue to care for Level I trauma



patients, as well as those served by the oncology, stroke, transplant and cardiac programs. There is no viable backup location to care for patients if the venue becomes compromised.

- Patient Rooms. The age, size and configuration of patient rooms the building blocks of hospital facilities pose a major limitation to renovating the existing hospital. Nearly 80 percent of adult patient rooms are between 40 and 60 years old. This leads to a number of problems:
 - Many patient rooms are still in double occupancy, which creates privacy issues and increases the risk for hospital-acquired infection. These rooms also affect the patient and family experience.
 - They are too small. A typical patient room at an academic health center averages 300 square feet per bed. In the older UNMH wings, the typical patient room averages 232 square feet, about 25 percent smaller. Only the Children's Pavilion patient rooms – built in 2007 – approach contemporary room size standards.
 - They lack sufficient space for teaching and there is not enough room for students and trainees to follow up on patient care requirements.
 - Nursing stations and staff areas are too remote from patient rooms, and there
 is not enough room to comfortably accommodate family members. Some rooms
 fail to meet Americans with Disabilities Act accessibility requirements and lack
 full bathing facilities. They have smaller windows, with less natural light.

Contemporary patient room and floor designs today feature single-patient rooms, with zones of care (including family care), quieter rooms to reduce stress and improve sleep, stress-reducing views of nature, reduced staff walking, decentralized nurse stations and support areas, standardized rooms and improved patient safety and security.

>> The age, size and configuration of patient rooms — the building blocks of hospital facilities — pose a major limitation to renovating the existing hospital. Nearly 80 percent of adult patient rooms are between 40 and 60 years old. <







Images courtesy of UNM HSC Communications and Marketing

Limited

Family Area

FIGURE.8 OPERATING ROOM ANALYSIS

UNMH OPERATING RM Approximately 420 SF

CONTEMPORARY OPERATING ROOM Approximately 625 SF

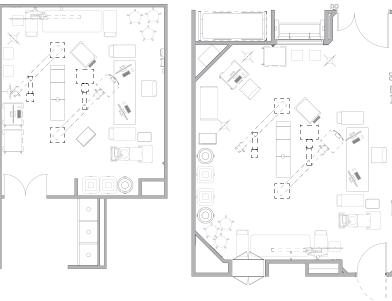
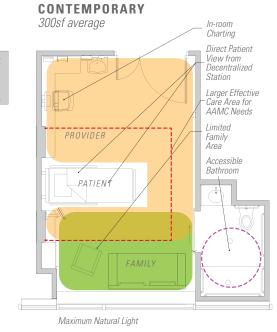


FIGURE.9 PATIENT ROOM LAYOUT

1954 ROOM 232sf average Accessible Bathroom Limited Care Area



>> Only 15 of the 17 operating rooms in the main adult hospital are functional. Located in the hospital's 1954 wing, they are undersized and have electrical

and mechanical limitation. «



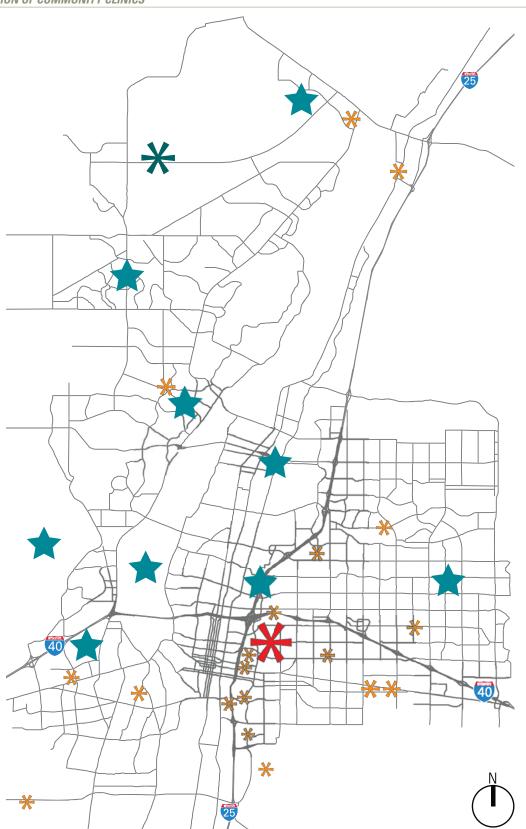
NEW COMMUNITY CLINICS. UNM HSC plans to add five to six new community clinics in the Albuquerque metropolitan area through 2020.

UNM SRMC. The hospital focused on program development and maximizing facility utilization in its first three years. Surgical programs, including bariatrics and total join replacement, were instrumental in helping the hospital meet Sandoval County's health needs. We will evaluate the need for additional clinic space and inpatient capacity as part of our ongoing commitment to the community.

- Medical Office Building. Key programs, such as women's and children's services, medical specialties (sleep, renal medicine, cardiology and gastroenterology), and surgical programs (bariatrics, orthopedics, podiatry and ophthalmology) could be relocated into the facility on the UNM SRMC campus. Both community and UNM providers have expressed interest in establishing practices or expanding existing practices at the hospital. Ongoing evaluation of all programs will be built into the strategic planning process.
- Surgical Services. The number of cases, total OR minutes and room utilization at UNM SRMC have all increased, and all six operating rooms plus a procedure room are in use Monday through Friday. Additional OR space will be needed to accommodate program growth and additional community providers, who currently account for about 45 percent of OR time. UNM SRMC will also need greater OR capacity to offer block times for both inpatient and outpatient procedures.
- Public-Private Partnerships. Partnerships with both public and private
 entities will promote community engagement and help meet the need for
 newretail and residential development adjacent to the UNM SRMC campus.
- Centers of Excellence. UNM SRMC is working to create centers of excellence
 to help build the hospital's identity and promote it as a destination that
 consumers will choose when they are deciding where to seek health care.



FIGURE. 10 FUTURE LOCATION OF COMMUNITY CLINICS



LEGEND

***** UNM HSC Health Sciences Center

Current ClinicsUNM SRMC

* Possible New Clinics







CHAPTER 5 ADMINISTRATION AND INFRASTRUCTURE

5.1 MISSION

UNM HSC's **administration** supports the educational, research and clinical missions, sets the institution's strategic goals and addresses the needs of its 10,000 employees. It works with UNM leadership and external partners to maintain the necessary **infrastructure** to support all Health Sciences Center activities.

5.2 BACKGROUND ASSUMPTIONS (ADMINISTRATION)

The UNM HSC's administrative priorities include:

- Addressing the needs of a 24/7 workforce by providing services and amenities
 for students, faculty and staff. These might include improved food service, fitness
 facilities and elder and childcare options.
- Constructing, renovating and maintaining environmentally sustainable "green" facilities.
- Prioritizing essential **patient- and student-centered** programs.
- Creating welcoming, open, visually unified outdoor spaces.
- Making it easy for visitors and employees **to find their way** around campus.

5.3 CURRENT FACILITIES

Many administrative functions are carried out at the Health Sciences and Services Building (HSSB) on the HSC Core Campus and the UNM HSC Business and Communications Center (BCC) at 1650 University Boulevard NE. The UNM Medical Group is headquartered on the UNM South Campus at 933 Bradbury Drive SE. Many administrative functions have been consolidated in the past five years. Owing to space limitations in the HSSB, some functions have been transferred to the newly renovated BCC, uniting many administrative offices at one location. This consolidation of administrative functions is key to increasing operational efficiencies throughout the UNM Health System.

5.4 FUTURE FACILITY NEEDS

UNM HSC has added faculty in the various missions over the past 10 years, and the number of faculty needing offices has grown by 46 percent on the UNM HSC Core Campus.



>> Growing administrative space needs can be accommodated by repurposing existing structures that are no longer suitable for patient care, such as the oldest adult wings of UNM Hospital. <<

Additional space for Nursing research faculty and Pharmacy faculty associated with the New Mexico Poison Information Center was included at BCC, but faculty office space is needed in all the colleges and venues, including UNM West.

UNM has acquired the former Elks Club property, a nearly 8-acre site on University Boulevard adjacent to the BCC. Programming for that location has not yet begun, but it is believed suitable to meet any of a number future educational, research, clinical or administrative needs.

A more cost-effective and efficient operation requires:

- Linking space allocations to need. For example, some faculty may require individual private offices to support their teaching and research.
- Deploying space as efficiently as possible by centrally managing its allocation.
- Integrating space considerations into the decision-making process.
- Determining which administrative units can be relocated outside the UNM HSC Core Campus without disrupting services and efficiencies.
- Reviewing the process for siting future facilities, because land is a scarce nonrenewable resource.
- Reviewing operating methods to improve efficiencies and create cost savings.

The number of UNM HSC support staff has increased modestly in response to a more complex regulatory environment, enrollment increases and expanded research and clinical service.

To provide greater managerial efficiency, some School of Medicine staff transitioned to provide services for the entire UNM HSC in such areas as Faculty Contracts and Diversity. Clinical staff positions are still evolving from various units to the UNM Medical Group.

Growing administrative space needs can be accommodated by repurposing existing structures that are no longer suitable for patient care, such as the oldest adult wings of UNM Hospital. New buildings to accommodate education, research or patient care should also include offices and administrative space.

5.5 BACKGROUND ASSUMPTIONS (INFRASTRUCTURE)

UNM HSC's Core Campus and UNM West infrastructure framework encompass utilities and water, the IT backbone, circulation, access, parking and how people move from one location to another. Infrastructure improvements will help the campus function more efficiently and nurture suitable environment for an academic health center.

Key guiding design and planning principles carried forward from the revised 2010 Master Facilities Plan and aligned with UNM HSC's strategic plan include:

- Patient Care and Well-Being. Create a campus that promotes health. Great
 outdoor spaces help people recreate, reflect and heal. Establish a landscape
 that contributes to UNM's legacy of great outdoor spaces, including a signature
 gathering place on par with the Duck Pond on Main Campus. Encourage more active
 lifestyles by making walking and bicycling the primary means of getting around.
- Accessibility. Make the campus more physically accessible. Develop a transportation network with clear access and circulation. Establish parking facilities



at the campus perimeter. Connect parking to reliable transit and a comprehensive pedestrian/bicycle network. Establish an intuitive and understandable wayfinding and signage system.

- Sustainability. Incorporate sustainability into the overall campus infrastructure,
 particularly transportation and landscape. Make open space and transit the primary
 organizing elements of the campus. Design buildings that are durable, adaptable
 and provide the most space on the smallest footprint of land.
- Logical Growth. Establish a framework for growth that allows for a logical and
 efficient expansion of facilities. Delineate parcels of land, with clear direction for
 building orientation, scale and parking. Match implementation strategies with
 overall development goals. Use multiple funding sources and programs to build
 facilities with diverse programs and users.
- Image. Create a campus that reflects the UNM HSC's strategic mission and
 connects with UNM's image. Open space will become an organizing framework for
 growth. Both the extension of the Sculptural Garden of Healing and the proposed
 Health and Wellness Greenway serve as a model for creating a comprehensive
 pedestrian network across the UNM HSC campus.
- Transportation. More than 25,000 people drive, bike, take a bus or walk to and
 from the UNM HSC Core Campus each day. For patients and their families, the
 experience of navigating the campus can be stressful. They arrive under great
 duress, with no idea of where to park or how to find the right office or department.
 For those who work or study on the campus, the daily challenges of finding parking
 and fighting traffic dampen the overall campus experience.
- Climate Action Plan. The 2009 UNM Climate Action Plan set a goal of reducing
 greenhouse gas emissions by 80 percent by the year 2030. The plan estimated
 that commuting contributed to 26 percent of the university's total greenhouse gas
 emissions. UNM aims to increase to 30 percent each the share of commuters who
 use transit and biking or walking to get to work. This ambitious goal will require
 structural changes in the way that people access the campus and its facilities.

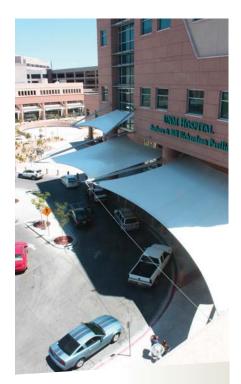
Well-designed *infrastructure* and transit routes help people move efficiently around campus. What gives the UNM HSC life and vibrancy are the amenities, such as a selection of healthy foods, farmer's markets, fitness trails and venues, small stores and places to gather or hold community events. The thoughtful placement of amenities throughout the campus helps to connect it with its surroundings, fostering a greater understanding of the benefits it provides New Mexicans.

Communication and *information technology* is critical for recruiting and retaining educators, researchers and clinicians. The next decade will see even greater reliance on technology for tasks like electronic medical record keeping, patient portals, informatics and telemedicine. UNM HSC's core IT infrastructure is in fair condition, but it will need updating.

5.6 CURRENT INFRASTRUCTURE

TRAFFIC. Lomas and University Boulevards carry most campus-associated traffic. On an average day, Lomas carries 32,000 vehicles and University 23,000. University between Indian School Road and Lomas experiences significant delays during peak commute hours. The lack of uninterrupted east-west connections and limited alternative routes means that most traffic ends up on these two streets. Camino de Salud is the only existing roadway that links the east and west sides of the HSC campus. It would function more effectively if it were extended north along the North Diversion Channel to connect from Tucker Avenue to the segment near the Dental Clinic.

>> UNM aims to increase to 30 percent each the share of commuters who use transit and biking or walking to get to work. This ambitious goal will require structural changes in the way that people access the campus and its facilities. «



UNM HOSPITAL MAIN ENTRANCE



PARKING. Chronic parking shortages exist. Only 2,000 parking spaces are available for the use of nearly 10,000 UNM HSC employees. The UNM HSC Core Campus has a total of 4,006 parking spaces, including 1,298 garage parking spaces and 2,708 surface parking lot spaces. Existing parking operations require a complicated coordination of work schedules, shuttle services and remote parking facilities. The construction of any new buildings on existing surface parking lots will further reduce the limited parking supply. Parking availability also affects the patient and family experience.

Parking demand varies greatly among students, staff and hospital visitors. A significant percentage (roughly 25 percent) of students and staff reach campus by bike or on foot. While alternative transportation use more is above average in Albuquerque, more could be done to facilitate access to campus via public transit, cycling or walking.

The reliance upon surface lots to provide parking close to major destinations at UNM HSC frustrates motorists and compromises the campus by dedicating large amounts of land to parking. Most surface parking spaces require transport services to and from UNM HSC buildings. UNM and UNM HSC shuttles serve most of the remote lots. Although shuttle service is reliable, it is not the first choice for most staff/students. Walking or bicycling from distant lots is often not a simple or easy alternative due to great distances, circuitous routing and lack of high-quality pedestrian and bicycle infrastructure.

FIGURE.11 CURRENT PARKING SPACES

LOCATION	NUMBER OF PARKING SPACES
Surface Parking	
South Campus	545
Lands West	874
Other Lots	1,289
Parking Garage	
Lomas Garage	781
West Garage	517



UNM HSC PARKING FACILITIES

TRANSIT. Three transportation-related agencies serve the UNM HSC campus:

- ABQ Ride is the City of Albuquerque's transportation department, responsible for providing bus service along University and Lomas Boulevards. In the Spring 2015 semester, ABQ Ride issued 877 free bus passes to UNM HSC employees.
- UNM HSC Transportation Services has a fleet of 19 shuttles that connect approximately 60,000 riders per month from parking lots to UNM HSC facilities. Eight shuttles run concurrently during the morning hours and six operate during the afternoon and evenings. They operate within travel lanes that are shared with automobile traffic along internal university roadways, as well as along Lomas Boulevard, University Boulevard and Medical Arts Avenue. UNM HSC shuttles serving UNMH currently pick up passengers along Lomas Boulevard. Shuttles also use Lomas Boulevard to access Medical Arts Avenue and facilities located on the south side of Lomas Boulevard.
- UNM Parking and Transportation Services (PATS) services the G and Q lots adjacent to University Avenue. These lots are mainly used for main campus students and staff. PATS uses Camino de Servicio Road to serve the G and Q lots.
- Rio Metro transit services to and from the Rail Runner station in Bernalillo with various scheduled stops in and around the four-county area (Sandoval, Bernalillo, Valencia and Torrance). These transportation services provided by MRCOG could be enhanced.

PEDESTRIAN AND BICYCLE NETWORK. A series of plazas and walkways connect UNMH to many UNM HSC academic facilities. Walking within this developed campus core is easy and safe. However, this coherent system of pedestrian access has not yet been extended to other parts of the campus. Existing sidewalks along roadways are generally minimal in width and lack landscape buffers or shade trees. University and Lomas Boulevards act as barriers to pedestrian and bike movement, because these major streets have dedicated right turn lanes where automobiles frequently fail to yield to pedestrians.



FIGURE.12 EXISTING PARKING & TRANSIT CIRCULATION





Bicyclists are similarly affected by this auto-centric infrastructure and a lack of connectivity. The Noreste Multi-Use trail provides a comprehensive and safe connection to the campus and bike lanes along Constitution Boulevard, creating a strong connection to the campus. But on the campus itself, bike lanes and trails are more limited. The few connecting streets funnel bicyclists, pedestrians and automobiles to intersections where each user is forced to compete with the others in an environment biased toward automobile users.

LANDSCAPE AND OPEN SPACE. A series of plazas and green areas create usable and attractive open space around the UNM HSC Core Campus, which is adjacent to the 80-acre UNM North Golf Course and the two-mile Lobo Trail that runs around its perimeter. The western half of the campus, essentially from Yale Boulevard west to I-25, lacks a coherent pattern of usable open space, however.

As UNM HSC invests in new buildings, it also must make structural changes to campus access, circulation and parking. These changes will improve east-west movement, making biking and walking more feasible options. New circulation options will also create better options for connecting parking to destinations on the campus

INFORMATION TECHNOLOGY. The UNM HSC IT infrastructure, which includes UNM Hospitals, is part of a larger UNM system of integrated voice switches, service entrances, data hubs, server rooms, technology closets and desktop devices tied together with copper and fiber cabling of mixed age and condition. There are two major data hubs, one located in the first floor of the Health Sciences and Services Building and the other in Novitski Hall's lower level. Cabling runs from the core hubs to multiple equipment rooms throughout the UNM HSC, including the Childrens' Hospital Pavilion, the UNMH server farm, the Ambulatory Care Center and UNM Cancer Center. Existing cabling on the UNM Core Campus has not kept pace with the rapid pace of technological change. Compromises are inevitable, given that more than half of UNM HSC buildings were constructed prior to 1990. Many challenges have arisen regarding maintenance, expansion and alterations as the campus has matured.

>> UNM HSC Transportation Services has a fleet of 19 shuttles that connect approximately 60,000 riders per month from parking lots to UNM HSC facilities. «





FIGURE.13 EXISTING PEDESTRIAN & RECREATIONAL CIRCULATION, AND LANDSCAPED AREAS





>> An electrical substation upgrade to the North Campus Substation is necessary to ensure a reliable electrical supply to the proposed

Adult Acute Care and Behavioral Health hospital, as well as other potential facilities in the Lands West area. ≪



UTILITIES. UNM operates and maintains most of the campus utility infrastructure. These can be divided into **distribution** systems and **generation** systems:

- **Distribution** systems include steam, condensate, chilled water, electrical, natural gas, potable water, irrigation and reclaimed water, fire protection, sanitary sewer, telephone and data (optical fiber and copper).
- **Generation systems** include chilled water, steam, electrical, potable water and renewable energy.
- Purchased Utilities systems include electricity, natural gas, potable water, sanitary sewer and (in the future) reclaimed water.

UTILITY PROXIMITY. A high-level evaluation of the existing utility system assigns ratings of A, B or C to each development area, depending on the proximity and types of utilities on site.

- **A** Utilities are close to the project site, excess capacity is available for immediate use and there are redundant critical systems.
- **B** Utilities are near to a project site, there is limited capacity to accommodate future use and redundancy issues may arise (and will require more study and expenditures to achieve complete serviceability).
- **C** Utilities may or may not be close by, with limited capacity and availability. The site will require significant expenditures for complete serviceability. Redundancy issues are also prevalent.

5.7 FUTURE INFRASTRUCTURE NEEDS

The 2013 UNM Utility Master Plan proposes a number of upgrades to the North Campus. Based upon that report, the following improvements are recommended:

INFORMATION TECHNOLOGY. The IT conduit, copper and optical fiber system running from the Camino de Salud gas station to the Business and Communications Center needs remediation and expansion to accommodate additional UNM HSC growth along University. An attempt to use current cabling for 10-gigabyte transmissions and upgraded network switches for Project ECHO failed due to the poor condition of the current fiber cables. A redundant optical fiber route should connect the UNM Cancer Center to the BCC. Wireless and cell-phone coverage for both indoor and outdoor spaces is highly needed.

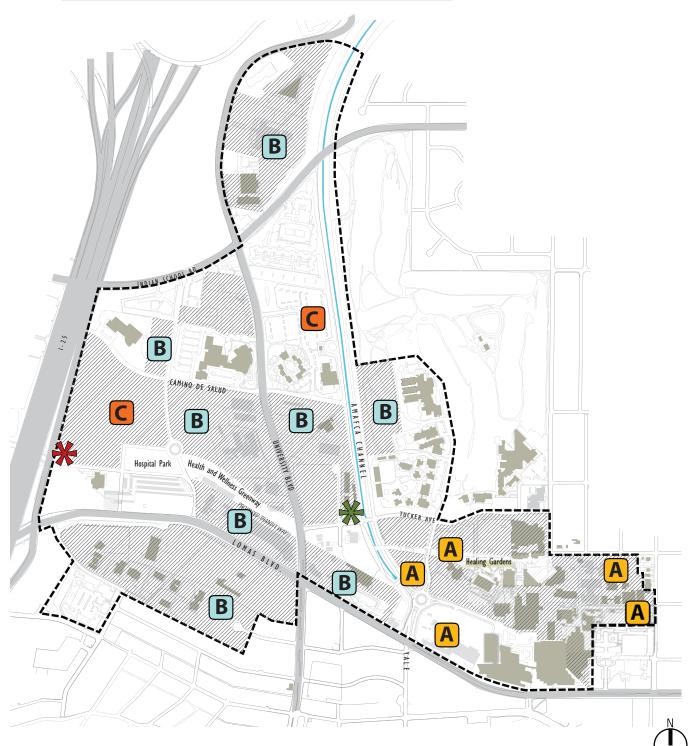
UTILITIES. A UNM HSC utility master plan was developed in 2013 to incorporate various past utility studies and support the goals and vision of the 2010 Master Facilities Plan.

Future utility needs will include:

- **Electrical.** An electrical substation upgrade is necessary to ensure a reliable electrical supply to the proposed Adult Acute Care Behavioral Health Hospital, as well as other potential facilities in the Lands West area. The North Campus Substation, located adjacent to the arroyo along Tucker Avenue, will require additional transformers and feeders to provide the necessary redundancy, capacity and reliability for these new facilities.
- Water. The UNM HSC has a hybrid water system. Many core facilities draw water from UNM's well. Two eight-inch steel water lines connecting HSC Core Campus



FIGURE.14 UTILITY PROXIMITY



A

Utilities close to project site.
Utility duct banks and excess
capacity are available for immediate
use, and there is a redundancy of
critical systems.

B Utilities near project site, with limited capacity to accommodate future use. Redundancy issues may arise and require additional expenditure for complete serviceability on site.

C

Utilities may or may not be close by, with limited capacity and availability. Requires significant expenditures for complete serviceability of site. Redundancy issues also prevalent.



>> UNM SRMC is poised for expansion. UNM HSC academic programs are also slated for expansion at UNM West to meet the growing demand for health care providers. These changes warrant a review and update to the UNM West Master Plan. <

- to Main Campus, with the City of Albuquerque providing water to the hospital and buildings outside the immediate core. The current distribution configuration lacks the capacity to reliably, safely and efficiently supply adequate fire flows to parts of the UNM HSC campus from the city's water system.
- Fire Protection. Adding a new well and tank on the HSC Core Campus will provide redundancy within the system and also help to increase fire flow capability. Since the fire at Biomedical Research Facility, this has proven to be a significant issue as more assets are constructed. The 2013 Utility Master Plan outlines several projects that can be phased in over time.
- Potable Water. The master plan identifies seven phased projects for the UNM water system. These include distribution upgrades, establishing system-wide supply redundancy, system-wide upgrades and redundancy for minimum fire protection, pumping station upgrades for redundancy and the siting for a new reservoir and water line extensions for the HSC Core Campus and to the west for the replacement hospital and future development.
- Sanitary Sewer. There is enough capacity in the existing system to accommodate new development proposed within the UNM HSC core campus. As new development occurs, older pipes should be replaced.
- Stormwater. UNM is not experiencing any stormwater or drainage problems, but growth around the UNM HSC core campus will pose new challenges. Any new development should employ best practices for stormwater handling and comply with the necessary permitting and federal requirements.
- Heating and Cooling. To meet future need for steam and chilled water, it is
 recommended that two central plants be constructed north of Lomas Boulevard.
 One would be located east of University Boulevard and connect to the existing
 distribution systems serving the UNM HSC and Main Campus. A second plant
 would be located west of University Boulevard and distribute steam and chilled
 water to the new UNM HSC buildings. This plant would not be connected to the
 other plants on campus. Because it would be disconnected from the other plants,
 redundant equipment would be installed to ensure continuous capacity.
- Phone and IT. It is strongly recommended that a strategic plan be developed to begin the transition to a dual- or tri-hub network with redundant rings between zone hubs. This would ensure that UNM HSC technology is reliable, robust, redundant, high-speed, ubiquitous, cost-effective and efficient.

UNM WEST. The 2009 UNM West Master Plan, created by Ayers|Saint|Gross Architects + Planners, aimed "to develop an organized, memorable, sustainable and implementable campus framework that is inspired by the context of time and place." Given slower-than-anticipated pace of growth for the UNM components of the campus, this framework now needs revision and updating.

UNM SRMC IS POISED FOR EXPANSION. UNM HSC academic programs are also slated for expansion at UNM West to meet the growing demand for health care providers. These changes warrant a review and update to the UNM West Master Plan. The 2015 Master Facilities Plan outlines a strategy for expanding existing facilities and building upon existing development and recommends that UNM HSC undertake a focused planning effort for UNM West to revisit the existing master plan and propose a more detailed growth strategy.

- Create a pedestrian spine to link existing UNM West education facilities with UNM SRMC.
- Establish a coherent pedestrian network that can be built over time as facilities grow.



FIGURE.15 EXCERPT FROM UNIM WEST MASTER PLAN



- Create shared parking facilities to minimize the amount of land allocated to parking.
- Build Complete Streets that accommodate pedestrians, cyclists and drivers.
- Develop a more detailed district plan for UNM West, focused on connecting UNM SRMC with future academic and clinical components.

These goals are guided by planning principles that include compactness, cohesiveness and connectedness. This 2015 Master Facilities Plan update maintains the integrity and overall land use concept of the 2009 master plan, while making some modifications to land use designations near the hospital to accommodate UNM SRMC's anticipated growth.

As UNM HSC assumes a larger role at UNM West, UNM SRMC will be able to expand its programs to adapt to changing health care marketplace and delivery systems. Future needs will include:

- A new education building focused on health care education.
- Medical Office Building to accommodate the growing demand for health care provider space.
- Campus amenities, particularly a pedestrian path to connect the educational facilities to the hospital.







CHAPTER 6 PRIORITY PROJECTS

6.1 TOP SIX PROJECTS

An institution of UNM HSC's size and complexity has many building and infrastructure needs. We recognize that we will not have the resources to effectively address all of our facilities and infrastructure needs within the 10-year timeframe, therefore, the 2015 Master Facilities Plan identifies the highest-priority new construction projects and ranks them so that they will have the greatest impact on UNM HSC's educational, research and clinical objectives. It proposes a sequence of phasing and outlines estimated costs.

The plan also makes recommendations for renovating, renewing and updating existing buildings to meet new needs and missions.

More detailed costs and timing of projects will be developed annually as capital funds are allocated to specific projects. Each project will go through a vetting and approval process conducted by UNM HSC and relevant governmental entities. These priorities are:

1. UNM Hospital Replacement. UNM HSC's highest priority is to build a 360-bed Adult Acute Care Hospital to replace UNM Hospital on the property west of University Boulevard. An additional 48 psychiatric and behavioral health beds replacing those beds currently located at the UNM Adult Psychiatric Hospital would also be housed at this location. It is estimated this project, which includes a medical office building, (see below) would cost \$600 million and occupy 1.2 million square feet of space.

A new *medical office building* would be constructed adjacent to the replacement hospital with between 200,000 and 300,000 square feet of space. It would enable medical staff to move from their current cramped quarters in the Ambulatory Care Center.

The Kurt Salmon needs assessment concludes that the combination of aging facilities, outdated infrastructure, increased demand for health care and growing student enrollment have compromised UNM HSC's academic and clinical functions. An academic health center needs a highly functional and adequately sized teaching hospital. A new adult acute and behavioral care facility would allow UNM HSC to increase its capacity to train medical providers and continue to provide New Mexicans highly specialized care that is not available from other health providers.

The number of adult patient rooms would modestly increase, by 52 beds total, in line with the volumes projected by Kurt Salmon. In addition to providing medical, surgical

>> This Master Facilities Plan identifies the highest-priority projects to allow future development to have the greatest possible impact. «



and psychiatric care, the new facility would also house the Emergency Department, the surgical suites, all the appropriate diagnostic and therapeutic units and the associated specialty clinics.

The replacement hospital would be built on the vacant tract north of Lomas Boulevard and west of University Boulevard. This 33.5-acre site has the necessary infrastructure in place or close at hand, including electricity, water, sewer, natural gas, drainage and transportation. It is large enough to accommodate associated ancillary services and partner facilities. It has good access and visibility from Interstate 25 and represents the most cost-effective way to replace the outdated hospital.

Other sites were studied – in particular the site next to the current facility – but none were large enough for a facility of this size. The other potential sites face many constraints, including transportation and support services issues.

Many additional factors support this recommendation. These include:

- The *projected growth* of New Mexico's population.
- The accelerated growth of New Mexico's senior population projected to exceed national trends.
- The existing shortage of hospital beds in New Mexico and in the Albuquerque metropolitan area compared with other states and cities.
- Greater demand for beds and other health facilities due to increased Medicaid and insurance coverage.
- Worsening Emergency Department admit times at the existing facility.
- The need for *larger operating rooms* to accommodate new technology and larger surgical teams performing complex procedures.
- Growing difficulties in providing quality patient care in an aged, substandard facility, linked to value-based reimbursement models.
- Rising maintenance expenses at the old facility.
- Lack of space at the existing site to expand or build a replacement facility.
- Inability of the current facility to support growing clinical education needs.
- 2. UNM West Health Care Education Building. UNM HSC leadership is working closely with the City of Rio Rancho and Central New Mexico Community College to move instructional programs to the Rio Rancho campus, coordinating the growth in educational capacity with expanded clinical activities at UNM SRMC. Plans are underway to align university-wide prerequisites for all health profession programs into a standard set of courses that would allow students to satisfy all requirements for certain degrees at that location. The College of Nursing, in conjunction with the New Mexico Nursing Education Consortium, and the Emergency Medical Services Academy already offer instruction there. The primary need is for a classroom building to deliver lab science courses and provide office space to facilitate the move
- 3. Community-Based Clinics. UNM HSC will build five or six clinics within the next 10 years. These new clinics will help provide quality health care to outlying areas throughout the region and state and provide a cost-effective care site for chronically ill patients.
- Public-Private Partnerships. Solving increased access and post-acute care capacity shortage will enable the hospital system to transfer patients who still



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FIGURE.16 PROPOSED IMPROVEMENTS ON THE UNM HSC CORE CAMPUS 2015-2025

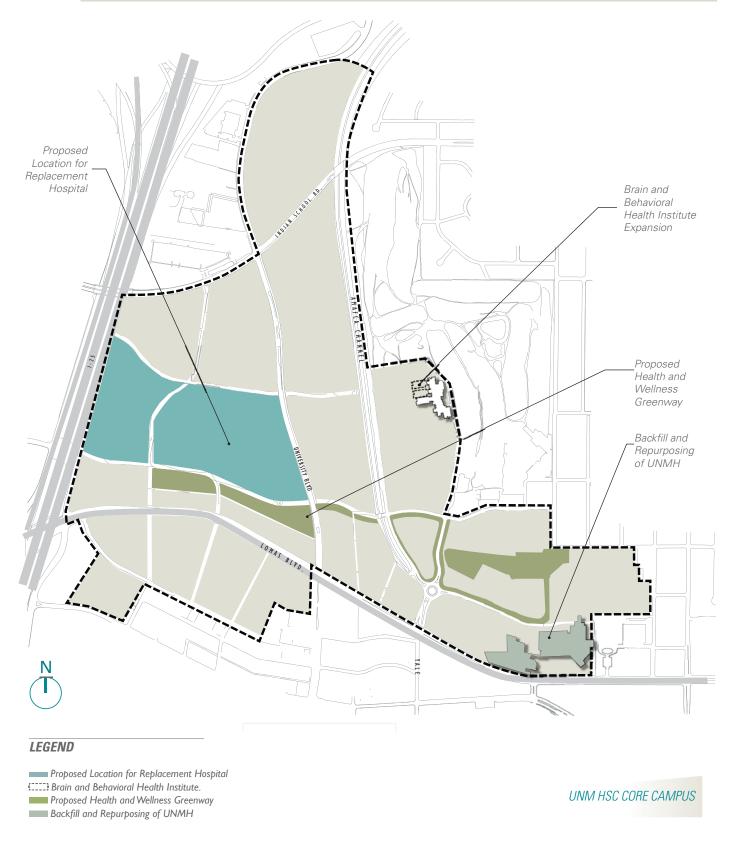




FIGURE.17 PROPOSED IMPROVEMENTS ON THE UNIM HSC WEST CAMPUS/UNIM SRMC 2015-2025



LEGEND

Existing UNM SRMC Facilities

Proposed UNM Education and UNM SRMC Facilities

UNM HSC West Campus

UNM Lands Managed Under Joint Control of UNM and UNM HSC

UNM HSC WEST CAMPUS



need some care, but do not require hospitalization, to an appropriate facility. Having these facilities in place would help reduce patient length of stay and free up beds for new patients who truly need hospital-level care. These facilities could be located within close proximity of UNMH and UNM SRMC, but can also be distributed throughout the region. There have been conversations about developing these facilities in partnership with private-sector providers. This initiative needs further study, however.

- 5. Brain and Behavioral Health Institute. The construction of a 58,000-square-foot addition to Domenici Hall for the Brain and Behavioral Health Institute will help bring together top UNM researchers, educators, clinicians and community members to tackle brain disorders such as Alzheimer's, autism, epilepsy, fetal alcohol syndrome, mental illness, stroke and trauma. We hope to grow this Institute to the stature of the Clinical and Translational Sciences Center and Cancer Center. While the original 10,000 gross-square-foot facility on the north edge of the UNM HSC core has been added onto twice, it is in good overall condition.
- 6. Backfill and Repurpose. Major backfill projects include repurposing the old UNM Main hospital buildings for offices, clinical trials, dry lab research and education meeting spaces. The HSLIC building, and research lab spaces in Nursing & Pharmacy and Fitz Hall will offer backfill opportunities when the Health Education Center Phase 3 is complete. The Med II building is in a strategic location in the center of campus but it needs a major overhaul. The former Elks Club building on University Boulevard (adjacent to the UNM HSC Business and Communications Center) also needs to be redeveloped.

6.2 OTHER IMPORTANT PROJECTS: RENOVATION, RENEWAL AND EXPANSION

- UNM Sandoval Regional Medical Center (UNM SRMC). As patient volumes
 increase it is anticipated that UNM SRMC facilities will expand to include a
 medical office building, an additional bed tower, expanded diagnostic and treatment
 areas and more operating rooms. UNM SRMC will expand its behavioral health
 capacity with any proposed expansion.
- UNM West Medical Office Building. The plan is to add about 150,000 square feet of office space in close proximity to UNM SRMC. The facility will encompass multi-specialty clinics and services, as well as medical offices for both community and UNM providers.
- UNM West Post-Acute Care Facility. A new facility size unknown could potentially be located on UNM land north of UNM SRMC to improve patient discharge rates at that location.
- Health Education Center Phase 3. New classroom and simulation lab capacity
 will allow UNM HSC to meet the demand to increase class sizes and meet the
 demand for a larger health care workforce in New Mexico. This project has been
 funded and is currently in the approval phase.
- New Research Facility. A major new wet lab research facility could potentially

>> The construction of a 58,000-square-foot addition to Domenici Hall for the Brain and Behavioral Health Institute will help bring together top UNM researchers, educators, clinicians and community members to tackle brain disorders such as Alzheimer's, autism, epilepsy, fetal alcohol syndrome and mental illness. <



be built on the M Parking Lot, immediately north of the Innovation, Discovery and Training Complex. This new facility would take advantage of existing utility infrastructure at that location.

- Children's Behavioral Health (Barbara and Bill Richardson Pavilion). One
 floor of inpatient units and the adult part of the emergency room will be relocated
 to the replacement hospital. That would permit moving the Children's Psychiatric
 Hospital to the inpatient floor as backfill and allow the addition of one medical
 or surgical inpatient unit. The obstetric and women's units would remain in this
 facility. Diagnostic and therapeutic services that are supported from the old main
 hospital would be moved to the first floor.
- Dental Clinic/Novitski Hall Expansion. Expansion of the oral surgery residency, pediatric dental residency, dental therapist and special needs dentistry programs would create a need to expand the Dental Clinic and Novitski Hall facilities.

Additional projects will likely be identified as changes occur throughout the next 10 years but every project will meet the UNM HSC's mission, strategic direction and values.

6.3 NEW INFRASTRUCTURE

Several new transportation-related projects would facilitate movement around the HSC Core Campus. These would include:

- Health and Wellness Greenway. This new half-mile transit, pedestrian and bicycle link and associated open space would create a reliable and efficient five-minute connection between existing facilities east of Yale Boulevard and the replacement hospital proposed south of the UNM Cancer Center. The Greenway would pass underneath University Boulevard.
- Camino de Salud. Extending this road north would enable vehicles to more
 efficiently move from east to west and help emergency vehicles and HSC shuttles
 to operate efficiently when University Boulevard is congested or delayed due to
 an automobile accident. This would require constructing a bridge over the North
 Diversion Channel and agreements with Albuquerque Metropolitan Arroyo Flood
 Control Authority to cross their easements.
- Bus Rapid Transit (BRT) system on University Boulevard. The Mid-Region Council of Governments (MRCOG) is considering a new transit system along this roadway, from Menaul Boulevard south to the Albuquerque Sunport. This project could be completed within the 10-year planning horizon, depending on funding. MRCOG identified potential station locations at the Camino de Salud and Lomas Boulevard intersections. A BRT system could reduce the need for UNM Transportation shuttles and enable more people to access campus via transit, reducing the need for parking.
- Campus bike share. The UNM HSC campus is a great candidate for bike sharing, similar to the system recently introduced in downtown Albuquerque and many other cities and campuses. UNM HSC could purchase a system that would place bicycles at key locations and provide commuters the opportunity to bike to their destinations. Such a system could tie into a university-wide, and even citywide network to help lessen automobile congestion.
- Complete Streets. All new streets constructed within the UNM HSC core campus



>> The proposed Health and Wellness Greenway, a half-mile transit, pedestrian and bicycle link and associated open space would create a reliable and efficient five-minute connection between existing facilities east of Yale Boulevard and the replacement hospital proposed south of the UNM Cancer Center. The Greenway would pass underneath University Boulevard. «

- will reflect Complete Streets design concepts, enabling safe access for all users, regardless of age, ability or mode of transportation. This will be key to reducing the number of automobile drivers, alleviating parking space needs and easing transit/shuttle demand.
- Traffic. Develop a flexible, resilient gridded street network to distribute traffic
 and provide improved connectivity. Creating multiple east-wet connections will
 help alleviate automobile congestion at existing intersections and create safer
 conditions for all users, including pedestrians and bicyclists.
- Parking. The availability and number of surface parking spaces will continue to decline as development continues throughout the UNM HSC campus area. Surface parking will increasingly take one of two forms: remote long-term parking at the periphery or close-in, short-term and handicapped parking. Competition for parking is positive because it encourages flexible parking management strategies and encourages commuters to investigate alternative transportation modes, such as transit and bicycling.
- Parking Garages. With limited land availability, structured parking should be a mandatory component of new construction on the HSC Core Campus. Structured parking can fit four or five times as many vehicles on a given piece of land compared to surface parking. This plan recommends locating parking structures close to the UNM HSC transit and shuttle system to give motorists more choices as to where to park. This also facilitates the creation of a "district" parking strategy, whereby different buildings share common parking areas. The table below lists recommended parking ratios for various types of uses. It places greater emphasis on providing parking for patients and less on parking for general campus functions.

FIGURE.18 PROPOSED PARKING RATIO

USE CATEGORY	PARKING RATIO (MAX)
Academic	1 per 1,000 sf
Clinic	1 per 200 sf
Hospital	5 per bed
Research	51 per 1,000 sf



FIGURE.19 FUTURE TRANSIT/TRAFFIC CIRCULATION



LEGEND

•••• Future New Streets

-- Future New HSC Shuttle Route

--- Future UNM/CNM Sunport BRT

★ Future BRT StationPuture Parking GarageExisting Parking Garage





FIGURE.20 FUTURE PEDESTRIAN & BICYCLE CIRCULATION



LEGEND

Existing Sidewalks

- - Future Sidewalks

Existing Multi-Use PathExisting Bicycle Lanes

--- Future Bicycle Lanes









CHAPTER 7 FINANCIAL OVERVIEW

The past five years have seen substantial growth in patient workload. In addition, new educational programs and research innovations have stretched existing physical resources to the point where they are becoming inadequate to support the mission of improving the health of New Mexicans. To bring change and infuse these efforts with new energy, additional targeted renovations and new construction must be planned for, funded and built.

The top six priorities for facility replacement, expansion and renewal are the major projects to be funded over the next 10 years.

Developing, overseeing and safeguarding UNM HSC's facilities and equipment is critical to the success of its mission and ensuring its financial sustainability. UNM HSC takes its fiduciary responsibility to the people of New Mexico seriously and strives to be prudent and efficient with the limited resources available.

In December 2014 UNM's Bureau of Business & Economic Research issued a report, "Economic Impacts of the UNM Health Sciences Center on the New Mexico Economy," that estimated UNM HSC's total annual economic contribution to New Mexico's economy at 19,495 jobs, with about \$1.7 billion in labor and non-labor spending. State and local governments generated an estimated \$61.8 million in tax revenues as a result of UNM HSC's spending and its multiplier effect.

Clearly, maintaining and growing the UNM HSC economic engine is as essential to New Mexico as delivering health science education, conducting health-related research and providing life-saving patient care.

7.1 FUNDING

UNM HSC generates operating revenue from patient care, research funded by federal, state and industry grants and contracts, sales and services and tuition. Other operating revenues come from state appropriations and mill levy taxes. If the volume of work performed by our physicians, nurses, pharmacists, researchers and their staff increases, yet expenditures are well-managed and controlled, the HSC can generate operating carryforward reserves.

These carryforward resources are re-invested into new and existing programs, as well as new and existing facilities, equipment and infrastructure. Capital projects can also be funded with one-time funds, such as HUD-backed hospital bonds, UNM System revenue bonds, New Mexico general obligation and severance tax bonds, federal grants, and gifts from HSC fundraising efforts.

>> UNM HSC makes a substantial economic contribution to the local economy. UNM's Bureau of Business & Economic Research estimates that this contribution amounts to \$1.7 billion in labor and non-labor spending annually. «



>> Possible funding sources available to UNM HSC are: revenue from patient care, research funded by federal, state and industry grants and contracts, sales and services and tuition, as well as one-time funds, such as HUD-backed hospital bonds, UNM System revenue bonds, New Mexico general obligation and severance tax bonds, federal grant, and gifts from HSC fundraising efforts. «

The UNM Hospitals have set aside carryforward reserves to build new facilities for replacement and expansion in a "capital initiatives" fund since FY 2006. In addition, all hospitals are required to budget and fund depreciation expense — a non-cash expense — which leaves cash on the balance sheet to renew and replace equipment and facilities.

Capital projects also can be funded with other one-time funds, such as Housing and Urban Development (HUD)-backed hospital bonds, UNM System Revenue Bonds, New Mexico General Obligation and Severance Tax Bonds, federal grants, contracts and gifts from UNM HSC fundraising efforts. Over the past 10 years, actual funding for new and renovated facilities has come from HUD-backed hospital bonds (38 percent), UNM Hospital depreciation and capital initiatives (33 percent), UNM System Revenue Bonds (8 percent), State General Obligation and Severance Tax bonds (8 percent), other clinical revenue (7 percent) and research contracts, grants and overhead recovery (6 percent). All funding sources were carefully weighed to provide the greatest leverage and benefit to the community.

Intergovernmental partnerships are also used to fund capital projects. One example is the collaboration between the UNM HSC and the City of Rio Rancho to extend health science education at the UNM West Campus. The city enacted a gross receipts tax to fund higher education buildings at its City Center location and has plans to contribute \$10 million toward a new science lab and faculty office building as one of the UNM HSC's top priorities.

Another example of collaboration among public entities is the partnership between the City of Albuquerque, the Mid-Region Council of Governments, UNM and Central New Mexico Community College to study transportation and traffic flow.

Public-private partnerships can also fund capital projects, especially to provide amenities and retail support around medical and education facilities. An example is the construction of new dormitories for the UNM campus over the last five years.

Whatever the source of funding for new facilities and renewal of existing facilities, careful strategic alignment and spending oversight are critical to ensuring the optimum use of those funds.

The chart below shows the top six priorities, their approximate size, cost, funding sources and completion dates.



FIGURE.21 TOP SIX PRIORITIES BY ESTIMATED COST PER YEAR - MASTER FACILITY PLAN UPDATE 2015-2025

Assumptions

- All projects are subject to approvals
 Funding and build size are estimates
- Other projects that fulfill program missions may be undertaken as funding opportunities arise

			Build Size	Total Project Cost	Capital Expenditure by Year (in Millions)									
Priority	Mission	Project Title	GSF Estimate	Project Cost Estimate (In Millions)	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025
1	Clinical	Replacement Hospital - Adult Acute Care (360 beds) and Adult Behavioral Health (48 beds)	1,200,000	\$600.0	\$30	\$200	\$200	\$170						
2	Education	UNM HSC West Health Care Education Building	44,000	\$20.0	\$2	\$18								
3	Clinical	Community-Based Clinics - average one every two years.	17,000	\$25.0		\$5		\$5		\$5		\$5		\$5
4	Various	Public-Private Partnerships - examples include post- acute care facilities, parking garages, facilities, child and elder care facilities.	Various	Various										
5	Research	Brain and Behavioral Health Institute/Domenici Hall	58,000	\$17.5		\$1.5	\$16							
6	Various	Backfill and Repurpose - examples include old UNM hospital areas for education/research/offices, HSLIC, Med II	Various	\$100.0					\$20	\$20	\$20	\$15	\$15	\$10
	Various	Parking	Various	\$25.0										
		Total Capital Expenditure per Year		<i>\$762.5</i>	\$32	<i>\$224.5</i>	\$216	\$175	\$20	\$25	\$20	\$20	\$15	\$15



FIGURE.22 TOP SIX PRIORITIES BY POSSIBLE FUNDING SOURCE - MASTER FACILITY PLAN UPDATE 2015-2025

Assumptions

- All projects are subject to approvals
 Funding and build size are estimates
- Other projects that fulfill program missions may be undertaken as funding opportunities arise

			Build Size	Total Project Cost	Possible Funding Source							
Priority	Mission	Project Title	GSF Estimate	Project Cost Estimate (In Millions)	Hospital/HUD Bonds	Operation or Capital Initiatives Funds	GOB/STB	UNM System Revenue Bonds	Contract, Grants, Gifts	Other Public Funds	Public/ Private/ Partnership	
1	Clinical	Replacement Hospital - Adult Acute Care (360 beds) and Adult Behavioral Health (48 beds)	1,200,000	\$600.0	X	Χ						
2	Education	UNM HSC West Health Care Education Building	44,000	\$20.0			X			X		
3	Clinical	Community-Based Clinics 1	15,000	\$5.0		Χ						
3	Clinical	Community-Based Clinics 2	15,000	\$5.0		Χ						
3	Clinical	Community-Based Clinics 3	15,000	\$5.0		Χ						
3	Clinical	Community-Based Clinics 4	15,000	\$5.0		Χ						
3	Clinical	Community-Based Clinics 5	15,000	\$5.0		Χ						
4	Various	Public-Private Partnerships - examples include post- acute care facilities, parking garages, facilities, child and elder care facilities.	Various	Various		Х					X	
5	Research	Brain and Behavioral Health Institute/Domenici Hall	58,000	\$17.5			X		X			
6	Various	Backfill and Repurpose - examples include old UNM hospital areas for education/research/offices, HSLIC, Med II	Various	\$100.0		Χ	X	X	X			
		Total Capital Expenditure per Year		\$762.5								



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CHAPTER 8

>> The UNM HSC campus, including UNM SRMC at campus, are divided in eight distinct development districts.

Each district is analyzed using Floor Area Ratios to determine their development potential.

The delineation of development districts is intended to ensure that each project coordinates with and contributes to the overall goals and objectives for the UNM HSC Core Campus and the UNM West Campus. These districts were defined based on the underlying ownership, current uses, future circulation and land use.

The UNM HSC Core Campus has been divided into seven development districts to serve as a guide for long-term planning decisions. UNM West (with UNM SRMC as its core) forms an eighth development district. These districts indicate where land is available and where structures could be replaced, as well as the availability of linked utility systems.



They are:

- **District 1** Hospital Core
- District 2 UNM HSC Core
- **District 3** University Clinics
- **District 4** UNM HSC North
- District 5 Adult Acute Care Hospital
- District 6 North University Services
- District 7 Lomas Corridor
- **District 8** UNM SRMC Framework

Each district has unique characteristics that will inform how and when development will occur.

Development Areas. Within each district, areas for potential development (or in some cases redevelopment) were identified. In districts with existing buildings, assumptions were made as to which buildings could be removed in order to redevelop the site(s). Other districts may be clear of buildings, but face other challenges to development, such as proximity to existing infrastructure.

The development potential for each area was determined by calculating the Floor Area Ratio (FAR) — the ratio of total net floor area of the building to the total lot area. An FAR describes the intensity of the use on a site, not the building height or site coverage (however, building height and site coverage are critical in determining the arrangement and the form of the buildings). An FAR was assigned to each low through high scenario by district. The ratios range within the districts for the low scenario are: 0.15 - 0.75; moderate scenario: 0.3 - 1.5; and high scenario: 0.5-2.0.



FIGURE.23 UNM HSC CURRENT LAND USE

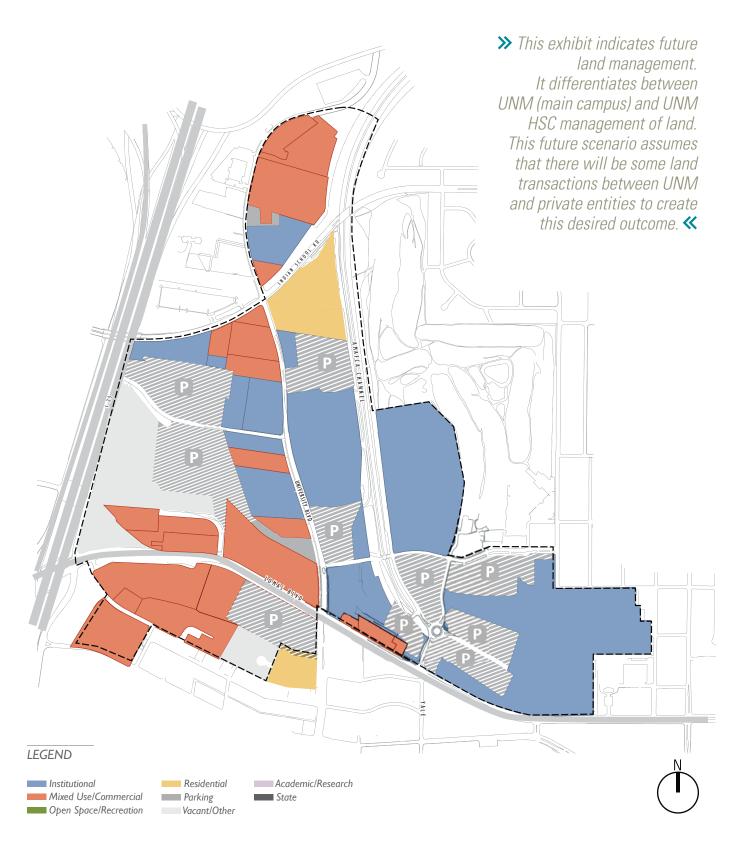




FIGURE.24 UNM HSC FUTURE LAND USE

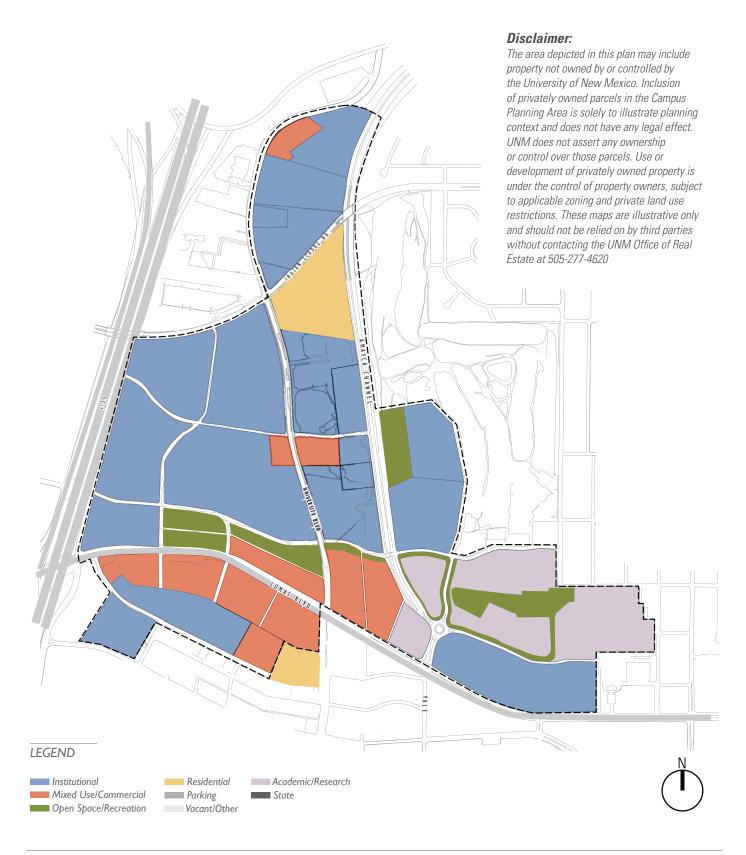




FIGURE.25 UNM HSC CURRENT LAND OWNERSHIP

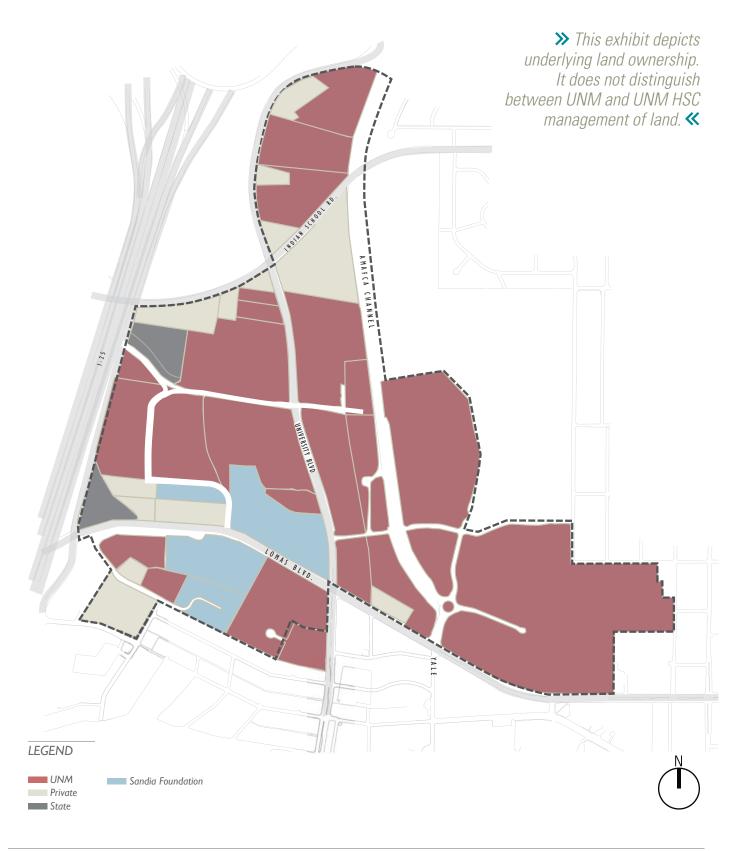




FIGURE.26 UNM HSC FUTURE LAND MANAGEMENT

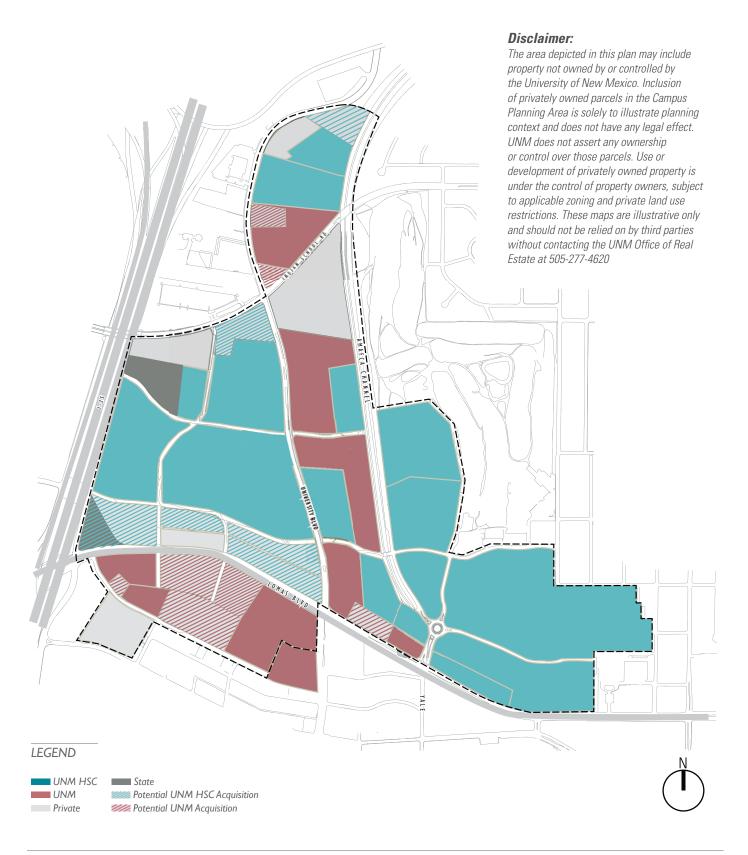




FIGURE.27 UNM HSC CORE CAMPUS: DISTRICT DEVELOPMENT FRAMEWORK



LEGEND

○ Planning Districts
■ Existing Structures to Remain

☐ Existing Structures Slated for Removal

Park, Greenway and Open Space

■ District 1: Hospital Core■ District 2: UNM HSC Core

■ District 3: University Clinics District 4: UNM HSC North

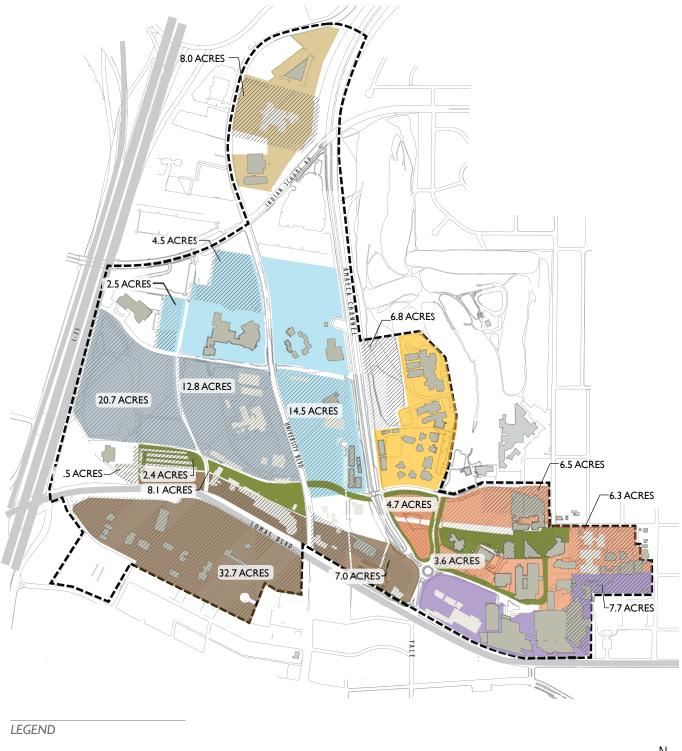
- District 5:Adult Acute Care Health Complex■ District 6: North University Complex

District 7: Lomas Corridor





FIGURE.28 UNM HSC CORE CAMPUS: DISTRICT FRAMEWORK PLANNING



Potential Development Areas
Existing Structures to Remain

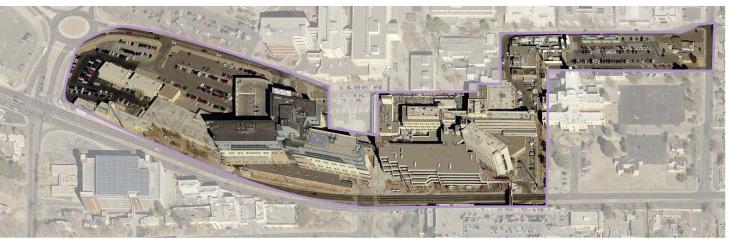
■ Existing Structures Slated for Removal

Park, Greenway and Open Space





Individual plans for each of the districts have been developed as part of the Master Facilities Plan. They indicate the location, size, development potential, uses, parking strategies and design intent for the district. The overall intent is to not be specific but to provide the flexibility to react to specific development proposals as they occur.



District 1, Aerial View



AREA OF ENLARGEMENT

DISTRICT AREA

20.8 Acres 908,048 SF

DEVELOPMENT AREA

7.7 Acres 335,412 SF

POTENTIAL/TARGETED USES

- Women's and Children's Hospital
- Behavioral Health (women's and children's)
- Multi-specialty Clinics

DISTRICT 1: HOSPITAL CORE

INTRODUCTION

District 1 is bounded by Lomas Boulevard to the south, Yale Boulevard to the west, Camino de Salud to the north and IHS to the east. The Adult Acute Care & Behavioral Health replacement hospital proposed for District 5 will relocate patient beds from the existing UNM Hospital. The approach for the redevelopment of this area includes strategic demolition and re-use of the existing facilities. The plan recognizes that the main hospital acts as an infrastructure conduit from the existing Central Utility Plant to the other buildings, such as the Barbara and Bill Richardson Pavilion and the Ambulatory Care Clinic. A single-stage demolition will not be possible without disrupting essential hospital services. Therefore a phased approach is necessary.

Medical office buildings

- Academic (including simulation)
- Research
- · Administration facilities
- Parking
- Infrastructure

DEVELOPMENT POTENTIAL

Low: 167,706 SF **Moderate:** 335,412 SF **High:** 586,971 SF

INFRASTRUCTURE

Utilities available onsite include:

Sewer

Gas

Electric

Chilled Water

33 Steam

AMAFCA easements

Data/IT



FIGURE.29 DISTRICT 1 HOSPITAL CORE



LEGEND

Existing Structures within District to Remain

Existing Structures outside District to

Remain

Existing Structures Slated for Removal

Development Focus Area
District Boundary





District 2, Aerial View



AREA OF ENLARGEMENT

DISTRICT 2: UNM HSC CORE

INTRODUCTION

District 2 is bounded by Tucker Avenue to the north, Camino de Salud and the Hospital Core to the south, Camino de Salud and the Albuquerque Metropolitan Arroyo Flood Control Authority (AMAFCA) Channel to the west, and existing housing to the east along Stanford Drive.

DISTRICT AREA

38.2 Acres 1,663,992 SF

DEVELOPMENT AREA

21.2 Acres 923,472 SF

POTENTIAL/TARGETED USES

- Education
- Research
- Administration

DEVELOPMENT POTENTIAL

Low: 461,736 SF **Moderate:** 923,472 SF **High:** 1,616,076 SF

INFRASTRUCTURE

Utilities available onsite include:

Sewer

Gas

© Electric

Chilled Water

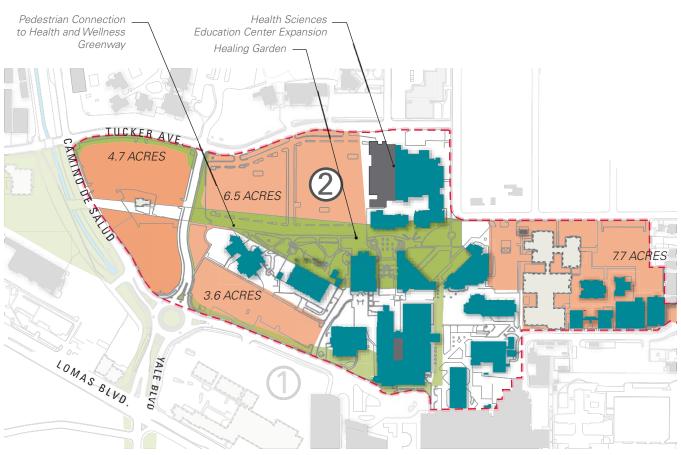
33 Steam

AMAFCA easements

Data/IT



FIGURE.30 DISTRICT 2 UNM HSC CORE



Not to Scale

LEGEND

Existing Structures within District to Remain

Existing Structures outside District to Remain

Existing Structures Slated for Removal
Development Focus Area

District Boundary







AREA OF ENLARGEMENT



District 3, Aerial View

DISTRICT 3: UNIVERSITY CLINICS

INTRODUCTION

University Boulevard and Camino de Salud bisect the majority of this district, while Tucker Avenue runs along the souther border. The proposed location of clinics for this district reflects the desire to give patients the most direct access to health care facilities. Patients and visitors will have direct access off of University Boulevard to the nearby clinics with convenient parking facilities. Given the sloping nature of the site, there are opportunities to create multi-story facilities with individual floors dedicated to one or more specialty clinics. This approach will maximize the use of the land and also provide a more diverse mix of uses. A proposed Bus Rapid Transit line on University Boulevard could help increase development and make the corridor more walkable.

DISTRICT AREA

47.9 Acres 2,086,524 SF

DEVELOPMENT AREA

21.5 Acres 936,540 SF

POTENTIAL/TARGETED USES

- Office
- Clinics
- Post-acute care and rehab facilities
- Residential care
- Education
- Small scale retail and restaurants
- **Parking**

DEVELOPMENT POTENTIAL

Low: 468,270 SF Moderate: 936,540 SF High: 1,638,945 SF

INFRASTRUCTURE

Utilities available onsite include:

Sewer

Gas

C Electric

AMAFCA easements

Data/IT



FIGURE.31 DISTRICT 3 UNIVERSITY CLINICS



LEGEND

- Existing Structures within District to Remain
 Existing Structures outside District to Remain
- Existing Structures Slated for Removal
 Development Focus Area
 District Boundary

- Proposed BRT Station







District 4, Aerial View



AREA OF ENLARGEMENT

DISTRICT 4: UNM HSC NORTH

INTRODUCTION

The UNM HSC North district is bounded by Tucker Avenue to the south, the UNM North Golf Course to the east and north, and the AMAFCA drainage channel to the west.

DISTRICT AREA

23.8 Acres 1,036,728 SF

DEVELOPMENT AREA

6.8 Acres 296,156 SF

POTENTIAL/TARGETED USES

- Education
- Research
- Clinical
- Open space and recreation

DEVELOPMENT POTENTIAL

Low: 88,862 SF **Moderate:** 222,156 SF **High:** 444,312 SF

INFRASTRUCTURE

Utilities available onsite include:

Sewer

✓ Gas

Electric

Chilled Water

333 Steam

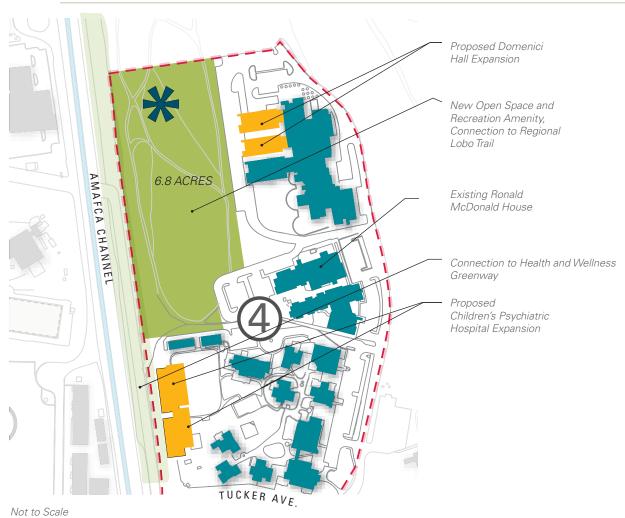
AMAFCA easements

A Proposed Reservoir

Data/IT



FIGURE.32 DISTRICT 4 UNM HSC NORTH



LEGEND

Proposed Structures
Existing Structures within District to Remain
Existing Structures outside District to Remain

Existing Structures Slated for Removal

Development Focus Area

District Boundary

Proposed Water Reservoir







District 5, Aerial View



AREA OF ENLARGEMENT

DISTRICT 5: ADULT ACUTE CARE HEALTH COMPLEX

INTRODUCTION

District 5 is located north of Lomas Boulevard east of Interstate 25, south of Camino de Salud, and west of University Boulevard.

DEVELOPMENT AREA

33.5 Acres 1,459,260 SF

DEVELOPMENT AREA

33.5 Acres 1,459,260 SF

POTENTIAL/TARGETED USES

- Adult Acute Care Hospital
- Behavioral Health
- Medical office building
- Multi-specialty clinics
- Central plant
- Transit
- Hospital Park
- Health and Wellness Greenway
- Multi-use commercial
- Parking

DEVELOPMENT POTENTIAL

Low:1,094,445 SFModerate:2,188,890 SFHigh:2,918,520 SF

INFRASTRUCTURE

Utilities available onsite include:

Sewer

Gas Gas

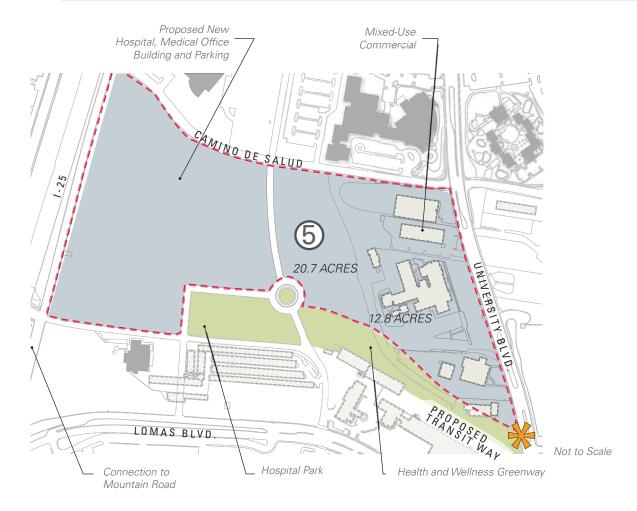
Electric

AMAFCA easements

Data/IT



FIGURE.33 DISTRICT 5 ADULT ACUTE CARE HEALTH COMPLEX



LEGEND

- Existing Structures outside District to Remain
- Existing Structures Slated for Removal
- Development Focus Area
- District Boundary
- Proposed BRT Station







District 6, Aerial View



AREA OF ENLARGEMENT

DISTRICT 6: NORTH UNIVERSITY BOULEVARD COMPLEX

INTRODUCTION

District 6 is located north of Indian School Road, east and south of University Boulevard and west of AMAFCA Drainage Channel. It is the only portion of the area that is not contiguous with the main UNM HSC core area.

DISTRICT AREA

18.5 Acres 805,860 SF

DEVELOPMENT AREA

8.0 Acres 348,480 SF

POTENTIAL/TARGETED USES

- Office
- Administration
- · Support commercial
- Post-acute care facilities
- Physical plant operations
- Parking

DEVELOPMENT POTENTIAL

Low: 104,544 SF **Moderate:** 261,360 SF **High:** 522,720 SF

INFRASTRUCTURE

Utilities available onsite include:

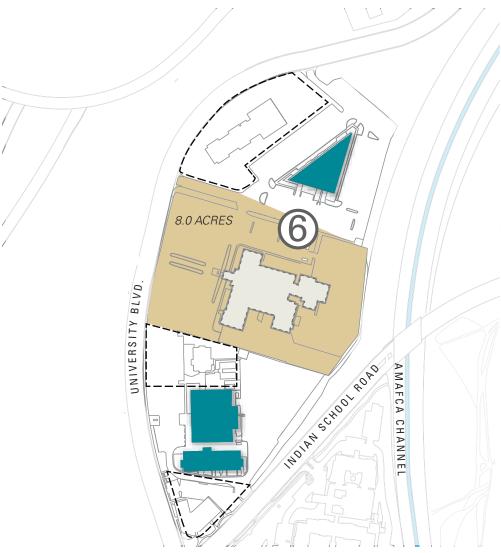
Sewer Gas

© Electric

Data/IT



FIGURE.34 DISTRICT 6 NORTH UNIVERSITY BOULEVARD COMPLEX



Not to Scale

LEGEND

Existing Structures within District to Remain
Existing Structures Slated for Removal
Development Focus Area

Out Parcel







District 7, Aerial View



AREA OF ENLARGEMENT

DISTRICT AREA

50.7 Acres 2,208,492 SF

DEVELOPMENT AREA

50.7 Acres 2,208,492 SF

DISTRICT 7: LOMAS CORRIDOR

INTRODUCTION

Lomas Boulevard splits this district east to west, and University Boulevard splits the northern section. Yale Boulevard is the easternmost boundary, and the I-25 frontage road is to the west. To the north of this district is the proposed transit way, Hospital Park and the Health and Wellness Greenway, located in District 5.

POTENTIAL/TARGETED USES

- Mixed-use commercial
- Retail
- Office
- Housing
- Post-acute care facilities
- Rehab facilities
- Residential care
- Multi-specialty clinics
- Parking

DEVELOPMENT POTENTIAL

331,274 SF Low: Moderate: 662,540 SF High: 1,104,246 SF

INFRASTRUCTURE

The existing utilities may have sufficient capacity to accommodate new growth and expansion of existing buildings. Additional studies related to individual building proposals will need to be performed in order to determine ultimate needs and expenditures.

Utilities available onsite include:

Sewer

Gas

Electric

Data/IT



FIGURE.35 DISTRICT 7 LOMAS CORRIDOR

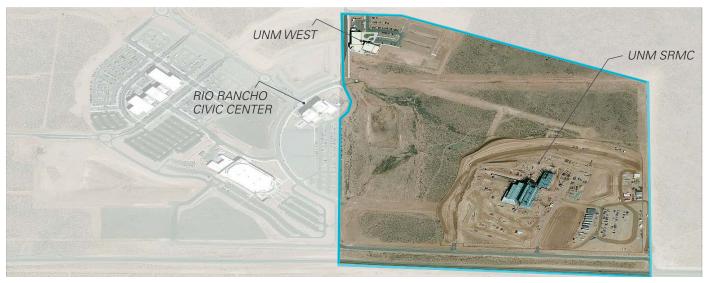


LEGEND

- Existing Structures within District to Remain
- Existing Structures outside District to Remain
- Existing Structures Slated for
- Removal

 Development Focus Area
- District Boundary
 Proposed BRT Station





UNM SRMC District, Aerial View

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UNM SRMC DISTRICT FRAMEWORK PLAN

INTRODUCTION

UNM West Campus in Rio Rancho, N.M. serves Sandoval County residents. Paseo del Volcan is located to the south. Rio Rancho City Center lies on the western boundary, the CNM campus lies to the north and vacant land comprises the eastern boundary.

DISTRICT AREA

120.0 Acres 5,227,200 SF

DEVELOPMENT AREA

40.0 Acres 1,742,400 SF

POTENTIAL/TARGETED USES

- Hospital expansion (72 Beds)
- Open space and trails
- Medical office building
- Multi-specialty clinics
- Behavioral health clinics
- · Post-acute care facilities
- Rehab facilities
- · Residential care
- Multi-specialty clinics
- · Patient centered medical home
- Education/Research/Administration
- Parking

DEVELOPMENT POTENTIAL

Low: 331,274 SF **Moderate:** 662,540 SF **High:** 1,104,246 SF

INFRASTRUCTURE

Utilities available onsite include:

Sewer

Gas

Electric

DrainageData/IT



FIGURE.36 PROPOSED IMPROVEMENTS ON THE UNM HSC WEST CAMPUS/UNM SRMC 2015-2025



LEGEND

Existing UNM SRMC Facilities

Proposed UNM Education and UNM SRMC Facilities

UNM HSC West Campus

UNM Lands Managed Under Joint Control of UNM and UNM HSC

UNM HSC WEST CAMPUS