Anschutz Medical Campus Development

Conveyance

The University of Colorado medical school (established in 1883) and Colorado General Hospital (later renamed the University of Colorado Hospital [UCH]) had shared a building near downtown Denver until 1965, when the state appropriated the funds for a new hospital. The medical school took over the old hospital space, and the two buildings were connected by a five-story research bridge. Although the research bridge space accommodated the early expansion and growth of the research enterprise of the medical school, the new building was the last for the medical school for the next 25 years. In 1976, the UCHSC was formally established when the school of medicine (SOM) and partner hospital was joined by the school of nursing (established in 1936) and the school of dentistry (established in 1973).

In the early 1990s the medical campus identified a need for additional program space for the various academic and research functions. A 1992 campus master plan indicated an anticipated deficit of all types of space at just over 175,000 assignable square feet if the research element of the institution was to expand in areas the institution desired.

In 1992, plans were approved for a eight-story research building to house cancer, neurosciences, and molecular biology research programs. Two years later, the school of pharmacy moved from the Boulder campus to the UCHSC campus and took much of the last remaining land available for building on the downtown campus. By this time (1994), the medical campus had outgrown its facilities. Surrounded entirely by residential neighborhoods and six individual neighborhood associations whose residents were concerned with parking and congestion, it became clear that developing a facilities expansion plan to suit everyone involved was very unlikely.

During 1994, the university sought 55 acres at the former Lowry Air Force Base, a facility already destined to be closed by Congress. However, although the U.S. Department of Education supported the use for the acres requested, the plan was deemed too costly by the Board of Regents when the university was asked to pay fair market value for the Lowry property.

The university then immediately examined sites at the former Stapleton Airport as Denver sought alternative uses for that property when the new Denver International Airport was constructed. However, when the site purchase and development costs were estimated internally, that alternative was not pursued.

The university next sought federal and state approval for development of a portion of the declared excess property at Fitzsimons Army Garrison shortly after the Base Realignment and Closure Commission determined in 1994 that it, too, would be a candidate for closure.

Fitzsimons Army Garrison ultimately was nominated for closure in July 1995 by the Base Realignment and Closure Commission established by Congress to examine the nation’s military bases and recommend consolidation and closures. At that time, the university submitted a request for 186 acres from the Department of Education and the Fitzsimons Redevelopment Authority (FRA), the legal entity created by the City of Aurora seeking to claim jurisdiction over the property. The request was submitted jointly August 12, 1997, by the University of Colorado, University Hospital and University Physicians, Inc., a non-profit entity providing financial services to its faculty clinicians.
That application was approved September 29, 1997, with a phased conveyance plan designed to ensure environmental clean-up of any property prior to conveyance and vacation of the property for all Army uses. The University’s proposal was complemented by an economic development conveyance request by the City of Aurora, through its Fitzsimons Redevelopment Authority, for the remaining 391 acres of the site. Of this acreage, 31 acres was later transferred to the University, and the remainder of the conveyance is now used for a variety of purposes including a bioscience research park.

The Anschutz medical campus development presented the university with an opportunity to compete and prevail as a top tier health professions education, research and clinical campus. The Institutional Master Plan for the new campus, approved by the University of Colorado Board of Regents and the Colorado Commission on Higher Education in 1998, provided for the UC Denver to expand from its 9th Ave and Colorado Boulevard campus to the Aurora campus site.

At the core of the 1998 Master Plan was specification of phased construction program totaling approximately nine million square feet of new program space and associated infrastructure for the medical campus, University of Colorado Hospital, and affiliate institutions.

**The Vision of new Anschutz Medical Campus**

As part of the initial master plan process, campus core vision teams were engaged to develop program vision statements for the year 2020. These vision statements have continued to guide the development of the master plan during the last three years. Separate vision statements were also developed for the areas of education, research, clinical care, support and logistics, information technology, health affiliations, and finance.

The overarching vision statement is presented below.

*The University of Colorado Health Sciences Center's (UCHSC) paramount and time-honored mission of education, research, patient care, and community service will continue into the next century. UCHSC is a unique regional public resource because it generates new knowledge and translates these discoveries to superior health education and human health. In all of its endeavors, UCHSC will achieve excellence and outstanding accomplishments, which will place the institution in the top tier of academic health centers.*

*The UCHSC, in partnership with health network and affiliates, will be responsive to the community's health care needs by educating individuals as members of interdisciplinary professional health care teams, and by preparing tomorrow's leading health scientists. Physical proximity and integral working relationships among and between clinicians and scientists will foster new levels of collaboration and integration. Partnerships among faculty, students, staff, affiliates, and the community will foster the development of new knowledge, and this knowledge will be applied to the prevention and treatment of human disease and to the improvement of human health. The institution also will create partnerships among faculty, students, and consumers in offering the highest quality of health care, and providing access for citizens to the latest scientific findings concerning the promotion of health and the treatment of disease.*

*The UCHSC will serve as an umbrella organization for superior science in the region. In this capacity, UCHSC will provide the basic and applied health-related research*
technology and the intellectual capital to enhance the activities of other education, research, and industrial entities in the region. The integration of functions in academic and clinical endeavors, and in the physical facilities of UCHSC, will foster a sense of community for faculty, students, and staff and for patients. Those functions and facilities will create a supportive culture that promotes the highest technological advances as well as human caring throughout the continuum of science and health care. The UCHSC will collaborate with and provide services to a global community through the application of innovative technologies in all of its missions.

Programs at UCHSC will evolve and be influenced by societal demands and the expectations embodied in changing demographics, competition, new financial opportunities and constraints, technology, and the continual application of rapidly expanding new knowledge. UCHSC will be successful because it adapts and maintains flexibility in a changing environment to accomplish its mission.

Within the vision statements are major themes that are considered by the campus community to be touchstones or key concepts and themes for the master plan:

UCHSC will rank among the top 10 academic health centers in the country;
Programs will have a regional, national, and international scope;
Programs will be integrated, interdisciplinary, and interprofessional in nature;
New technologies will be employed;
Programs will be more competitive;
Services and programs will be more customer-friendly;
New partnerships will be created;
The organizations will experience ongoing change and will be flexible.

The vision of the new medical campus includes new facilities that will enable faculty, students, and staff to conduct their duties in new ways in the 21st century. Education space will be more integrated with clinical and research space and will reflect the way in which teaching and learning are changing to learner-centered approaches. Research space will integrate clinical and basic science research to encourage a more effective flow of new discoveries to their application for the benefit of the patient and the community at large. Clinical space will reflect the reorganization of health care as a result of new treatments and approaches to diseases, the new demographics of patient populations, the emphasis on wellness and preventive care, the increase in the types of clinical sites, the need for facilities to support clinical trials, and other anticipated changes.

The current physical barriers that exist between the health sciences schools can be overcome in new facilities that promote interdisciplinary work and health care teams. The new campus can incorporate infrastructure and spaces that promote the integration of new technology in all aspects of clinical, education, research, and administrative work. Amenities and support services will be configured to promote a high quality of life, effective communications, applications of advanced technologies, and a sense of community. Proximity to the new bioscience research park and regional industry provides access and opportunities for public/private partnership and entrepreneurial development.

The unique opportunity and the compelling vision of the academic health center of the future have made the medical campus project a model at the national level for base closures across the
country. The endeavor is not simply an economic development effort on the part of a local community, but one that will also benefit the entire nation.

In the ensuing decade since 1998, supported by federal, state and philanthropic investments of over $2 billion, the former Fitzsimons Army Garrison site has been transformed into a premier academic medical center with nearly 7 million square feet of research, education, health care and administrative space. The relocation of the medical campus was completed in January 2009. The University of Colorado Hospital and the Children’s Hospital have also successfully relocated to the Aurora site as well. The future relocation of Denver’s VA Medical Center will further improve the synergies and productivity of the only academic health center in Colorado and the largest between Chicago, Texas and the west coast. The medical campus provides adjacencies of research, translational, educational and clinical facilities all within walking distance. These synergies encourage a culture of collaboration among investigators, educators, and clinicians that is invigorating the academic health and research enterprise. The campus is enhanced further by the adjacent Colorado Science and Technology Park in which industry partners and start-up companies are located.

The initial 1998 master plan estimates were in the range of 20 to 50 years for the build-out of the university’s portion of the campus. During 2000, a financial feasibility study update was performed, and the revised estimate was developed and independently validated by the Urban Land Institute. This revision predicted that most of the build-out of the educational and research facilities could be achieved by 2012.

Additionally, as a national and statewide economic downturn unfolded in 2002, it became clear that the precipitous decreases in construction costs and financing would allow the university to build space more quickly than originally planned, thus speeding up the build-out projections substantially from the initial 2012 estimates.

Philanthropy was an important source of funding to further accelerate the pace of building. Private funding facilitated the building of the cancer center, the outpatient pavilion, the eye institute, a center for oral facial clinical practice and research, and a center for diabetes treatment and prevention. The largest general campus gift totaled $91 million. The majority of gifts from this donor came at the very earliest phase of the campus development and served as a catalyst for further investment in the campus. In recognition of the important role played by these early gifts from businessman Philip Anschutz, the new campus was renamed the Anschutz Medical Campus in November 2007.

As building continued on the campus, an additional funding source became available to assist UCHSC and its affiliates to more quickly develop the campus. In 2003, the Colorado General Assembly approved a previously unused funding mechanism, called certificates of participation (COP), that allowed the university to begin a $202 million construction project on seven buildings including all the facilities planned for the campus' educational zone. The COP’s are to be repaid by the state over a 25-year period, and the historic legislation has allowed the UC Denver to complete the transition for all of its education, administrative, and support programs from 9th Avenue to the new campus.

The COP legislation identified the funding for the following facilities:

- Education Facility 1B
- Education Facility 2
• Library
• Academic Office Facilities
• Environmental Health and Safety 2
• Campus Services Building
• Education Bridge

These buildings have been completed in 2007 and are now occupied.

**Education Facility 1**
The Education Facility 1 includes space for multipurpose classrooms, lecture halls, specialized instructional and computer laboratories, student community space, program space for the Center for Advancing Professional Excellence, and skills laboratories for programs in nursing, physical therapy, and pharmacy. The facility is located to the east of Building 500 in the education zone of the campus.

**Education Facility 2/ Education Bridge/Academic Offices**
This facility consists of two five story structures that provide education space on the lower two floors and faculty offices on the upper floors and are connected by the education bridge. The project provides 58,453 ASF of education space consisting of classrooms of various sizes, lecture halls, computer stations, small group learning rooms, and student community space. The facility also provides 65,000 ASF for faculty offices. The facility is located east of Educational Facility IB in the campus education zone, and was completed in August 2007.

**Library**
The new library provides state-of-the-art library services to the Anschutz Medical Campus and allows the campus to provide technology and information to meet the evolving needs of Colorado for education, research, patient care, community service, and economic development. The campus library consists of 76,972 ASF of collection, study, and computer access and administration space. It is located on a prominent site to the north of Building 500. The project was completed in October 2007.

**Academic Office 1**
The new Academic Office Facility is sited south of the new Research Complex 2. The building provides 97,500 ASF for faculty offices primarily for use by the School of Medicine and Graduate School. The project was completed in October 2007.

**Environmental Health and Safety Facility – Phase 2**
The project provides a 3,900 ASF expansion to the existing environmental health and safety waste facility whose construction is complete. This second phase provides an expanded level of support that is required for the UC Denver research program. Construction was completed in February 2007.

**Campus Services Building**
The campus facility operations support building houses UC Denver support services and includes maintenance shops such as painting, carpentry, mechanical works as well as offices. The 42,000 ASF facility was completed in July 2007.

The COP mechanism could not be used to fund research space. By the late 1990s, the research enterprise at the UCHSC had grown to be quite sizable, with annual expenditures of approximately $110 million. Bonds were issued to finance the building of research space with the intention of using future indirect cost allocations from research grants to service the debt.
The facilities that contain significant amounts of space for the UC Denver academic research program include:

- Research Complex I
- Research Complex 2
- Nighthorse Campbell Center
- Barbara Davis Center
- Perinatal Research Center
- Pharmacy and Pharmaceutical Sciences

The funding for the construction of these facilities included federal construction awards and significant bond issues that are being repaid from sponsored program indirect costs. Total sponsored awards at the Anschutz Medical Campus for FY 2007 totaled $345.6 million.

**Research Complex I**
The 390,160 ASF complex constitutes the first comprehensive research presence for the UCD on the former Fitzsimons site. The complex consists of two buildings located in the research zone, which is west and southwest of Building 500. Included in the Research Complex I facilities are wet and dry research laboratories, core laboratories, lab support space (including space for linear equipment), researcher and program offices, conference rooms, a central vivarium, auditoria, and building support space. This project is completed and the buildings occupied.

**Research Complex 2**
As the second major research complex, Research Complex 2 provides approximately 325,000 assignable square feet of additional space for the research enterprise in the research zone at the Anschutz Medical Campus. The project was completed in June 2008.

**Nighthorse Campbell Native Health Center**
The Nighthorse Campbell Native Health Center, with 24,195 ASF, houses the Division of American Indian and Alaska Native Programs. The two-phased, $13.3 million project was completed in May 2002.

**Pharmacy and Pharmaceutical Sciences**
The construction of the new 165,000 square foot, $59.5 million building for the School of Pharmacy is now underway and will be completed in June 2010. This new facility will house research laboratory, laboratory support, and faculty and administrative offices for the UC Denver School of Pharmacy.

**The Barbara Davis Center**
The Barbara Davis Center for Childhood Diabetes is the largest diabetes and endocrine care research and training program in the Colorado community. The project involved the construction of a new 70,535 ASF facility for the Barbara Davis Center. The final project phase was completed in December 2006.

**Perinatal Research Facility**
The Perinatal Research Facility (PRF) is located in the northeast corner of the campus. The project included 8,539 ASF of expansion space for new research laboratory, environmental chamber, and office space added to an existing facility with 8,652 square feet. With the expansion, the facility has 17,191 total ASF. The project was completed in January 2002.

Other projects that complement the campus development include:
• PASCAL – Library Storage Facility
• Education Facility IA
• Center for Humanities
• Lazarra Center for Oral Facial Health
• Parking Structure I
• Environmental Health and Safety I
• Central Utility Plant
• Pharmacy and Pharmaceutical Research Building
• UCH – CeDAR
• Leprino Office Bldg & Parking Structure

**PASCAL - Library Storage Facility**
The 15,156 ASF library storage facility named the Preservation and Access Service Center for Colorado Academic Libraries (PASCAL) was completed in January 2001. The $4.1 million, state-of-the-art, library storage facility provides climate-controlled housing for materials in the library collections of UC Denver, CU-Boulder, and the University of Denver. At this time an 11,350 square feet, $4.1 million, expansion is underway. This expansion was completed by July 2009.

**Education Facility IA**
The Education Facility IA project totals approximately 14,000 ASF of instructional space and constitutes the initial presence for the UC Denver’s educational mission at the AMC. This facility is located within the northern building of the Research Complex I, and it includes instructional laboratories, small group learning rooms, a 100-seat lecture hall, and educational support space. The completion of this $6.8 million project and was completed and occupied concurrent with Research Complex I.

**Fulginiti Center for Humanities**
A new $8 million Center for Humanities building is being completed to house the Center for Bioethics and Humanities. This facility provides 9,850 ASF for exhibit, meeting, seminar, and program office space. The building shell was completed in August 2007. Finish of the space is currently underway and will be completed by December 2008. The building is sited at the north end of the Education Commons - between the Education Facility IB and Education Facility 2.

**Lazarra Center for Oral Facial Health**
The Lazarra Center for Oral Facial Health is a 95,448 gross square foot facility on the Anschutz Medical Campus. It houses the clinical programs of the School of Dental Medicine including a large amount of space for dental operatories for general dentistry, oral surgery, emergency dentistry, pediatric dentistry, and orthodontia. Other building occupancies include offices for the Dean of the School of Dentistry and faculty offices. Since opening in August 2005, the facility has been very fully occupied. The School is currently completing the 4th floor addition of approximately 13,000 gross square feet to house up to 50 dental operatories, offices, and other clinic support functions. Completion of the expansion is anticipated for June 2010.

**Parking Structure**
The campus has completed construction its first parking structure on the campus to complement surface parking. The structure consists of seven levels, including one level partially below grade, to accommodate 1,540 vehicles. The project was completed in September 2007.

**Environmental Health and Safety Building**
To accommodate the health and safety needs of the general campus, and in particular, its research programs, an environmental health and safety waste processing and support facility has been constructed on the campus. This first phase of the Environmental Health and Safety facility consists of 9,020 ASF. The second construction phase of the facility is described in the COP projects section for Environmental Health and Safety 2. This first phase includes space for radiation safety, infectious waste, and hazardous chemical handling space.

**Central Utility Plant**
The Central Utility Plant (CUP) was officially completed in May of 2003. The facility was planned to allow expansions as additional steam and chilled water service are required for the occupants of the new campus site. An addition phase to increase the campus chilled water capacity was completed in October 2004. A second phase expansion for chilled water capacity expansion to support the COP funded buildings was completed June 2007.

**UCH – CeDAR**
UCH constructed a Center for Dependency, Addiction, and Rehabilitation (CeDAR). CeDAR includes an 80 bed residential evaluation and treatment facility for young adults and adults afflicted with chronic substance dependency and addiction. It is operated as part of the Anschutz Centers for Advanced Medicine at UCH and under the medical leadership of a medical director from the Department of Psychiatry at the University of Colorado’s School of Medicine. The $18 million two story facility is located on the west side of the campus. The project was completed in October 2005.

More than 575,000 gross square feet of space in buildings formerly used by the Army Medical Base at the former Fitzsimons Army Garrison were initially identified as having potential to house UC Denver programs. The UC Denver utilizes 12 existing buildings