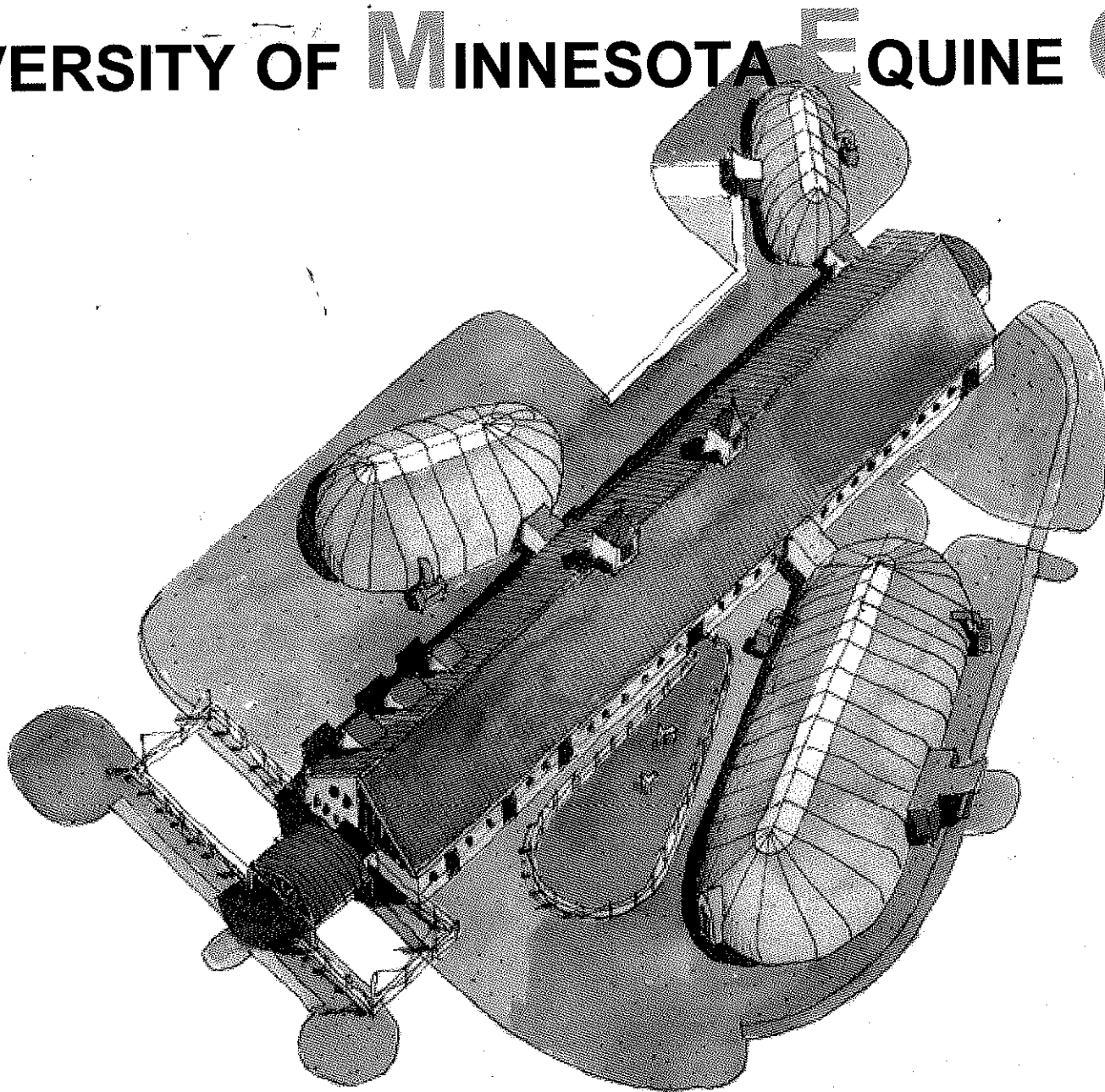


PREDESIGN FOR THE

UNIVERSITY OF MINNESOTA EQUINE CENTER



May, 2004

DOCUMENT PRODUCED BY:

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EXECUTIVE SUMMARY

- Introduction*
- Program Components*
- Architectural Concept*
- Project Cost*

INTRODUCTION

The purpose of this Predesign Report is to define the programmatic, physical, and financial requirements of a new University of Minnesota Equine Center (UMEC) on the University of Minnesota's St. Paul Campus for its College of Veterinary Medicine (CVM). The report includes an assessment of programmatic needs and facility area requirements, code analysis, site analysis, architectural concept plans, a cost estimate, and a proposed schedule for design and construction. Extensive interviews were conducted with CVM faculty and staff to define the Equine Center program for expanded educational opportunities, research, clinical services, and community outreach.

A new equine facility is needed to provide research, education, and care programs to serve Minnesota's rapidly-growing horse industry. The equine program is currently housed in the Large Animal Hospital, built in 1951 primarily for dairy cows. The number of horses treated annually has increased from 500 in 1980 to over 3,000 today. Equine faculty has grown from 10 to 30 in the same period. A severe space shortage currently exists for stalls and medical treatment areas for both client-owned and research horses. The proposed Equine Center will provide contemporary facilities to support the equine programs, which are growing in size and importance.

PROGRAM COMPONENTS

The Equine Center will consist of five interrelated components:

LAMENESS RESEARCH AND CLINICAL SERVICES

This area will include a client reception area, outpatient stalls, lameness diagnostic areas, examination and treatment rooms, radiology, research labs, physical therapy, classroom space, and surgical areas. Work areas will be provided for faculty and students conducting research and study in the facility. This component of approximately 14,800 gross square feet will be constructed of conventional wood-frame and metal wall and roof panels. The clinical area will be air-conditioned, heated and ventilated.

STABLES

This component will include the resident horse stalls and all the support facilities for day-to-day equine research and care. The stable will contain approximately 12,600 gross square feet and will be constructed of conventional wood-frame and metal wall and roof panels. The stable area will be heated and ventilated only. Paddock areas will provide space for exercise for resident horses.

PAVILION

This structure will contain space for breeding, a lunge, and a treadmill for lameness studies. The pavilion is being proposed as a 5,100 gross square foot, 60' wide, pre-engineered structure with fiberglass insulation and a tedlar coated membrane over an aluminum structural frame

that is mounted on a concrete foundation wall. It will be heated and ventilated with exterior pad-mounted HVAC units.

INDOOR ARENA

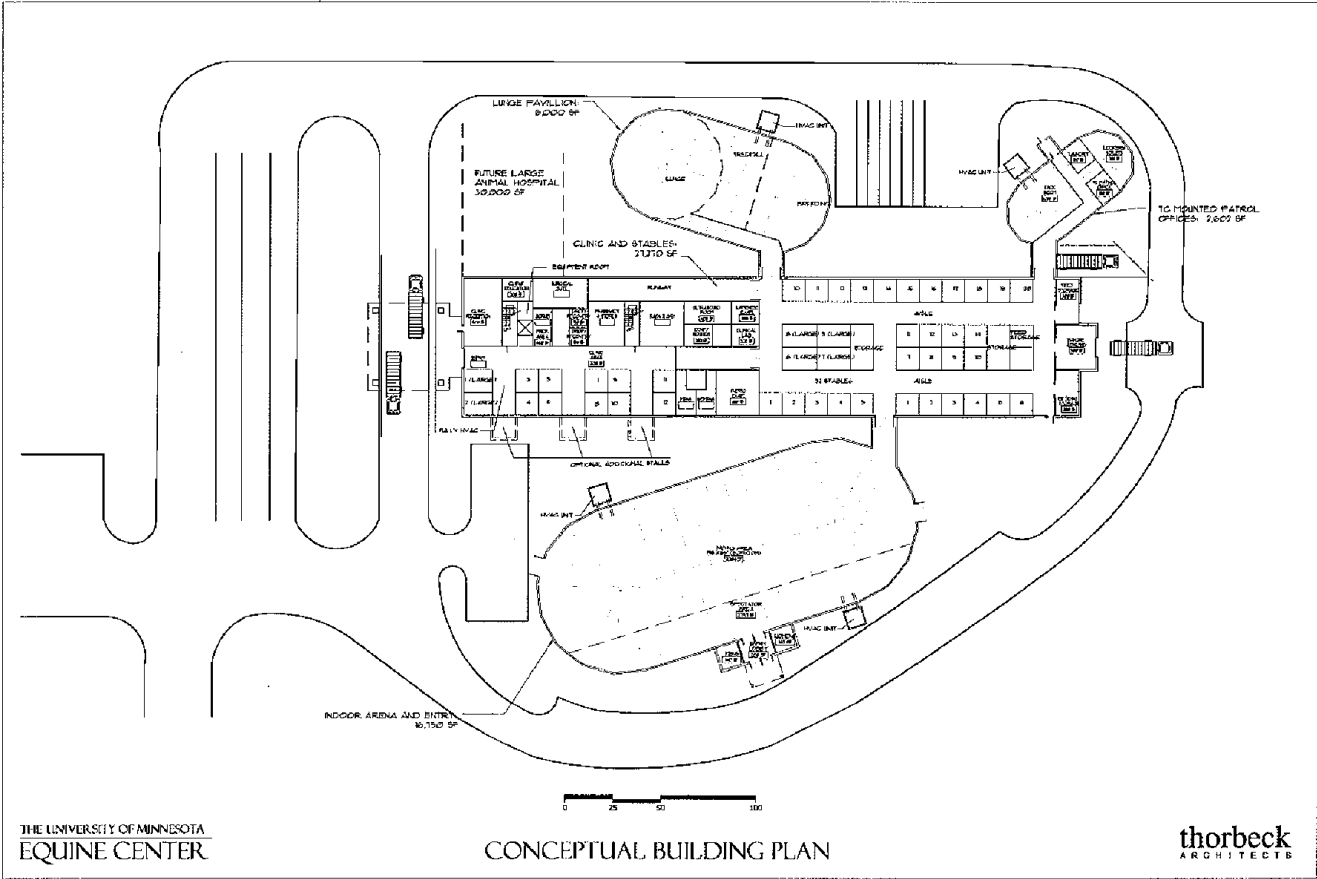
The arena will also be used for lameness research and diagnosis, as well as for training and exercise for horses, and for small-scale events. The riding area will be dividable into smaller areas for multiple use flexibility. The arena will have a public seating capacity of approximately 200 and separate public entry and toilet areas. A 17,000 gross square foot, 88' wide, pre-engineered structure with fiberglass insulation and a tedlar coated membrane over an aluminum structural frame that is mounted on a concrete foundation wall is proposed. It will be heated and ventilated with exterior pad-mounted HVAC units.

TWIN CITIES MOUNTED PATROL OFFICE (OPTIONAL)

This component will be separated from the stables, but connected by a covered link and will contain a patrol office, a locker room, and a tack room. Similar to the pavillion and arena, the proposed structure is 2,500 gross square foot, 40' wide pre-engineered structure with fiberglass insulation and a tedlar coated membrane over an aluminum structural frame that is mounted on a concrete foundation wall. It will be heated and ventilated with exterior pad-mounted HVAC units. This component will be included in the project only if the TCMP contributes funds for its construction.

PROGRAM COMPONENTS
Continued

An area of approximately 30,000 square feet for a large animal hospital is also identified on the site plan as a future addition. This component is not part of the proposed project. In the long term, the entire large animal hospital should be relocated and the existing large animal space remodeled to meet the growing needs of the small animal hospital.



ARCHITECTURAL CONCEPT

The Equine Center on the St. Paul campus is proposed to architecturally connect with the history of the horse and its relationship with humans. At the same time it will be a state-of-the-art facility for equine research and teaching to serve the evolving equine industry and community. The facility will be part of a partnership with the Crookston campus equine program related to horse care and management. Architecturally, it will also have a visual and quality standard that is similar to the equine facility at Crookston, and its design will relate to the adjacent Dairy Cattle Teaching and Research Center on the St. Paul campus.

The central clinic and stable portion of the facility will be constructed of conventional wood-frame and metal wall and roof panels with texture, colors and details reflecting the character of high quality historic stables – particularly at academic institutions. Fabric structures – an emerging construction system for animal housing – are proposed for the arena, pavilion and patrol offices. Together they will create an exciting architectural ensemble of traditional and new technologies for horse facilities.

The predesign concept plans and preliminary construction cost estimates for the pre-engineered stressed membrane components are based on the product of the major manufacturer of fabric structures, Sprung Instant Structures, Inc. Established in 1887, Sprung currently focuses on temporary and permanent insulated structures

utilizing its patented system of an aluminum substructure with a tedlar coated exterior membrane. The company provides a 30 year pro-rata guarantee on the aluminum substructure and a 20 year pro-rata guarantee on the membrane. The cost of replacing the exterior membrane is projected at approximately 18% of the cost of a new structure.

PROJECT COST

The Equine Center facility, as proposed, is expected to cost \$6.4 million (rounded), and will be financed through private fundraising. An additional \$1,031,700 is required for utility infrastructure, street improvements, and site preparation, raising the total project cost to \$7.4 million (rounded). The TC Mounted Patrol offices and support facilities, expected to cost approximately \$271,000, may be funded by the agencies that support the mounted patrols. All cost figures have been escalated for inflation to June 2005.

STATEMENT OF NEED

Historical Background

Mission and Values

Goals and Strategies

Relationship to Strategic Academic Plan

Current Facility Deficiencies and Inadequacies



HISTORICAL PERSPECTIVE

As societies mature, a shift of land use from traditional agricultural enterprises to horse farms and recreational facilities typically occurs. These changes already occurred in Europe and on the East Coast of the United States, and are now taking place here in Minnesota. The equine industry is a large, fast-growing sector of Minnesota's economy.

Nationally, the horse industry is a strong economic performer. There are approximately 6.9 million horses in the United States. The U.S. equine industry has an annual economic impact of \$112 billion, and generates more than 1.4 million jobs and approximately \$1.9 billion in taxes. These positive national statistics are reflected within Minnesota's economy. Our state ranks tenth in horse population nationwide, including over 46,000 Quarter horses and 16,000 Arabian horses. There are more than 20 major horse breeding organizations in the state. Minnesota is home to 118 statewide and 344 local horse organizations and clubs. The largest single Minnesota statewide horse organization, the Western Saddle Clubs Association (WSCA), includes more than 17,000 members (2000).

The horse industry is also an influential component of Minnesota's leisure and educational activities. Eleven percent of the population ride horses and 7 percent ride in carriages. Horse activities represent the largest

enrollment in state 4-H projects with a total of 5,400 ongoing projects. The Twin Cities Area was rated as one of the top ten places to own a horse by EQUUS magazine, a leading trade journal (1995). Finally, new uses for the horse continue to emerge. For example, the Twin Cities Mounted Patrol programs are very successful and the demand for their patrols is increasing.

Despite the growing equine industry in Minnesota, the University of Minnesota currently offers no undergraduate opportunities for equine sciences which are based on the St. Paul Campus. The University also does not provide any coordinated equine extension support for the equine industry of the state. To date there are no funded extension positions dealing with the horse at the University of Minnesota.

Equine research at the University was historically facilitated by equine faculty collaborating informally in an organization currently referred to as the Minnesota Equine Research Center (MERC). This collaboration of equine researchers was the model for the larger initiative of equine faculty throughout University of Minnesota to form a designated Equine Center. The larger overall goal of the University of Minnesota Equine Center (UMEC) will be to facilitate coordinated faculty activities in the areas of teaching, research and service as they relate to the horse.

MISSION AND VISION

Instructional, research, public service, and continuing education function

Mission

The mission of the University of Minnesota Equine Center is to advance the health, well-being and performance of the horse.

Vision

The University of Minnesota Equine Center will be a national leader in equine sports medicine and in integrating animal science and veterinary medical programs in a common facility which is focused on the horse. All personnel dedicated to equine teaching, research, outreach and clinical services will participate in the Center to provide a comprehensive source of equine expertise and services. The Center will provide leadership and a coordinated platform to meet the increasing need for equine education, veterinary services, scientific advances, and outreach programs relating to the horse.

Both the new facilities needed for the equine center and the operating expenses for expanded equine programs will be supported through a public/private partnership which will include legislative appropriations as well as funds secured from private individuals and organizations.

GOALS AND STRATEGIES

GOAL #1 - STRUCTURE

To formally designate the University of Minnesota Equine Center (UMEC)

Strategies and Status

- 1.) The informal faculty group designated as MERC has been converted into a larger organization that combines and coordinates all resources dedicated to equine teaching, research, outreach and clinical service title UMEC
- 2.) Formal recognition for UMEC as a University center has been obtained by both the Academic Health Center (AHC) as well as the College of Agriculture, Food and Environmental Sciences (COAFES).

GOAL # 2 - TEACHING

To offer expanded education in equine specialties through collaboration between COAFES, CVM, and U of M Crookston

Strategies and Current Status

- 1.) A partnership between the College of Veterinary Medicine (CVM) and COAFES has been formed to jointly fund a faculty position that will coordinate and deliver an undergraduate Animal Science degree with Production Systems major that has an Equine emphasis.
 - * Students will be enrolled beginning fall of 2004 with an anticipated yearly enrollment of 40 students per year or 120 total students for all 4 years in the fully operational program of 2008.

- * Dr. Malazdrewich was hired in summer of 2004 to meet teaching and outreach needs.
- 2.) Students will be accepted into this curriculum fall semester 2004.
 - 3.) Ongoing negotiations are taking place to establish a funding mechanism and partnership with both the mounted patrol police horses and the "We Can Ride" organization to provide the necessary horses for teaching.

GOAL #3 - RESEARCH

To continue to build an internationally recognized equine research program

Strategies and Current Status

- 1.) Increase the number of existing U of M faculty (CVM, COAFES) conducting equine related research through enhanced UMEC communication and faculty collaboration.
 - * FY04 Actual -12
 - * FY05 Target -14
 - * FY06 Target -16
 - * FY07 Target -18
 - * FY08 Target -20
 - * FY09 Target -22
- 2.) Double the recurring pool of private and state (Agricultural Experiment Station and Minnesota Racing Commission) supported research funding (\$100,000 in FY04 increased to \$200,000 by FY06) to

GOALS AND STRATEGIES

Continued

build and sustain an internationally recognized equine research program. The new UMEC facility will be used to enhance private fund raising efforts and negotiations with Canterbury Park and COAFES are under way to increase state research funding.

- 3.) Utilize new housing available for research horses in the UMEC facility to increase funding success from national funding agencies such as the Morris Animal Foundation that base part of their funding decisions on site visits.
- 4.) Possible funding agencies include: Morris Animal Foundation, American Quarter Horse Association, Greyson Jockey Club association, American Show Horse Association, USDA, NIH etc.

GOAL #4 - CLINICAL SERVICE

To continue to build areas of clinical excellence while offering an expanded range of specialized services

Strategies and Current Status

- 1.) Continue to support current areas of equine excellence, including medical, surgical and reproductive services by adding key faculty positions (search is under way for 2 equine surgeons).
 - FY04: Internal Medicine-4, Surgery-2 (2 open positions), Reproduction-1, Pathology/Clinical Pathology-6, Toxicology-1
 - FY05: Internal Medicine-4, Surgery-4, Reproduction-1, Pathology/Clinical Pathology-6, Toxicology-1

- FY06: Internal Medicine-4, Surgery-4, Reproduction-2, Pathology/Clinical Pathology-6, Toxicology-1
 - FY07: Internal Medicine-4, Surgery-4, Reproduction-2, Pathology/Clinical Pathology-6, Toxicology-1, Endowed Leatherdale Chair in Lameness
 - FY08: Internal Medicine-4, Surgery-4, Reproduction-2, Pathology/Clinical Pathology-6, Toxicology-1, Endowed Leatherdale Chair in Lameness
- 2.) Expand the current range of equine services to include specialized care such as dentistry, nutrition, complementary therapies and performance testing utilizing new equipment/resources that will be available in new UMEC facility.
 - Current care and therapies available include surgery, medicine, reproduction, ultrasound, radiology, endoscopy, thermography, treadmill evaluation, scintigraphy (bone scan), laser surgery, neonatal intensive care, dentistry, complementary therapies.
 - Proposed therapies available in new facility would include dedicated lameness evaluation area with specifically designed floor surface, MRI capabilities, dedicated equine reproduction area with associated assisted reproduction laboratory.
 - 3.) Maintain state of the art equipment at the Large Animal Hospital through a combination of public and private resources.

GOALS AND STRATEGIES

Continued

- Maintenance of state of the art equipment is currently available Veterinary Medical Center profits and private donations
- Maintenance required in the new facility will require endowed funds for equipment funding as well as ongoing private donations
- 4.) Move 2 key clinical programs (Equine Lameness and Equine Reproduction) to a new UMEC facility. Currently both programs are located in the Veterinary Medical Center, Large Animal Hospital. While current facilities are adequate the proposed new Center facility would offer safer specifically designed areas for both these clinical programs.

GOAL #5 - OUTREACH

To create an integrated, comprehensive program that will serve as a single source provider for equine outreach services

Strategies and Current Status

- 1.) A new jointly funded position in COAFES and CVM (previously discussed under teaching) will be responsible for coordinating the Equine Extension Program and will utilize existing campus and field based faculty in a coordinated effort to offer an expanded range (i.e. nutrition, horse care, complementary therapies) of equine outreach programs to meet the needs of veterinarians, equine professionals and horse owners.
 - Dr. Malazdrewich was hired in summer of 2004 to meet teaching and outreach needs.

GOAL #6 - FACILITIES

To initiate a phased plan to build a facility on the St. Paul campus that will ultimately meet all the needs of the Equine Center

Strategies and Current Status

- 1.) Phase I/UMEC Center Facility - Build a combined facility to house select clinical programs (i.e. lameness outpatients and assisted reproduction cases), teaching and research horses and police horses. This facility will have classrooms, clinical facilities and an indoor arena to support undergraduate teaching, clinical and research programs. New faculty positions such as nutrition and alternative therapies could also be housed in this facility and offer clinical service.
 - Assuming fundraising is complete by December 2004, the facility will be ready for occupancy in Early 2007.
- 2.) Phase II—Build an Equine/Large Animal Hospital that is attached to the facility described in Phase I. This facility would house all clinical programs not included in Phase I.
 - Funding and schedule will be determined by the University's six year capital plan.

GOALS AND STRATEGIES

Continued

GOAL #7 - RESOURCES

To generate sufficient capital and operating resources to support this plan

Strategies and Current Status

- 1.) Complete a capital campaign to raise at least \$6 million by FY 2005
 - Current Status – \$2.6 million as of May, 2004.
 - An additional \$1 million has been committed as irrevocable bequest.
 - Fundraising is being directed by a full time contract development individual whose sole responsibility is to raise funds for the new center. The entire equine community is being targeted and new fundraising materials were developed in March 2004.
- 2.) Implement plan to raise ongoing funds for equine related research at the U of M as discussed under research.
 - The University has committed \$1 million from the McKnight fund to be used for an endowed chair position.
- 3.) Expand equine caseload in a fiscally responsible manner that allows the program to enhance equine teaching and applied research.
 - Current case load is 3000 cases per year with a goal of 3500 cases per year in FY08.

REQUIREMENTS, RELATIONSHIPS AND DEFICIENCIES

STATUTORY REQUIREMENTS AND/OR OTHER MANDATES

The American Veterinary Medical Association Committee on Accrediting Colleges of Veterinary Medicine identified shortcomings regarding our equine teaching facility. This committee recommended improving the facilities for the next credentialing visit. Please refer to the section entitled "Current Facility Deficiencies" for more details.

RELATIONSHIP TO UNIVERSITY'S STRATEGIC ACADEMIC PLAN

The College of Veterinary Medicine's Strategic Plan includes this initiative in the following sections:

Goal 3

The College will build a stronger veterinary health care delivery system in Minnesota.

Section 3.5

Improve the health, well-being and performance of Minnesota's horses.

Objectives under this section of Goal 3 include:

- * Establish the University of Minnesota Equine Center (UMEC) in collaboration with the College of Agriculture, Food and Environmental Sciences and the University of Minnesota Crookston;
- * Establish an equine undergraduate education program in the Department of Animal Science; and

- * Build the UMEC facility to support the teaching, research, outreach and clinical mission of the center.

CURRENT FACILITY DEFICIENCIES AND INADEQUACIES

Deficiencies that need to be addressed are:

- * Inadequate exercising areas, inadequate lameness examination area, inadequate unloading area (all cited during 1999 accreditation visit).
- * Severe space shortage for stalls and medical treatment areas for client owned horses as well as for research horses.
- * Outdated stalls and alleyways. Concrete stall flooring surfaces compromises long term equine care.
- * Stall hardware requires updating, ironwork is rusted or corroded and certain configurations are a safety hazard.
- * HVAC system is impossible to balance with adjoining buildings HVAC systems (as determined by Stageberg, Beyer, Sachs Inc. report dated January 2002).

PLANNING PROCESS AND EXPECTED OUTCOME

PLANNING/DECISION-MAKING PROCESS FOR DETERMINING PROGRAMMATIC NEEDS	
Focus Group Meetings with Clients and Referring Veterinarians	Fall, 1999
Strategic Planning Initiative involving all "equine interested" faculty from CVM, COAFES, and U of M Crookston involved in process (ongoing)	Spring & Summer, 1999
Meeting to strategize fund raising and identify donors for Capital Campaign (ongoing)	Spring, 2000
Meetings with Chair of Animal Science and Animal Science faculty to plan Undergraduate Program (ongoing)	Spring, 2000
Meetings with Minneapolis, Minneapolis Park, St. Paul and University of Minnesota Police with current or planned Mounted Patrol units (ongoing)	Spring, 2000
Meetings with Executive Vice President and Provost Bruininks	July, 2000
Meeting with U of M Crookston faculty to discuss Crookston's involvement in St. Paul based equine program	January, 2000
Reception held at Governor's Mansion recognizing the CVM equine program	April, 2001
Academic Health Center recognizes UMEC as an AHC center	August, 2001
Meeting with the University of Minnesota, Minneapolis, St. Paul and Hennepin County Police Chiefs	November 2001
University approval for UMEC Facility Predesign	November, 2001
Meeting with "We Can Ride" program organizers	November, 2001

EXPECTED OUTCOME FROM CAPITAL PROJECT

Design and construct new equine center. Completed facility will fulfill programmatic requirements as defined during this predesign process.

PROGRAM ANALYSIS
Faculty and Staff Information
Description of Functional Requirements for UMEC
Identification and Evaluation of Alternatives of Need

FACULTY AND STAFF INFORMATION

Listed here is a description of current and projected Personnel (*faculty and staff*), University of Minnesota Participating Colleges and Departments/ Non University of Minnesota Organizations

COLLEGE OF VETERINARY MEDICINE

Department of Veterinary and Biomedical Sciences

David Brown, Professor
Vic Cox, Associate Professor
Mark Rutherford, Associate Professor
Mathur Kannan, Professor
James Mickelson, Associate Professor
Douglas Weiss, Professor

Department of Veterinary Population Medicine

Trevor R. Ames, Professor and Department Chair
David Hayden, Professor
Michael Murphy, Associate Professor
Scott Madill, Instructor
Erin Malone, Assistant Clinical Specialist
Abby Sage, Assistant Clinical Specialist
Stephanie Valberg, Professor
Julie Wilson, Associate Professor

Department of Veterinary Clinical Sciences

Kari L. Anderson, Associate Clinical Specialist
Daniel Feeney, Professor
Kari Anderson, Assistant Clinical Specialist
Lynelle Graham, Associate Clinical Specialist
Jim Schoster, Assistant Clinical Specialist

Elaine Robinson, Associate Professor
Anthony Tobias, Assistant Professor

COLLEGE OF AGRICULTURAL, FOOD AND ENVIRONMENTAL SCIENCES (COAFES)

Department of Animal Sciences

Jonathan Wheaton, Professor
Abel Ponce de Leon, Department Head
Douglas Foster, Professor

Department of Agronomy and Plant Genetics

Craig Sheaffer, Professor
Paul Peterson, Assistant Professor

UNIVERSITY OF MINNESOTA, CROOKSTON

Division of Agricultural Management

Richard Nelson, Director

NON UNIVERSITY ORGANIZATIONS

The equine faculty have had numerous meetings with the Minneapolis, Minneapolis Park, St. Paul Police and University of Minnesota Police departments regarding housing of mounted patrol horses in the UMEC facility. The equine faculty have met with "We Can Ride" program officials as well to discuss housing horses used in this program. Both police and "We Can Ride" officials have given verbal commitments to take part in this facility. The "We Can Ride" program has agreed to fund the horse housing needed for their program.

FACULTY AND STAFF INFORMATION

Continued

Discussions have also taken place with the executive of the Minnesota Agricultural High School. These individuals plan to relocate this program to the State Fairgrounds and are very interested in having close access to the UMEC facility for their students.

Positive aspects of collaboration with other organizations such as Twin Cities Mounted Patrol Units or "We Can Ride":

- Coordinated fund raising;
- Connecting to the community;
- Some teaching animals owned and supported by other organizations; and
- Central training and housing facility for all mounted patrol units.

NEW FACULTY POSITIONS

UMEC strategic planning identified the need for faculty in the areas of teaching, research and service. The proposed funding for these positions would be either legislative, or in the case of endowed chairs, private donations.

The most immediate need however is for a faculty position in equine animal science and extension. This position would focus on equine nutrition and would be primarily responsible for coordinating the undergraduate equine program. This position would also conduct research in the area of nutrition and coordinate the

equine outreach initiative. We are aggressively pursuing funding from the Minnesota Horse Council and local feed companies such as Cargill, Land O'Lakes and Hubbard Feeds. Our goal is to use this funding to support the position for a period of years until the position can be supported by tuition and legislative dollars.

FACULTY TO BE HOUSED IN UMEC FACILITY

All faculty positions described above would be housed permanently in COAFES or CVM. Shared office space for CVM clinicians and researchers to use while at the UMEC facility would be needed as would office space for COAFES faculty and teaching assistants involved in undergraduate education.

ENROLLMENT/CREDIT HOURS

CVM

The CVM has 320 veterinary students and 100 graduate students. Approximately 40-60 undergraduate students and 10 graduate students specialize in equine medicine, surgery, or reproduction.

COAFES

Approximately 1000 undergraduate students take a large range of courses. None currently involve the horse. We are proposing to create an undergraduate program which would involve 80 students in an equine emphasis/science in agriculture curriculum.

FACULTY AND STAFF INFORMATION

Continued

U of M Crookston

Approximately 100-200 students are involved in a 4 year degree in equine management.

RESEARCH ACTIVITIES

Equine research faculty at the University of Minnesota will continue to obtain research funds from the Minnesota Agricultural Experiment Station, private donors, the Minnesota Racing Commission and Continuing Education short courses. These funds are distributed yearly through a committee of equine researchers with priorities being set yearly by a panel of equine industry representatives. These funds on average total \$80,000 each year. This method for distribution of funds continues to be a successful means for allocating research money to equine researchers at the University of Minnesota. Research monies allocated to equine faculty in this manner have been vital for the generation of preliminary data used to garner research dollars from national agencies such as Morris Animal Foundation, Grayson Jockey Club and USDA. Equine researchers at the University also take part in a monthly research seminar series. This seminar program, and the current method of research fund allocation, will be maintained as a central component of the Center.

Equine research faculty have formed collaborative relationships throughout the University and the United States working on research projects. Faculty published

over 40 scientifically reviewed publications in the last 2 years and garnered 2.5 million dollars in research funds from funding agencies outside the University. (See attached report to Associate Dean of Research for the College of Veterinary Medicine).

DESCRIPTION OF FUNCTIONAL REQUIREMENTS FOR UMEC

PROGRAM ACTIVITIES TO BE ACCOMMODATED

Undergraduate Teaching

We will create undergraduate educational program for equine-interested students (BSc in Animal Science with a Science in Agriculture major and an equine emphasis) in collaboration with COAFES, U of M Crookston and CVM.

Clinical Service and Research

To enhance clinical and research programs we will move two specific clinical programs (equine lameness and reproduction) to UMEC and we will create state-of-the-art equine housing and research facility (CVM and COAFES)

Outreach

We will establish a coordinated equine outreach program at the U of M involving CVM, COAFES, U of M Crookston with central coordination taking place in the new UMEC facility.

PHYSICAL AND FUNCTIONAL REQUIREMENTS TO BE ACHIEVED

New facility must address need for adequate equine exercise space, adequate equine lameness examination and adequate equine on/off loading.

Primary physical features will include: examination areas; equine stalls; laboratory space; lecture/seminar

space; meeting rooms; office space; ancillary support space such as locker rooms, storage areas, feed, bedding and tack rooms; paddock and arena.

Design process must consider expansion potential for the facility to accommodate potential relocation of existing equine facility (Bldg 371) to new equine center.

SPECIAL EQUIPMENT NEEDS

New equine center will be a diagnostic and research center. Therefore, state-of-the-art medical radiographic and laboratory equipment will be used. Equine treadmill is required. Much of the equipment will be computer based and require 110V or 208V electric service. Radiographic equipment will require adequate shielding, adequate HVAC system to provide comfort and service-ability and adequate plumbing services to serve human and animal needs.

APPLICABLE STANDARDS

The new equine center will be designed and built to fulfill all AVMA accreditation requirements, all applicable U of MN and local building codes, as well as MPCA, Radiation safety and other applicable regulatory codes.

**IDENTIFICATION AND EVALUATION OF
ALTERNATIVES FOR ADDRESSING NEEDS**

**SPACE REALLOCATION/REMODELING/NEW
CONSTRUCTION**

New construction is needed for this facility due to severe space shortage which currently exists for stalls and medical treatment areas for client owned horses as well as for research horses. Long term the entire large animal hospital will have to be relocated and existing space modified to meet growing needs of small animal hospital.

FINANCIAL ANALYSIS

FINANCIAL ANALYSIS

Documentation of current year and two-year projected revenue and expenses

NON-SPONSORED REVENUE AND EXPENSES

College of Veterinary Medicine

All CVM teaching revenue will continue to come to CVM as part of the fixed CVM student tuitions. No additional monies will be generated within the CVM by DVM teaching in this facility

Tuition dollars for the Science in Agriculture students taking non Animal Science courses in other COAFES departments. (10 credits taken at 5 cr/year during the junior and senior years).

College of Agricultural, Food and Environmental Sciences

Science in Agriculture major, Equine Science Emphasis. Student numbers (will increase as entering students move to upper years and new students enter program).

<u>Year</u>	<u># of students</u>
2003-2004	20 students
2004-2005	40 students
2005-2006	60 students
2006-2007	80 students
2007-2008	80 students
2008-2009	80 students
2009-2010	80 students

<u>Year</u>	<u>Total</u>
2003-2004	\$ — —
2004-2005	\$ — —
2005-2006	\$25,700
2006-2007	\$77,100
2007-2008	\$128,500
2008-2009	\$179,900
2009-2010	\$205,600

Tuition dollars for Animal Science Classes (26 credits taken 13 cr/year during junior and senior years)

<u>Year</u>	<u>Total</u>
2003-2004	\$ — —
2004-2005	\$ — —
2005-2006	\$66,820
2006-2007	\$ 200,460
2007-2008	\$ 334,100
2008-2009	\$ 467,740
2009-2010	\$ 534,560

Tuition dollars for courses taken at other colleges (84 credits taken at 30 cr/year during the freshman and sophomore years and 12 cr/year during the junior and senior years), COAFES retains 25% of tuition and other colleges 75%)

<u>Year</u>	<u>Total</u>	<u>COAFES (25%)</u>
2003-2004	\$154,200	\$38,550
2004-2005	\$462,600	\$115,650
2005-2006	\$832,680	\$208,170
2006-2007	\$1,264,440	\$316,110
2007-2008	\$1,542,000	\$385,500
2008-2009	\$1,665,360	\$416,340
2009-2010	\$1,727,040	\$431,760

FINANCIAL ANALYSIS

Continued

Documentation of current year and two-year projected revenue and expenses

Note: Calculations are based on tuition equivalent to \$257.00/cr., 8.5% of all tuition \$ would be returned to central administration as part of the IRS tax

Expenses

One faculty position in nutrition area, (50% research and 50% teaching).

Start up package (one time allocation)	\$60,000
Recurrent allocation	
Faculty salary and fringe**	\$100,000
Yearly Support for faculty member, 1 RA**	\$24,500
Research support	\$30,000
Departmental support*	\$15,000
TOTAL RECURRING	\$169,500

* Includes clerical and supplies, phone etc.

** 1.25% of salary would be returned to central administration as part of the enterprise tax

HORSE BOARD **

The horses housed in this unit will pay daily board of \$14.00. There will be approximately 32 horses housed in this unit: ten (10) owned by U of M researchers, ten (10) owned by Minneapolis, Minneapolis Park, St. Paul, and twelve (12) owned by the "We Can Ride" organization.

Board Revenue per year

32 horses @ \$14.00/day = \$163,520

57 horses @ \$14.00/day = \$291,270

Expenses for horse care attendants and facility maintenance

Labor*	\$4.52/stall per day
Feed/Bedding Costs	\$5.25/stall per day
Repair/Maintenance	\$2.63/stall per day
Total	\$12.40/stall per day

This would equal \$144,820 per year for 32 horses (*labor includes animal attendants to feed and care for horses)

EQUINE CLINIC

Revenue per year

Equine Lameness	\$400,397
Equine Theriogenology	\$117,956

Expenses per year

Currently expenses are very close to income. Expenses include all clinical supplies, hospital technician salaries to care for clinic patients, barn crew salaries to care for clinic patients and clean clinic stalls.

Net Revenue per year

\$0.00

SPONSORED RESEARCH

Total Equine Grants	\$257,519
Expenditures per year	\$153,918

FINANCIAL ANALYSIS

Continued

Documentation of current year and two-year projected revenue and expenses

OTHER REVENUES AND EXPENSES**

Rental of Facility for events \$30,000 - \$60,000
(10 events/year)

** All revenues subject to 8.5% IRS tax

FUNDRAISING FEASIBILITY STATEMENT FOR EQUINE CENTER

It is estimated that it will be necessary to raise a minimum of \$7 million in private support for the Equine Center. As a result of the rapid growth of the equine industry there are many individuals who can be approached to contribute to this effort.

To date, the College has \$2.6 million in gifts and pledges to the Center. A lead gift of \$750,000 has been secured. The campaign plan now is to approach 4-6 individuals that have been identified as prospects for major gifts of at least \$100,000. The goal is to reach at least \$4.0 million (including the \$2.6 that has been raised) at the conclusion of the lead and major gift phase of the campaign.

The plans for the Center include 44 stalls (32 in boarding stables and 12 in clinic) and other spaces that donors may underwrite for a gift of \$25,000 which entitles them to have their name on a plaque in the stall. Two individuals have "purchased" stalls so far and there are several groups that have expressed interest in pooling their individual gifts in order to have a stall named for their

organization or riding group. The potential income if all remaining stalls are sold is \$950,000.

The \$3,450,000 balance for the campaign is expected to come from individual gifts under \$25,000 and special events, such as horse shows, that some riding clubs have expressed an interest in planning. The potential for corporate gifts to the Center, both cash and in-kind is being explored and prospects that are identified will be incorporated into the fundraising plan.

FACILITY OPERATION COSTS

The annual cost of operating the facility is estimated at \$286,600 in FY07, the anticipated first year of operation. This includes fuel, utilities, preventative maintenance, custodial service, grounds maintenance, and waste removal. This figure was determined by applying the current operational costs per square foot for similar facilities (offices/classrooms, animal clinic, animal housing, animal arena) to the various components of the Equine Center. The cost assumes an annual increase of 3 percent for inflation.

PROFORMA

**MN Equine Center Cost Accounting Projection
Draft Analysis 6/10/03, Updated for Rates 5/14/04**

	FY04	FY05	FY06	FY07	FY08	FY09	FY10	FY11	FY12	FY13
Revenues										
AnSci/CVM incremental tuition			66,820	200,480	334,100	467,740	534,560	534,580	534,580	534,580
COAFES incremental tuition			26,700	77,100	128,500	179,900	205,600	205,600	205,600	205,600
Incremental tuition COAFES (25% for Home college)	38,550	115,850	208,170	318,110	385,600	418,340	431,760	431,760	431,760	431,760
Incremental tuition to U of M	115,850	346,850	624,510	948,330	1,156,500	1,249,020	1,295,280	1,295,280	1,295,280	1,295,280
Horse Boarding (32 @ \$14/day)				183,520	188,426	173,478	178,683	184,043	189,564	195,251
Facility rental income for special events(10/yr)				40,000	41,200	42,436	43,709	45,020	46,371	47,762
Equine clinic revenue				518,353	533,904	549,921	566,418	583,411	600,913	618,941
Total Revenue	154,200	462,600	925,200	2,263,873	2,748,129	3,078,835	3,256,010	3,279,874	3,304,048	3,329,154
Expenses										
Facilities Operations costs										
Animal quarters 14228 sf @ \$4.10				58,335	60,085	61,887	63,744	65,656	67,626	69,655
Clinic Space 8472 sf @ \$10.50				99,456	102,440	105,513	108,878	111,939	115,297	118,758
Office space 3700 sf @ \$7.30				27,010	27,820	28,655	29,515	30,400	31,312	32,251
Lunge pavilion 5580 sf @ \$4.50				25,155	25,910	26,687	27,488	28,312	29,162	30,036
Arena 17,036 sf @ \$4.50				76,682	78,962	81,331	83,771	86,284	88,872	91,538
Faculty salary and support				169,500	174,585	179,823	185,217	190,774	196,497	202,382
Horse care including feed (\$12.40/day* 32 Horses)				144,832	149,177	153,652	158,262	163,010	167,900	172,937
Equine clinic expenses				518,353	533,904	549,921	566,418	583,411	600,913	618,941
Total Expenses	-	-	-	1,119,303	1,152,882	1,187,468	1,223,092	1,259,765	1,297,579	1,336,506
Projected additional income/(loss) to U of M	154,200	462,600	925,200	1,144,570	1,595,247	1,891,367	2,032,918	2,019,899	2,006,470	1,992,648
(a) Repair & Replacement fund				200,137	200,137	200,137	200,137	200,137	200,137	200,137

PROFORMA

Square footage costs for operations and repair & replacement fund information obtained from Orlyn Miller

- (a) Repair & Replacement assumes a total Building cost of \$5,163,944 less \$115,456 for exterior fabric replacement.
 - Building systems is 40% of Bldg value \$2,019,395 (Depreciation is 25 yrs @\$80,775 per yr)
 - Exterior Envelope is 5% of Bldg value \$252,424 (Depreciation is 25 yrs @\$83,106 per yr)
 - Interiors is 10% of Bldg value \$504,848 (Depreciation is 10 yrs @\$50,484 per yr)
 - Roof Fabric replacement \$115,456 (Depreciation is 20 yrs @ \$5,772 per yr)
 - The Equine clinic is expected to break even

This model assumes a 3% inflation factor for revenue & expenses.
It excludes inflation increases for tuition.

The equine center will generate over 7 million dollars in additional tuition over 7 years.

SITE REQUIREMENTS

*Area and Location Requirements
Access, Circulation and Parking Requirements
Infrastructure*

AREA AND LOCATION REQUIREMENTS

AREA REQUIREMENTS

Conceptual layout of the Equine Facility indicates that a site of approximately 5 acres will be required for the facility, driveways, and related parking. An additional 10 acres would be desirable for paddocks, and approximately 2 to 3 acres will be required to accommodate a future Large Animal Hospital addition.

LOCATION REQUIREMENTS

Location requirements for the facility are:

- Proximate to Large Animal Hospital since most of the faculty and students who will work in the Equine Center will continue to office and work in the Large Animal Hospital
- Proximate to existing animal facilities because of services required.
- Within area of campus designated for animal teaching and research facilities because of building type
- Unrestricted access (direct or indirect) and visibility from a major thoroughfare that connects to the regional highway network since most of the clients that bring horses to the facility will be coming from the periphery of the metropolitan area and from Greater Minnesota

Sites nearer the existing Large Animal Hospital are limited in size (less than 5 acres) and are occupied with facilities for which the replacement costs are too great to consider at this time. A site located in the animal quadrant of the northeast district of campus is considered more feasible.

The site preferred by the College of Veterinary Medicine is northeast of the Dairy Cattle Teaching & Research Facility and the Sheep Barn, currently pasture land used by the Department of Animal Science. Although it is distant from the Large Animal Hospital, it is preferred because it best satisfies the other location requirements without encroaching on experimental plot lands.

Infrastructure and site preparation costs contained in the Cost Analysis section are based on the requirements of this site.

The Department of Animal Science has voiced opposition to this location because it would reduce the amount of pasture land currently used for beef and dairy cattle. Shifting the facility west to a location directly north of the Dairy Cattle Teaching Barn would preserve more of the pasture, provide better visibility to the Equine Center, and require less imported fill for site preparation, but would require the demolition of the Animal Waste Facility (now used for machinery storage) and the relocation of the farm equipment storage yard. Further study of the alternatives and discussion with the College of Agriculture, Food and Environmental Sciences, the current occupant of the land, will be required before the final site is established.

ACCESS, CIRCULATION AND PARKING REQUIREMENTS

ACCESS AND CIRCULATION REQUIREMENTS

Access to the site will be from Gortner Avenue via Dudley Avenue. Dudley Avenue must be upgraded east of Lindig Avenue to accommodate the additional traffic. The University Building Code Official has indicated that a paved fire lane around the entire facility will be required. This circulation drive will also be necessary to serve multiple access points for animals to the clinic and the stables. The driveway to the clinic entrance must include a secured (fenced) area and covered canopy for unloading/loading of horses (patients).

The Campus Circulator currently runs on Gortner, allowing faculty, staff, and students to get within three blocks of facility by shuttle. A pedestrian walk should be provided to accommodate pedestrian traffic along Dudley Avenue.

PARKING REQUIREMENTS

Parking will be required for:

Vans and Trailers for Clients

Drive-through configuration (not requiring backing up) for approximately 15 to 20 vehicles will be required. These spaces must be convenient to the clinic entrance/horse unloading area.

Clinic Staff and Researchers

Since most of the faculty and staff who will work in the facility will continue to office and work in the Large Animal Hospital as well, approximately 10 to 15 staff/student spaces must be provided to accommodate those who

will drive from their permanent parking space elsewhere on campus to the Equine Center. According to University policy, these spaces will not be free, but must be paid for by the employee or the department.

Events in the Indoor Arena

Approximately 70 to 80 spaces will be needed for events in the arena. Because these may be infrequently used, a gravelled lot that could be used for other purposes, such as exterior exercise when the arena is not in use may be acceptable. The area must be fenced to control illegal parking.

Mounted Patrol

Six spaces will be needed for patrol officers and their horse trailers.

Vendors and Official University Vehicles

Five spaces will be needed for vendors and official University vehicles.

Bicycles

This is to be provided for students and staff working at the facility.

During the design phase of the project, specific quantities of parking, by type, must be confirmed, and a detailed parking management plan must be developed with Parking & Transportation Services.

INFRASTRUCTURE

The following are utility extensions required to serve the new facility.

Electrical

Electrical service will be obtained from an existing service loop near the Dairy Cattle Teaching and Research Center. If it is determined during project design that the projected electrical demand will exceed the capacity of that service, a new ductbank will be extended from a manhole near the Farm Grounds & Maintenance Facility, approximately 1000 feet west of the site.

Watermain

An 8" diameter watermain loop will be installed to provide both domestic water service and fire protection. One option is to extend the watermain east from an existing 6" water line located south of the Swine Research Facility, loop it north through the Equine Center site, and then west to a connection point with an 8" line near the intersection of Dudley and Fairview Avenues. An alternative is to extend the watermain east from Lindig Street near the Agricultural Chemical Storage Facility, loop it south through the Equine Center site, and then west to the Dudley/Fairview intersection. Both routes are approximately 2000 lineal feet.

Sanitary Sewer

Connection to an existing 8" sanitary sewer located near the north end of the Dairy Cattle Teaching and Research

Center will be required. This is a distance of approximately 500 lineal feet.

Storm Sewer

The University's storm water management plan includes the construction of a retention pond in the low portion of the pasture land southeast of the site. This pond is scheduled to be constructed before the Equine Center is completed. Storm water from the roofs and paved areas of the Equine Center site can be discharged directly into that pond, a distance of approximately 500 lineal feet.

Network Cable

To adequately serve the networking needs of the clinic/research facility, a new 12SM/24MM fiber will be extended to the site from Gortner Avenue.

Steam and Chilled Water

Because of the distance from the sources and the high cost of extensions, the University administration has determined that connections to the central steam and chilled water supply will not be required for this project. The building will have independent heating and HVAC systems.

Road Improvements

The base and surface of Dudley Avenue east of Lindig Street will be reconstructed, and a pedestrian walk will be provided along one side of the street.

FACILITY PROGRAM

FACILITY PROGRAM

CLINIC AND STABLE		AREA	LUNGE PAVILLION	
<u>Stable</u>			<u>Lameness Research and Clinic Services</u>	
Horse Stalls 28 @ 144 sq.ft.	4,032	OFFICE/EDUCATIONAL	Breeding Area	800
Horse Stalls 4 @ 216 sq.ft.	864	Reception (workspace for 2 and client waiting)	Treadmill Area	1,270
Feed Storage	288	Client Education Room	Lunge Area (58' diameter)	2,675
Bedding Storage	288	Operations Offices (2nd floor)	ASF SUBTOTAL	4,745
Wash Stall	144	Open office for 4 Faculty (2nd floor)	GSF SUBTOTAL AS PER CONCEPT FLOOR PLAN	5,095
Storage/Equipment Room	288	Open work space for 8 grad students (2nd floor)		
Aisle Circulation	4,896	Lounge and Kitchen (2nd floor)	INDOOR ARENA	
Manure Loading	480	Rounds Room	Riding Space (approx. 65' x 200')	12,675
Farrier Room	144	CLINICAL/RESEARCH	Spectator Area (seating 200)	3,400
Corridor to TC Mounted Patrol	250	Out-patient stalls 10 @ 144 sq.ft.	Entrance	200
Corridor to Lunge Pavillion	175	Large Outpatient stalls 2 @ 180 sq.ft.	Public Toilets	280
Corridor to Indoor Arena	275	Asst. Reproduction Lab	ASF SUBTOTAL	16,555
ASF SUBTOTAL	12,124	Clinical Research Lab	GSF SUBTOTAL AS PER CONCEPT FLOOR PLAN	17,036
GSF SUBTOTAL AS PER CONCEPT FLOOR PLAN	12,586	Examination - Ultrasound		
		Examination - Therio	EQUINE CENTER TOTAL GROSS SQ.FT.	49,489
		Examination - Lameness		
		Lab Storage	TWIN CITIES MOUNTED PATROL OFFICE/STOR-	
		Radiology	AGE/LOCKERS	
		Pharmacy	Tack Room	1,000
		Runway (97' x 12' wide)	Entry Vestibule	75
		Clinical Aisle (12' wide)	Laundry and Blanket Storage	100
		EQUINE OPERATING SUITE	Patrol Office	300
		Operating Room	2 Toilets/Showers @ 150 sq.ft.	300
		Prep Area	Lockers	300
		Anesthesia Prep Room	ASF SUBTOTAL	2,075
		Scrub Room	GSF SUBTOTAL AS PER CONCEPT FLOOR PLAN	2,499
		Drop/Recovery Stalls 2 @ 144 sq.ft.		
		Equipment Storage		
		SERVICES		
		Locker/Toilet Rooms 2 @ 240 sq.ft.		
		Laundry		
		Mechanical Room (2nd floor)		
		Electrical Room		
		Trash/Recycling		
		ASF SUBTOTAL		
		GSF SUBTOTAL AS PER CONCEPT FLOOR PLAN		
		CLINIC AND STABLE GSF SUBTOTAL		

CODE REQUIREMENTS

CODE REQUIREMENTS

GENERAL BUILDING CHARACTERISTICS BASED ON INTERNATIONAL BUILDING CODE 2000 AND MINNESOTA AMENDMENTS			
<u>OCCUPANCY</u>	<u>CONSTRUCTION TYPE</u>	<u>ALLOWABLE FLOOR AREA</u>	<u>ALLOWABLE HEIGHT</u>
B Horse Stable Equine Research and Clinic	V-B (Unprotected)	9,000 SF Basic <u>18,000 SF Automatic Sprinkler</u> 27,000 SF Total Allowable Each	1 story, 40 feet 2 stories, 60 feet if sprinklered
A-4 Indoor Arena	II-B (membrane covered frame structure - noncombustable)	9,500 SF Basic <u>28,500 SF Automatic Sprinkler</u> 38,000 SF Total Allowable	2 stories, 55 feet 2 stories, 60 feet if sprinklered
B Lunge/Treadmill/Breeding TCMP Office	II-B (membrane covered frame structures - noncombustable)	23,000 SF Basic <u>69,000 SF Automatic Sprinkler</u> 82,000 SF Total Allowable	4 stories, 55 feet 3 stories, 75 feet if sprinklered

CODE REQUIREMENTS

Continued

FIRE PERFORMANCE

Structural Frame	0 hour for Type V-B 0 hour for Type II-B
Bearing Walls	0 hour for Type V-B 0 hour for Type II-B
Floor Construction	0 hour for Type V-B 0 hour for Type II-B
Roof Construction	0 hour for Type V-B 0 hour for Type II-B
Fire Resistance for Exterior Walls	0 hour for Type V-B 0 hour for Type II-B
Non Load Bearing Partitions	0 hour for Type V-B 0 hour for Type II-B

**INTERIOR WALL AND CEILING FINISH
REQUIREMENTS BY OCCUPANCY IF SPRINKLED**

Vertical exits and exit passageways
Class B flame spread 26-75

Exit access corridors and other exitways
Class C: flame spread 76-200

Rooms and enclosed spaces
Class C: flame spread 76-200

Membranes and interior liners

Noncombustable in accordance with NFPA 701

FIRE PROTECTION SYSTEMS

A sprinkler system is required to meet area and two-story requirements.

OCCUPANCY SEPARATION

Separation between B and A-4 occupancies is 1 hour with automatic sprinkler system.

OCCUPANT LOAD BY BUILDING GROUP

Clinic/Research	9840/100	=	98
Clinic Stable	6480/300	=	22
UM and TCMP Stable	14,200/300	=	<u>47</u>
SUB TOTAL			167
Lunge/Treadmill/Breeding	6000/300	=	20
Indoor Arena	seats	=	250
TCMP Office/Storage/Lockers	3000/100	=	30
TOTAL		=	467

CODE REQUIREMENTS

Continued

CORRIDOR/PASSAGEWAY REQUIREMENTS

Dead End 20' -0" max.
 Width 44 inches
 Height 7 feet

EXIT REQUIREMENTS

Remoteness Not more than 1/2
 Max. diagonal

Length of Travel 250 ft. with sprinkler

Total Width Based on Occupancy

Number Based on Occupancy

Doorway

* Width 32" min. clear 48" max

* Height 80" min. height

MULTIPLE FLOORS

Vertical exits 1 hour if less than 4 stories
 Egress into a public way

Elevator Include Area of Refuge

SPRINKLERS

Automatic Sprinkler System

SANITATION

Total Occupancy

467 persons
 234 male
 234 female

Clinic/Research/Stables/Lunge

187 persons
 94 male =2 wc, 1 urinal, 1 lav
 94 female =3 wc, 1 lav

Indoor Arena

250 seats
 125 male =1 wc, 1 urinal, 1 lav
 125 female =3 wc, 1 lav

TCMP Office/Lockers

30 persons
 15 male =1 wc, 1 lav
 15 female =1 wc, 1 lav



COST ANALYSIS

- Fabric Structure for Arena & Pavillion*
- Utility Infrastructure and Site Preparation*
- Twin Cities Mounted Patrol*
- Office/Storage/Lockers*
- St. Paul and Crookston Cost Comparison*

COST ANALYSIS

The following cost analysis is based on:

- * Independent construction cost estimates prepared by Constructive Ideas Inc. and Kraus-Anderson Construction
- * Non-construction cost projections developed by the University of Minnesota's Capital Planning & Project Management
- * Inflation rate projected by the Minnesota Department of Administration

COST ANALYSIS

Continued

EQUINE CENTER W/ 44 STALLS FABRIC STRUCTURE FOR ARENA AND PAVILION			
	<u>Size</u>	<u>\$/GSF</u>	<u>COST FOR PROGRAM</u>
<i><u>Clinic & Stable</u></i>			
Clinic & Stable (conventional construction)			
* Clinic/Research with	14,772 GSF	\$164.00	\$2,422,608
* 12 stalls			
* Stable with 32 stalls	12,586GSF	\$82.00	1,032,052
Equipment for 44 stalls			308,000
Entry canopy			58,590
<i><u>Lunge Pavillion</u></i>			
	5,095GSF	\$28.60	\$145,614
HVAC/Elec/Fire/Plumbing			101,000
Foundation/floor slab			41,000
Erection of Fabric Structure		\$12.70	64,544
<i><u>Indoor Arena</u></i>			
	17,036GSF	\$25.70	\$437,292
Seating allowance			15,000
HVAC/Elec/Fire.Plumbing			312,900
Toilets/Entry			60,000
Foundation/floor slab			92,463
Erection of Fabric Structure		\$12.10	205,795
Site Improvements			\$325,000
Facility Construction Cost	49,489GSF	\$113.60	\$5,621,858
Non-Construction Costs, Keys, Signage			737,000
FACILITY PROJECT COST WITH INFLATION		\$128.49/GSF	\$6,358,858

COST ANALYSIS
Continued

UTILITY INFRASTRUCTURE & SITE PREPARATION		
Electrical Service		\$115,300
Watermain (8")	2000 LF	288,100
Sanitary Sewer	500 LF	72,000
Natural Gas Service		11,500
Telecommunications Cable		138,300
Street Upgrade	1500 LF	129,700
Imported Fill & Grading	22,500 CY	129,700
Subtotal - Infrastructure Construction Cost		\$884,600
Non Construction Costs		147,100
Infrastructure Project Cost	\$20.85/GSF	\$1,031,700
TOTAL PROJECT COST	\$149.34/GSF	\$7,390,558

* Estimates represent the costs if construction starts within the next 24 - 30 months.

COST ANALYSIS

Continued

TWIN CITIES MOUNTED PATROL OFFICE / STORAGE / LOCKERS

The cost of the office and support facilities component of the mounted patrol program, to be built only if the cities involved provide the funding, is analyzed as follows

	<u>SIZE</u>	<u>\$/GSF</u>	<u>COST FOR PROGRAM</u>
Sprung Structure	2,499	\$34.00	\$85,000
HVAC/Elec/Fire/Plumbing			36,400
Foundation/floor slab			13,000
Entry/Toilets/Office/Tack room			60,000
Erection of Fabric Structure		\$12.70	32,000
Design Contingency			20,000
Subtotal			\$246,400
Non Construction Costs			24,600
TOTAL TCMP PROJECT COST		\$108.44/GSF	\$271,000

* Estimates represent the costs if construction starts within the next 24 - 30 months.

ST. PAUL AND CROOKSTON COST COMPARISON

	St. Paul Equine Center	St. Paul Square Feet	Thorbeck&Constructive Ideas Estimate	Kraus-Anderson Estimate *	Crookston Square Feet	Crookston Inflated to 2005 (44.25%)
Clinic & Stable	Clinic/Research with 12 stalls	14,772 SQFT	\$1,664,804	\$2,422,808	9,200 SQFT	\$3,123,000
	Stable with 32 stalls	12,588 SQFT	\$956,536	\$1,032,052	10,800 SQFT	
	Equipment for 44 stalls		\$308,000	\$308,000		
	Entry canopy		\$50,000	\$58,590		
Lunge Pavilion		5,095 SQFT	\$145,614	\$145,614		
	HVAC/Elec/Fire/Plumbing		\$94,000	\$101,000		
	Foundation/floor slab		\$30,000	\$41,000		
	Erection of Fabric Structure		\$20,308	\$64,544		
Indoor Arena		17,036 SQFT	\$437,292	\$437,292	21,884 SQFT	
	Seating allowance		\$15,000	\$15,000		
	HVAC/Elec/Fire/Plumbing		\$234,500	\$312,900		
	Toilets/Entry		\$60,000	\$60,000		
	Foundation/floor slab		\$83,750	\$92,463		
	Erection of Fabric Structure		\$68,144	\$206,795		
Total Square Feet		49,489 SQFT			41,884 SQFT	
Site Improv.(roads, paving,parking)			\$0	\$325,000		148,900
Subtotal			\$4,157,948	\$5,621,858		
Design Contingency			\$415,800	\$0		
Construction Cost			\$4,573,748	\$5,621,858		\$3,271,900
Inflation to June '05 (St. Paul 5.5%, Crookston 44.25%)			\$251,556	\$0		\$1,447,816
Construction Cost w/inflation			\$4,825,304	\$5,621,858		\$4,719,716
Non-construction Costs			\$634,390	\$737,000		\$995,750
Bidding Cont. 10%			\$457,382	\$0		
Non-construction Cost w/o Inflation			\$1,091,772	\$737,000		\$995,750
Inflation to June '05 (St. Paul 5.5%, Crookston 44.25%)			\$60,047	\$0		\$440,619
Non-construction Cost w/inflation			\$1,151,819	\$737,000		\$1,436,369
Facility Project Cost			\$5,977,124	\$6,358,858		\$6,156,085
Facility Project Cost /SQFT			\$121	\$128		\$147
Utility Infrastructure & Site Prep 2005 cost			\$1,123,500	\$1,031,700		\$493,840
Non-construction Costs/SQFT			\$23	\$21		\$12
Total Project Cost			\$7,100,624	\$7,390,558		\$6,649,925
Total Cost/SQFT			\$143	\$149		\$159

* Kraus-Anderson estimates represent the costs if construction starts within 24-30 months.



PROJECT SCHEDULE

PROJECT SCHEDULE

The implementation schedule for the project will be dependent on fund raising, but is anticipated to be as follows:

Fund Raising	Through December 2004
Regent's Authorization (Capital Budget Approval)	June 2005
Initiate Design	July 2005
Bidding	February 2006
Initiate Construction	April 2006
Occupancy	April 2007

IMPACT ASSESSMENTS



IMPACT ASSESSMENTS

COMMUNITY/NEIGHBORHOOD IMPACT ASSESSMENT

The program and preliminary plans for the Equine Center were discussed at several meetings of the St. Paul Campus/Community Advisory Committee. Community members of that group have been supportive of the project, and no negative impacts on the surrounding community have been identified.

Representatives of the Minnesota State Fair Board expressed a strong preference to limit access to the facility from University-controlled streets, rather than from Arlington, which is controlled by the Fair Board. They also wanted assurance that the construction of this project will not limit the proposed storm water retention pond planned for the pasture area. The conceptual plans for the proposed facility satisfy both of these concerns.

Representatives of the City of Falcon Heights have expressed no concerns because the proposed facility is located far from any residential areas or major streets. The representatives of surrounding neighborhoods expressed no concerns regarding the proposed project.

STUDENT IMPACT ASSESSMENT

No negative impacts for students have been identified. Construction at a remote site will not disrupt pedestrian circulation, vehicular traffic, or parking elsewhere on the campus, nor will it create construction-related noise near existing classrooms.

The new Equine Center will provide improved facilities for undergraduate and graduate students who specialize in Veterinary Medicine to study and conduct research in equine medicine, surgery, and reproduction. It will also provide new opportunities for students in Animal Science who are interested in an agricultural curriculum with an emphasis in equine production systems.



DESIGN GUIDELINES

DESIGN GUIDELINES

MASTER PLAN/DISTRICT GUIDELINES

Image/Architectural Character

The proposed Equine Center will blend in and fit with other animal related facilities on the St. Paul campus. Roof and wall colors will be similar to the dairy facility.

Open Space/Circulation

The open pasture areas that are seen from the fairgrounds and from Randal Avenue will remain as they currently look, but with improved fencing appropriate for horses.

Circulation

The proposed facility will be accessible from Dudley Avenue.

SITE GUIDELINES

Orientation/Focus

The Equine Center is oriented along an east/west axis and located on a relatively flat area. Immediately east of the facility on the fairgrounds is the proposed site for the Agricultural and Food Sciences Academy. A pedestrian connection to the academy is possible for student visits and tours.

Setbacks/Landscape Treatment

The site is intended to be landscaped with prairie grasses to provide a seamless fit into the surrounding pasture areas.

Access/Service and Utility Connections

Under a separate contract, the University will extend existing utilities for power, sewer, water and natural gas.

Since the site is accessed from Dudley Avenue, the facility will have vehicular access from Cleveland Avenue via Gortner Avenue to Dudley Avenue throughout the year – particularly during the state fair time period.

ARCHITECTURAL DESIGN GUIDELINES

Architectural Style

The Equine Center is to have a design that has historic architectural connections to stables and horse barns reflecting the human and horse bond that has existed for centuries. It is proposed to be constructed with two different systems. The central clinic/research and stable will be constructed of a wood frame with metal wall and roof panels in colors and textures to relate to adjacent animal facilities; and a pre-engineered membrane structure will be utilized for the arena and lunge pavilion.

Architectural Details

The building will have two different structural and construction systems as described above. The wood frame central building will have a red roof and cream colored walls similar to the dairy facility. The two fabric structures will have a gray color similar to the silos adjacent to the dairy facility. Details of the architecture will reflect the two different building systems providing an interesting and exciting contrast between traditional state of the art construction and the emerging fabric systems for animal facilities. Both are easily maintained and appropriate for the functional use and maintenance requirements for interior programmatic requirements.

DRAWINGS

Site Location

Conceptual Site Plan

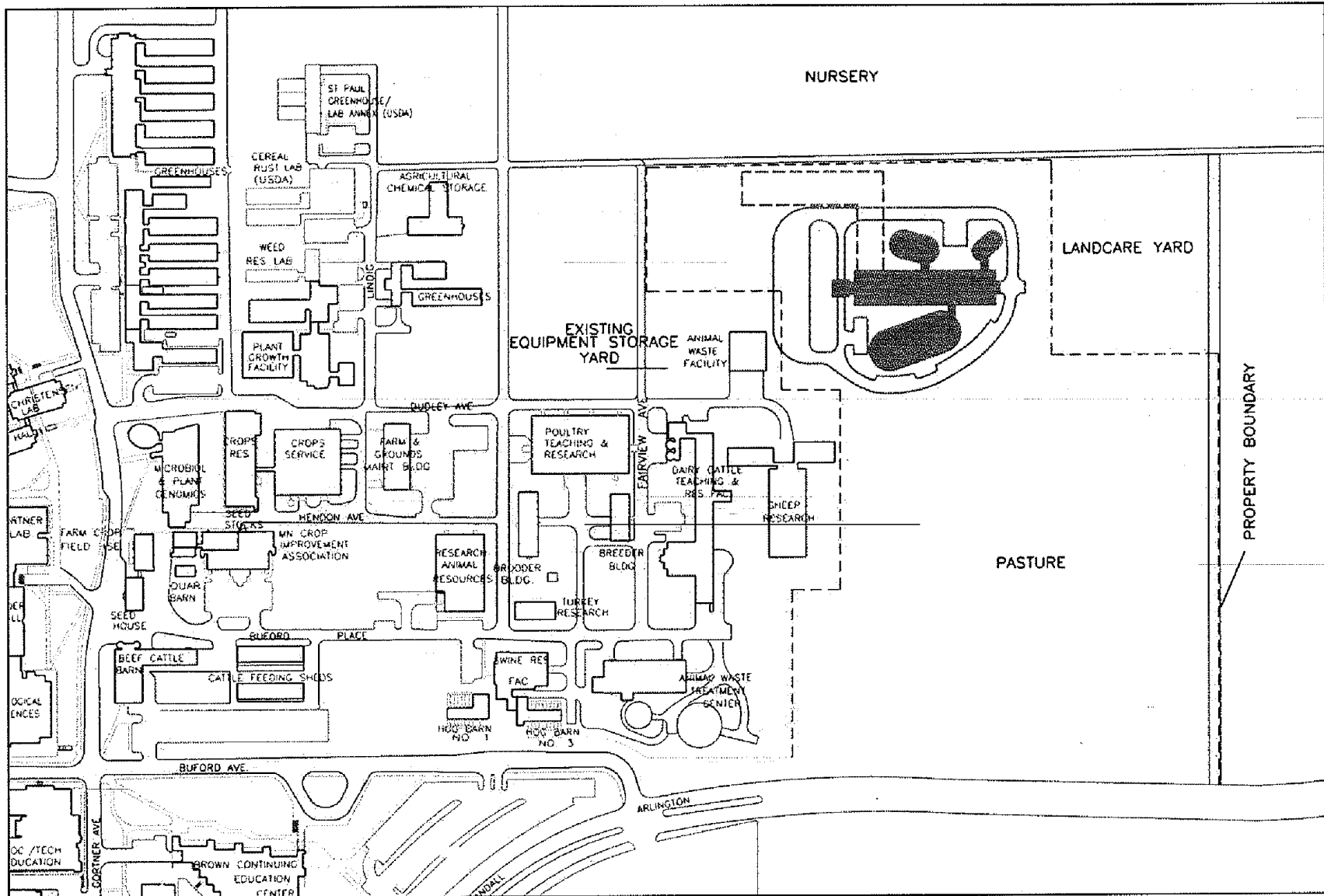
Conceptual Building Plan

Aerial View

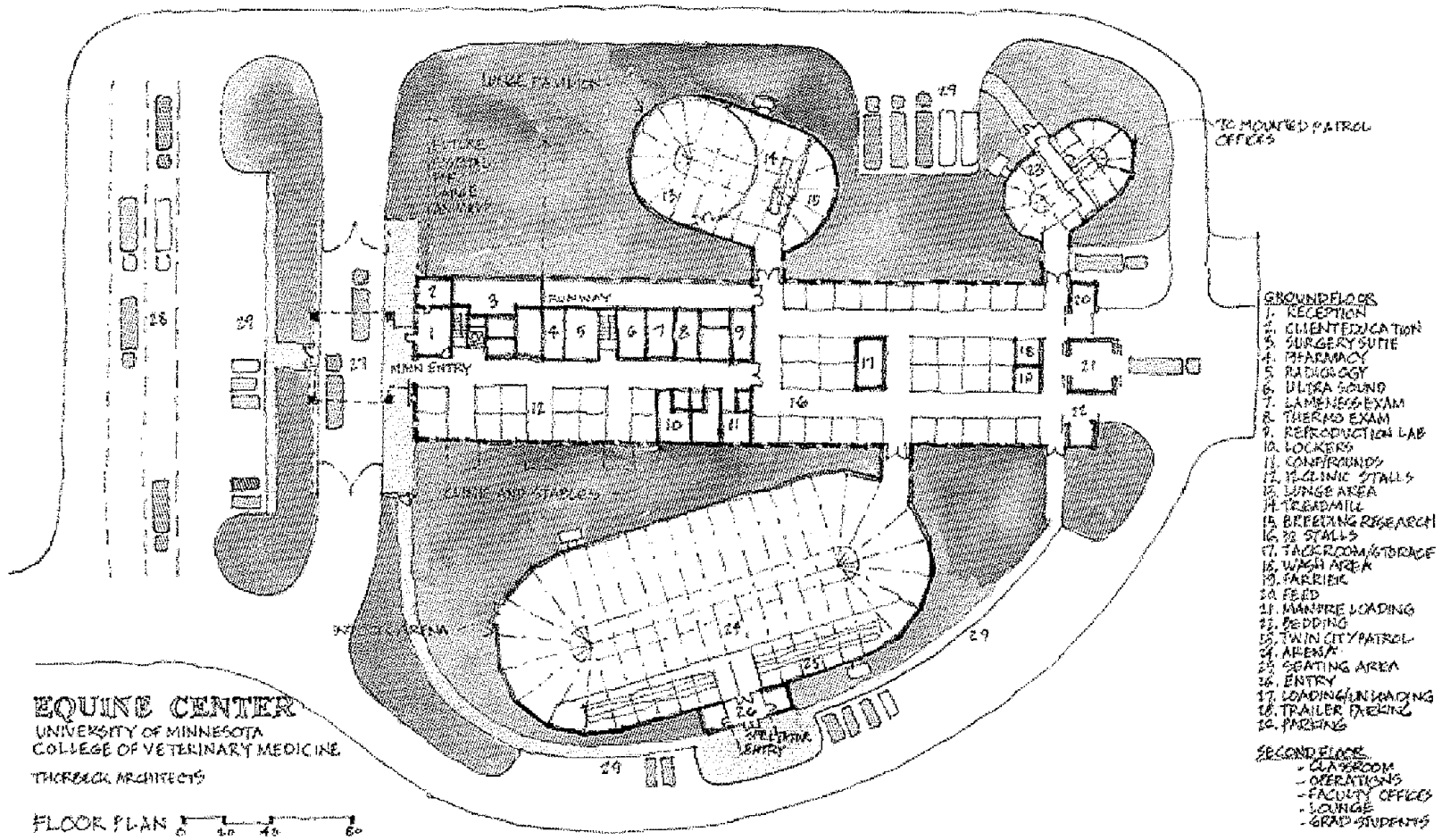
Ground View

Interior View

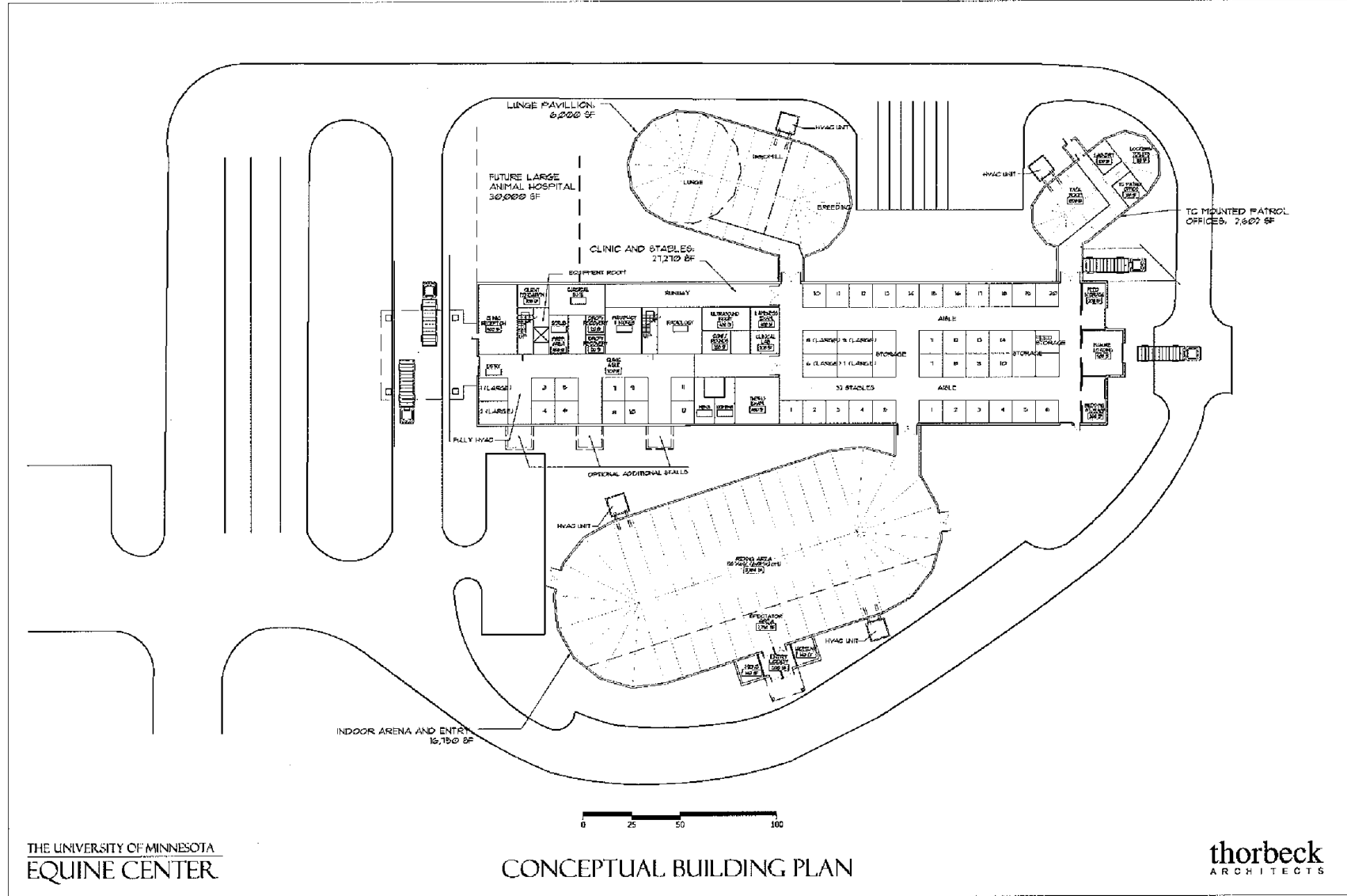
SITE LOCATION



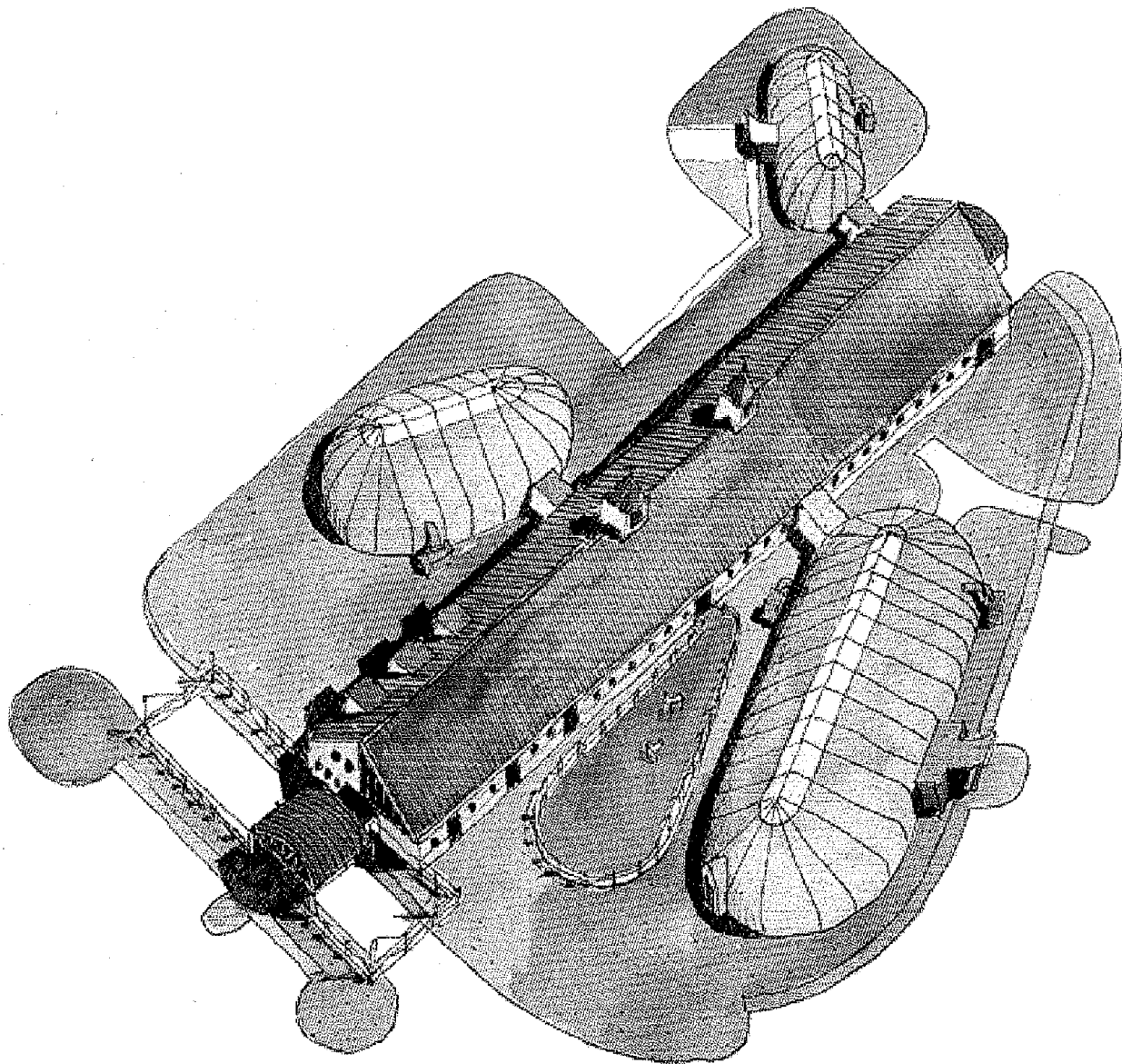
CONCEPTUAL SITE PLAN



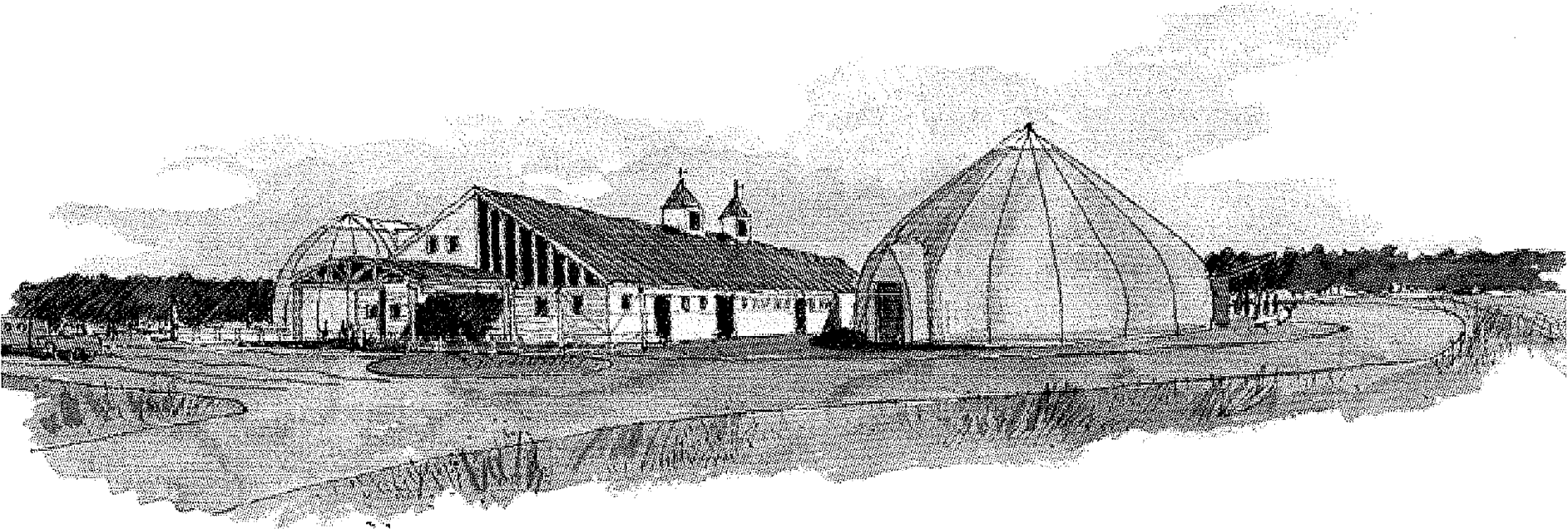
CONCEPTUAL BUILDING PLAN



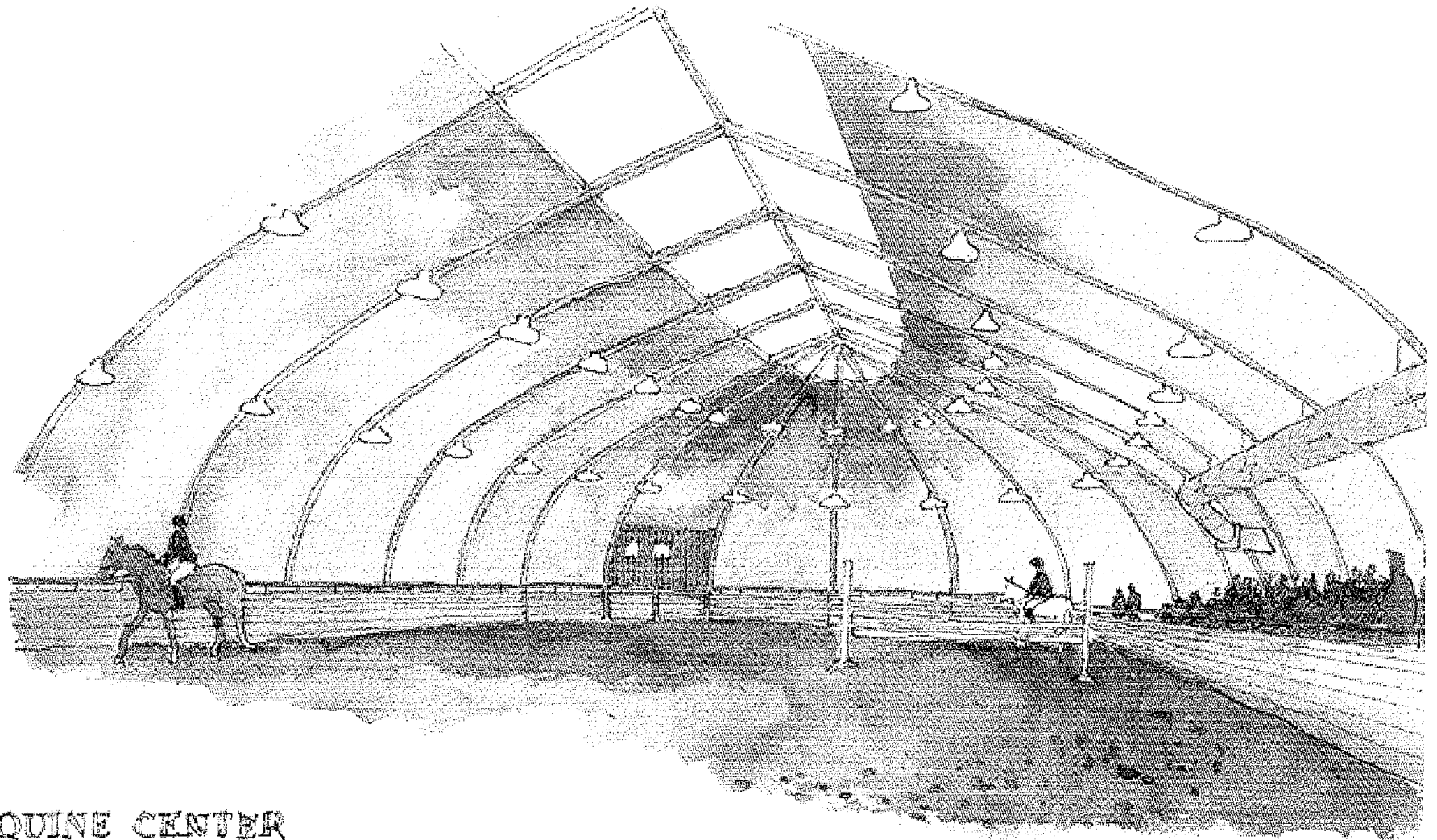
AERIAL



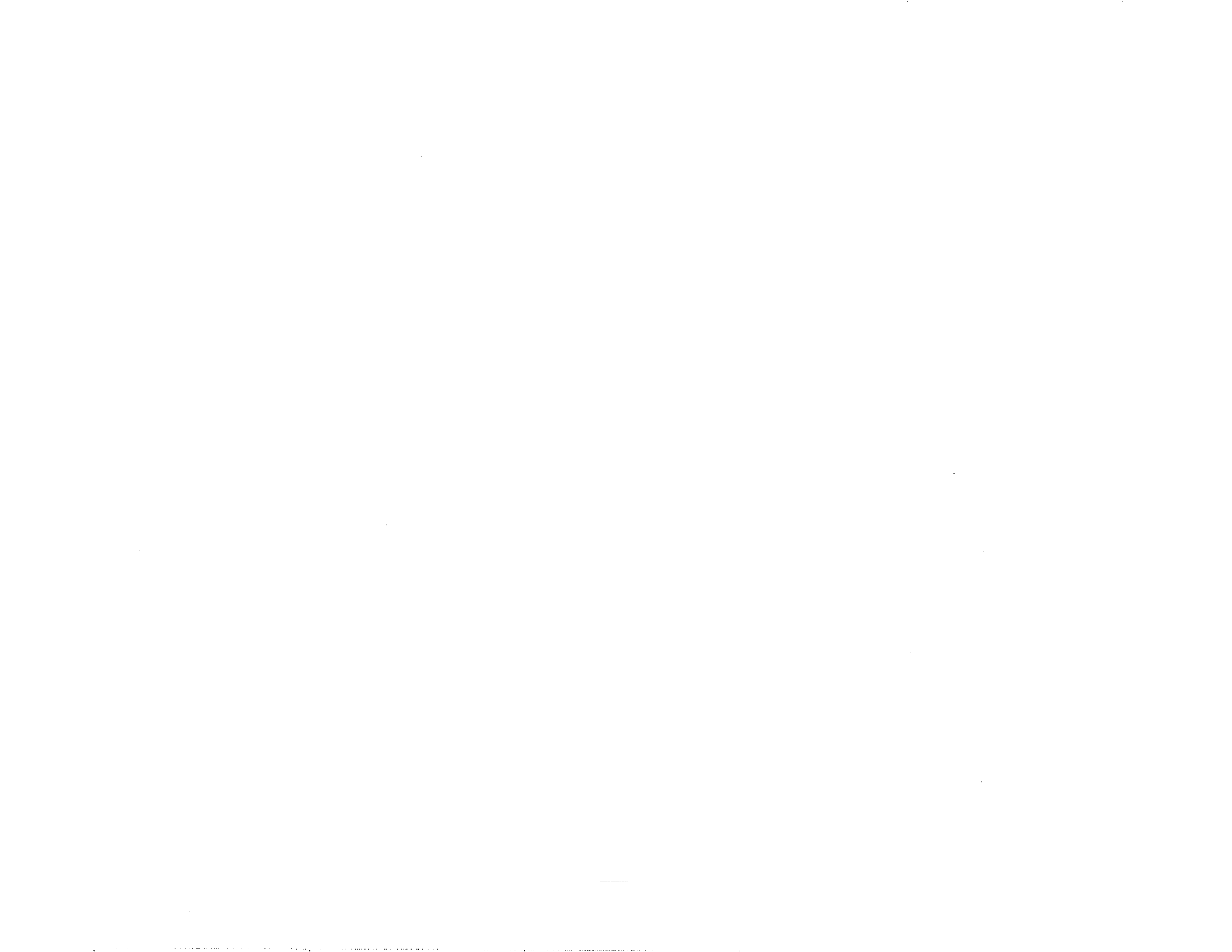
GROUND VIEW



INTERIOR VIEW



EQUINE CENTER
UNIVERSITY OF MINNESOTA
COLLEGE OF VETERINARY MEDICINE



APPENDICIES
Detailed Program Requirements



DETAILED PROGRAM REQUIREMENTS

<u>AREA - STABLE</u>		# REQUIRED - 28
<i>SPACE</i>	Stall	
<i>USE</i>	Box stalls for horse housing, feeding, observation.	
<u>REQUIREMENTS</u>		
<i>AREA</i>	144 asf (12' x 12')	
<i>STAFF CAPACITY</i>	1-2	
<i>STUDENT CAPACITY</i>	3-4 (outside stall)	
<i>CLIMATE CONTROL</i>	Heated, well ventilated, exhaust system/seasonally adjustable	
<i>PLUMBING</i>	Automatic waterer for each stall, access to hose for cleaning, floor drain	
<i>ELECTRICAL</i>	110v overhead outlets between every two to three stalls, florescent lighting	
<i>COMMUNICATIONS</i>	Intercom/ telephone/ PA system, video observation (?)	
<i>MATERIALS</i>	Galvanized metal posts and door frames, rubber mats over concrete floor, epoxy painted block walls up to 4' FRP (goat board) w/ metal edging on walls, sliding door, open to structure above	
<i>ORIENTATION</i>		
<i>EQUIPMENT</i>	Hay rack, corner feeder per stall, halter hangers on sliding doors, small dry erase boards on doors	
<i>SPACE RELATIONSHIP</i>	Access to paddocks	
<i>REMARKS</i>	Wood shavings for bedding, 12' clear ceiling	

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - STABLE

REQUIRED - 4

SPACE

Large Stall

USE

Box stalls for horse foaling, feeding, observation

REQUIREMENTS

AREA

216 asf

STAFF CAPACITY

1-2

STUDENT CAPACITY

3-4 (outside stall)

CLIMATE CONTROL

Heated, well ventilated, exhaust system/seasonally adjustable.

PLUMBING

Automatic waterer for each stall, access to hose for cleaning, floor drain.

ELECTRICAL

110v overhead outlets between every two to three stalls, florescent lighting.

COMMUNICATIONS

Intercom/ telephone/ PA system, video observation/broadcast.

MATERIALS

Galvanized metal posts and door frames, rubber mats over concrete floor, epoxy painted block walls up to 4' FRP (goat board) w/ metal edging on walls, sliding door, open to structure above.

ORIENTATION

EQUIPMENT

Hay rack, corner feeder per stall, halter hangers on sliding doors, small dry erase boards on doors.

SPACE RELATIONSHIP

REMARKS

Wood shavings for bedding, 12' clear ceilings.

DETAILED PROGRAM REQUIREMENTS
Continued

		# REQUIRED - 1
AREA - Stable		
SPACE	Feed Storage	
USE	Storage for alfalfa bails, forks, brooms, carts, grain bin (exterior)	
REQUIREMENTS		
AREA	288 asf	
STAFF CAPACITY		
STUDENT CAPACITY		
CLIMATE CONTROL	Heated, well ventilated, exhaust system/seasonally adjustable	
PLUMBING	Floor drain	
ELECTRICAL	110v, recessed outlets and switches, outlets to have hinged cover plate, florescent lighting	
COMMUNICATTONS	PA system	
MATERIALS	Floors to sealed concrete w/ heavy broom finish, epoxy painted block walls up to 4' with sealed wood boards on walls, sliding door w/ metal frame and wood boards, open to structure above	
ORIENTATION		
EQUIPMENT		
SPACE RELATIONSHIP	On exterior wall, easy access for delivery vehicles	
REMARKS	12' clear ceiling	

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Stable

REQUIRED - 1

SPACE

Bedding Storage

USE

Storage for wood shavings, forks, brooms, carts

REQUIREMENTS

AREA

288 asf

STAFF CAPACITY

STUDENT CAPACITY

CLIMATE CONTROL

Heated, well ventilated, exhaust system/seasonally adjustable

PLUMBING

Floor drain

ELECTRICAL

110v, dust-resistant recessed outlets and switches, outlets to have hinged cover plate, florescent lighting

COMMUNICATIONS

PA system

MATERIALS

Floors to be sealed concrete w/ heavy broom finish, epoxy painted block walls up to 4' with sealed wood boards on walls, sliding door w/ metal frame and wood boards, open to structure above

ORIENTATION

EQUIPMENT

Bins for bedding containment, vacuum to transfer shavings from truck to storage bin

SPACE RELATIONSHIP

On exterior wall, easy access for delivery vehicles

REMARKS

DETAILED PROGRAM REQUIREMENTS
Continued

AREA - Stables		# REQUIRED - 1
<i>SPACE</i>	Wash Stall	
<i>USE</i>	Bay within stall area for washing and grooming	
REQUIREMENTS		
<i>AREA</i>	144 asf	
<i>STAFF CAPACITY</i>	1	
<i>STUDENT CAPACITY</i>	1-2	
<i>CLIMATE CONTROL</i>	Well vented	
<i>PLUMBING</i>	Access to hot and cold water, pressure sprayer, hose – faucets and nozzles should be recessed when possible, floor drains	
<i>ELECTRICAL</i>	110v, recessed outlets and switches, outlets to have hinged cover plate, florescent lighting	
<i>COMMUNICATIONS</i>	PA system	
<i>MATERIALS</i>	Floors to sealed concrete w/ heavy broom finish, epoxy painted block walls, cleanable/moisture resistant ceiling	
<i>ORIENTATION</i>	Centrally located	
<i>EQUIPMENT</i>	Hose, water-resistant cabinetry to hold brushes and other grooming equipment, galvanized metal tie post	
<i>SPACE RELATIONSHIP</i>	In stall area	
<i>REMARKS</i>	Good lighting, 12' clear ceiling	

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Stable

REQUIRED -

SPACE

Storage/Equipment Room

USE

Storage of cleaning equipment and supplies, forklift, carts, etc.

REQUIREMENTS

AREA

144 asf.

STAFF CAPACITY

STUDENT CAPACITY

CLIMATE CONTROL

Heated, well ventilated, exhaust system/seasonally adjustable

PLUMBING

Floor drain

ELECTRICAL

110v, florescent lighting

COMMUNICATIONS

PA system

MATERIALS

Floors to be sealed concrete w/ heavy broom finish, epoxy painted block walls up to 4' with sealed wood boards on walls, sliding door w/ metal frame and wood boards, open to structure above

ORIENTATION

EQUIPMENT

SPACE RELATIONSHIP

REMARKS

DETAILED PROGRAM REQUIREMENTS
Continued

<u>AREA - Stable</u>		# REQUIRED - 1
<i>SPACE</i>	Aisle Circulation	
<i>USE</i>	Circulation area for horses, people, and equipment, educational observation of horses in stalls	
<u>REQUIREMENTS</u>		
<i>AREA</i>	12' wide	
<i>STAFF CAPACITY</i>	NA	
<i>STUDENT CAPACITY</i>	NA	
<i>CLIMATE CONTROL</i>	Heated, well ventilated, exhaust system/seasonally adjustable	
<i>PLUMBING</i>	Recessed hose bib and floor drain every 50'	
<i>ELECTRICAL</i>	110v-recessed w/ cover plates, florescent lighting.	
<i>COMMUNICATIONS</i>	Intercom/ telephone/ PA system, video observation (?)	
<i>MATERIALS</i>	Sealed concrete w/ heavy broom finish	
<i>ORIENTATION</i>		
<i>EQUIPMENT</i>		
<i>SPACE RELATIONSHIP</i>	Access to paddocks, feed, bedding, storage	
<i>REMARKS</i>	12' clear ceiling	

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Stable

REQUIRED - 1

SPACE

Manure Loading

USE

Holding area for manure, load directly to exterior truck

REQUIREMENTS

AREA

480 asf

STAFF CAPACITY

STUDENT CAPACITY

CLIMATE CONTROL

Heated, well ventilated, exhaust system/seasonally adjustable

PLUMBING

Floor drain

ELECTRICAL

110v, recessed outlets and switches, outlets to have hinged cover plate, florescent lighting

COMMUNICATIONS

PA system

MATERIALS

Floors of sealed concrete w/ heavy broom finish, epoxy painted block walls up to 4' with sealed wood boards on walls, sliding door w/ metal frame and wood boards, open to structure above

ORIENTATION

EQUIPMENT

SPACE RELATIONSHIP

On exterior wall, easy access for pickup vehicles

REMARKS

12' clear ceiling (verify)

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Stable

REQUIRED - 1

SPACE

Farrier Room

USE

Use by consultant farrier to shoe horses on a periodical basis

REQUIREMENTS

AREA

144 asf

STAFF CAPACITY

1

STUDENT CAPACITY

1

CLIMATE CONTROL

Heating, special exhaust and ventilation system for excessive heat and gases

PLUMBING

Small lab sink with hot and cold water, recessed hose bib, floor drain

ELECTRICAL

110v, 220v

COMMUNICATIONS

Intercom/ telephone/ PA system

MATERIALS

Floor to be sealed concrete with heavy broom finish, epoxy painted block walls up to 4' with sealed wood boards above, sound insulated walls, door

ORIENTATION

EQUIPMENT

Built in storage/ cabinets for equipment and supplies, forge, fume hood

SPACE RELATIONSHIP

Adjacent to Stable. Adjacent to entry for access from outside

REMARKS

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Stable

REQUIRED - 1

SPACE

Tack Room

USE

Storage of Riding Gear

Storage for: Saddles - English and Western; Bridals; Harnesses; Biting Rigs and Training Surcingles; Extra Halters; Lunging Equipment; Turnout Blankets; Summer Sheets; Grooming Supplies; Helmets; as well as an area to make minor leather repairs, and tack cleaning

REQUIREMENTS

AREA

144 asf

STAFF CAPACITY

STUDENT CAPACITY

CLIMATE CONTROL

Heated, well ventilated, exhaust system/seasonally adjustable

PLUMBING

None

ELECTRICAL

110v – recess electrical outlets w/ hinged outlet face plates

COMMUNICATIONS

Intercom/ telephone/ PA system

MATERIALS

Floor to be sealed concrete w/ broom finish, sealed wood boards on walls, open to structure above

ORIENTATION

EQUIPMENT

Saddle racks on walls, bridal racks, case or cabinet for harness, hangers or cabinets for helmets, workbench, shelving for cleaning equipment, leather repair equipment, sliding doors rather than swing

SPACE RELATIONSHIP

Centrally located

REMARKS

DETAILED PROGRAM REQUIREMENTS

Continued

AREA Lameness Research & Clinic Services: Office/Educational

REQUIRED - 1

SPACE	Reception
USE	Client reception and waiting, record keeping, billing
<u>REQUIREMENTS</u>	
AREA	384 asf (includes reception area, waiting and work space for 2)
STAFF CAPACITY	2 staff
CLIENT CAPACITY	8-10
CLIMATE CONTROL	HVAC
PLUMBING	None
ELECTRICAL	110v, florescent lighting
COMMUNICATIONS	Telephone/ intercom/ PA system, computer access to internet and network
MATERIALS	Standard
ORIENTATION	
EQUIPMENT	2 Work stations, chairs, tables
SPACE RELATIONSHIP	Next to loading/Client entrance, large windows to view activity
REMARKS	

DETAILED PROGRAM REQUIREMENTS

Continued

AREA Lameness Research & Clinic Services: Office/Educational

REQUIRED - 1

SPACE

Client Education Room

USE

Client conferences and information

REQUIREMENTS

AREA

192 asf

STAFF CAPACITY

1-2

CLIENT CAPACITY

1-2

CLIMATE CONTROL

HVAC

PLUMBING

None

ELECTRICAL

110v, florescent lighting

COMMUNICATIONS

Telephone/ intercom/ PA system, computer access to internet and network

MATERIALS

Standard

ORIENTATION

EQUIPMENT

TV/VCR, computer presentation, conference table, chairs, presentation boards

SPACE RELATIONSHIP

Adjacent to Reception

REMARKS

DETAILED PROGRAM REQUIREMENTS

Continued

<u>AREA Lameness Research & Clinic Services: Office/Educational</u>		# REQUIRED
SPACE	Operations Office	
USE	Office space for operations activity, record storage	
<u>REQUIREMENTS</u>		
AREA	300 asf	
STAFF CAPACITY	1	
STUDENTS CAPACITY	1	
CLIMATE CONTROL	Heating, air-conditioning, and humidity control	
PLUMBING	None	
ELECTRICAL	110v, florescent lighting	
COMMUNICATIONS	Intercom/ telephone/ PA system, computer access to internet and network, monitoring equipment to survey stall areas	
MATERIALS	Standard	
ORIENTATION		
EQUIPMENT	Computers, desks, chairs, phones, file cabinets, 1dry erase board on wall, copier, printer	
SPACE RELATIONSHIP	Located on second floor	
REMARKS		

DETAILED PROGRAM REQUIREMENTS

Continued

AREA Lameness Research & Clinic Services: Office/Educational

REQUIRED

SPACE Student Open Office

USE Open office space
 * Space for Office cubicles should be provided for eight graduate students.

REQUIREMENTS

AREA 270 asf

STAFF CAPACITY

STUDENT CAPACITY 8

CLIMATE CONTROL HVAC

PLUMBING None

ELECTRICAL 110v, florescent lighting

COMMUNICATIONS Telephone, computer access to internet and network

MATERIALS Hard floor-tile

ORIENTATION

EQUIPMENT Modular office furniture systems, chairs, file cabinets, shelves, storage bins

SPACE RELATIONSHIP Located on second floor

REMARKS

DETAILED PROGRAM REQUIREMENTS
Continued

<u>AREA Lameness Research & Clinic Services: Office/Educational</u>	# REQUIRED
<i>SPACE</i>	Faculty Open Office
<i>USE</i>	Space for Office cubicles should be provided for four faculty members who have permanent offices outside the Equine Center and two technicians.
<u>REQUIREMENTS</u>	
<i>AREA</i>	300 asf
<i>STAFF CAPACITY</i>	4 Faculty, 2 Technicians
<i>STUDENT CAPACITY</i>	None
<i>CLIMATE CONTROL</i>	HVAC
<i>PLUMBING</i>	None
<i>ELECTRICAL</i>	110v, florescent lighting
<i>COMMUNICATTONS</i>	Telephone/ intercom/ PA System, computer access to internet and network
<i>MATERIALS</i>	Standard
<i>ORIENTATION</i>	
<i>EQUIPMENT</i>	Modular office furniture systems, chairs, computers, file cabinets, shelves, storage bins
<i>SPACE RELATIONSHIP</i>	Located on second floor
<i>REMARKS</i>	

DETAILED PROGRAM REQUIREMENTS

Continued

AREA Lameness Research & Clinic Services: Office/Educational

REQUIRED - 1

SPACE Classroom / Meeting

USE Classroom for classes, clubs, research projects
Flexibility for presentations and small group meetings

REQUIREMENTS

AREA 368 asf

STAFF CAPACITY 1

STUDENT CAPACITY 15

CLIMATE CONTROL Heating, air conditioning, and humidity control

PLUMBING None

ELECTRICAL 110v, florescent lighting

COMMUNICATIONS Internet and network access, intercom/ telephone/ PA system

MATERIALS Good for acoustics, durable, easy to clean, and of natural materials

ORIENTATION Access to views, and natural lighting

EQUIPMENT Loose tables and stacking chairs, dry erase boards, TV, VCR, video projector, screen, built in storage/ cabinets for equipment and supplies

SPACE RELATIONSHIP Located on second floor

REMARKS Compatible for future distance learning capability

DETAILED PROGRAM REQUIREMENTS

Continued

<u>AREA Lameness Research & Clinic Services: Office/Educational</u>		# REQUIRED
SPACE	Lounge	
USE	Lounge and Prep Kitchen with vending	
<u>REQUIREMENTS</u>		
AREA	200 asf	
STAFF CAPACITY	10	
STUDENT CAPACITY	10	
CLIMATE CONTROL	HVAC	
PLUMBING	None	
ELECTRICAL	110v, florescent lighting	
COMMUNICATIONS	Telephone, computer access to internet and network	
MATERIALS	Standard	
<hr/>		
ORIENTATION		
EQUIPMENT	Kitchenette, tables, chairs, tv, vending machines	
SPACE RELATIONSHIP	Located on second floor	
REMARKS		

DETAILED PROGRAM REQUIREMENTS

Continued

AREA Lameness Research & Clinic Services: Clinical/Research

REQUIRED - 1

SPACE	Assisted Reproduction Laboratory
USE	Laboratory research for faculty and staff with supplies and equipment storage
<u>REQUIREMENTS</u>	
AREA	288 asf
STAFF CAPACITY	2
STUDENT CAPACITY	0
CLIMATE CONTROL	HVAC
PLUMBING	Small lab sink with hot and cold water, floor drain
ELECTRICAL	110v, 220v, florescent lighting
COMMUNICATIONS	Internet and network access, intercom/ telephone/ PA system
MATERIALS	Epoxy painted walls or FRP panels, epoxy seamless flooring, cleanable acoustic tile ceiling
ORIENTATION	
EQUIPMENT	Countertops, built-in lockable storage/ cabinets for equipment and supplies
SPACE RELATIONSHIP	Near Breeding
REMARKS	

DETAILED PROGRAM REQUIREMENTS

Continued

AREA Lameness Research & Clinic Services: Clinical/Research

REQUIRED - 12

<i>SPACE</i>	Outpatient Stalls
<i>USE</i>	12 Box stalls for horses
<u>REQUIREMENTS</u>	
<i>AREA</i>	10 @ 144 asf (12' x 12') and 2 @ 180 (12'x15')
<i>STAFF CAPACITY</i>	1-2
<i>STUDENT CAPACITY</i>	3-4 student plus 1-2 client observers
<i>CLIMATE CONTROL</i>	HVAC
<i>PLUMBING</i>	Access to hose for cleaning, floor drain
<i>ELECTRICAL</i>	110v overhead outlets between every two to three stalls – outside of the stalls, florescent lighting for each stall
<i>COMMUNICATIONS</i>	Intercom/ telephone/ PA system, video observation, monitor system in each foaling stall
<i>MATERIALS</i>	Galvanized steel posts and door frame, rubber mats over concrete floor, epoxy painted block walls up to 4' and FRP (goat board) with metal edging above
<i>ORIENTATION</i>	
<i>EQUIPMENT</i>	Rubber mats in stalls, hay rack, corner feeder per stall with holes cut to feed from outside stall, halter hangers on sliding doors, small dry erase boards on doors, cross ties, sliding doors
<i>SPACE RELATIONSHIP</i>	Adjacent to loading area
<i>REMARKS</i>	Wood shavings for bedding in stalls

DETAILED PROGRAM REQUIREMENTS

Continued

AREA Lameness Research & Clinic Services: Clinical/Research

REQUIRED - 1

SPACE Examination Room - Ultrasound

USE Examination of outpatient horses for Clinical Services

REQUIREMENTS

AREA 312 asf

STAFF CAPACITY 1-2

STUDENT CAPACITY 2-3

CLIMATE CONTROL Heating, air conditioning, and humidity control

PLUMBING Small lab sink with hot and cold water, floor drain, (hose bib access from corridor)

ELECTRICAL 110v/220v, dimmer switch on lighting

COMMUNICATIONS Internet and network access, intercom/ telephone/ PA system

MATERIALS Poured rubber or rubber mat over concrete, epoxy painted block walls

ORIENTATION

EQUIPMENT Closet with built in storage/ cabinets for equipment and supplies, restraining stock for horse, computer workstation

SPACE RELATIONSHIP Adjacent to Outpatient Stalls, near Loading, away from Runway

REMARKS

DETAILED PROGRAM REQUIREMENTS
Continued

<u>AREA - Lameness Research & Clinic Services: Clinical/Research</u>		# REQUIRED - 1
<i>SPACE</i>	Clinical Research Laboratory	
<i>USE</i>	Laboratory research for faculty and staff with supplies and equipment storage	
<u>REQUIREMENTS</u>		
<i>AREA</i>	192 asf	
<i>STAFF CAPACITY</i>	2	
<i>STUDENT CAPACITY</i>	0	
<i>CLIMATE CONTROL</i>	HVAC, fume hood	
<i>PLUMBING</i>	Small lab sink with hot and cold water, floor drain	
<i>ELECTRICAL</i>	110v, 220v, florescent lighting	
<i>COMMUNICATIONS</i>	Internet and network access, intercom/ telephone/ PA system	
<i>MATERIALS</i>	Epoxy painted walls or FRP panels, epoxy seamless flooring, cleanable acoustic tile ceiling	
<i>ORIENTATION</i>		
<i>EQUIPMENT</i>	Countertops, built-in lockable storage/ cabinets for equipment and supplies	
<i>SPACE RELATIONSHIP</i>	Near Treadmill area and Lunge area	
<i>REMARKS</i>		

DETAILED PROGRAM REQUIREMENTS

Continued

AREA Lameness Research & Clinic Services: Clinical/Research

REQUIRED - 1

<i>SPACE</i>	Examination Room-Lameness
<i>USE</i>	Examination of outpatient horses for Clinical Services
<u>REQUIREMENTS</u>	
<i>AREA</i>	312 asf
<i>STAFF CAPACITY</i>	1-2
<i>STUDENT CAPACITY</i>	2-3
<i>CLIMATE CONTROL</i>	Heating, air conditioning, and humidity control
<i>PLUMBING</i>	Small lab sink with hot and cold water, floor drain, (hose bib access from corridor)
<i>ELECTRICAL</i>	110v/220v
<i>COMMUNICATIONS</i>	Internet and network access, intercom/ telephone/ PA system
<i>MATERIALS</i>	Poured rubber or rubber mat over concrete, epoxy painted block walls
<i>ORIENTATION</i>	
<i>EQUIPMENT</i>	Built in storage/ cabinets for equipment and supplies, 1 (3'-7') restraining stock for horse
<i>SPACE RELATIONSHIP</i>	Adjacent to Outpatient Stalls, near Loading
<i>REMARKS</i>	

DETAILED PROGRAM REQUIREMENTS
Continued

<u>AREA Lameness Research & Clinic Services:nnClinical/Research</u>		# REQUIRED - 1
<i>SPACE</i>	Therio Examination Room	
<i>USE</i>	Examination of resident and outpatient horse for assisted reproduction research	
<u>REQUIREMENTS</u>		
<i>AREA</i>	312 asf	
<i>STAFF CAPACITY</i>	1-2	
<i>STUDENT CAPACITY</i>	2-3	
<i>CLIMATE CONTROL</i>	Heating, air conditioning, and humidity control	
<i>PLUMBING</i>	Small lab sink with hot and cold water, floor drain, (hose bib access from corridor)	
<i>ELECTRICAL</i>	110v/220v	
<i>COMMUNICATIONS</i>	Internet and network access, intercom/ telephone/ PA system	
<i>MATERIALS</i>	Floor to be sealed concrete with light broom finish, epoxy painted block walls	
<i>ORIENTATION</i>		
<i>EQUIPMENT</i>	Built in storage/ cabinets for equipment and supplies, 2 stocks	
<i>SPACE RELATIONSHIP</i>	Near Breeding	
<i>REMARKS</i>		

DETAILED PROGRAM REQUIREMENTS

Continued

AREA Lameness Research & Clinic Services: Clinical/Research

REQUIRED - 1

SPACE

Radiology

USE

X-ray for horse joints, etc.
 * Film processing
 * Film storage
 * Film viewing
 * Future: scintagraphy, MRI, CT Scan

REQUIREMENTS

AREA

Radiology; 380 asf includes spaces for film storage, processing, and film viewing

STAFF CAPACITY

1-2

STUDENT CAPACITY

1-3

CLIMATE CONTROL

Heating, air conditioning, and humidity control

PLUMBING

Small lab sink with hot and cold water, floor drains, access to hose bib from corridor

ELECTRICAL

110v, 220v

COMMUNICATIONS

Computers with internet and network access, intercom/ telephone/ PA system

MATERIALS

Special shield construction around imaging room, floor to be sealed concrete with heavy broom finish, epoxy painted block walls

ORIENTATION

EQUIPMENT

X-ray equipment with control panel, built in storage/ cabinets for equipment and supplies

SPACE RELATIONSHIP

Adjacent to Outpatient Stalls

REMARKS

DETAILED PROGRAM REQUIREMENTS
Continued

<u>AREA Lameness Research & Clinic Services: Clinical/Research</u>		# REQUIRED - 1
<i>SPACE</i>	Laboratory Storage Room	
<i>USE</i>	For storage of noisy equipment such as refrigerators, freezers, and liquid nitrogen	
<u>REQUIREMENTS</u>		
<i>AREA</i>	100 asf	
<i>STAFF CAPACITY</i>	0	
<i>STUDENT CAPACITY</i>	0	
<i>CLIMATE CONTROL</i>	HVAC	
<i>PLUMBING</i>	floor drain	
<i>ELECTRICAL</i>	110v, 220v, florescent lighting	
<i>COMMUNICATIONS</i>		
<i>MATERIALS</i>	Epoxy painted walls or FRP panels, epoxy seamless flooring, cleanable acoustic tile ceiling	
<i>ORIENTATION</i>		
<i>EQUIPMENT</i>	4' Countertop, built-in lockable storage/ cabinets for equipment and supplies	
<i>SPACE RELATIONSHIP</i>	Adjacent to research laboratories	
<i>REMARKS</i>		

DETAILED PROGRAM REQUIREMENTS

Continued

AREA Lameness Research & Clinic Services: Clinical/Research

REQUIRED - 1

SPACE	Pharmacy
USE	Central location for storing and dispensing medications, record keeping, restricted access
<u>REQUIREMENTS</u>	
AREA	240 asf
STAFF CAPACITY	1-2
STUDENT CAPACITY	0
CLIMATE CONTROL	Heating, air conditioning, and humidity control
PLUMBING	Small lab sink with hot and cold water
ELECTRICAL	110v, 220v, florescent lighting
COMMUNICATIONS	Computers with internet and network access, intercom/ telephone/ PA system
MATERIALS	durable, easy to clean, office environment
ORIENTATION	
EQUIPMENT	ID card access system, computer, countertops, built-in lockable storage/ cabinets for equipment and supplies
SPACE RELATIONSHIP	Adjacent to Lameness Clinic/Research and accessible to Surgical Suite
REMARKS	

DETAILED PROGRAM REQUIREMENTS

Continued

AREA Lameness Research & Clinic Services: Clinical/Research

REQUIRED - 1

<i>SPACE</i>	Runway
<i>USE</i>	Linear space used for diagnostic testing for lameness
<u>REQUIREMENTS</u>	
<i>AREA</i>	1164 asf (12'x97')
<i>STAFF CAPACITY</i>	1-2
<i>STUDENT CAPACITY</i>	2-3 students plus 1-2 clients
<i>CLIMATE CONTROL</i>	Heating option, well vented
<i>PLUMBING</i>	Recessed hose bib, floor drains on sides or ends so as not to interfere with testing
<i>ELECTRICAL</i>	110v – All switches and outlets should be recessed, outlets should have a hinged cover plate, florescent lighting
<i>COMMUNICATIONS</i>	Intercom / PA system, video observation
<i>MATERIALS</i>	poured rubber or rubber mat over concrete, walls to be sealed wood boards
<i>ORIENTATION</i>	
<i>EQUIPMENT</i>	
<i>SPACE RELATIONSHIP</i>	Near to the Lunge space
<i>REMARKS</i>	Natural lighting – overhead and/or side glazing, 12' clear ceiling

DETAILED PROGRAM REQUIREMENTS

Continued

<u>AREA Lameness Research & Clinic Services: Equine Operating Suite</u>		# REQUIRED - 1
<i>SPACE</i>	Operating Room	
<i>USE</i>	Equine surgery	
<u>REQUIREMENTS</u>		
<i>AREA</i>	480 asf	
<i>STAFF CAPACITY</i>	3-4	
<i>STUDENT CAPACITY</i>	2-4	
<i>CLIMATE CONTROL</i>	Heating, air conditioning, and humidity control, evacuation	
<i>PLUMBING</i>	Small lab sink with hot and cold water, floor drain, access to hose bib, oxygen, compressed air, vacuum	
<i>ELECTRICAL</i>	110v, 220v, florescent lighting	
<i>COMMUNICATIONS</i>	Internet and network access, intercom/ telephone/ PA system, video observation/broadcast	
<i>MATERIALS</i>	Floor to be sealed concrete with light broom finish, epoxy painted block walls, cleanable acoustic ceiling	
<i>ORIENTATION</i>		
<i>EQUIPMENT</i>	Overhead monorail w/ hook and winch, built in storage/ cabinets for equipment and supplies, Arthroscopy equipment	
<i>SPACE RELATIONSHIP</i>	Adjacent to Prep. and Drop/Recovery Stalls	
<i>REMARKS</i>		

DETAILED PROGRAM REQUIREMENTS

Continued

<u>AREA Lameness Research & Clinic Services: Equine Operating Suite</u>		# REQUIRED
<i>SPACE</i>	Preparation Area	
<i>USE</i>	Preparation of equine for surgery; cleaning, shaving, minor procedures	
<u>REQUIREMENTS</u>		
<i>AREA</i>	188 asf	
<i>STAFF CAPACITY</i>	1-2	
<i>STUDENT CAPACITY</i>	3-4	
<i>CLIMATE CONTROL</i>	Heating, air conditioning, and humidity control	
<i>PLUMBING</i>	Small lab sink with hot and cold water, floor drain, access to hose bib	
<i>ELECTRICAL</i>	110v, 220v, florescent lighting	
<i>COMMUNICATIONS</i>	Computers with internet and network access, intercom/ telephone/ PA system	
<i>MATERIALS</i>	Floor to be sealed concrete with light broom finish, epoxy painted block walls, cleanable acoustic ceiling	
<i>ORIENTATION</i>		
<i>EQUIPMENT</i>	Overhead monorail w/ hook and winch, built in storage/ cabinets for equipment and supplies	
<i>SPACE RELATIONSHIP</i>	Adjacent to Drop/Recovery Stalls and Operating Room	
<i>REMARKS</i>	Open space without walls or doors, but not part of corridor circulation	

DETAILED PROGRAM REQUIREMENTS

Continued

AREA Lameness Research & Clinic Services: Equine Operating Suite

REQUIRED - 1

SPACE	Anesthesia Prep
USE	Storage of anesthesia equipment and space for preparation of dosages
<u>REQUIREMENTS</u>	
AREA	120 asf
STAFF CAPACITY	1-2
STUDENT CAPACITY	
CLIMATE CONTROL	Heating, air conditioning, and humidity control, evacuation (?)
PLUMBING	Small lab sink with hot and cold water
ELECTRICAL	110v, florescent lighting
COMMUNICATIONS	Intercom/ telephone/ PA system
MATERIALS	Standard
ORIENTATION	
EQUIPMENT	ID card access system, countertops, built-in lockable storage/ cabinets for equipment and supplies, racks for storage of tanks (dimensions?)
SPACE RELATIONSHIP	Adjacent to Drop/Recovery Stall
REMARKS	

DETAILED PROGRAM REQUIREMENTS
Continued

<u>AREA Lameness Research & Clinic Services: Equine Operating Suite</u>		# REQUIRED - 1
SPACE	Scrub Room	
USE	For surgical staff and students to wash before surgery	
<u>REQUIREMENTS</u>		
AREA	100 asf	
STAFF CAPACITY	1-2	
STUDENT CAPACITY	1-2	
CLIMATE CONTROL	Heating, air conditioning, and humidity control	
PLUMBING	Large scrub sinks, floor drain	
ELECTRICAL	110v, florescent lights	
COMMUNICATIONS	Telephone/ intercom	
MATERIALS	Standard, wall tile at plumbing fixtures	
ORIENTATION		
EQUIPMENT	Built in storage/ cabinets for equipment and supplies	
SPACE RELATIONSHIP	Adjacent to surgical room	
REMARKS		

DETAILED PROGRAM REQUIREMENTS

Continued

AREA Lameness Research & Clinic Services: Equine Operating Suite

REQUIRED - 2

SPACE

Drop/Recovery Stalls

USE

Stalls for horses for the administration of anesthesia and recovery after surgery

REQUIREMENTS

AREA

144 asf (12' x 12')

STAFF CAPACITY

1-2

STUDENT CAPACITY

3-4 student plus 1-2 client observers

CLIMATE CONTROL

Heated, air conditioned, humidity control, evacuation(?)

PLUMBING

Floor drain

ELECTRICAL

110v overhead outlets between every two to three stalls – outside of the stalls, lighting for each stall.
All switches and outlets to be recessed, and outlets to have hinged cover plate

COMMUNICATIONS

Intercom/ telephone/ PA system, video observation

MATERIALS

Padded walls and floor over reinforced masonry and concrete construction

ORIENTATION

EQUIPMENT

Overhead monorail w/ hook and winch

SPACE RELATIONSHIP

Adjacent to Operating Room and Prep. Area

REMARKS

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Lameness Research & Clinic Services: Equine Operating Suite

REQUIRED - 1

SPACE	Equipment Storage
USE	For storage of surgical tools, equipment, steam sterilization, pack preparation and recording
<u>REQUIREMENTS</u>	
AREA	50 asf
STAFF CAPACITY	
STUDENT CAPACITY	
CLIMATE CONTROL	Heating, air conditioning, and humidity control
PLUMBING	Small lab sink with hot and cold water
ELECTRICAL	110v, 220v, florescent lighting
COMMUNICATIONS	Computers with internet and network access, intercom/ telephone/ PA system
MATERIALS	Standard
ORIENTATION	
EQUIPMENT	Built in storage/ cabinets for equipment and supplies, electric steam autoclave(?)
SPACE RELATIONSHIP	Adjacent to surgical room
REMARKS	

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Lameness Research & Clinic Services: Services

REQUIRED - 2

SPACE Toilets/Lockers

USE Locker, shower and toilet facilities for faculty and students
Men and Women
 * Woman's facilities – 3 toilets and 1 shower
 * Men's facilities – 2 toilets, 1 urinal and 1 shower

REQUIREMENTS

ADA requirements

AREA 290 asf

STAFF CAPACITY 16

STUDENT CAPACITY 24

CLIMATE CONTROL HVAC

PLUMBING Toilets, sinks and 1 shower each

ELECTRICAL 110v, florescent lighting

COMMUNICATIONS None

MATERIALS Standard w/ tile

ORIENTATION

EQUIPMENT 20 small lockers in each, boot washing alcove

SPACE RELATIONSHIP Adjacent to Surgical Suite and Clinic/Research

REMARKS

DETAILED PROGRAM REQUIREMENTS
Continued

AREA - Lameness Research & Clinic Services: Services

REQUIRED - 1

SPACE	Laundry
USE	Laundrying of clothing
<u>REQUIREMENTS</u>	<u>ADA requirements</u>
AREA	70 asf
STAFF CAPACITY	
STUDENT CAPACITY	
CLIMATE CONTROL	HVAC
PLUMBING	Water supply, drain, floor drain
ELECTRICAL	110v, florescent lighting
COMMUNICATIONS	None
MATERIALS	Standard
ORIENTATION	
EQUIPMENT	2 washers, 2 dryers, shelving
SPACE RELATIONSHIP	Adjacent to lockers
REMARKS	

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Lameness Research & Clinic Services: Services

REQUIRED - 1

SPACE Mechanical

USE HVAC, Electrical, and Plumbing systems

Localized mechanical spaces will be provided as needed in the Stall areas, Clinical, Research and Surgical areas and in the Indoor Area

REQUIREMENTS

AREA 560 asf on the second level
+ self-contained units outside of fabric structures

STAFF CAPACITY

STUDENT CAPACITY

CLIMATE CONTROL Heating, air conditioning, and humidity control

PLUMBING

ELECTRICAL 110v

COMMUNICATIONS Telephone, internet, network connected

MATERIALS durable, easy to clean

ORIENTATION

EQUIPMENT As needed

SPACE RELATIONSHIP Second level, also outside on grade

REMARKS

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Lameness Research & Clinic Services: Services

REQUIRED - 1

<i>SPACE</i>	Janitor's Closet
<i>USE</i>	Storage of cleaning supplies and equipment
<u>REQUIREMENTS</u>	<u>ADA requirements</u>
<i>AREA</i>	70 asf
<i>STAFF CAPACITY</i>	
<i>STUDENT CAPACITY</i>	
<i>CLIMATE CONTROL</i>	HVAC
<i>PLUMBING</i>	Water supply, floor drain
<i>ELECTRICAL</i>	110v, florescent lighting
<i>COMMUNICATIONS</i>	None
<i>MATERIALS</i>	Standard
<i>ORIENTATION</i>	
<i>EQUIPMENT</i>	Mop sink, shelving
<i>SPACE RELATIONSHIP</i>	
<i>REMARKS</i>	

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Lameness Research & Clinic Services: Services

REQUIRED - 1

SPACE Trash/Recycling Room

USE Temporary holding/sorting of trash and recycling

REQUIREMENTS **ADA requirements**

AREA 80 asf

STAFF CAPACITY

STUDENT CAPACITY

CLIMATE CONTROL HVAC. Adequate ventilation

PLUMBING Floor drain

ELECTRICAL 110v, florescent lighting

COMMUNICATIONS None

MATERIALS Durable, cleanable

ORIENTATION

EQUIPMENT Sorting bins

SPACE RELATIONSHIP

REMARKS

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Lunge Pavilion

REQUIRED - 1

SPACE

Breeding, Assisted Reproduction

USE

Horse semen collection
 * Tease rail with pads
 * Wash area w/ hot and cold water
 * Access separate from lameness area
 * 12'-0" clear ceiling

REQUIREMENTS

AREA

800 asf

STAFF CAPACITY

1-2

STUDENT CAPACITY

3-4

CLIMATE CONTROL

Heating option, well vented, exhaust system/seasonally adjustable

PLUMBING

Water supply w/ 1" diameter pipe, hose for cleaning – faucet should be recessed

ELECTRICAL

110v, 220v – All switches and outlets should be recessed, outlets should have a hinged cover plate, industrial florescent lighting

COMMUNICATIONS

Intercom / PA system, video surveillance

MATERIALS

Floor to be sand/gravel mixture over compacted aggregate. Provide curb to contain sand/gravel from concrete floors

ORIENTATION

EQUIPMENT

Teasing stall, mounting dummy, restraining stock for horse

SPACE RELATIONSHIP

Adjacent to the Outpatient stalls

REMARKS

Natural lighting – overhead and/or side glazing

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Lunge Pavilion

REQUIRED - 1

SPACE

Treadmill

USE

Diagnosis, research, and treatment of horses on treadmill

REQUIREMENTS

AREA

1270 asf

STAFF CAPACITY

1-2

STUDENT CAPACITY

3-4

CLIMATE CONTROL

HVAC, ceiling mounted fan directed at treadmill

PLUMBING

Recessed hose bib, floor drain in room and pit

ELECTRICAL

110v, 220v – All switches and outlets should be recessed, outlets should have a hinged cover plate, florescent lighting

COMMUNICATIONS

Computers with internet and network access, intercom / PA system, video observation

MATERIALS

Poured rubber flooring or rubber mat over concrete, walls to be sealed wood boards

ORIENTATION

EQUIPMENT

Treadmill (8x24) recess in floor with 3'-4' deep pit and twice as wide as treadmill, 1 stock, counter-space, cabinets, equipment storage cabinets

SPACE RELATIONSHIP

Adjacent to the Research lab

REMARKS

Natural lighting – overhead and/or side glazing

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Lunge Pavilion

REQUIRED - 1

SPACE

Lunge

USE

Round space used diagnostic testing for lameness

Provide railing between lunge space and aisle or corridor for observers to stand behind during testing.

REQUIREMENTS

AREA

58' Diameter

STAFF CAPACITY

1-2

STUDENT CAPACITY

2-3 students plus 1-2 clients

CLIMATE CONTROL

Heating option, well vented, seasonally adjustable

PLUMBING

Recessed hose bib, floor drain located in center

ELECTRICAL

110v – All switches and outlets should be recessed, outlets should have a hinged cover plate, florescent lighting

COMMUNICATIONS

Intercom / PA system, video observation

MATERIALS

Floor to be poured rubber or rubber mat over concrete, sealed wood board walls.

ORIENTATION

EQUIPMENT

SPACE RELATIONSHIP

Adjacent to the Outpatient stalls

REMARKS

Natural lighting – overhead and/or side glazing, 16' clear ceiling

DETAILED PROGRAM REQUIREMENTS

Continued

REQUIRED - 1

SPACE	Indoor Arena
USE	<p>Education/Public Arena</p> <ul style="list-style-type: none"> * Horse education, riding, jumping, lessons, demonstrations, competitions * Fixed seating for approx. 200 * Public Toilets * Storage for jumping and surface grooming equipment * Public entrance * Permanent perimeter barrier * Storage for portable partition fencing
REQUIREMENTS	
AREA	<p>Riding Area; 12,675</p> <p>Total Area; 17,036 sf</p>
SEATING CAPACITY	200
CLIMATE CONTROL	Heated, well vented, exhaust system/seasonally adjustable (manual or electrically operated), passive solar heating, daylighting
PLUMBING	Toilet area, drinking fountain and hose access for cleaning and watering arena
ELECTRICAL	110v, 220v for vending
COMMUNICATIONS	Intercom, telephone, PA system with remote microphone
MATERIALS	Concrete floors with heavy broom finish typical, riding surface to be sand/gravel mixture over compacted aggregate base, wood and metal perimeter fencing
ORIENTATION	
EQUIPMENT	Adjustable jumping equipment, barrel poles, large clock and timer, wall mirror, ADA ramps for mounting horses, dividers for partitioning off spaces within arena, cavelletti, vending machines
SPACE RELATIONSHIP	Adjacent to Stables and educational facilities
REMARKS	Entrance for public with public parking or accessible from existing public parking

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Twin Cities Mounted Patrol

REQUIRED - 1

SPACE

Mounted Patrol Tack Room

USE

Storage of Riding Gear
Separate storage space for each of the following groups
 * Minneapolis Police - 288 sf
 * Minneapolis Parks - 288 sf
 * St. Paul Police - 288 sf
 * U of M Police - 144 sf

REQUIREMENTS

AREA

Approx 1000 asf

STAFF CAPACITY

STUDENT CAPACITY

CLIMATE CONTROL

Heated, well ventilated, exhaust system/seasonally adjustable

PLUMBING

None

ELECTRICAL

110v – recess electrical outlets w/ hinged outlet face plates

COMMUNICATIONS

Intercom/ telephone/ PA system

MATERIALS

Floor to be sealed concrete w/ light broom finish, sealed wood boards on walls, open to structure above

ORIENTATION

EQUIPMENT

Saddle racks on walls, bridal racks, case or cabinet for harness, hangers or cabinets for helmets, workbench, shelving for cleaning equipment, vacuum for horses, leather repair equipment, sliding doors rather than swing

SPACE RELATIONSHIP

Near loading area

REMARKS

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Twin Cities Mounted Patrol

REQUIRED

SPACE

Laundry/Storage

USE

Laundrying and storage of riding blankets

REQUIREMENTS

AREA

100 asf

STAFF CAPACITY

STUDENT CAPACITY

CLIMATE CONTROL

Heated, well ventilated, exhaust system/seasonally adjustable

PLUMBING

Floor drain

ELECTRICAL

110v, 220v, florescent lighting

COMMUNICATIONS

MATERIALS

Floors to be sealed concrete w/, epoxy painted block walls, ceiling per code for fire rating

ORIENTATION

EQUIPMENT

SPACE RELATIONSHIP

REMARKS

DETAILED PROGRAM REQUIREMENTS

Continued

<u>AREA - Twin Cities Mounted Patrol</u>		# REQUIRED - 1
<i>SPACE</i>	Patrol Office	
<i>USE</i>	Office for patrol officers, separate desk and IT connections for the each group: <ul style="list-style-type: none">* Minneapolis Police* Minneapolis Parks* St. Paul Police* U of M Police	
<u>REQUIREMENTS</u>		
<i>AREA</i>	300 asf	
<i>STAFF CAPACITY</i>	4-6 staff	
<i>CLIMATE CONTROL</i>	HVAC	
<i>PLUMBING</i>	None	
<i>ELECTRICAL</i>	110v, florescent lighting	
<i>COMMUNICATIONS</i>	Telephone/ intercom/ PA system, computer access to internet and network	
<i>MATERIALS</i>	Standard	
<i>ORIENTATION</i>		
<i>EQUIPMENT</i>	Work stations, chairs, tables	
<i>SPACE RELATIONSHIP</i>	Next to loading/Client entrance, large windows to view activity	
<i>REMARKS</i>		

DETAILED PROGRAM REQUIREMENTS

Continued

AREA - Twin Cities Mounted Patrol

REQUIRED - 2

SPACE Toilets/Locker Rooms

USE Shower, toilet, and locker facilities for patrol officers - Men and women
 * Woman's facilities - 2 toilets and 1 shower or code minimum
 * Men's facilities - 1 toilet, 1 urinal and 1 shower or code minimum
Separate facilities for men and women - 15 lockers each
 * Lockers to contain uniform and other riding clothes
 * Minneapolis Police - 8 officers
 * Minneapolis Parks - 10 officers
 * U of M Police: - 4 officers

REQUIREMENTS

ADA requirements

AREA 330 asf each

STAFF CAPACITY 2.5 (15 lockers)

STUDENT CAPACITY

CLIMATE CONTROL HVAC

PLUMBING toilets, urinals, sinks, floor drain

ELECTRICAL 110v, flourescent lighting

COMMUNICATIONS None

MATERIALS Standard w/ tile

ORIENTATION

EQUIPMENT

SPACE RELATIONSHIP Adjacent to office

REMARKS

DETAILED PROGRAM REQUIREMENTS
Continued

AREA - UMEC Stables	# REQUIRED
<i>SPACE</i>	Paddock Areas
<i>USE</i>	Pasture areas for exercise and rotational grazing of resident horses
<u>REQUIREMENTS</u>	
<i>AREA</i>	.2 acres (8,712 asf) per stall @ 50 stalls = 10 acres (confirm)
<i>STAFF CAPACITY</i>	
<i>STUDENT CAPACITY</i>	
<i>CLIMATE CONTROL</i>	
<i>PLUMBING</i>	Irrigation (?)
<i>ELECTRICAL</i>	Lighting around perimeter
<i>COMMUNICATIONS</i>	Video surveillance
<i>MATERIALS</i>	Fence out of recyclable / recycled plastic (color white)
<i>ORIENTATION</i>	
<i>EQUIPMENT</i>	Double fencing around pastures to allow enclosed trail riding and prevent horse mingling, gates, waterers(?), large hay bale feeders for each pasture
<i>SPACE RELATIONSHIP</i>	Accessible from Stables
<i>REMARKS</i>	Good drainage to prevent standing water, but not excessively sloped



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