Kansas State University

Mosier Hall – Interior Renovations for Small Animal Surgery Suites

PROGRAM *(Revised)*

March 30th, 2023

Prepared by College of Veterinary Medicine and/or in association with Facilities Campus Planning and Project Management (Line drawing by Clark & Enersen Architects)

Introduction

The Kansas State University College of Veterinary Medicine is dedicated to scholarship through innovation and excellence in teaching, research, and service to promote animal and human health for the public good.

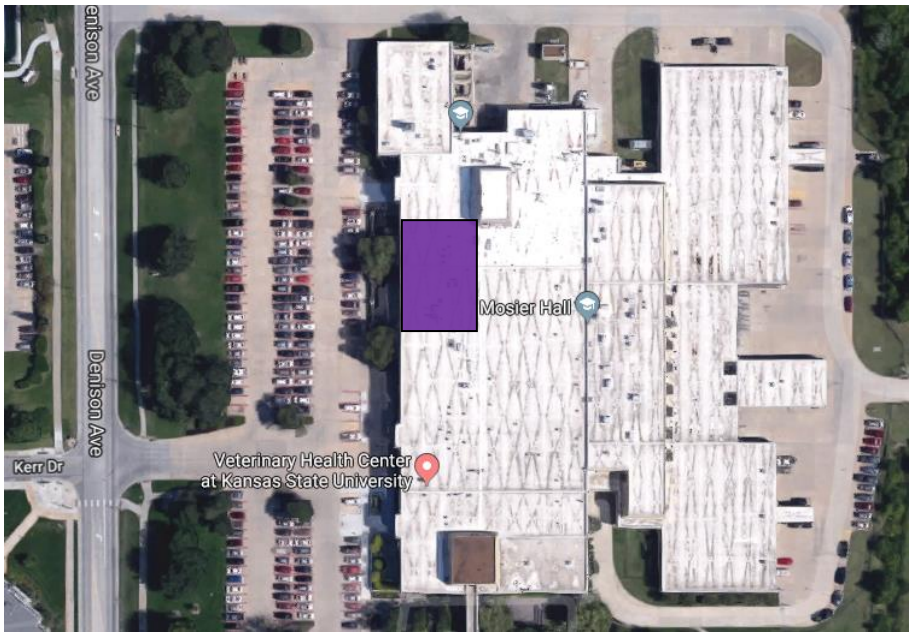
Mosier Hall, constructed in 1975, is home to the Veterinary Health Center (VHC), the Department of Veterinary Clinical Sciences, the Department of Diagnostic Medicine/Pathobiology and the Kansas State Veterinary Diagnostic Laboratory (KS-VDL). The first floor of Mosier Hall houses the Veterinary Health Center (86,579 sf), including clinical services (client receiving, diagnostic and treatment rooms, and hospitalization) for large and small animal routine, emergency and specialty services. The second floor of Mosier Hall houses research laboratories, diagnostic testing, and faculty offices.

Designed in 1969, the small animal surgical suites no longer accommodate present-day equipment or increasing caseload. Further, the design limitations impair student participation and efficient patient care. Four core senior rotations are delivered through the small animal surgery suites – orthopedic surgery, soft tissue surgery, anesthesia, and ophthalmology. Every senior veterinary student completes a minimum of 12 weeks working in the space and many students elect additional rotations. The patient caseload has increased three-fold over twenty years, currently accommodating 1800 small animal surgical patients annually. Six faculty surgeons, four anesthesiologists, two ophthalmologists, twelve advanced trainees seeking board-certification, and eight veterinary nurses work in this space to provide service and train veterinary students. In 1998, the college hired a small animal orthopedic surgeon who noted during his interview that the surgery suites were outdated in form and function. Renovation of small animal surgery within two years was a condition of his hire. Twenty-four years later, the suites have not been renovated. To his credit, Dr. Renberg still works here and serves as the Small Animal Surgery Section Chief.

In most cases, the current surgical theaters do not accommodate technical advances, particularly in ophthalmic and orthopedic surgery. The room size and configuration of anesthetic induction, surgical suites, and patient recovery do not support efficient workflow. Some aspects of the 1969 design are no longer acceptable for contemporary surgical theaters (e.g. dropped ceiling, location of surgical scrub, exhaled anesthetic gas scavenging, air handling, sterilization barriers). During our 2017 site visit by our accrediting body, the American Veterinary Medical Association – Council on Education, the outdated surgery suites were noted as marginal to unacceptable. The 2024 expects an improvement in the conditions in small animal surgery. For student learning, patient safety, and accreditation, renovation is imperative and can no longer be delayed.

This proposed project will reconfigure and modernize the Small Animal Surgery Suites using existing square footage and repurpose an additional 800 sf, expanding the surgery suits to 8,515 sf.

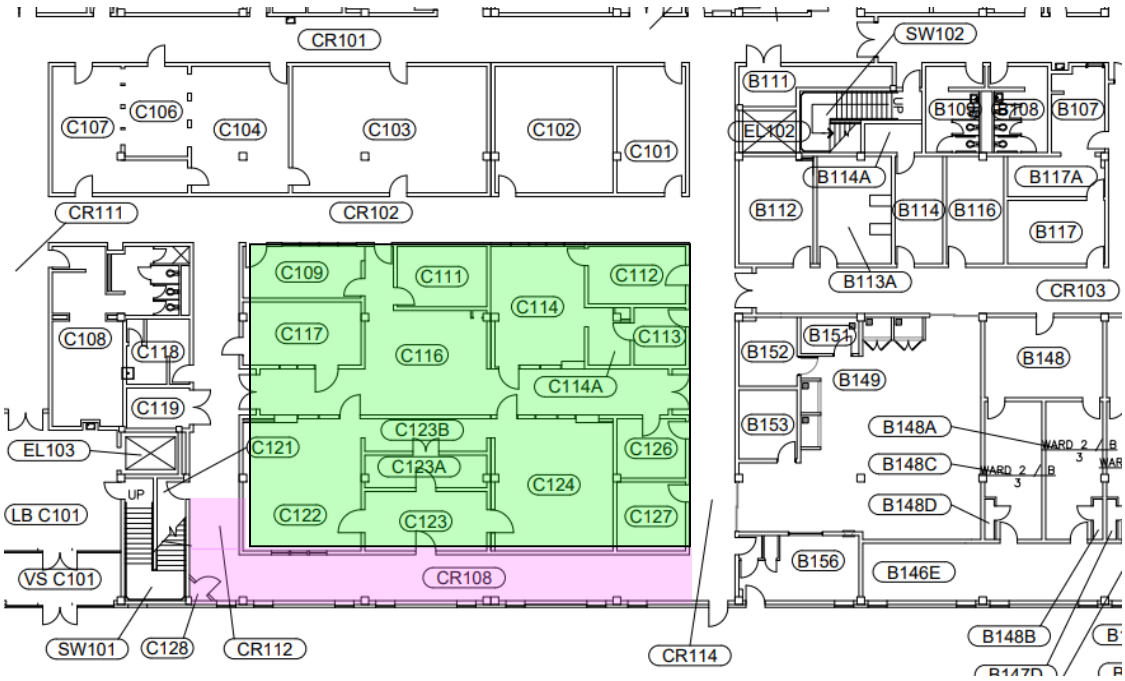
Site Map (purple shaded area is approximate location within Mosier Hall)



Project Description and Current Conditions

This project addresses shortcomings and outdated design in the Small Animal Surgical Suites of Mosier Hall including anesthetic induction, surgery suites, and patient recovery.

The current small animal surgery suites are highlighted in green. The hallway marked CR108, highlighted in pink, will be repurposed to expand the number of surgery suites from four to seven.



Select shortcomings of the current configuration:

Rooms C112 and C123 are anesthetic induction rooms. The size and configuration of these rooms are limiting, only allowing anesthesia and surgical support personnel to prepare one patient at a time. In the new design, eight patients can be prepared for surgery at the same time. This design is consistent with peer institutions.

Room C117 is the anesthetic recovery room. Students and nurses are required to sit on the floor to recover patients, and patient recovery is located on the opposite site (north) of the surgical area from ICU (B149) and patient wards (B148), where surgical patients return after anesthetic recovery.

Room C109 is ophthalmic surgery. The room is too narrow to accommodate modern equipment to perform cataract surgery and microdissection scopes necessary for corneal surgery. Patient positioning to accommodate limitations in equipment mobility prolongs surgery time. Often only one senior student can participate in ophthalmic surgeries due to room size limitations. Other students observe from outside of the room and cannot hear the dialogue of the faculty specialist during the surgery.

Room C124 has two surgical tables to accommodate concurrent elective (spay/neuter) and emergency soft tissue surgeries. Contemporary surgical guidelines do not support two surgical tables in this space.

All four surgical suites (C109, C122, C124, C114) have outdated radiograph view boxes embedded in the walls, fluorescent lights, dysfunctional or nonfunctional gas lines, and dropped ceilings. Radiographs have been digital and viewed on computer monitors for 20 years. Fluorescent ceiling lights generate heat and provide inadequate light. Fluorescent lighting has been phased out of all contemporary surgical theaters. Dropped ceilings are not considered acceptable for contemporary surgery rooms. Surgical scrub sinks are controlled by the surgeon’s knees. Standard sinks for today’s surgery suites are motion-automated and temperature controlled.

Orthopedic Surgery C114. Fluorescent lights, outdated radiology boxes, nonfunctional gas lines, dropped ceiling, outdated supply pass-through, inadequate

Corridor between suites. Wasted space, inadequate barrier between sterile and non-sterile areas.

Examples of embedded nonfunctional equipment:

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Space Description:

Renovation will provide seven surgical suites and double the table capacity. Anesthetic induction will accommodate eight patients at once. The recovery room is designed for patient comfort and efficiency, located adjacent to small animal ICU. The design includes modern surgical scrub facilities (hands free), appropriate barrier separation of sterile and non-sterile spaces, and strategic storage for efficient workflow.

Projected Budget

Small animal surgery					***Revised Costs***
Addition	3,000	sf	$475	$1,425,000	***$1,575,000***
Renovation	5,815	sf	$375	$2,180,625	***$2,413,225***
Construction Subtotal				$3,605,625	***$3,988,225***
Phasing	5%			$180,281	***$199,411***
Design Contingency	10%			$378,591	***$418,764***
Construction Total	**8,815**	**sf**	**$472**	**$4,164,497**	***$4,606,400***
Design Fees				$416,450	***$460,640***
FF&E				$1,125,000	***$1,125,000***
Project Contingency				$670,000	***$670,000***
Administrative Fees				$335,000	***$335,000***
Total Project Cost				**$6,710,947**	***$7,197,040***

Increased projected costs due to current market conditions

Funding

The project will be funded from a combination of non-state funds including revenue from the 501c3 affiliate corporation KSU – Veterinary Clinical Outreach, Inc., sale of the duplex in Omaha, KSU Foundation gifts, and hospital revenue.

Maintenance

Maintenance, utilities and operating costs will be covered from revenue generated by the Veterinary Health Center. This project includes renovation of existing spaces and current services. There will be no significant changes in function, equipment, personnel, or long-term operating expenses.

Timeline/Schedule

Architect Selection	November 2022	***November 2023***
Concept Development (4 weeks)	December 2022	***December 2023***
Design Development (4 weeks)	January 2023	***January 2024***
Construction Documents (8 weeks)	March 2023	***March 2024***
Construction Procurement / Contracts (4 weeks)	April 2023	***April 2024***
Start Construction	May 2023	***May 2024***
Construction - ~~(6 months)~~ (12 months)	November 2023	***May 2025***