

MULTI-SPECIES ANIMAL LEARNING CENTER PROJECT CHARTER

AUGUST, 2019

EXECUTIVE SUMMARY AND BACKGROUND

A new state-of-the-art Multi-species Animal Learning Center (MALC) will support the three important mission areas (education, research, and outreach and engagement) of The Ohio State University College of Food, Agricultural, and Environmental Sciences (CFAES) as well as the worldwide One Health initiative to expand interdisciplinary collaborations and communications in all aspects of health care for humans, animals, and the environment. The proposed location is the Waterman Agricultural and Natural Resources Laboratory (Waterman) on the OSU Columbus Campus. The university design process will begin after completion of the CFAES Project Charter.

The CFAES missions work hand-in-hand, discovering new knowledge and offering science-based solutions in both the classroom and the community to improve lives, businesses, and communities throughout Ohio and the nation. Ohio ranks in the top 10 of several animal agriculture enterprises that are an important part of its \$100 Billion animal agriculture industry.

- 1st in Swiss cheese production
- 3rd in egg production
- 6th in horse population
- 7th in pork production
- 9th in turkey production
- 11th in milk production

The Department of Animal Sciences is one of the largest Columbus-based undergraduate CFAES programs with nearly 700 undergraduate and 35 graduate students. Students are actively involved in hands-on curricular and co-curricular activities (judging teams, clubs and organizations, research, and athletics). Outreach programs emphasize youth development, human-animal interactions, and the sustainability and economic viability of animal agriculture.



THE OHIO STATE UNIVERSITY

COLLEGE OF FOOD, AGRICULTURAL,
AND ENVIRONMENTAL SCIENCES

The challenge to meet learning objectives, provide positive student recruiting, and present a positive public image within the infrastructure of many the existing CFAES animal facilities is an immediate and significant concern. Constructed in the 1950s to 1980s, most Columbus-based facilities have either outlived their useful lives, undergone partial deconstruction, and/or pose substantial deferred maintenance challenges. The present facilities do not project an appearance or infrastructure of high quality, compromising learning across teaching and outreach missions and failing to meet the expectations of students, staff, faculty, and stakeholders. Current facilities pose additional limitations of time, travel, and logistics for faculty, staff and students. Through several facility studies, re-envisioning reports, industry engagements, and master planning activities since 2013, a consistent priority for the establishment of a new multi-species animal center at the Columbus campus emerged.

OPPORTUNITY

Mission Statement: CFAES is poised to improve the standard of excellence for animal learning programs through the construction and use of the Multi-species Animal Learning Center (MALC). This new, state-of-the-art facility or facilities will provide space, technology, equipment, and amenities to facilitate human-animal interactions that demonstrate and promote current and future best teaching, learning, and management practices.

This project will effectively position animal teaching and outreach programs on the Columbus campus and provide opportunities for collaboration among a diverse group of OSU academic partners and CFAES stakeholders. Teaching space will meet the needs of multiple animal species programs as well as non-animal programs. The term “Multi-Species,” will not be limited in this project. Teaching and support space will accommodate learning related to agricultural, companion, and zoo animals, with specific animal housing/holding space designated for equine, swine, beef, dairy, small ruminants (sheep and goats), and poultry.

This project will eliminate redundancies without allocating a significant increase of resources and CFAES will identify and track opportunities for efficiencies.

The appearance and flow of this facility will represent concepts and features that appropriately represent agricultural industry standards, and there will be a clear distinction between front-of-house and back-of-house operations. This project will function as part of a system with other Waterman animal facilities.

SCOPE

This scope and budget include all space, site, infrastructure, technology, furniture, equipment, and donor recognition necessary to provide a complete and functioning turnkey operation of the new facility or facilities.

“Multi-function”, “multi-species”, and “multi-use space” are key terms that will repeat throughout planning exercises with the goal of bringing people and programs together and improving collaborative opportunities. By-products of these concepts are a reduced overall building footprint, the ability to maximize resources, the elimination of redundancies, and more effective/impactful delivery of programs that support the university’s land-grant mission.

This project must begin with basic programming to coordinate and establish criteria for functions based on registered courses, reoccurring outreach programs, planned events, and future goals. Space requirements, seating capacity, and herd sizes must be determined through facilitated programming discussions. Common space is available in several existing and new CFAES-occupied facilities at Waterman, which is accessible for programs associated with this project.

This project will relocate programs from several locations, making way for the deconstruction of several CFAES occupied facilities.

Teaching & Outreach Space: Multi-functional teaching space must be suitable for teaching and outreach needs associated with multiple animal species as well as non-animal learning activities. These spaces will be designed using the following priorities: established undergraduate courses, established youth and adult outreach programs, CFAES approved future programs, and teaching and outreach opportunities of other academic partners and stakeholders. CFAES will maintain and update a comprehensive list of CFAES stakeholders and partners to participate in these program discussions.

A large, open arena or arenas with high ceilings will accommodate multiple animal species, and will double as event space. Some events may require specific design criteria. Provide large exterior openings, animal wash down space, seating, and technology. Explore options to accommodate ADA accessibility through pitched corridors vs. hydraulic systems.

Large multi-functional learning spaces will be situated adjacent to one another and separated by sound-insulated, full-height, fully automated, operable partitions. Opening and closing of operable partitions will initiate the combination and separation of HVAC systems, A/V conferencing systems, and lighting controls. This will allow multiple sized learning spaces to exist within a single footprint and it offers flexibility to convert between small and large learning spaces based on course enrollment. Construction should include overhead power, plumbing at the perimeter, nesting furniture, modular casework on casters, and no fixed construction in the field area of the floor plan. This program requires a combination of wet and dry learning spaces. Interior finishes should be selected based on intended learning programs and activities.

Adjacent storage will house nesting seating and tables for all three multi-function spaces that can be easily removed from the floor and stored pending event venues.

Students will require comfortable social spaces with electronic and Wi-Fi connectivity to interact, study, eat, and relax between classes and secure space to store belongings during class.

Animal Housing/Holding Space: The design of animal housing/holding space should allow public viewing of some species without direct animal contact, and the design should include features that accommodate security and biosecurity. Space should be flexible to allow modifications as industry changes. Permanent housing is required for equine, swine, and poultry (species that will be “residents”). Other species will require shorter term housing/holding space. Animal housing/holding space will be based on the number of animals and length of stay required for established, undergraduate teaching programs. The design phase will include facilitated programming discussions and cost estimates so college leadership can decide how much of each animal housing/holding space to include in the project, broken out as follows.

- Equine – Housing for 30 mares, stallions, and young horses.
- Equine – Option to include additional housing for 30 horse riding program.
- Swine – Housing for 16 sows and 200 wean to finish pigs.
- Poultry – Housing for multiple species designed to reflect industry standard equipment and caging.
- Beef – Housing for 20 cow-calf pairs.
- Small ruminants (sheep/goats) – Housing for 20 females and their offspring.
- Dairy – Remain housed in current facilities, with options to perform some aspects teaching programs in the new multispecies facility (e.g., judging team contests or other activities needing an arena).
- Dairy – Option to include provisions to site and plan for a new or renovated dairy facility whether it is constructed as part of this project or in the future. Programming recommendations need to align with the MALC project, Waterman animal facilities, and the 2019 CFAES Facility Master Plan. A new dairy may or may not be constructed as part of the MALC project pending college leadership’s review of this programming exercise.

Criteria for final species and numbers of animals will be determined by college leadership during the programming phase of design. Housing will include appropriate facilities and equipment to demonstrate best management practices in the areas of animal nutrition, reproduction, health care, and animal welfare. Suitable pasture with animal shelter, and all weather footing and fencing are required.

Event Space: The arena, gathering space, and multi-functional learning spaces may also serve as event space when not used for teaching and outreach. Appropriate flow, function, appearance, cleanliness, number of restroom fixtures will be established during the programming phase with regard to stakeholders and outside events. A warming kitchen may be necessary to assemble food that is brought in for events.

A substantial covered exterior pad may be necessary for outside penning and staging during events and will serve as an additional animal teaching space.

Office and Support Space: Staff and student workers who are permanently assigned to this facility will require desk space, lockable storage, file storage, general break/restroom, and showers. Faculty will require shared, open landing space. Space is required for above-grade dock and or loading.

Explore options for permanent and/or just-in-time delivery of supplies and inventory for the following: bedding, feed (includes grain and hay storage, associated feeding equipment, and appropriate space for storing and handling medicated feeds), animal handling, equipment, penning and gating, arena props and equipment, farm (pasture) equipment, classroom furniture and equipment.

Site & Infrastructure: Generally includes utilities, roads, parking, infrastructure, waste management (best practices), grading, storm water control, and biosecure vehicle wash-off. The project will address and resolve any interruptions to existing access, services, site, parking, roads, irrigation, storm water control, etc. This project will rework any disturbed drainage tile, irrigation, and/or grading.

This project will explore options and alternatives to address storage and handling for multiple forms of animal nutrients and bedding material.

Technology, Furniture, and Equipment: CFAES will continue its current model for distance learning technology in all teaching-meeting-and-event spaces. Additionally, it will include live video feeds from teaching meeting, event, and animal housing/holding spaces. The project may recommend procuring some specific non-capital items outside of the project, but within the total budget. (Examples: Arena floor (sand and mats), specialized animal equipment, and penning).

EXCLUSIONS

This project will not replace the Plumb Hall or Animal Science facility at OSU Columbus campus. A complete schedule of OSU Columbus Campus space occupied by the CFAES Animal Sciences Department is included in the Appendix for reference.

This is a teaching and outreach facility that could accommodate some research. It is not a research focused facility.

This project does not include student living quarters.

DELIVERABLES

CFAES will participate in the development of the deliverables through the university process. The Associate Dean of Operations and the Director of Facilities and Capital Planning will participate in facilitated discussions to ensure CFAES provides feedback, direction, and approval prior to significant milestones. CFAES will identify key stakeholders to take part in project discussions.

Design Phase Deliverables:

- Establishment and tracking of key project milestones and decisions.
- Project Criteria:
 - Developed from detailed programming studies and discussions to validate program content and space requirements
 - Scenarios presented to college leadership for consideration and prioritization.
- FDC Total Project Cost Estimate, including third party construction estimate.
- Architectural watercolor renderings.
- Detailed analysis of the planned programs, historic student population, and equipment requirements to determine the appropriate uses, sizes, numbers of spaces and animals. (Developed during programming to eliminate redundancies and improve CFAES's ability to invest in priority programs within the boundaries of this project, as well as over the life of the facility and programs.)

Construction Phase Deliverables:

- 100% Completion of Facilities (or Facilities), Pasture, Biosecure Access, Furniture, Equipment, and Technology.
- Groundbreaking and Grand Opening Celebrations (separately funded).
- Updated architectural watercolor renderings.
- Closeout Documents & Warranties.

BUDGET

CFAES has currently funded \$2.2 Million toward the design of this project.

BUSINESS PLAN, OPERATIONS, AND GOVERNANCE

Business, operations, and governance will be discussed internally to CFAES over the course of design for this project. Updates will be provided to the project team.

CONSTRAINTS, ASSUMPTIONS, RISK, AND DEPENDENCIES

Communication is paramount. To ensure success, this project must engage appropriate representation from the college as provided through the Associate Dean of Operations and the Director of Facilities and Capital Planning.

Successful design of this project largely depends on the expertise of a specialty-niche design firm and/or team specializing in agricultural livestock facilities, systems, and biosecurity measures.

It is important to coordinate this project with ongoing capital projects, master planning, plans for animal facilities, operations, and other programs and activities associated with Waterman.

This project is approved for design. Construction permits should be obtained during the design phase to ensure state compliance, as well as to prevent placing CFAES at risk for additional design, construction, and/or associated fees.

This Project Charter and the 2019 CFAES Master Plan are the governing baseline documents for this project.

APPENDICES

- 2019 CFAES Preliminary MALC Charter Space Program
- 2019 CFAES Facility Master Plan (Concurrent Project)
- 2018 CFAES Animal Facility Re-Envisioning Committee Report
- 2018 Future of Waterman Taskforce Report
- 2017 CFAES Columbus-Based Animal Sciences Occupancy Study
- 2016 CFAES Animal Facility Scoping Study (Erdy/McHenry Architecture)
- 2014 CFAES Facility Master Plan
- Animal Use Spaghetti Diagram
- CFAES Animal Science Department Course Descriptions and Calendar
- CFAES Project Stakeholder Registry
- CFAES Schedule of Common Space and Meeting Space at Waterman
- Preliminary Schedule of Events