



Main Campus Vivarium Replacement

April, 2026

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1. Executive Summary

The Main Campus Vivarium Replacement would demolish the existing 33,698 gsf vivarium and replace it with a new 2 story 83,393 gsf building. The conceptual plan for the building includes a mechanical floor above the animal housing areas to allow for maintenance and repair with minimal disruption to the animals.

This building will roughly double the vivarium capacity on main campus, centralizing animal care and use operations, and modernizing translational and biomedical research at CSU. Currently animals are spread out across campus at the Vivarium, Anatomy/Zoology, Gifford, Microbiology and Pathology buildings.

With the addition of procedure rooms in the new facility, animals will seldom need to be transported to other buildings. Consolidating them onto main campus in this new facility increases safety, oversight, and quality of care. The project will remove the satellite facilities and make those spaces available to other programs.

2. Justification

2.1 History, Role, and Mission

The existing building is the primary vivarium on CSU Main Campus, constructed in 1980 with additions in 1988 and 2008 which maximized the building footprint on the site. The initial primary function of the building remains unchanged since its' original construction.

2.2 Program Needs and Trends/Future Opportunities

The current research animal housing at CSU lacks the ability to expand and lacks modern features for the current state of translational and biomedical research. This has led to a decentralized system generating high operational costs and increased compliance risks by reducing the ability for the required oversight. As research requirements evolve, a centralized and modern building is needed to facilitate innovation and meet the research demands of those using animal models in biomedical and translational research. Currently research programs that would utilize the new facility bring in approximately \$60M per year in grants.

A modern centralized space would provide opportunities for larger research development, and increase faculty recruitment opportunities and retention.

The project is identified as the number three priority for Colorado State University and a new vivarium has been identified as a primary research need on main campus for over a decade.

2.3 Benefits of Project

Despite the flexibility to house multiple species in the existing vivarium, the research environment has drastically changed since 1980 and requires more nuanced space for modern animal-based research. Transgenic mouse models require significant breeding areas that need to have reduced foot traffic and noise to enhance breeding efficiency and reduce animal numbers; neuroscience research is often driven by

behavioral assessments which require unique space for equipment; spaces to hold unique behavior equipment such as light/dark boxes for circadian rhythm studies; telemetry capability to continuously monitor animal physiological responses which are not possible due to the current construction of the existing building; orthopedic studies evaluating animal movement require space for modernized equipment; aquatic space to conduct research with fish; additional surgical space for animal models to reduce the use of laboratory space for such procedures; sufficient necropsy space for investigator with modern safety features such as chemical fume hoods or down draft tables. These are several examples of requirements that the existing facility is unable to meet.

Centralizing animal housing locations reduces operational costs, reduces animal stress, and with proper design can address the current and future needs of those using animal models. Such design characteristics include breeding rooms designed for low traffic, noise and reduced light levels; multiple surgical suites with capabilities for neurosurgery in rodents; suites for behavioral and orthopedic research equipment; updated cage washing, sterilization, HVAC and lighting systems to reduce utility usage; and increased space for the staff supporting the research.

A modern centralized facility will provide energy efficiency gains and reduced utility usage. Animal research facilities have specialized requirements for HVAC, lighting, finishes and security to meet federal regulations in the Animal Welfare Act, NIH Guide for the Care and Use of Laboratory Animals, and AAALAC accreditation guidelines. The systems in the existing vivarium are a significant user of utilities due to the HVAC, electrical and water demands; and much of this is due to antiquated mechanical equipment.

New and enhanced animal care facilities will also improve the safety of the animals in the care of CSU faculty and students. Enhancing our animal care facilities improves the life-safety for the animals in our care. The housing systems rely on dependable, functional HVAC systems. Their failure can have catastrophic consequences to ongoing research. Temperatures need to be maintained in well controlled ranges, and they are frequently out of range in the existing building. Similarly, the lighting systems frequently fail. These inadequacies can result in confounding variables to the research and may necessitate repeating experiments.

2.4 Relation to Academic or Institutional Strategic Plans

The replacement of the existing vivarium would enhance CSU's ability to conduct innovative and engaged research leading to a higher caliber of faculty and providing students with increased opportunities and levels of success. CSU has a strong reputation in infectious diseases, orthopedic, neuroscience, reproduction, and cancer research. These strengths have been used to address many human and animal health issues.

2.5 Relation to other Programs or Agencies

Expansion and modernization can enhance the infrastructure for research important in advancing human and animal health. A modern animal research facility enhances the success of our research programs and recruitment of top faculty members; thereby increasing research funding for CSU. In addition to recruiting top faculty, a modern facility will enhance our abilities to work with industry using animal models.

Colorado State University, and the programs supported by the LAR, have a strong history of collaborative research with other groups and agencies supporting research funded by the National Institutes of Health, the National Science Foundation, United States Department of Agriculture, Department of Defense, and other federal and non-government research organizations. There are several CSU research pillars using LAR for biomedical and translational research. The Mycobacterial Research Laboratories is an internationally recognized research center which leads fundamental and translational research to understand mycobacterial disease and pathogens. They use animal models to innovate diagnostics, therapeutics and vaccines. The MRL holds contracts to supply critical reagents to microbiologists across the U.S. Members of the mycobacterial group also are active participants in the US-Japan cooperative agreement on mycobacterial control and regularly participate in World Health Organization deliberations on the subject.

The Prion Research Center is a leader in the study of prions and protein-misfolding diseases such as Alzheimer's and Parkinson's disease. The PRC investigates the biochemistry, genetics and pathogenesis of prions in animal models innovating diagnostics and therapeutics for these devastating diseases. The Molecular, Cellular and Integrative Neuroscience (MCIN) program is a multidisciplinary program taking an integrative approach to study the nervous system and musculoskeletal system using animal models in the areas of neuroendocrinology, neuroplasticity, neurologic and neurodegenerative disorders, developmental and behavioral studies to understand how neural circuits correlate with physiology, behavior and disease. Similarly, two distinct interdisciplinary teams studying the cardiovascular system and reproductive development use animal models focusing on the physiology and function of the heart and blood vessels and reproductive disorders such as infertility, respectively.

The Flint Animal Cancer Center has been at the forefront of understanding the fundamental mechanism of cancer biology, diagnosis, and development of effective therapies. The teams are composed of clinical and basic scientists that use animal models to continue being on the forefront of cancer therapeutics. Biomedical engineering uses animal models to work at the interface of biology, medicine and engineering and combines the strengths of veterinary medicine, engineering and the sciences to focus on improving health, fighting disease, and aiding persons with disabilities. Health and Human Sciences research animal models to improve physical, mental and social well-being of people. As an example, studies involve the use of animal models to understand the role of stress resistance, and mitochondrial protein turnover and function in the context of age and age-related diseases.

The Center for Vector-borne Infectious Disease (CVID) includes many faculty programs that focus on vector-borne disease and incorporate the most up to date molecular and epidemiological techniques. They investigate the pathogenesis of vector-borne diseases such as West Nile Virus using animal models.

Regionally, the Centers for Disease Control Division of Vector-borne Infectious Diseases (CDC-DVBID) is located on the Foothills Campus. The CDC-DVBID is currently developing plans to modernize and expand its research facilities in Fort Collins. The USDA Arthropod Borne Animal Disease Research Laboratory (USDA-ABADRL) is located at the University of Wyoming, in Laramie, approximately a one-hour drive from Fort Collins. The USDA-ABADRL facility has recently obtained funding to modernize and update its facilities. Additionally, there are several biotech companies that use animal models in their research to advance human and animal health. These scientists from federal, state, and private laboratories comprise a unique research community in Fort Collins, Colorado. This community of scientists, through the missions of the

various agencies, is capable of delivering education, training, research, and service concerning biomedical and translational science to the state, nation, and world. A modern research animal facility at CSU can be the model facility in Colorado for industry partners to do their research using animal models.

2.6 Existing Programmatic/Operational Deficiencies

With multiple satellite facilities, rather than one larger center, the program has a higher risk of non-compliance with the Animal Welfare Act, NIH Guide for the Care and Use of Laboratory Animals, and the AAALAC accreditation guidelines. There are inefficiencies in the system and utility use and limitations in the research programs that can be explored based on the space available. The lack of modern space has impacted faculty recruitment as we are unable to meet their animal research needs, unless a satellite facility is constructed specifically for their needs, often using startup money. This results in departments and PIs constructing facilities to meet their research needs in non-centralized spaces. These “one-off,” satellite facilities have the same unique HVAC and lighting requirements as the centralized facility and necessitate dedicated systems for their research animals. Satellite facilities increase the compliance risks associated with animal use in research. Since they are decentralized, oversight is greatly reduced. In fact, many of the deficiencies noted in semiannual inspections by the animal care and use committee are identified in decentralized facilities. The use of satellite facilities increases the operational costs. In addition to the extra utilities costs, animal care and veterinary personnel need to travel to these spaces and move equipment for sanitation.

A modern centralized animal facility reduces animal stress, and with proper design can address the current and future needs of those using animal models. Such design characteristics include breeding rooms designed for low traffic, noise and reduced light levels; multiple surgical suites with capabilities for neurosurgery in rodents; suites for behavioral and orthopedic research equipment; and updated cage washing and sterilization equipment. These aspects that are not readily available in the existing facility.

2.6 Current Enrollment/Caseload

There are over 110 investigators and 300 research personnel from over 10 departments that use animals in research. The vast majority are from CVMBS, but others are from the colleges of CHHS, CNR, Engineering, and Agricultural Sciences.

2.7 Physical Condition/Functionality of Space

The existing vivarium is the centralized animal facility at the CSU Main Campus. It was originally constructed in 1980 with a 6500 sf addition in 1988, and a 2500 sf administrative addition in 2008. The facility is over 20000 sf, with 13000 sf of functional space including animal housing, equipment processing, storage, surgery and necropsy, and 3600 sf of administrative space. The remaining space is mechanical, which has had multiple piecemeal renovations and repairs over the years.

The existing functionality of the space cannot be modified without significant changes. Many of the rooms lack an adjacent anteroom or procedure room. The anteroom creates an additional barrier between the animal room and the corridors thereby reducing the impact of personnel movement within the facility on

the research animals. This is specifically important with breeding colonies, behavioral studies, or studies requiring reverse light cycles. Given the size and dimensions of the existing rooms, it is difficult to accommodate research equipment such as treadmills, sleep boxes, telemetry, or other specialized equipment. The existing cubicle suites minimize animal holding capacity and prevent us from putting in caging systems that could increase capacity because the cubicles are too small to hold those systems. There are multiple autoclaves throughout the building that frequently fail, requiring significant repairs to maintain operations. Further, the decentralized distribution hinders operations as we strive to maintain clean materials from contaminated materials. The mechanical space is difficult to manage and there are multiple spaces with “temporary” fixes such as water catch pans to collect and dispose of leaking water, and multiple air compressors to operate machinery that are frequently undersized due to space constraints. The space is unable to accommodate any further mechanical equipment, which has hindered upgrading spaces such as cagewash. The flooring is a vinyl-based floor which lacks the durability and cleanability of a more modern epoxy-based flooring system.

The mechanical equipment is antiquated and in need of frequent repair to maintain the strict environmental parameters for maintaining research animals. In addition, the facility is a significant user of utilities due to the HVAC, electrical and water demands. Much of this is due to antiquated mechanical equipment. While the building has been extended multiple times, and equipment maintained to the best of our ability, there is no ability to add more additions to the existing site. Existing utilities surround the building and provide extensive constraints to the possible footprint.

2.8 Total New Space Requirements/Equipment

Room Type	Number	GSF/Room	Total GSF
VIVARIUM			
General Housing Room	52	266	13,832
General Ante Room	35	112	3,920
General Procedure Room	25	148	3,700
General Storage	5	212	1,060
GENE EDITING			
Gene Editing Laboratory	1	212	212
Gene Editing Holding Room	2	212	424
GNOTOBIOTIC			
Gnotobiotic Room	1	375	375
Ante Room	1	40	40
VIVARIUM SUPPORT			
Training Room	1	185	185
Training Storage	1	33	33
Imaging	1	174	174
Veterinary Laboratory	1	257	257

Necropsy	1	185	185
Small Animal Surgery	1	185	185
Large Animal Surgery	2	212	424
Shared Prep	1	130	130
Chemical Storage	1	201	201
Storage	1	488	488
Feed and Bedding	1	317	317
Cage Wash (Dirty)	1	1,040	1,040
Cage Wash (Clean)	1	1,023	1,023
Clean Cage Storage	1	645	645
Receiving	1	501	501
Isolation	2	89	178
Airlock	1	122	122
Storage	2	150	300

STAFF SUPPORT

Unisex Locker Area	1	794	794
Changing Room	8	48	384
Airlock	1	64	64

OFFICE

Reception	1	68	68
Waiting	1	141	141
Reception Office	1	56	56
Conference Room	1	177	177
Open Office	1	587	587
Break Room	1	295	295
Outdoor Patio	1	476	476
Office	17	119	2,023
Open Office	1	1,080	1,080
Conference Room	1	331	331

BUILDING SUPPORT

Storage	1	248	248
Mechanical Penthouse	1	32,426	32,426

3. Design criteria

3.1 Architectural Narrative

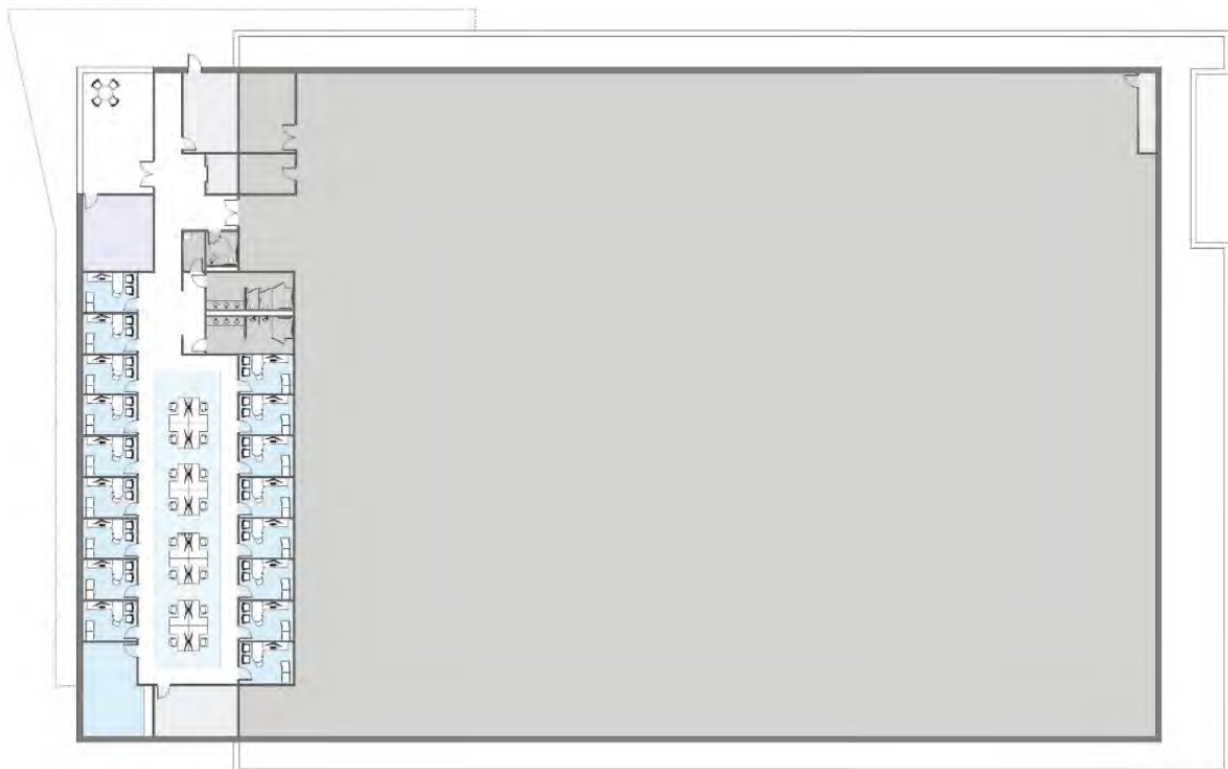
The building is envisioned as a two-story building constructed with steel-framed composite structure and enclosed with aluminum and glass curtain wall and/or storefront systems combined with insulated metal panel and stone plane construction. Building shear and lateral force resisting elements are indicated to be

exposed and clad with insulated metal panels, sandstone and / or limestone wall panels. Sun shading elements and ground level canopies are indicated with exaggerated horizontal proportions to reinforce the roof forms and promote a dynamic, forward moving building form with destination qualities. The proposed building forms are in keeping with the CSU Aesthetic Guidelines and blend seamlessly with facilities developed over the last several years at Colorado State University. Buildings that provide similar architectural fabric in inform the design of the new facility can be studied with cost and scope metrics at the following link: [Building Success | Explore CSU's transformative growth \(colostate.edu\)](https://colostate.edu/building-success).

The first floor will house animal holding and associated care facilities, locker rooms, procedural rooms, surgeries, and cleaning centers.



The second floor will house offices, support spaces, and 32,400 sf of mechanical space.



LEVEL 2 FLOOR PLAN

- SUPPORT/MECHANICAL
- ADMIN
- CIRCULATION

3.2 Structural Narrative

The building structure is anticipated to be either steel braced frame with composite steel deck and integrated concrete floor systems or Cast In Place (CIP) concrete frame w/ integrated concrete floor system. Both systems will accommodate the requirements for durability and with the anticipated fire suppression system, provide adequate building area based on the construction type and occupancy classification. Mechanical system vibration isolation will be a design criteria for the structural system with associated criteria identified in the CSU Facilities Planning Design and Construction Standards. CSU architectural elements including the stone clad planes that often articulate building entries can be also used as shear walls to resist lateral forces and aid in floor diaphragm resolution as associated loads are transferred to foundation systems. Deep foundation systems are anticipated, most likely drilled caissons with bearing to bedrock and structural floor systems supported with concrete grade beams over continuous void form to avoid differential settlement and structural degradation over time. The majority of the science and laboratory facilities constructed between 1950 – 1970 on the CSU main campus utilized a steel reinforced CIP concrete structure with deep foundations and structurally, the buildings have performed very well with minimal (if any) differential settlement, deflection and/or degradation.

Design Criteria:

Roof Dead Load: 15 psf

Roof Snow Load: 30 psf

Ground Snow Load (for snow drifting calculations): 30 psf

Wind Loads: Exposure C, Vult = 129 mph, Vasd = 100 mph, IW = 1.15 Seismic Loads: (Equivalent Lateral Force Procedure)

IEQ = 1.25, Ss = 0.185g, S1 = .058g

RISK CATEGORY II, SITE CLASS D (ASSUMED)

3.3 Mechanical and Electrical narrative

Mechanical Systems:

Airflow: Animal holding areas require 12-air exchanges/hr. This building will require 100% outside air.

Humidification: Small animal holding rooms will require humidification. The air handling unit will require ultrasonic humidification to maintain the humidity levels.

Heating: The heating and cooling water system can be fed from the District Energy Plant.

Electrical Systems:

The electrical systems are anticipated to be fed from the existing service on site, with analysis of required loads and modifications if needed.

Fire Alarm System:

The facility is anticipated to be equipped with a dedicated fire alarm control panel and equipped with initiating and notification devices throughout. Animal holding areas may require special notification appliances to prevent stress to the animals. Refer to the system description for TMI for additional information and requirements.

3.4 Telecom Narrative

1" conduit routed to an accessible location or cable tray when provided. Cabling and equipment is anticipated to be provided by CSU.

3.5 Utilities Narrative

Utilities are available at the proposed site and provided from the following:

- Existing water service will be used.
- Existing sanitary sewer will be used.

- Existing electric service will be used.
- Existing gas service will be used.
- Existing Telecommunications and fiber optics will be used.

Existing utilities will be evaluated during design and improvements will be made as needed.

3.7 Pedestrian, Bike, and Vehicular Access

Existing Pedestrian, Bike, and General Loading zone to be maintained. The site is in a central location on the CSU Main Campus. It is adjacent to an existing parking lot and is readily accessible by foot traffic and bikes.

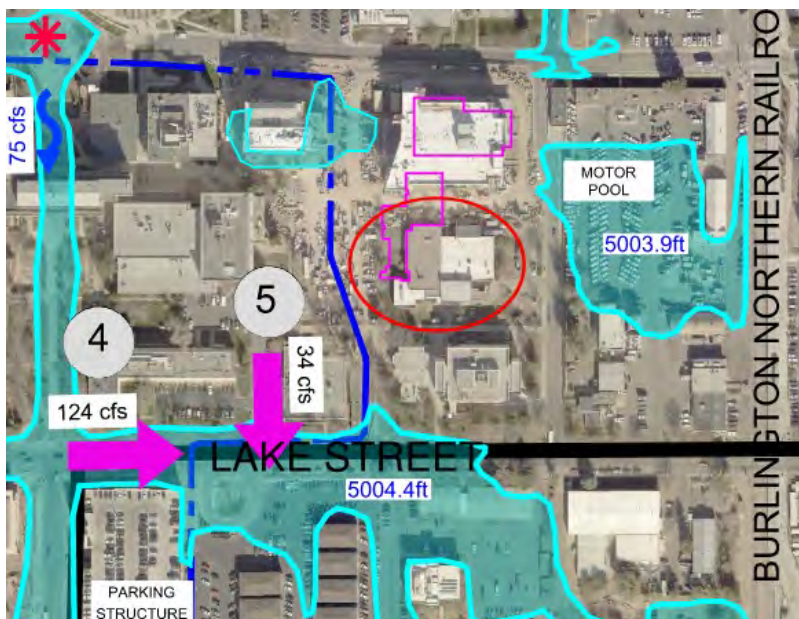
3.9 LEED Goal

Senate Bill 07-051 directs that state buildings undergoing substantial renovation or new construction conform to the High-Performance Certification Program. The Office of the State Architect has stated that USGBC LEED-NC Gold is the targeted standard of this program, or at a minimum, the highest obtainable LEED standard. The most current LEED publication at the time of design will be used. The inclusion of high performance standards is an integral part of the project, beginning at the program plan stage.

The goal of this project is LEED Silver due to requirements of animal holding facilities. The building will comply with 2024 IECC at a minimum. The existing building has an average EUI of 246, the new facility will target an EUI of 172.

3.10 Flood Mitigation Analysis

There are no specific flood mitigation concerns for this project and the proposed site is outside the existing campus floodway. If the proposed building footprint and associated roof system increases the impervious area on or around the existing site, stormwater flows will be studied to ensure floodway mapping, flow rates and the time of disbursement are maintained. Storm water quality, retention and detention allowances and strategies will be studied as the building design progresses.



3.11 CSU Standards

The CSU Facilities Planning Design and Construction Standards Manual is available at:

http://www.fm.colostate.edu/constr_standards

The CSU Standards are to be used as guidelines for design. They are divided into 3 parts for use by Architects and Engineers: the first part is administrative; the second part discusses requirements for design and deliverables at each stage of the design process; the third part consists of the technical standards arranged by CSI division. The Standards are a work in progress, and as such, any question about the applicability of a standard should be discussed with the project manager. The Standards should not be referenced or copied in Contract Documents – the design is expected to embody and conform to the Standards. Contractors should not be directed to review the Standards as a contract requirement, but instead the design and specifications should embody the CSU standards.

Colorado State University requires all capital construction projects to provide inclusive facilities. These facilities are consistent with CSU Strategic Plan, Climate Action Plan (CAP) and the Principles of Community that “create and nurture inclusive environments,” and “welcome, value and affirm members of our community, including their various identities, skills, ideas, talents, and contributions.” Standards for each room type are located at: https://www.fm.colostate.edu/sites/default/files/standards/II-Chapter-34.Requirements_By_Space_Type.pdf.

CSU Accessibility Standards outline additional ADA requirements.

3.12 Code Analysis Narrative

The following approved building codes and standards have been adopted by State Buildings Program (SBP) and other state agencies as identifies below as the minimum requirements to be applied to all state-owned buildings and physical facilities including capital construction and controlled maintenance construction projects.

The 2024 edition of the International Building Code (IBC)

(As adopted by the Colorado State Buildings Program as follows: Chapter 1 as amended, Chapters 2-35 and Appendices C and I).

The 2024 edition of the International Mechanical Code (IMC)

(As adopted by the Colorado State Buildings Program as follows: Chapters 2-15 and Appendix A)

The 2024 edition of the International Energy Conservation Code (IECC)

(As adopted by the Colorado State Buildings Program and Colorado Energy Office)

Colorado Model Electric Ready and Solar Ready Code

(Published by the Colorado Energy Office) Effective July 1, 2023. Where conflicts exist between Section 1 of this code and the attached Amendments to Chapter 1 of the IBC, the Amendments take precedence.

The 2023 edition of the National Electrical Code (NEC) (NFPA 70®)

(As adopted by the Colorado State Electrical Board Effective August 1, 2024) For amendments refer to the Secretary of State Code of Colorado Regulations 3 CCR 710-1

The 2021 edition of the International Plumbing Code (IPC), first printing (March 2020)

(As adopted by the Colorado State Plumbing Board of Plumbers Effective April 30, 2025) For amendments refer to the Secretary of State Code of Colorado Regulations 3 CCR 720-1

The 2021 edition of the International Fuel Gas Code (IFGC) first printing (August 2020)

(As adopted by the Colorado Examining Board of Plumbers Effective May 15, 2023)

The National Fire Protection Association Standards (NFPA)

(As adopted by the Department of Public Safety/Division of Fire Prevention and Control)

The 2024 edition of the International Fire Code (IFC)

(As adopted by the Department of Public Safety/Division of Fire Prevention and Control (DFPC). Projects requiring DFPC review should be designed with the most restrictive requirements) Exh-A-BldgCodes Rev. 7/2025 1CODE COMPLIANCE POLICY EXHIBIT A

The 2015 edition of the ASME Boiler and Pressure Vessel Code

(As adopted by the Department of Labor and Employment/Boiler Inspection Section) Effective July 1, 2017.

The 2017 edition of the National Boiler Inspection Code (NBIC)

(As adopted by the Department of Labor and Employment/Boiler Inspection Section) Effective July 1, 2017.

The 2015 edition of the Controls and Safety Devices for Automatically Fired Boilers CSD-1

(As adopted by the Department of Labor and Employment/Boiler Inspection Section) Effective July 1, 2017.

The 2015 edition of the Boiler and Combustion Systems Hazards Code, NFPA 85

(As adopted by the Department of Labor and Employment/Boiler Inspection Section) Effective July 1, 2017.

The 2019 edition of ASME A17.1 Safety Code for Elevators and Escalators

(As adopted by the Department of Labor and Employment/Conveyance Section) Effective January 1, 2021.

The 2005 edition of ASME A17.3 Safety Code for Existing Elevators and Escalators

(As adopted by the Department of Labor and Employment/Conveyance Section Effective January 1, 2021.

The 2017 edition of ASME A18.1 Safety Standard for Platform Lifts and Stairway Chairlifts

(As adopted by the Department of Labor and Employment/Conveyance)

The Current edition of ICC/ANSI A117.1, Accessible and Usable Buildings and Facilities

(As referenced in the adopted edition of the International Building Code)

The Secretary of the Interior's Standards for Rehabilitation

(As required by the Colorado State Historic Preservation Office for designated historic properties)

Animal Welfare Act

NIH Guide for the Care and Use of Laboratory Animals

AAALAC accreditation guidelines

Note: Additional codes, standards, and appendices may be adopted by time of design in addition to or replacement of the minimum codes and standards listed.

4. Project Schedule, Cost Estimates, Financing

4.1 Project Schedule and Phasing

Relocation/temporary facilities for current animals in existing facility, demo of existing, construction ideally in one phase (pending funding method).

4.2 Financing

Total Development Costs for the new facility is estimated at \$81M- \$88M.

\$11.9M (14%) of this cost will be financed by university resources. State funding is requested for the remaining \$73M. The project can be phased around initial design, core and shell costs and finally interior fit up and finish costs similar to the state funded phasing for the Chemistry Research Building which was completed in 2021.

4.3 Cost Estimate

Construction cost estimates were developed by a 3rd party consultant in 2021, with final budget informed by CSU facilities. CSU standards specify that the A/E document 20% of the construction budget in bid alternates, to cover potential volatility in the construction market as the project progresses.






The pricing estimate has been escalated to 2026 pricing at 5% compounded year over year. Total development costs for the entire project, including demolition, abatement, storm water mitigation, utility upgrades, and the new structure is estimated at \$81M- \$88M.

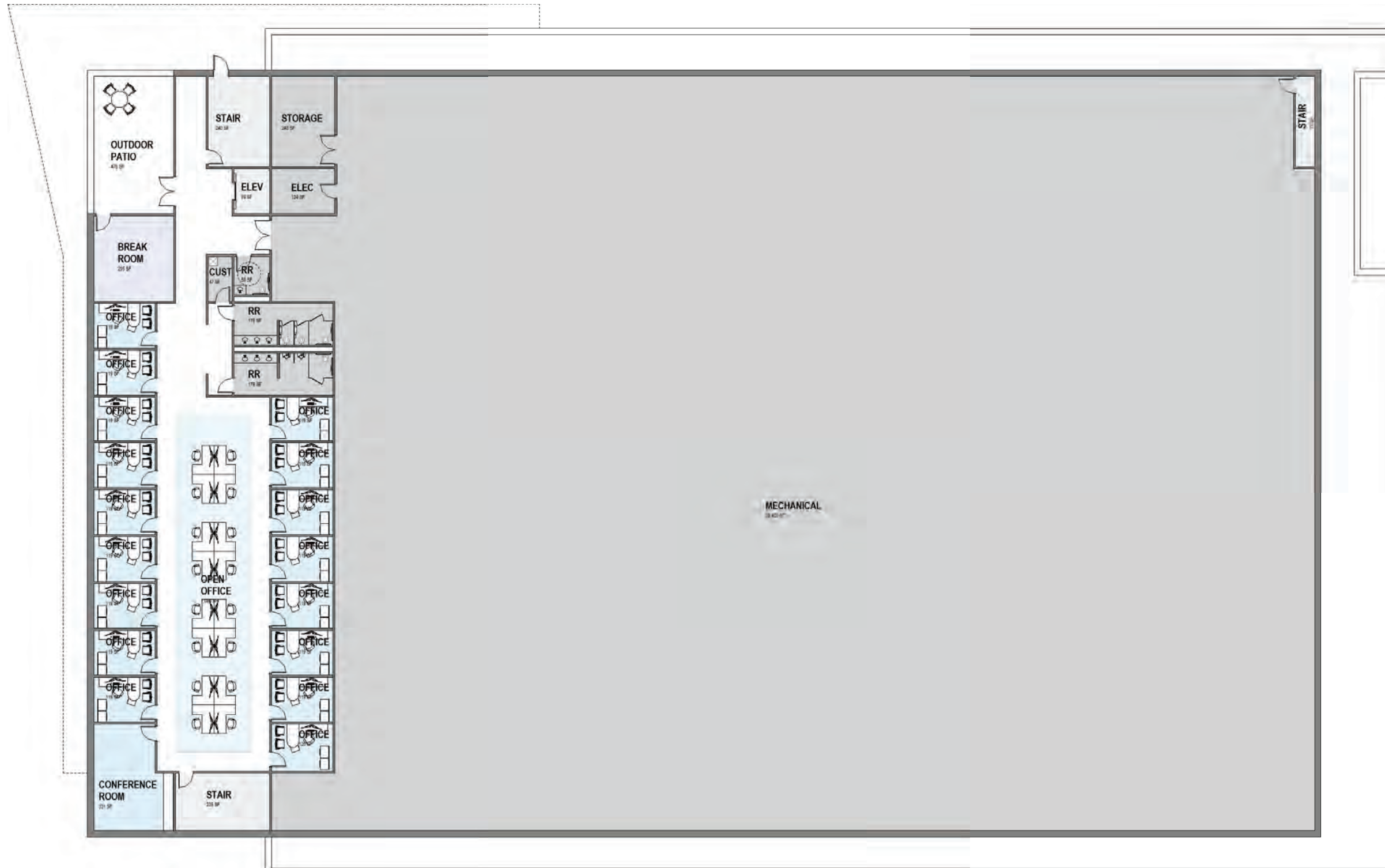
Appendices

- a. Site map and utilities**
- b. Floor plans**
- c. Total Development Cost Budget**



LEVEL 1 FLOOR PLAN

-  SUPPORT/MECHANICAL
-  ADMIN
-  LAB
-  VIVARIUM
-  CIRCULATION



LEVEL 2 FLOOR PLAN

Main Campus Vivarium Replacement Estimate

10/1/2021

Project Budget		low	medium	high	Remarks
Professional Services					
	Site Survey, Geotechnical	20,000	20,000	20,000	
	Consultants - Architects, Engineers, Vibration, Acoustics	4,642,875	4,887,237	5,131,599	11% of construction costs
	Commissioning and Advertisements	115,000	115,000	115,000	
	FM project development fee	1,200,000	1,200,000	1,200,000	on a \$60M project
	Independent Code Review, code insp, material tests	108,000	108,000	108,000	
	PFA plan review	93,155	93,155	93,155	for a \$42M building
	Total Professional Services	6,179,030	6,423,392	6,667,754	
Construction					
33698	Asbestos Abatement Painter Center	441,781	465,032	488,284	based on Aylesworth abatement
33698	Deconstruct Painter Center	738,542	777,413	816,284	based on Aylesworth deconstruction
83393	New structure-main campus @\$479.55/gsf	39,972,888	42,076,724	44,180,560	Clark Enersen estimate
	Site Work Service/Utilities	118,750	125,000	131,250	
	Site Improvements/Landscaping	95,000	100,000	105,000	PFA access to west side of building
	Storm water upgrades	840,997	885,260	929,523	per Ditesco conceptual estimate, option C
	Subtotal Construction Costs	42,207,958	44,429,429	46,650,901	
Equipment & Furnishings					
	Fixed Equipment		0		included in construction estimate
	Moveable Equipment	6,188,000	6,188,000	6,188,000	Clark Enersen estimate
	CSU Communications/AV	10,000	10,000	10,000	
	CSU Notifier system	5,000	5,000	5,000	
	Total Equipment and Furnishings Costs	6,203,000	6,203,000	6,203,000	
Miscellaneous					
	temporary modulars for animal holding	400,000	400,000	400,000	
	Total Miscellaneous Costs	400,000	400,000	400,000	
Subtotal Project Cost		54,989,988	57,455,821	59,921,655	
Project Contingency					
	Project Contingency 5% for New	2,749,499	2,872,791	2,996,083	
	Project Contingency-10% for Conceptual Estimate	5,498,999	5,745,582	5,992,165	
	Total Contingency	8,248,498	8,618,373	8,988,248	
Budget- Jan 2020		\$ 63,238,486	\$ 66,074,195	\$ 68,909,903	
	escalation to 10/2022-5%	\$ 66,400,411	\$ 69,377,904	\$ 72,355,398	
	escalation to 10/2023-5%	\$ 69,720,431	\$ 72,846,800	\$ 75,973,168	
	escalation to 10/2024-5%	\$ 73,206,453	\$ 76,489,140	\$ 79,771,826	
	escalation to 10/2025-5%	\$ 76,866,775	\$ 80,313,597	\$ 83,760,418	
	escalation to 10/2026 -5%	\$ 80,710,114	\$ 84,329,276	\$ 87,948,439	

This opinion of probable cost is made on the basis of experience, qualifications and best judgement of a professional cost consultant familiar with the construction industry, combined with the professional experience of Facilities Management. FM cannot guarantee that proposals, bids or actual construction costs will not vary from this cost estimate due to market conditions at the time of the bid.

Total Project Cost / sqft-Oct 2026	\$ 913.08	\$ 954.03	\$ 994.97
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COLORADO STATE UNIVERSITY
Facilities Planning Design and Construction