

Clemson University - Long-range Framework Plan (LRFP) - Update

Project Number: H12-N323-JM

Briefing Document

Introduction:

This briefing document establishes the foundation for Clemson’s update to the Long-range Framework Plan developed in 2017. It outlines the key components and contents of the plan, the proposed planning process, plan format, and key supporting documents, data, and other inputs that will help inform the plan. Serving as an update to the Long-range Framework Plan, this plan will set the stage for the next ten to fifteen years of campus investments but guided by a longer-term outlook. The framework plan provides a flexible guide for future development enabling the University to respond to changing conditions and circumstances. To be informed by and aligned with the new strategic plan, Clemson Elevate, the Long-range Framework Plan update (hereafter referred to as LRFP Update) will be underpinned by guiding principles that will help establish a grounded vision for the future. This iteration of the campus master plan is envisioned to be more interactive and accessible to the Clemson community than past versions while also easily adaptable and amendable to adjust to shifting needs and priorities.

Vision:

The purpose of the Long-range Framework Plan is to provide a flexible framework for guiding development and change on the Clemson campus. In support of Clemson Elevate, the University’s strategic plan, the LRFP Update will contemplate the physical improvements that will enable Clemson to:

- Deliver the No. 1 student experience in the nation.
- Double research expenditures by 2035, position for AAU membership.
- Transform lives statewide and beyond through educational, economic, agricultural and health outreach.

The LRFP Update also provides the opportunity to continue to enhance Clemson’s special character, its distinctive “sense of place” and strong sense of community, the “Clemson Family.” This plan update will refine the framework to sustain and enrich the physical expression of Clemson’s identity. It must integrate learning, innovation, creativity, and a strong sense of community into all aspects of the campus - its landscapes, buildings, social spaces, and

infrastructure networks. Add to this a deeply rooted sense of sustainability – social, ecological, and economic.

The LRFP Update will refine and refocus the University’s approach to sustainability, fiscal responsibility, and resiliency. It also provides a chance to be visionary, while building firmly upon Clemson’s rich history, traditions, essential character, and strong sense of community. It will help enhance a special, “high seminary of learning” for teaching, research, and public service aligned with the new strategic plan and changing demands of the coming decades.

Long-range Framework Plan – History/Addenda

The original Long-range Framework plan was completed in December 2017. Much of 2018 was spent communicating the plan content and recommendations to the campus community through in-person presentations to each of the Colleges, Student Government, Faculty Senate, Staff Senate, and City of Clemson. Otherwise, the plan was available to the campus community in PDF format on the Planning, Design & Construction website. The following subsequent plans that served as addenda or refinements to the LRFP were less publicly available. It is a key goal for the LRFP Update and its inevitable adjustments to be far more readily available to the campus community and presented in a format that encourages the public to stay abreast of the latest news related to campus planning and development.

Research & Learning Capital Plan, December 2019: Shortly after completion of the Long-range Framework Plan, the University embarked on the development of a Research and Learning Capital Plan that would build upon the general space needs identified in the LRFP and recommend capital improvements to address anticipated needs. This extension of the LRFP essentially serves as a 15-year implementation plan for academic and research facilities improvements aligned with programmatic growth, strategic priorities, and targeted research clusters. Phase one of the plan focused on the sequencing of a 15-year capital plan to accommodate future growth needs. Phase two focused on the programmatic sequencing between major facilities renovations and new construction projects.

LRFP Addendum 1 – Perimeter Road Corridor and Parking Study, November 2020: Focused primarily on campus circulation and parking, this planning effort sought to coordinate several planned and potential projects in the south campus area with the recommendations of the LRFP. Those projects included the widening of Perimeter Road, the realignment of Williamson Road, parking lot improvements in the Athletics District, and pedestrian access and arrival sequence to the conference center and inn. This addendum also included detailed study of potential sites for parking structures on campus and analyzed the impact on development potential associated with proposed changes in circulation and parking systems.

Housing & Dining Master Plan, March 2021: This effort focused on planning housing and dining facilities that enhance and strengthen campus life neighborhoods while also sequencing improvements in a manner that maintains revenue and minimizes disruptions to residents. This plan defines strategies for creating compact, walkable, mixed-use communities offering students their desired amenities and dining preferences. This plan prescribes a sequence of renovation and

new construction projects that refresh outdated housing while also maintaining a critical number of revenue-generating beds.

East Sector Update Plan, February 2023: Initiated due to several ongoing projects and studies with significant impacts on the East Sector of campus, this master planning process resulted in a unified vision for development aligned with the original guiding principles and objectives of the LRFP. That vision is focused on creation of a vibrant academic and residential district connected by an accessible network of paths weaving together memorable green spaces and anchors of campus life. The plan addresses existing conditions and the sequencing required to build and refurbish facilities without loss of critical campus functions. While the entire East Sector will function as a whole, it can be subdivided into two main zones, each of which is further subdivided into “placemaking districts” that bear their own identity.

Framework Plan Content:

The LRFP Update should revisit the planning elements identified as priorities by University officials, faculty, staff, students, the Campus Planning Task Force, and City of Clemson planners during the fall of 2015. Some of the elements listed below will need less focus during this plan update while others will require their own master plan nested within the overall LRFP Update including a Research Facilities Master Plan and Campus Life Facilities Master Plan. These deliverables are described below in **bold text**. The planning elements in need of greatest attention in the LRFP Update are as follows:

Social & Mission Elements

1. **Enrollment:** The LRFP Update should reexamine enrollment growth. The LRFP completed in 2017 anticipated enrollment growth to reach 26,000 total students by 2026. According to the Office of Institutional Research, Clemson exceeded 28,000 total students in Fall 2022. The Long-range Framework Plan must be adjusted to reflect recent and projected growth and examine implications on space and facilities needs to accommodate the growing student body while also delivering the goals of Clemson Elevate and preserving the “Clemson Experience.”
2. **Academic & Research Mission:** Clemson Elevate defines a bold and clear mission for research that calls for the doubling of research expenditures by 2035, the tripling of industry research, and an increase of 500,000 square feet of world-class research space. The LRFP Update must look beyond the main campus for opportunities to support this research growth. It will be critical for the plan to identify strategies to leverage the Innovation Campuses, Research Park, and Ravenel Research Campus to help accommodate the facilities and world-class infrastructure needed to expand the research enterprise. The LRFP Update should update and build upon the Academic & Research Capital Plan completed in 2019, in alignment with Clemson Elevate, to prescribe the development and projects necessary to drive discovery and in turn drive success.

The LRFP Update should include a Research Facilities Master Plan that supports the Clemson Elevate goal of doubling research expenditures by 2035 and creating world-class research infrastructure. A key action of Clemson Elevate is to increase total research space from 700,000 square feet to 1,200,000 by 2035. The Research Facilities Master Plan should serve as a guide for renewing and expanding the University's research facilities portfolio. The plan should recommend flexible, welcoming facilities and spaces for learning and discovery that promote collaboration in research across disciplines. Proposed new construction and renovations should be aligned with the research cluster hiring strategy described in Clemson Elevate.

3. Campus Life: The LRFP Update will need to fully consider student and campus life facilities to help deliver the number one student experience in the nation. How can the campus and its facilities best support excellence in experiential learning, amplify academic success, and promote the distinct sense of place, community, and family at Clemson?
 - a. Experiential Learning: How can academic and research facilities or spaces be renovated or constructed to support hands-on innovative learning experiences?
 - b. Social Spaces / Third Spaces: Student gathering, social, and event space will continue to be important LRFP Update considerations. The LRFP identified a significant need for student life spaces. With the demolition of the Edgar Brown University Union, that need is even more pronounced. There is insufficient space to support the 550+ student clubs and organizations and the activities that support student growth and engagement outside of the classroom. Additionally, the renovation of Memorial Auditorium for primarily academic use has further reduced the number of venues available for large student gatherings. The LRFP Update needs to suggest investment strategies for student activity and social spaces that are multifunctional and contribute to student success, creativity, innovation and entrepreneurial thinking as mandated by Clemson Elevate. The LRFP Update should identify opportunities to distribute these spaces throughout campus to support individual students and groups of various sizes.
 - c. Residential Life: The LRFP Update should incorporate the strategies identified in the recently completed Housing & Dining Master Plan and the East Campus Sector Plan as well as those being developed as part of the ongoing Thornhill Village/Douthit Hills Housing Study. The LRFP Update should further explore redevelopment opportunities at the Shoeboxes and soon to be former Johnstone/Union site. The plan should refine strategies to improve the quality of undergraduate housing while also providing an optimal range of housing types and price points to support a diverse student body.
 - d. Recreation: Modernizing and expanding indoor and outdoor recreation facilities will be critical to supporting the #1 student experience especially as the enrollment continues to grow. Fike Recreation Center was built for a population of 12,000, but Clemson now has an undergraduate enrollment over 22,000. Construction of the

recreation facilities at The Hub at Douthit Hills has helped address the deficit of indoor recreation space, but that deficit will continue to grow in parallel with enrollment. The LRFP Update should present a strategy for providing sufficient recreation space and opportunities to support healthy lifestyles for the campus community.

- e. Well-being: Clemson University strives to be a community that exemplifies all dimensions of wellness, including emotional, environmental, financial, intellectual, occupational, physical, social, and spiritual. The LRFP Update should identify strategies to support a holistic approach to well-being. This should include recommendations for facilities and campus improvements that aid in the teaching of healthy behaviors. Also, Clemson intends to replace the aging and insufficient Redfern Health Center within the next few years. The LRFP Update should identify the best site for this facility to ensure that these services are readily accessible to students, faculty, and staff.

The LRFP Update should include a Campus Life Facilities Master Plan that revisits and validates preferred concepts from previous planning efforts while also identifying new opportunities to support the #1 student experience. This ‘plan within a plan’ should focus on facilities solutions for social spaces, indoor/outdoor recreation, and student wellness and provide a comprehensive campus life strategy for the University.

4. Athletics: Since completion of the LRFP, Clemson Athletics has added new sports programs and continues to expand facilities within the Athletics Precinct. New sports added recently include women’s gymnastics and lacrosse. A renovation of the Jervey Athletic Center is underway and includes the addition of a 50,000 square foot Performance & Wellness Center to support student-athletes in the Olympic sports. Memorial Stadium continues to undergo major renovations. Additionally, several feasibility studies for new facilities or renovation/expansion of existing facilities have recently been completed or are underway. Those studies suggest renovation or expansion to the facilities for basketball, soccer, golf, track and field, baseball, and softball.

The LRFP Update should seek to align recent feasibility studies in the development of a cohesive Athletics Precinct master plan. Beyond coordinating all the facility enhancements recommended within those studies, the plan should also address issues related to gameday operations, parking and circulation.

Environmental Elements

1. Land Resources: The original LRFP was directed to plan for the main campus, but with an understanding of the extended context. Given the directives within Clemson Elevate, the LRFP Update must retain focus on the development opportunities on the main campus but also look beyond towards the Ravenel Research Campus and the Innovation Campuses.

2. Campus Structure, Landscape & Sense of Place: The LRFP Update should further the goal of enhancing the distinctive, beloved sense of place while also adapting the campus to best address facilities needs and more dense development.

The LRFP Update should include a Campus Landscape and Cultural Master Plan that fosters an appreciation for the natural and cultural heritage unique to Clemson and protects historic University landscapes and cultural assets. This plan should establish future actions and initiatives that will guide landscape aesthetics, cultural resource recognition and protection, functionality, legacy, and best management practices. The plan should ensure that Clemson’s cultural heritage is not lost as change and development inevitably occur.

The LRFP Update is to include a review and update of the Clemson University’s current Site Design Guidelines document. This document establishes a vocabulary for protecting and enhancing Clemson’s sense of place. The revised document is to support and align with the LRFP Update by providing clear procedures and standards for the design of new facilities or upgrading existing areas of campus. This revision is to recognize and maintain any current standards that remain relevant to the campus fabric while updating any elements needed to better align with the LRFP Update. These site guidelines are to be expanded as needed to apply to all areas including the Ravenel Research campus and Innovation Campuses.

3. Space: The update to the LRFP provides an opportunity to better align academic and research spaces on campus with the University’s mission and new strategic direction as defined by Clemson Elevate. The LRFP Update should build upon the recommendations of previous studies in defining how to best reuse existing facilities (particularly historic buildings) while identifying those programs or research efforts best served by new construction.

The LRFP Update should include an analysis of utilization of academic, research, student life, and administrative space on campus and provide guidance for increasing efficiency while improving experience for occupants. Additionally, the LRFP Update should recommend and document new, post-pandemic space planning standards and guidelines to ensure more efficient use of space in the future. These standards should include best practices for workplace planning and recommendations for space allocation with the incorporation of remote/hybrid work.

4. Capital Projects: The LRFP Update should address and incorporate known capital projects and anticipate the projects to follow within the plan’s 10–15-year horizon. The most recent Capital Permanent Improvement Plan (CPIP) submitted to the State of South Carolina will provide the project priorities for the next five years. Included in the CPIP is the construction of the State’s first College of Veterinary Medicine, academic facilities focused on instruction and research in science and engineering, multiple projects supporting athletics, and a

major renovation and expansion of the University’s library. Recent LRFP addenda and related planning studies detailed later in this document will provide guidance for longer-term project proposals beyond the five-year frame of the CPIP.

5. **Mobility:** Campus mobility was studied in detail during development of the original Long-range Framework Plan and many of the recommendations of that plan have been implemented or are in construction now. A subsequent addendum to the 2017 LRFP further addressed the Perimeter Road corridor and potential sites for structured parking and surface parking expansion. A thorough campus-wide study of mobility is not anticipated with the LRFP Update; however, the plan should incorporate the planned and proposed modifications to mobility systems and seek opportunities to improve connectivity to satellite campuses including the Ravenel Research Campus, Advanced Materials Center/Research Park, and College of Veterinary Medicine.
6. **Infrastructure & Services:** Over the past twenty years, Clemson has focused on sustainable strategies for reducing the environmental impact of campus operations as well as operating costs. Clemson’s infrastructure network includes five dedicated chilled water plants, a utility-owned combined heat and power (CHP) plant, wastewater treatment plant, electrical utility substation with three main switching stations, electrical distribution system, 1 MW solar PV parking canopy, and underground distribution lines for steam, chilled water, domestic water, sanitary sewer, storm water, and natural gas. In addition, the Telecommunications Office provides telephone, data network wiring, cable TV and closed-circuit TV wiring, campus emergency telephone services, wireless telephone services, and fire and security alarm systems.

The LRFP Update should include general engineering capacity studies and modeling related to plant capacities, distribution infrastructure, and assessment of campus hydrology to identify potential flood prone areas due to the increasing frequency and severity of flash flood storm events. These studies should analyze the following infrastructure systems: Electrical Distribution, Mechanical Distribution/Plant Capacity (Chilled Water and Steam, Stormwater, Sanitary Sewer Collection, Water Distribution, Campus Network and Communications, Utility Routes/Pathways/Easements (University and outside providers.)

Planning Process:

Like the development of the Long-range Framework Plan, a three-phase work process is anticipated for the plan update. The focus of this effort is an update and adjustment of the LRFP to align with Clemson Elevate while also consolidating more recent feasibility studies and master plans that have served as addenda to the plan. Therefore, the participation strategy for the campus community will be more focused and streamlined in order to deliver the plan update in a timely manner. Because the previous planning process included over 100 individual meetings, multiple open forums, a campus-wide web-based graphic survey, and numerous committees, this effort is envisioned to involve a more focused, streamlined process primarily involving campus leadership, select stakeholder groups, and Planning, Design & Construction.

The LRFP Update should be designed to actively engage campus leadership and key stakeholder groups throughout the process.

- Campus Planning Task Force – Advisory Committee: Early in the process, key stakeholders and representatives from campus leadership will be identified to participate significantly throughout the plan development.
- Planning, Design & Construction – A smaller staff-level working group to help guide the process and manage the consultant team.
- Executive Committee (University Physical Asset Accountability Committee - UPAAC) – Provost, EVP of Finance & Operations, Vice President of Research, Vice President of Student Affairs, etc. UPAAC meets monthly and should be updated on plan progress on a similar cadence.
- In addition to the groups mentioned above, it will be critical for the selected consultant team to develop a focused student engagement plan to ensure that our students have an opportunity to provide meaningful input to this planning process in an efficient manner that supports the desired project schedule.

Project Phases:

Phase 1 - Discovery & Analysis / Integration with Clemson Elevate

This phase should confirm the guiding principles and objectives of the Long-range Framework Plan and focus on integration of the plan update with Clemson Elevate. It is anticipated that this phase will include the following:

1. Validation of guiding principles or refinement of those principles to align with Clemson Elevate.
2. Organization of base data and documentation and collection of additional data as needed through stakeholder consultation and/or site reconnaissance. Included in this step is identification and organization of mapping/GIS data required to support the project.
3. Assessment of existing conditions, needs, and assets as determined through interviews of key stakeholders.
4. Review and analysis of existing planning efforts undertaken by the University since the adoption of the Long-range Framework Plan in 2017. This will include precinct plans, master plans, and feasibility studies completed since plan adoption, with particular focus on plans/projects that varied from the original recommendations of the LRFP.
5. Review of enrollment trends and implications of accelerated enrollment growth on space needs. This review in combination with a review of the existing space inventory and facilities building condition index and life-cycle information will help identify and link space needs to the strategic goals in Clemson Elevate.

Phase 2 – Concept Alternatives Development / Idea Generation

The concept alternatives phase will examine the most favorable and acceptable options for near-term and long-term development and transformation on the Clemson campus. The findings of the

discovery and analysis completed in Phase 1 will inform the development of alternatives. The alternatives will be based on the goals and planning principles established during Phase 1 and shaped by the unique characteristics, limitations, and opportunities offered by the University.

This idea generation phase should shape a vision for campus development that reinforces the goals of Clemson Elevate. This phase should also include the development of a space needs assessment based on data analytics. During the development and refinement of alternatives, the consultant team should develop preliminary graphics illustrating campus growth concepts to be reviewed by the Campus Planning Task Force and Executive Committee. An iterative review of alternatives will aid in the advancement to a preferred concept.

Phase 3 – Draft and Final Documentation / Launch of Online Platform for Plan Visualization

During Phase 3, the plan graphics and documentation in draft and final form will be developed. The documentation will include implementation elements such as the capital improvement, phasing strategy, and design guidance. A key point of this phase will be the launch of the online platform for plan visualization. Anticipated to be hosted on the University Facilities GIS Server within an ESRI Enterprise platform, this should allow members of the campus community to easily view three-dimensional campus development scenarios. This online platform should allow users to comprehend LRFP build-out goals, timelines, phases, priorities, and connections.

The LRFP Update should be integrated into a GIS 3D model that would allow users to view anticipated changes to the campus or alternative development scenarios over time. A ‘time slider’ could be used to advance the campus model through time illustrating planned new construction, demolition, and modifications to the landscape and circulation systems. Alongside the GIS 3D map will be dashboards designed to reflect various components of the LRFP, i.e. capital expenditures, space use, enrollment data, etc. It is anticipated that these new tools will better communicate planning concepts, enhance decision-making related to capital projects, and assist with promotion and fund-raising for those projects.

Appendix: Supporting Documents

Several documents will inform the LRFP Update. While Clemson Elevate and the Long-range Framework Plan, 2017 are publicly available, the following documents will also be made available to the selected consultant team:

Long-range Framework Plan and Associated Master Plans/Addenda:

- Long-range Framework Plan, December 2017
 - https://cufacilities.sites.clemson.edu/documents/planning/LRFP_lowres.pdf
- Research & Learning Capital Plan, December 2019
- LRFP Addendum 1 – Perimeter Road Corridor and Parking Study, November 2020
- Housing & Dining Master Plan, March 2021
- East Sector Update Plan, February 2023

Guiding Documents:

- Clemson Elevate:
 - <https://www.clemson.edu/elevate/index.html>
- Comprehensive Permanent Improvement Plan (CPIP) – FY2024

Recent Feasibility Studies:

Academics:

- Cooper Library Master Plan, September 2020
- Civil Engineering / Environmental Engineering & Earth Sciences (CE/EEES) Feasibility Study, February 2021
- College of Science Feasibility Study, May 2022
- College of Veterinary Medicine, Pre-Design Studies & Documentation, 2022-2023
- Center for Human Genetics, Building 2 Study, June 2023
- NextGen Computing Center Feasibility Study, September 2023
- Martin Hall Feasibility Study, Ongoing
- Newman Hall Lab Relocation Study, Ongoing

Athletics:

- Jervey Athletic Center Renovations and Performance & Wellness Center, April 2022
- McWhorter Softball Stadium, Addition & Seating Expansion Study, October 2022
- Historic Riggs Field Improvements Study, November 2022
- Littlejohn Coliseum & Swann Pavilion Expansion, January 2023
- Memorial Stadium – East Premium Seating, Ongoing

Student Affairs:

- Snow Family Outdoor Fitness and Wellness Complex – Master Plan, August 2022
- Redfern Health Center Replacement - Programming Study, May 2023
- Hendrix Center Master Plan Update, September 2023

Auxiliary Enterprises:

- Parking Structure Feasibility Study / Concept Design, 2023

Administration:

- Public Safety Facility Feasibility Study, July 2020
- CUFD Fire Station Addition Feasibility Study, April 2023

Campus Landscapes:

- Alumni Park Master Plan
- Hunnicutt Creek Restoration Master Plan
- Reflection Pond Master Plan

- Student Memorial Master Plan