

September 28, 2016

Clemson University

CAMPUS LONG RANGE FRAMEWORK PLAN

Project Schedule

Task	J un	J ul	Aug	Sep	Oct	Nov	Dec	J an	Feb	Mar	Apr	May	J un	J ul	Aug	Sep	Oct
	2016							2017									
Phase 1: Discovery & Analysis																	
Review of Preliminary Analysis Findings																	
Phase 2: Framework Plan Alternatives																	
Preliminary Draft Framework Plan Review																	
Phase 3: Framework Plan Development																	
Final Plan Presentation																	

Stakeholders Consulted

WORKSHOPS 1 & 2

1. University Planning & Design
2. Mobility Committee
3. Meetings with the Provost and Deans
4. Campus Planning Task Force
5. MEP & Infrastructure
6. Landscape & Stormwater
7. Campus IT
8. Housing



Enrollment

Plan for the next generation
of Clemson students

Enrollment

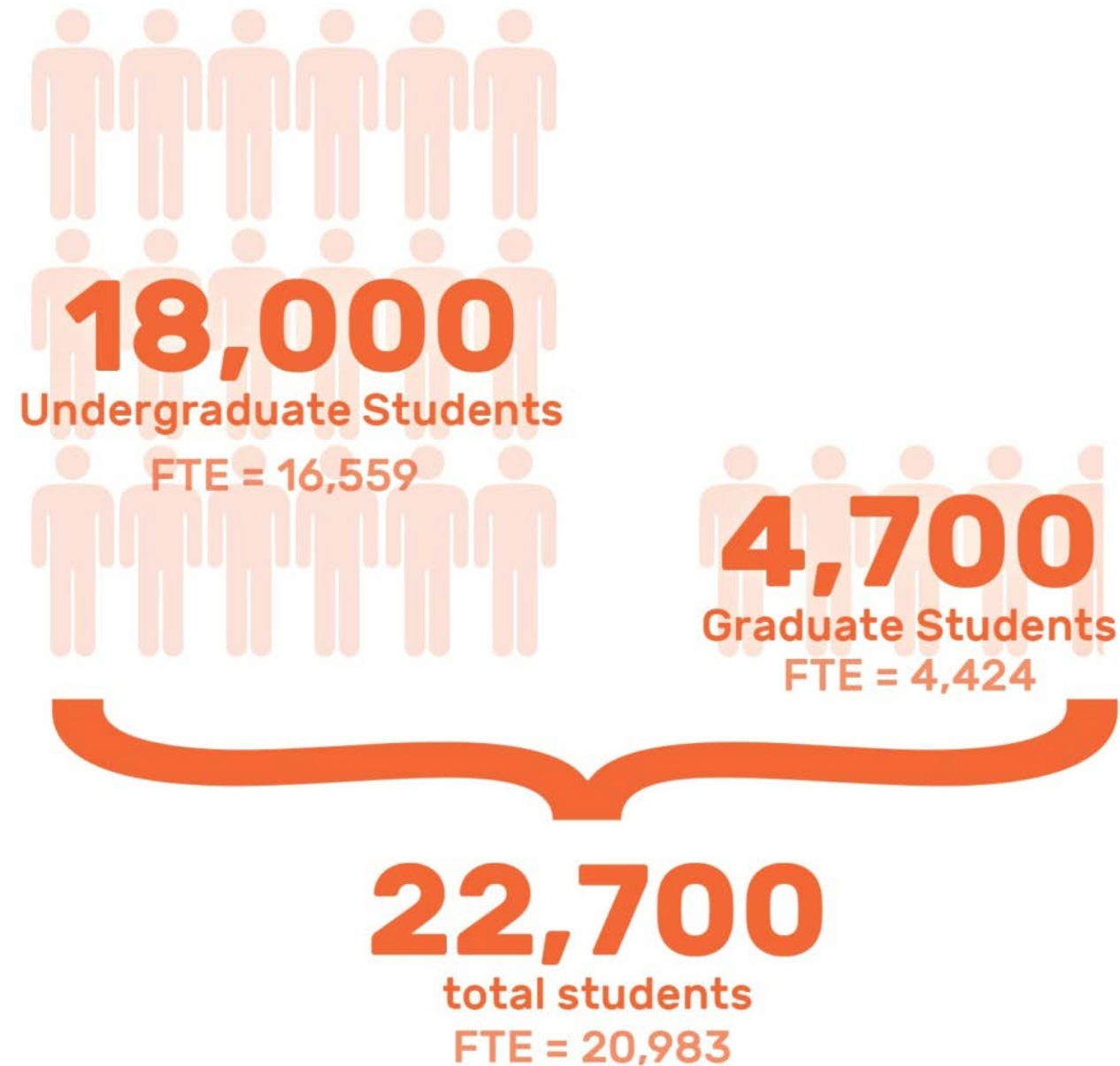
BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

- Plan for a **larger student body** that is more diverse than today.
- **Diversity** emerged as a key theme through the Clemson Forward planning process, and Clemson is in the process of implementing a diversity plan.
- Plan for an **increase in the undergraduate population**, including more transfer students (Tri-County Technical College / Bridge to Clemson program), and the graduate student population.
- Plan for an **increase in the international student population** and the accompanying support services they will need.
- Incorporate findings from the **Strategic Enrollment Plan**



Enrollment

CURRENT BREAKDOWN

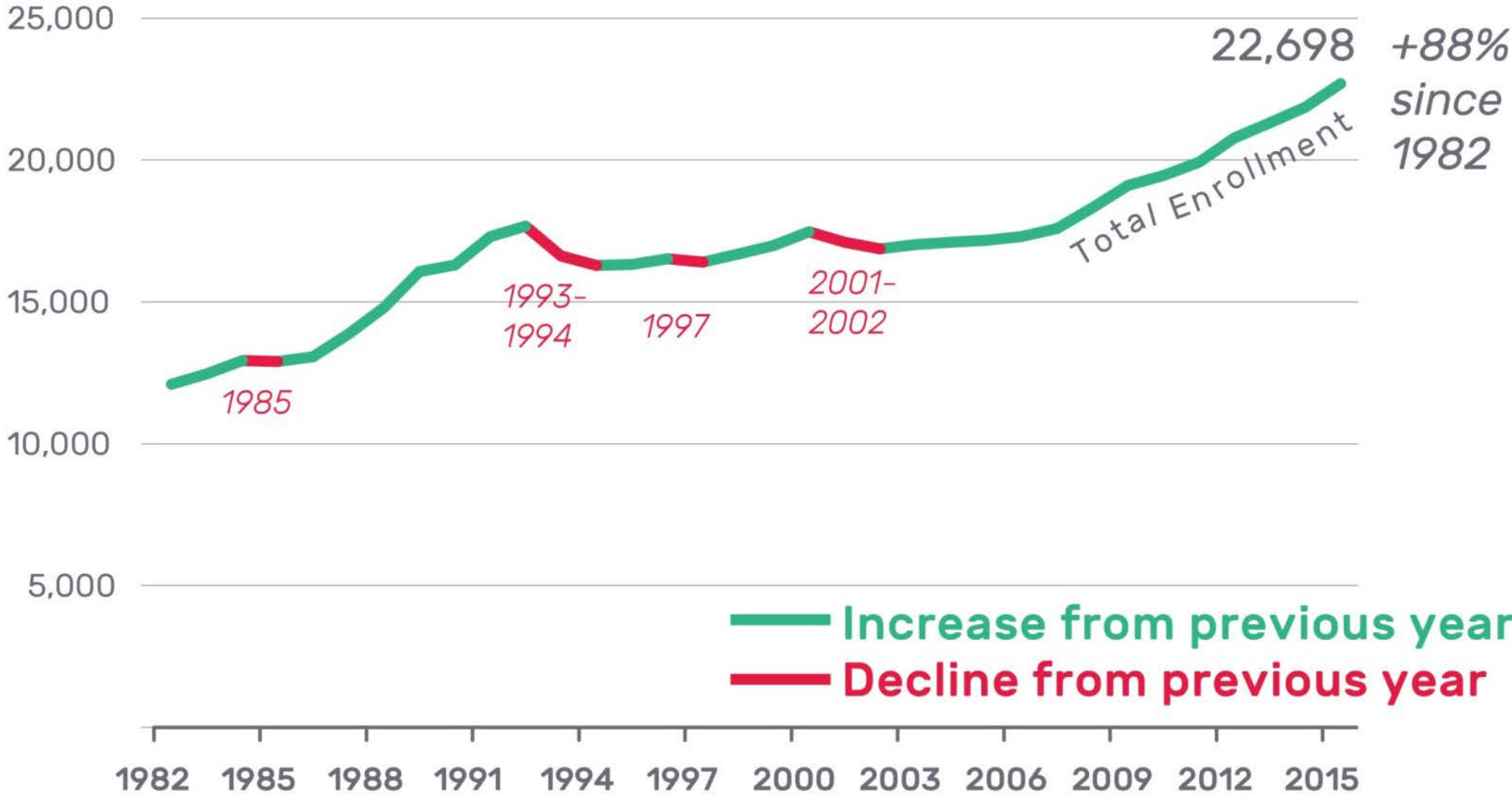


- Undergraduate students = 79%
- Graduate students = 21%



Enrollment

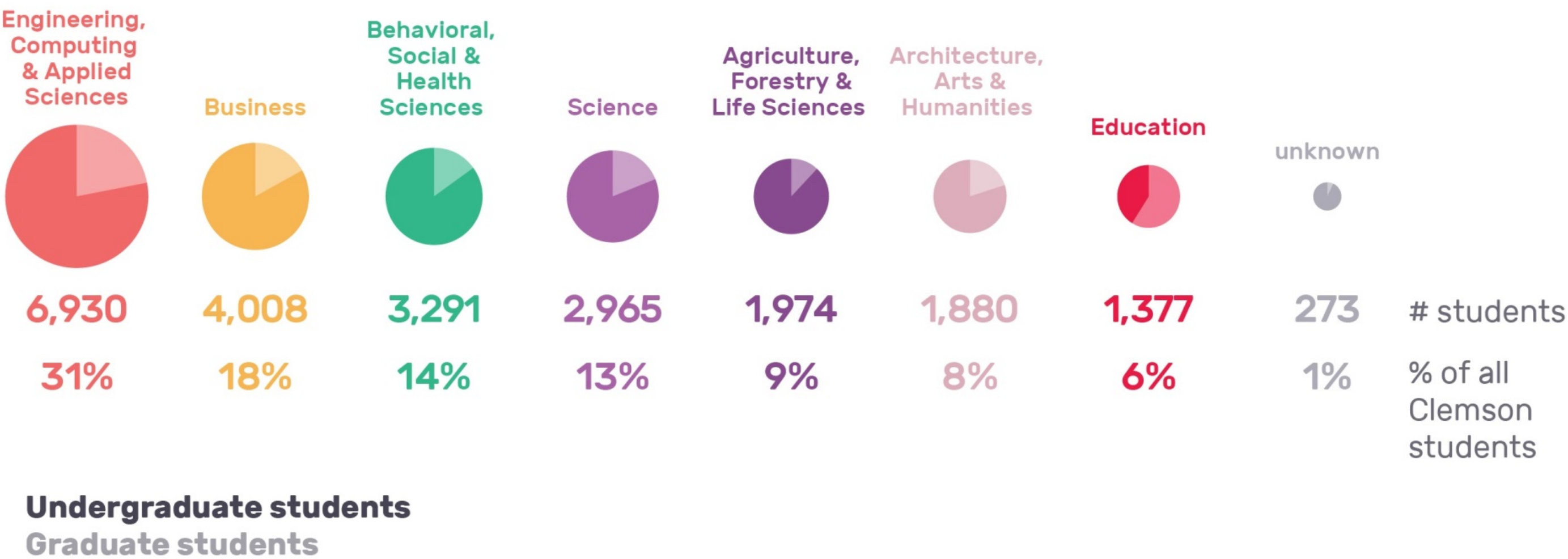
ENROLLMENT HAS STEADILY INCREASED, NEARLY DOUBLING SINCE 1982





Enrollment

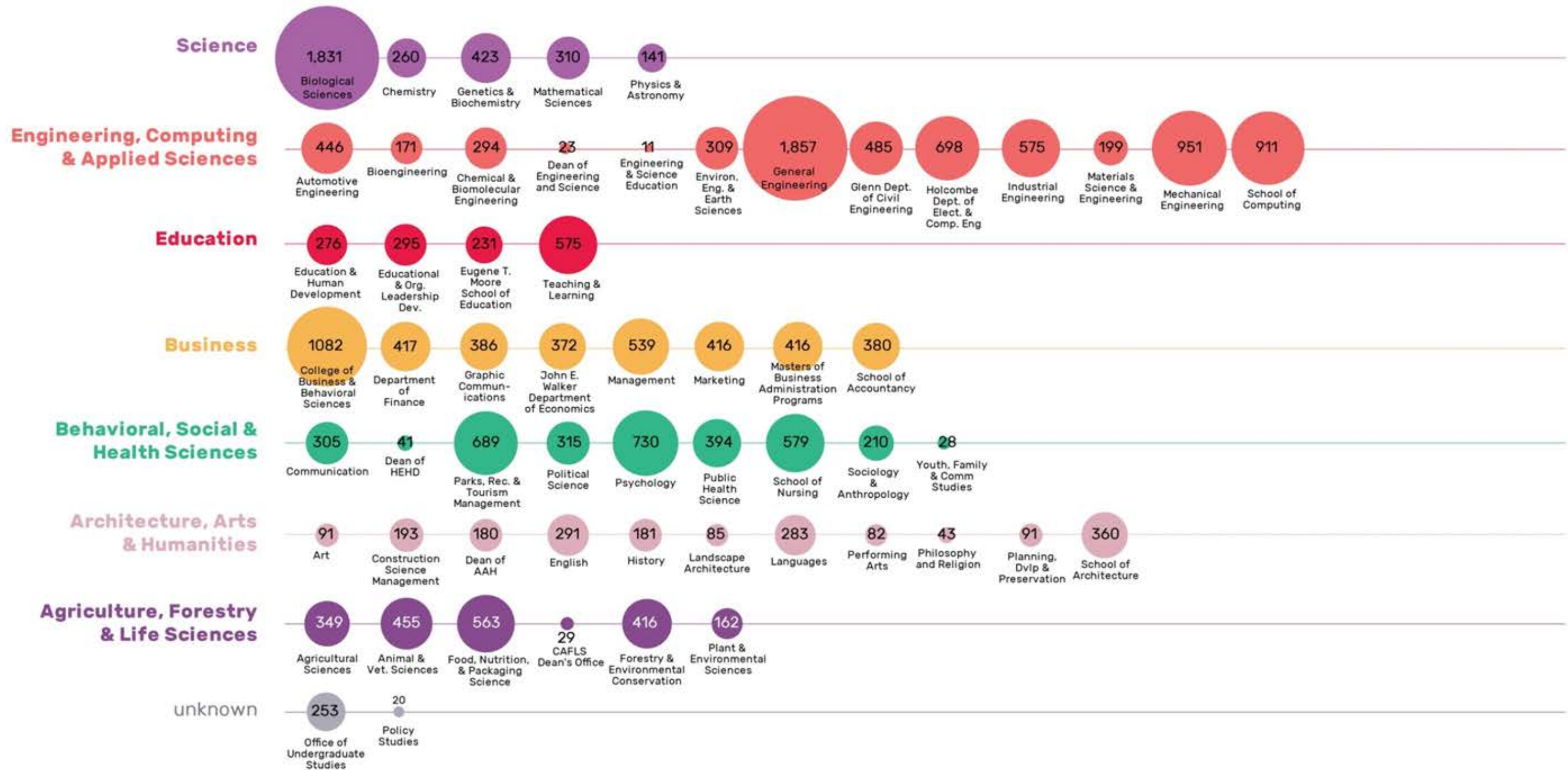
CURRENT BREAKDOWN – BY COLLEGE



Source: University Data (Employee and Student Data for Framework Plan_calculations.xlsx); 2015

Enrollment

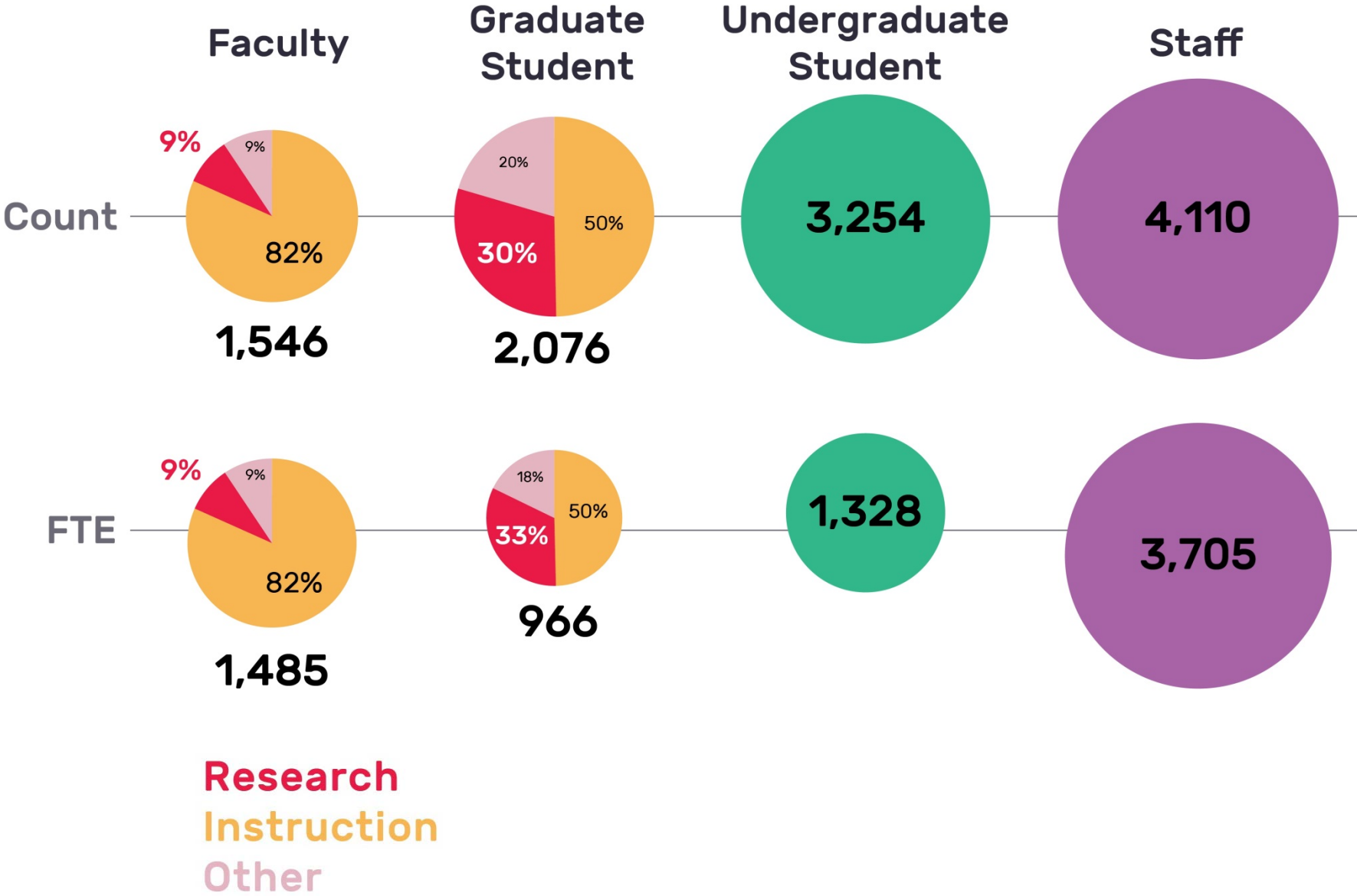
CURRENT BREAKDOWN – BY SCHOOL/DEPARTMENT





Faculty & Staff

CURRENT BREAKDOWN



- In addition to students, Clemson has 5,625 faculty and staff
- About 9% of current faculty have research appointments



Mission

Plan for strong research foundation, strengthened graduate education, and high-impact academic and global engagement for undergraduates.

Academic and Research Mission

BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

- Provide the **physical space** necessary to grow research, elevate graduate programs, and enhance the undergraduate academic experience.
- Incorporate **state-of-the-art research facilities on the main campus** similar in character to those found on Clemson's innovation campuses.
- Include facilities that will enhance the **quality of life** on the campus and that will attract and retain students and faculty.

Mission

CLEMSON FORWARD IMPLICATIONS AND GOALS

Academics & Engagement

1. Foster evidence-based academic engagement.
2. Build a campus wide global engagement infrastructure.
3. Enhance engagement opportunities outside the classroom.
4. Build capacity for fully integrated interdisciplinary education through a new Grand Challenge minors program.
5. Revise General Education.
6. Increase the number of high-quality, nationally prominent graduate programs.
7. Professionalize academic advising.

“ ‘What’s next’ for this great institution. ...is a new focus on research and graduate education combined with continued excellence in undergraduate education, student engagement and public service.”

President James P. Clements,
2016 (from
ClemsonForward)

Mission

CLEMSON FORWARD IMPLICATIONS AND GOALS

Research:

1. Create a **world-class research environment** that fosters innovation and collaboration through targeted research investments.
2. Promote a **culture of discovery** by raising research expectations and rewards for research excellence.
3. Invest in **six core innovation areas to address 21st century challenges**
4. Increase sponsored program research expenditures.

Six Core Innovation Areas:

1. Advanced Materials
2. Cyberinfrastructure and Big Data Science
3. Energy, Transportation and Advanced Manufacturing
4. Health Innovation
5. Human Resilience
6. The Sustainable Environment



Campus History



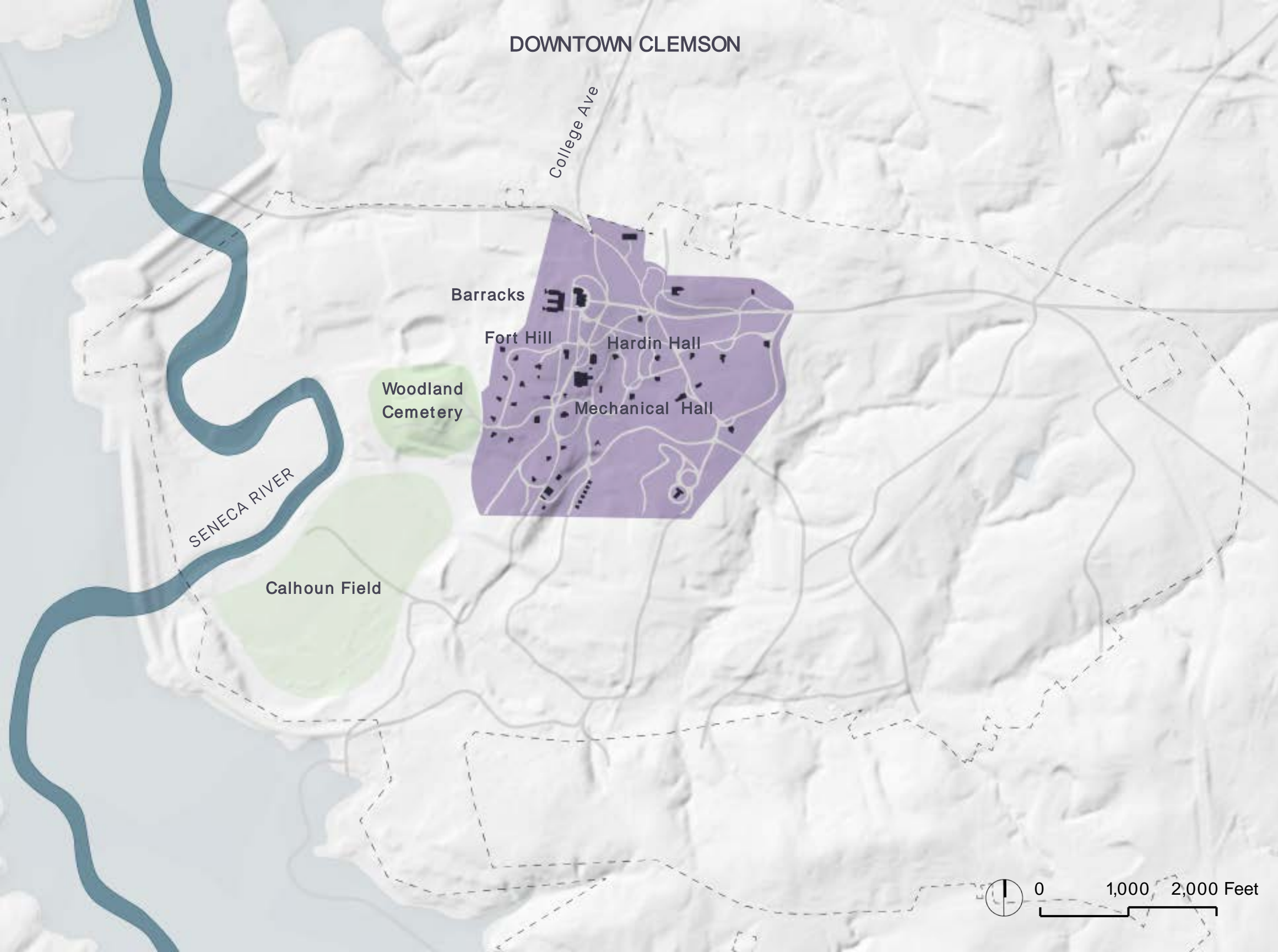
Campus History

1896

FOUNDING OF THE LAND GRANT INSTITUTION

- Fort Hill becomes Clemson Agriculture College with core campus comprised of Tillman Hall, Hardin Hall, and Mechanics Hall
- Residential and agricultural uses surround the academic core

- Historic Structures
- Historic Roads / Paths
- Campus Core
- Historic Open Spaces
- Lake Hartwell (Today)
- Historic Seneca River





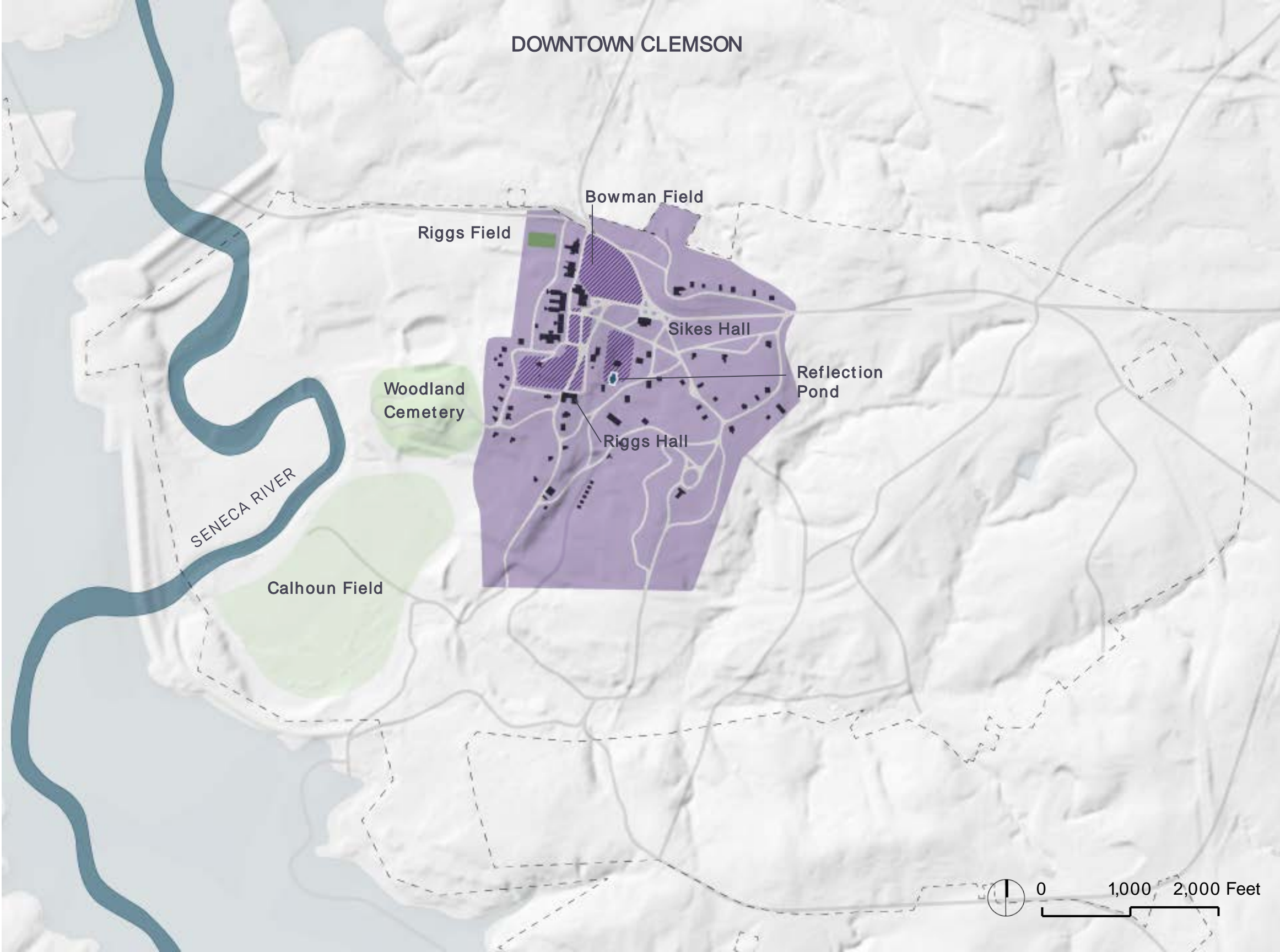
Campus History

1930

PRE- WAR

- Early decades of the institution establish a strong academic core with linear development along the west of Tillman with and a south axis from Tillman to Riggs Hall
- Open spaces develop into cadet/drill field, agricultural, and recreational uses

- Historic Structures
- Historic Roads / Paths
- Campus Core
- Major Open Space
- Historic Open Spaces
- Sport Fields
- Lake Hartwell (Today)
- Historic Seneca River





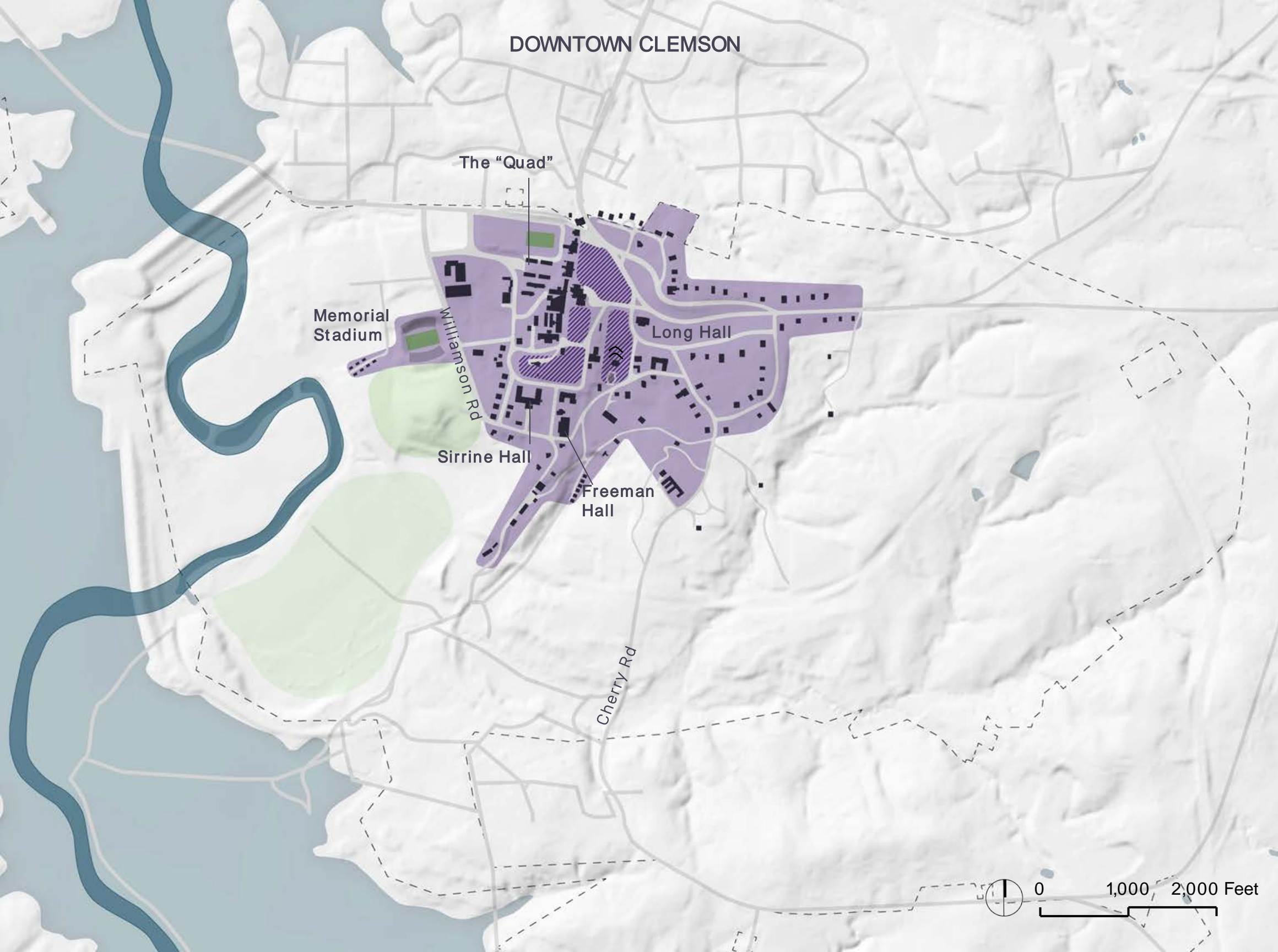
Campus History

1945

WORLD WAR II

- Campus growth around the core with the Quad, Clemson Memorial Stadium, Surrine Hall, Freeman Hall, and Long Hall

- Historic Structures
- Historic Roads / Paths
- Campus Core
- Major Open Space
- Historic Open Spaces
- Sport Fields
- Lake Hartwell (Today)
- Historic Seneca River



Campus History

1953

1953 MASTER PLAN FOR THE DEVELOPMENT OF CLEMSON AGRICULTURAL COLLEGE

- 1953 Plan envisions Clemson Agricultural College with the Army Corps of Engineers' Lake Hartwell project





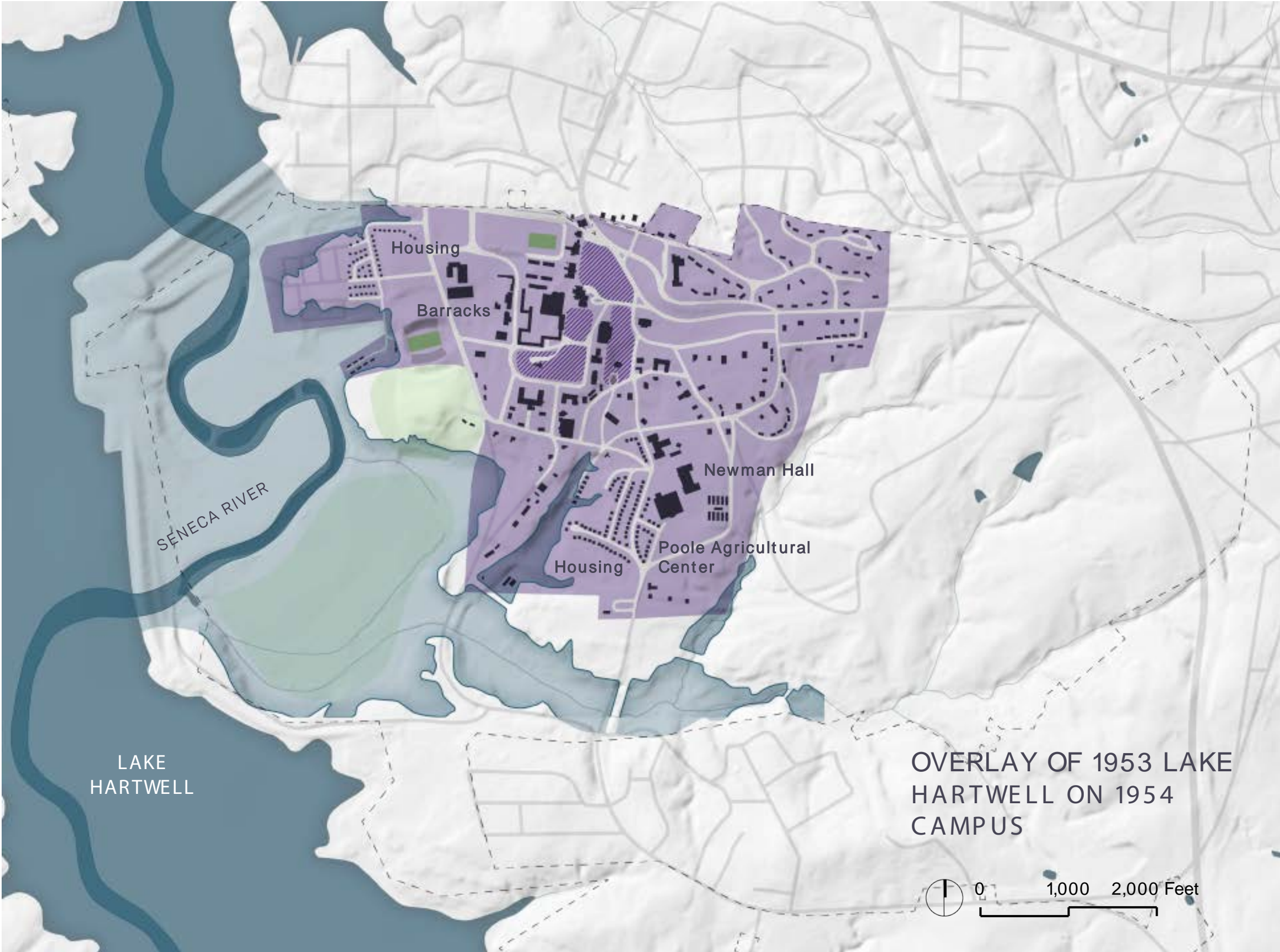
Campus History

1954

POST- WAR TRANSITION

- Clemson Agricultural College works with the Army Corps of Engineers to rethink Lake Hartwell
- Had the originally planned Lake been built, more than 1,000 acres of agricultural programs would have been lost
- Housing constructed on campus periphery

- Historic Structures
- Historic Roads / Paths
- Campus Core
- Major Open Space
- Historic Open Spaces
- Sport Fields
- Lake Hartwell (Today)
- Historic Seneca River



OVERLAY OF 1953 LAKE
HARTWELL ON 1954
CAMPUS



Campus History

1970

RAPID GROWTH

- Hartwell Dam and levees built, forming Lake Hartwell; Seneca River becomes a disconnected basin
- Cooper Library constructed; modern academic and residential buildings built
- Perimeter Road aligned south of the campus
- Anderson Highway constructed

- Historic Structures
- Historic Roads / Paths
- Campus Core
- Major Open Space
- Historic Open Spaces
- Sport Fields
- Lake Hartwell (Today)
- Levee





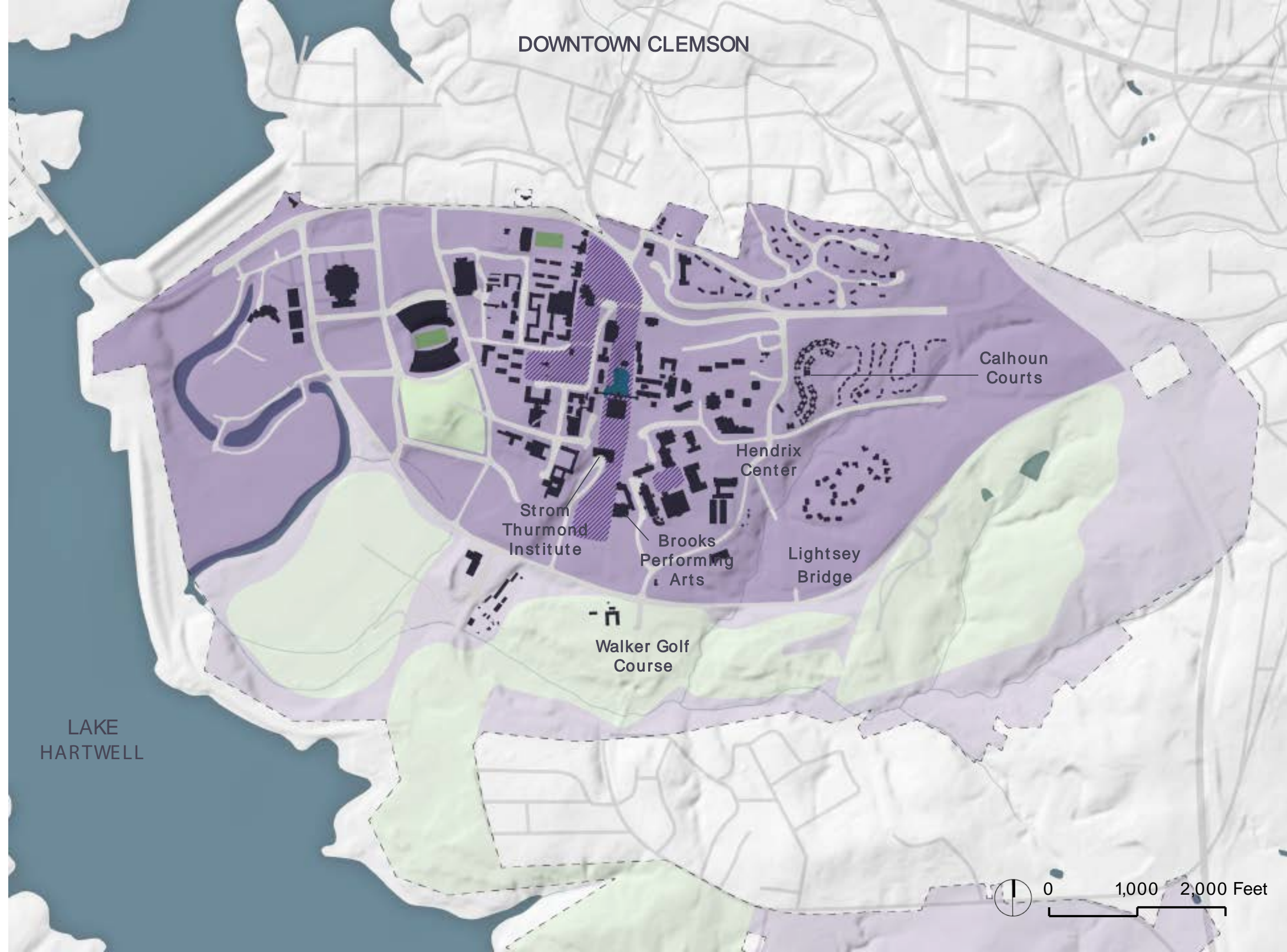
Campus History

2001

STRATEGIC GROWTH

- Civic open space spine extends south with the development of Strom Thurmond Institute and Brooks Performing Art facility
- New residential neighborhoods, Calhoun Courts and Lightsey Bridge, are developed to the east
- Hendrix Center built

- Historic Structures
- Historic Roads / Paths
- Campus Core
- Major Open Space
- Historic Open Spaces
- Sport Fields
- Lake Hartwell (Today)





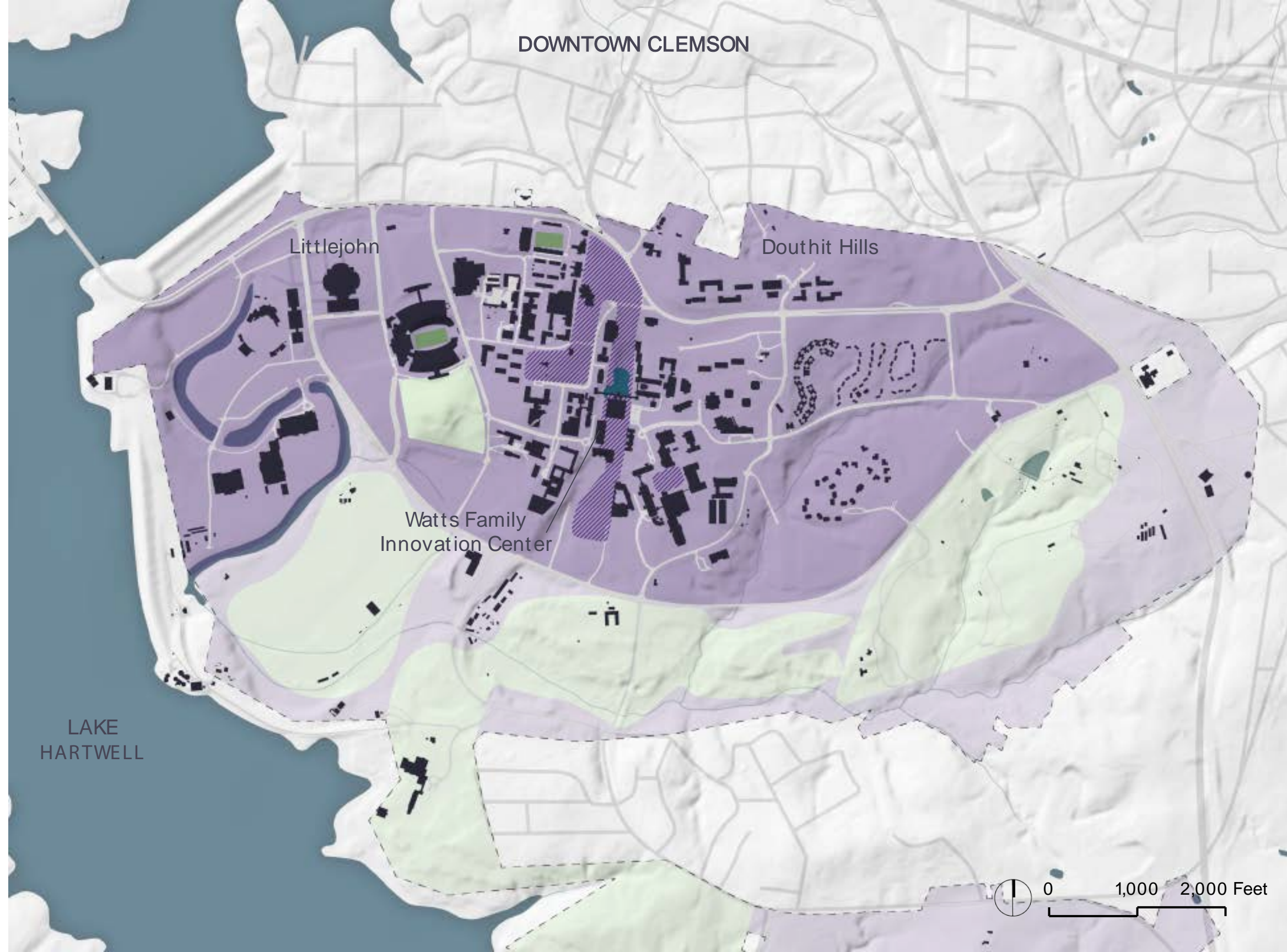
Campus History

2016

CAMPUS TODAY

- Denser development pattern accommodating residential and academic needs
- Expansion on the Sport facilities (Littlejohn, Football Administration, the Stadium)

- Historic Structures
- Historic Roads / Paths
- Campus Core
- Major Open Space
- Historic Open Spaces
- Sport Fields
- Lake Hartwell (Today)





Land Resources

Plan for the main campus but
with an understanding of the
extended context.

Land Resources

BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

- **Better use of Lake Hartwell**, including community and family-oriented amenities.
- Improving **connections** between main **campus** and the **Clemson Forest**.
- Improving amenities, services, and transportation **links to Greenville** and Clemson's other **satellite and innovation campuses**.



Land Resources

CLEMSON CAMPUS





Campus Structure, Landscape & Sense of Place

Plan for the enhancement of the landscapes and character of the Campus

Campus Structure, Landscape & Sense of Place

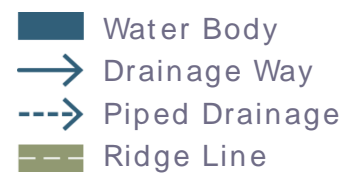
BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

- A broader range of **landscape typologies** with different maintenance requirements (mowing and manicured lawns are not needed everywhere).
- A **land use policy** to protect and guide the use of the Calhoun Fields and other areas.
- **Migratory birding hot spots** at the Botanical Gardens and Calhoun Bottoms.
- **Wayfinding and Public art.**
- **Best management practices** for landscapes.

Structure and Sense of Place

HYDROLOGY

- Stormwater flows southwest to the Seneca River Basin, from where it is pumped over the levee to Lake Hartwell





Structure and Sense of Place

LANDSCAPE TYPES



CIVIC SPACES



COURTYARDS



GARDEN/MEMORIALS



QUADRANGLES



PARKLAND



Structure and Sense of Place

LANDSCAPE TYPES



WOODLANDS



SENECA RIVER BASIN + DRAINAGEWAYS



ATHLETICS FIELDS



GOLF COURSE



AGRICULTURAL LAND



Mobility

Plan for a greater variety of ways to get around campus and the community.

Mobility

BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

Pedestrian

- **Enhanced conditions along HWY 93**, especially as more campus programming is located north of the road.
- **Sidewalk and bike connections** to all parts of the campus with emphasis on **universal design**.
- Pedestrian **network enhancements** will need to be considered, including campus lighting and areas of pedestrian / bicycle / vehicular conflict.

Mobility

BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

Bicycles

- On campus bicycling needs, including identifying **bicycle routes, connections, and parking**.
- Improved **access to off-campus housing**, nearby communities, and the Clemson Forest.
- Better **coordination with the city-wide bicycle network**.
- New **policies and infrastructure** to guide and support increased bicycle use.
- Coordination with the **Bike Share program**.

Mobility

BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

Transit

- CAT **bus system improvements** and other transit considerations.
- Improved **access to innovation campuses**.

Emergency / Service

- As the campus is pedestrianized, clarification of **service and emergency routes**.

Mobility

BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

Driving / Parking

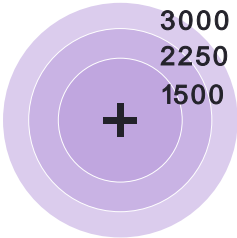
- **Special event parking** (football weekends, etc.).
- **Transportation demand management** programs and strategies.
- Policies to guide **moped/scooter and golf** cart use.



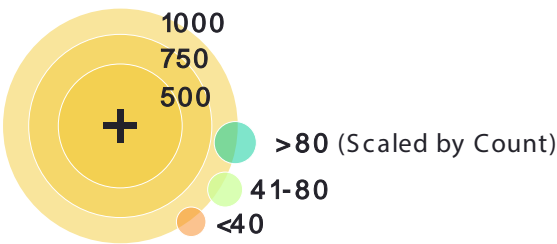
Mobility

VEHICLE PEDESTRIAN COUNT COMPARISON

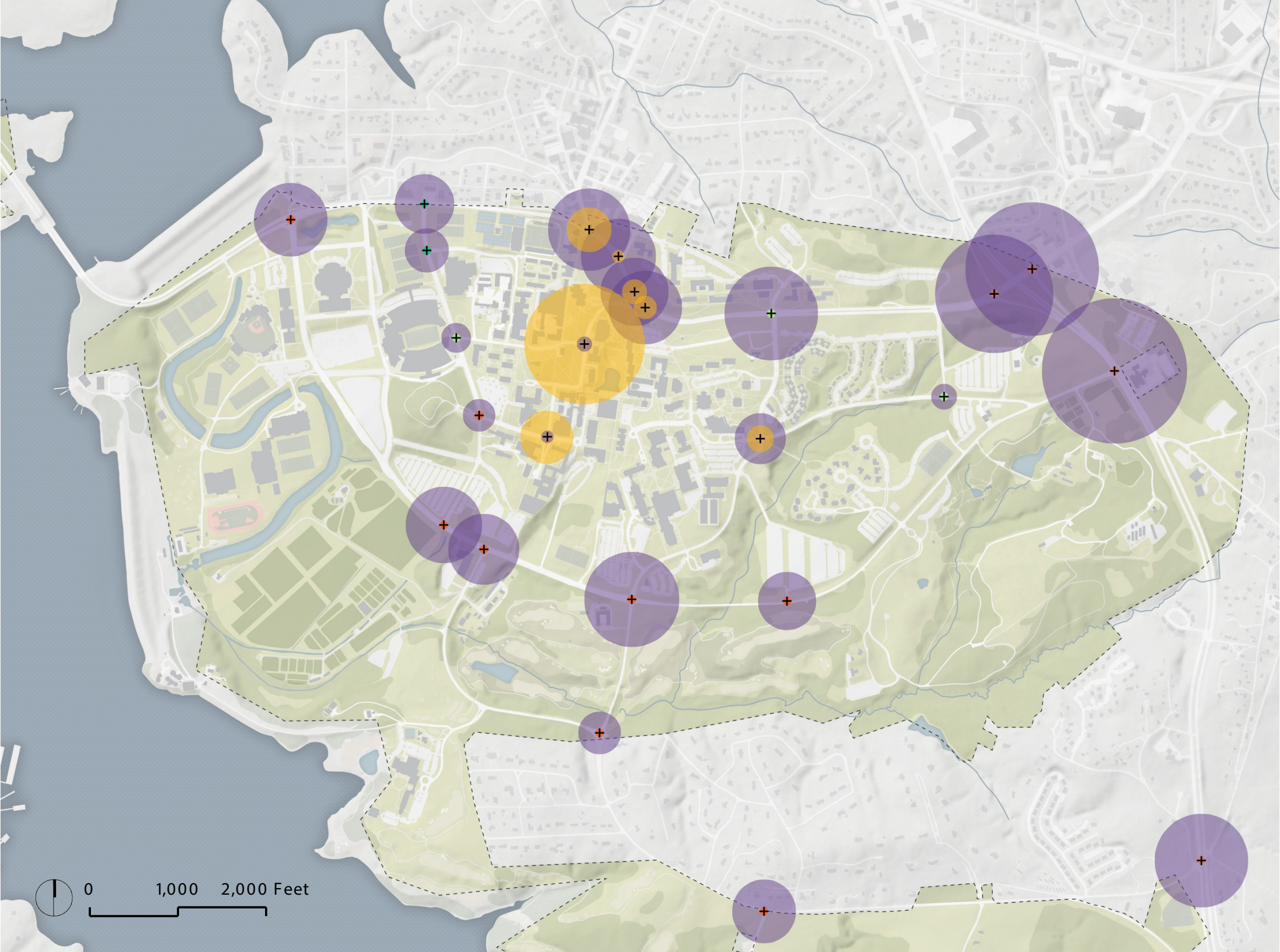
**Number of Vehicles
(Both Peak Periods)**
Based on count data collected 9/29/15



**Number of Ped & Bikes
(Both Peak Periods)**
Based on count data collected 9/29/15




Source: Stantec

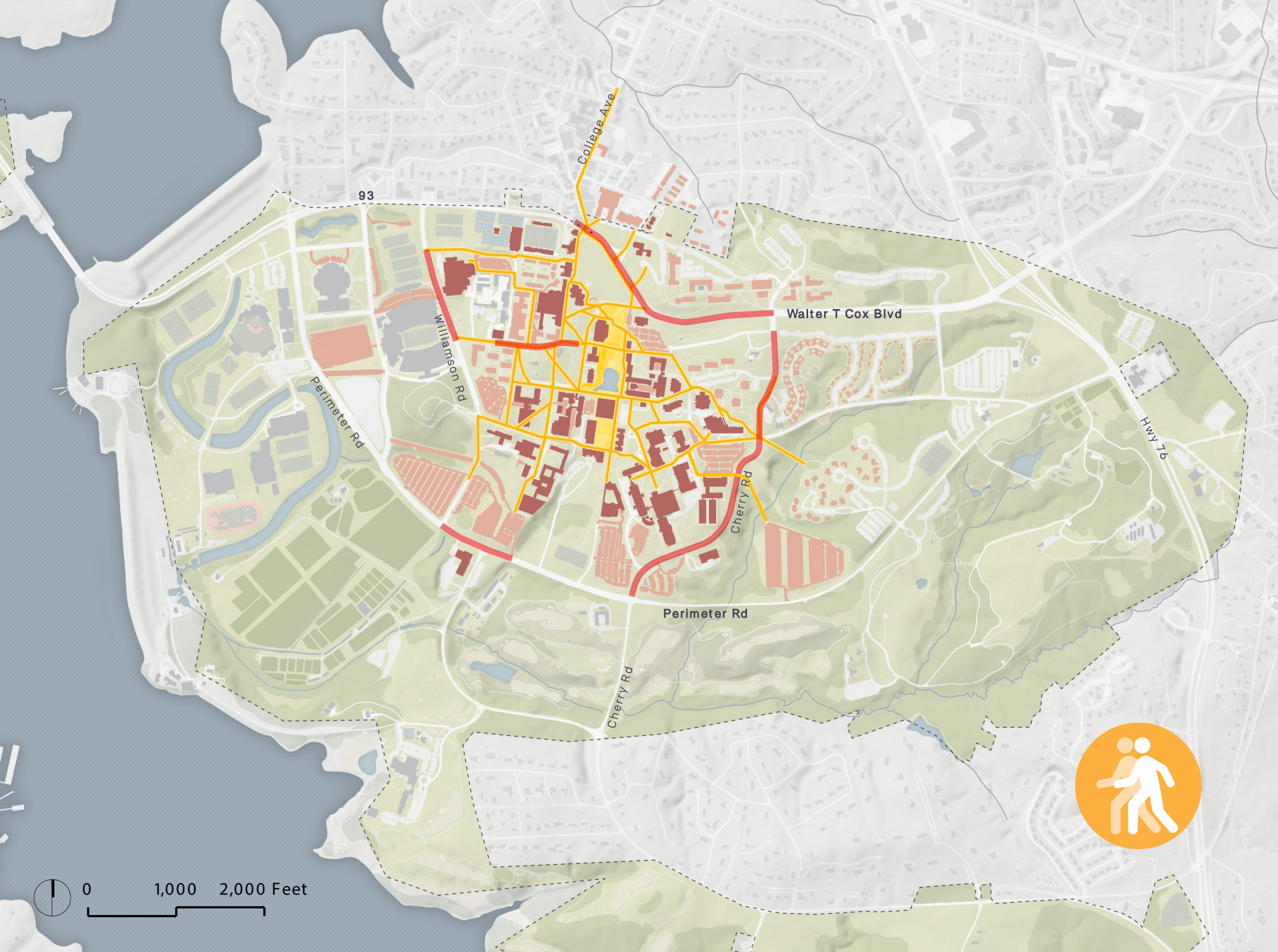
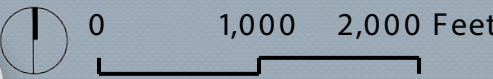




Mobility

PEDESTRIAN
NETWORK AND
BARRIERS

-  Pedestrian Circulation Barrier
-  Pedestrian Routes
-  Pedestrian Trip Origins
-  Pedestrian Trip Destinations





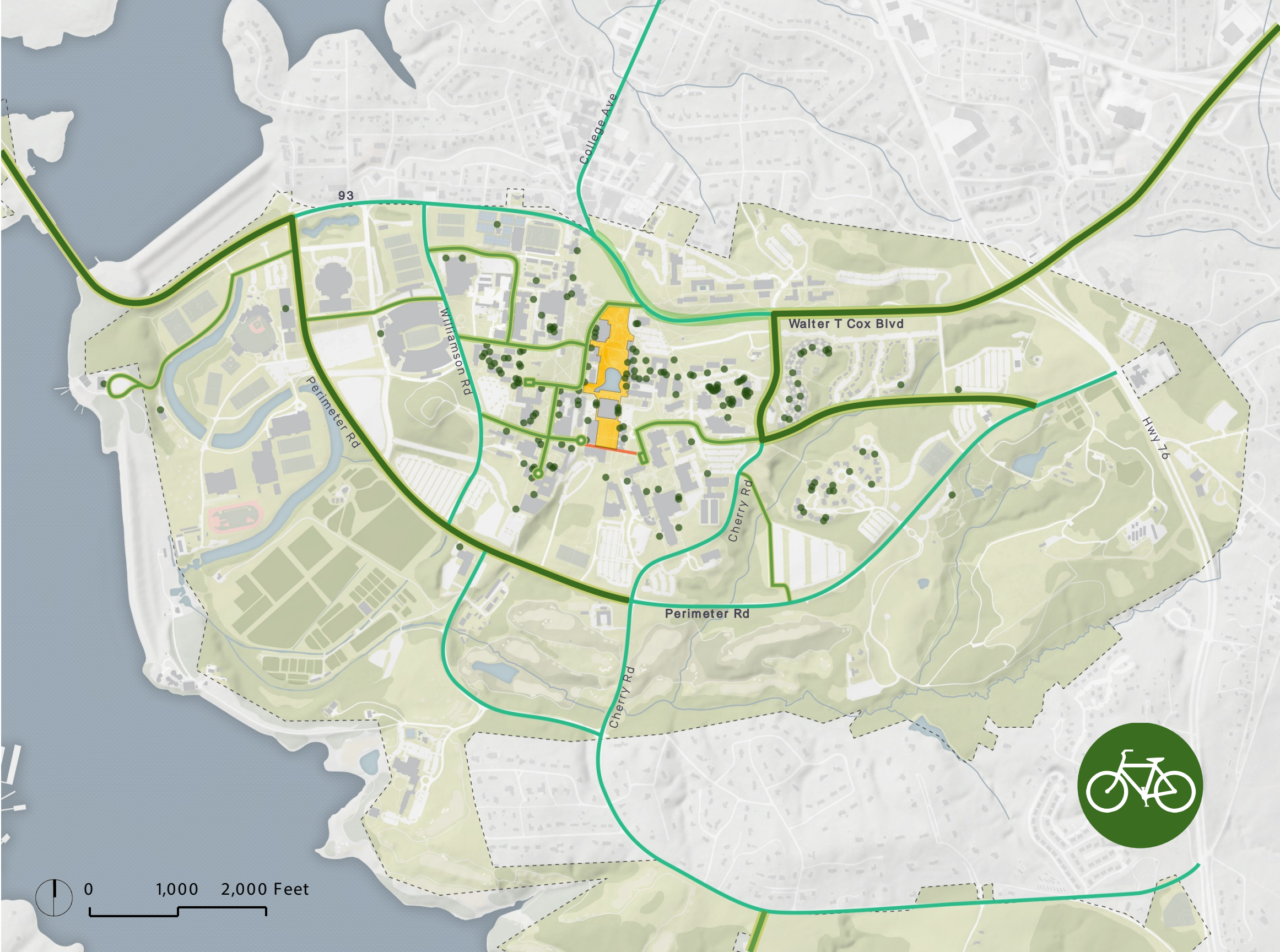
Mobility

BICYCLE NETWORK

- Existing Bicycle Lane
- Existing Shared Lane
- Existing Shared Path
- Existing Bicycle Rack
- Walk Zone
- Vehicular Road

0 1,000 2,000 Feet

Source: Stantec

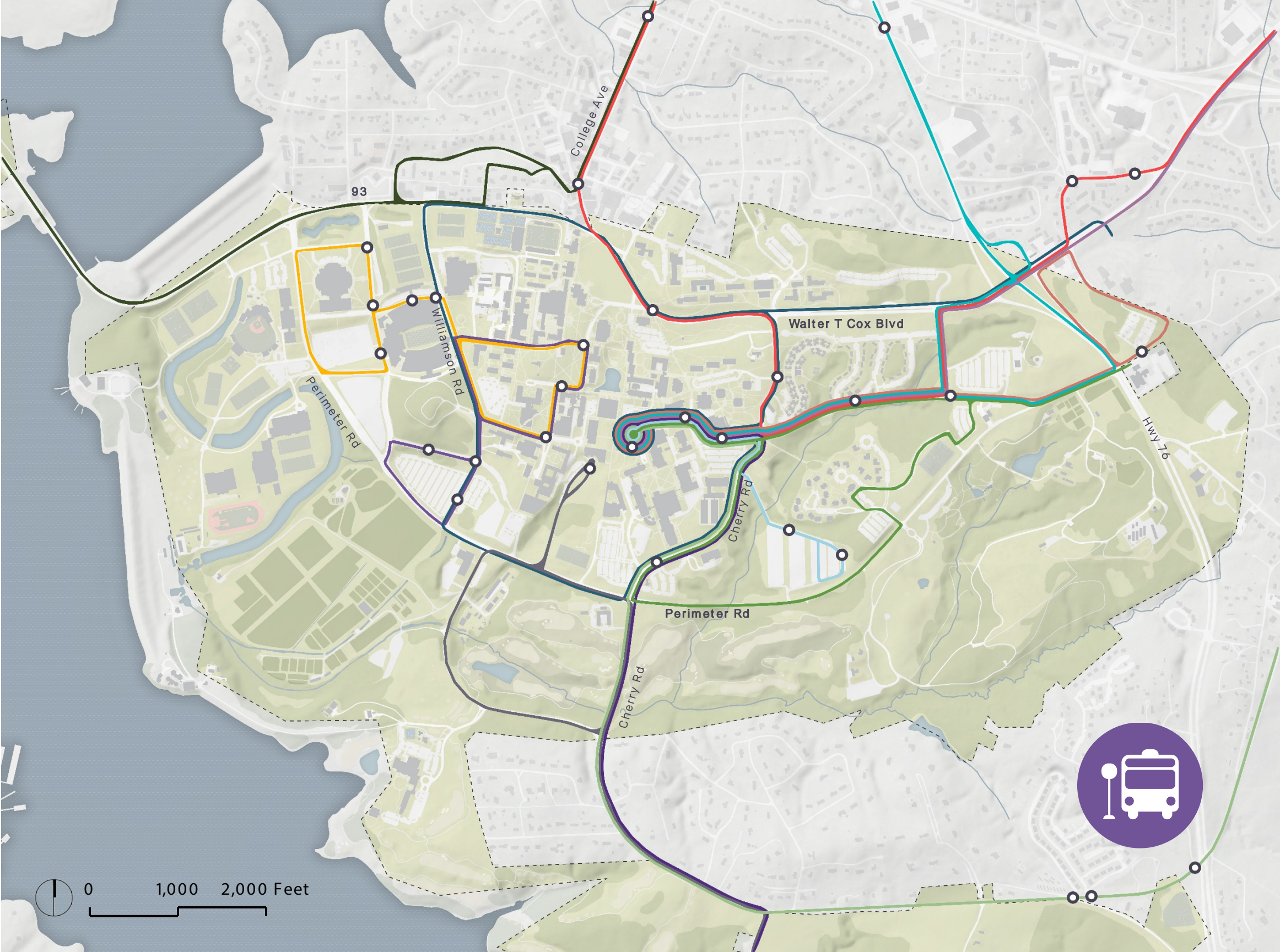




Mobility

CAMPUS BUS ROUTES

- Blue
- Green
- Orange
- Purple
- R-06 Park & Ride
- Red
- Visitor
- Research Park
- Tiger Commuter
- Highpointe/ Pier
- Seneca Express
- Pendleton
- Safe Rides



Source: Stantec



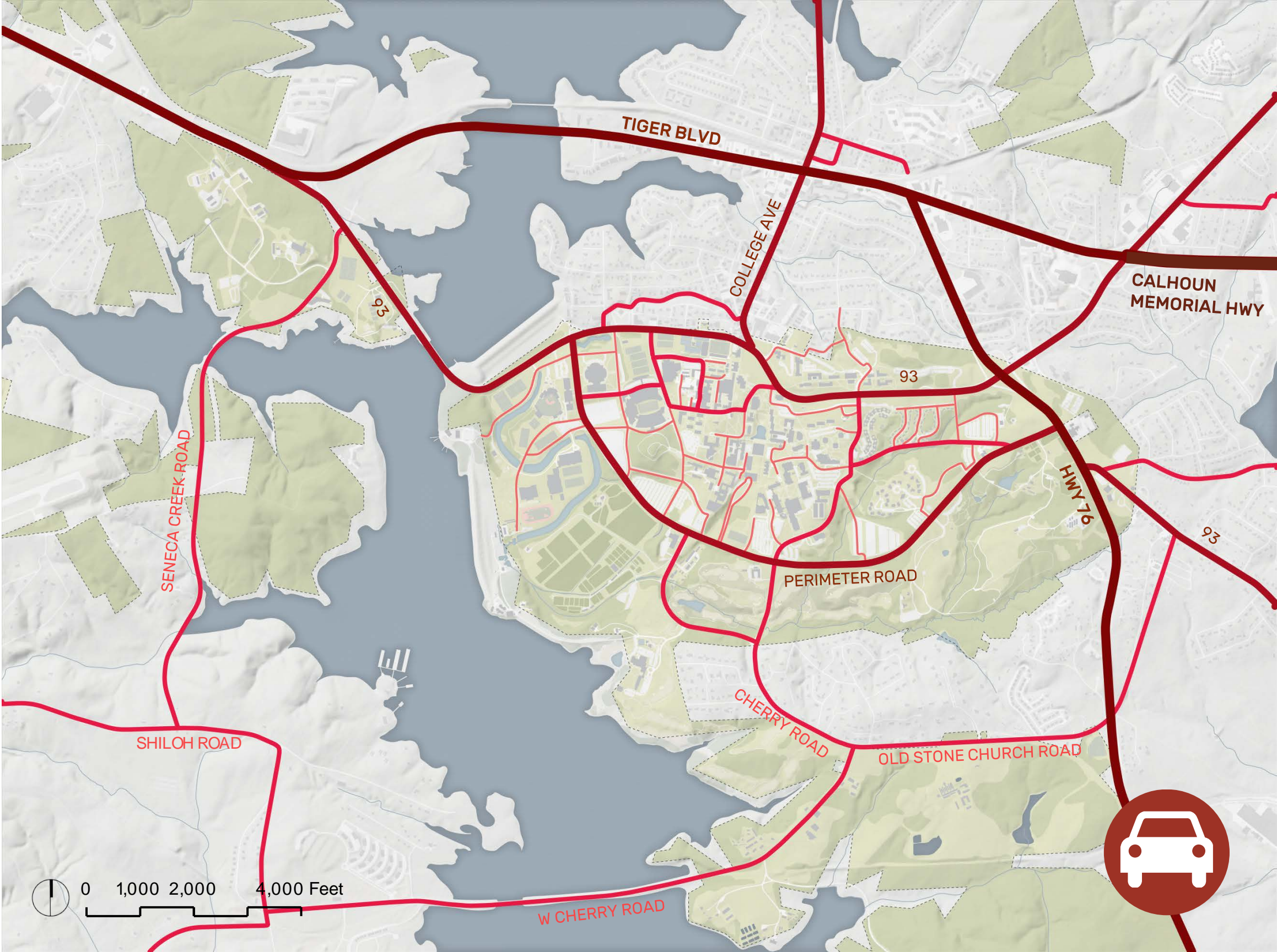
Mobility

VEHICULAR CIRCULATION

Major vehicular movement is located on the periphery of the main campus, along I- 93 and Perimeter Road

- Freeway/ Expressway
- Principle Arterial
- Minor Arterial
- Major Collector
- Other

Source: Stantec





Mobility

WALK TO RAVENEL

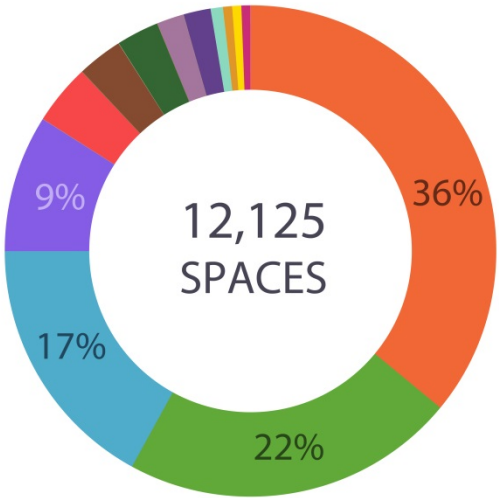
Ravenel is an 22 minute walk
(1.2 miles) from Littlejohn

 Pedestrian Route



Mobility

PARKING TYPES



COMMUTER 4317

EMPLOYEE 2631

RESIDENT 2096

APARTMENT 1076

ANY VALID PERMIT 498

MOTORCYCLE 420

METERED/TIMED/VISITOR 408

SERVICE/RESERVED/
SPECIAL/OFFICIAL USE 301

ACCESSIBLE 188

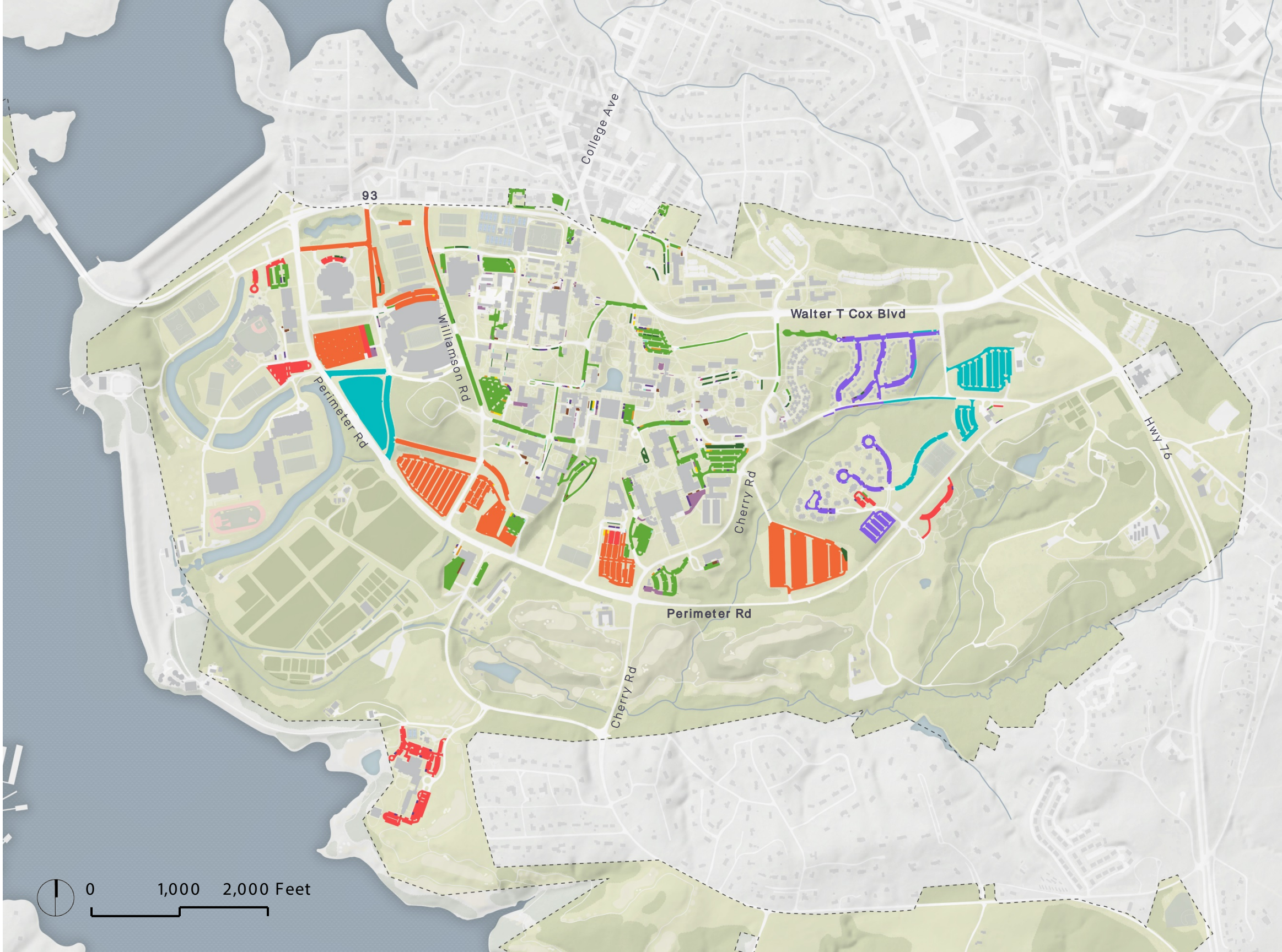
LEV/EV CHARGING 80

CARPOOL 62

LOADING ZONE/BUS 42

ZIP CAR 6

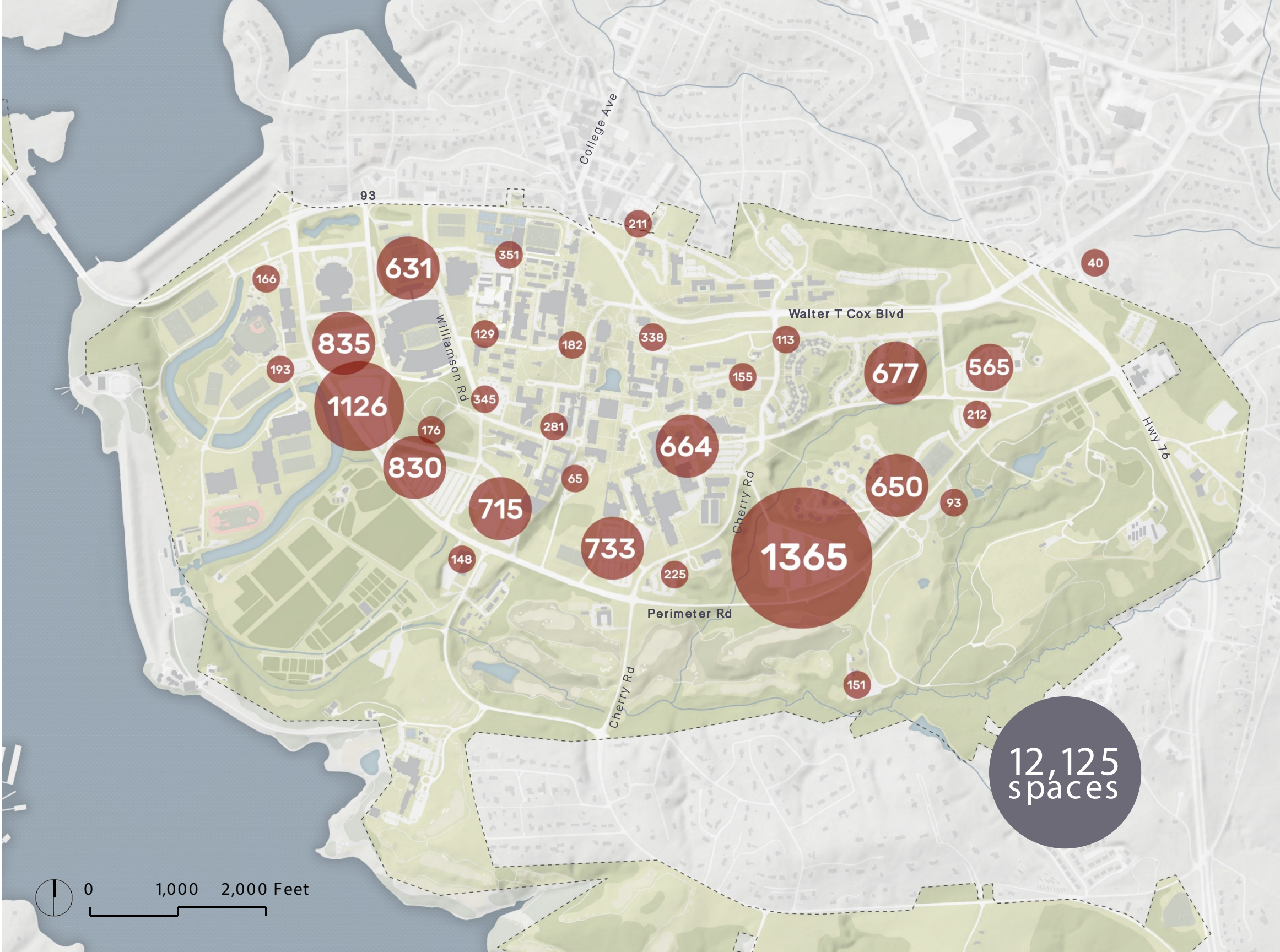
Source: Stantec





Mobility

PARKING AREA
COUNTS





Academic and Research Life

Academic and Research Life

ACADEMIC FACILITIES

Academic facilities radiate
from the library

Integration of academic and
research facilities

[http://maps.sasaki.com/
visualizations/schedules/
clemson/](http://maps.sasaki.com/visualizations/schedules/clemson/)





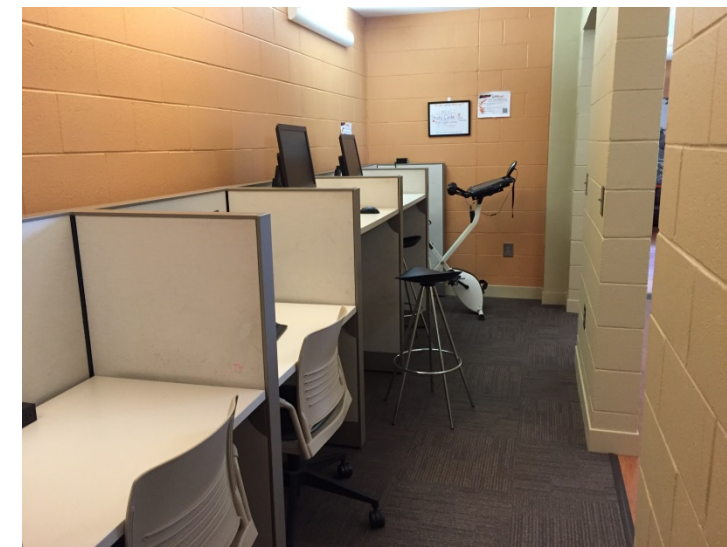
Academic and Research Life

ACADEMIC FACILITIES



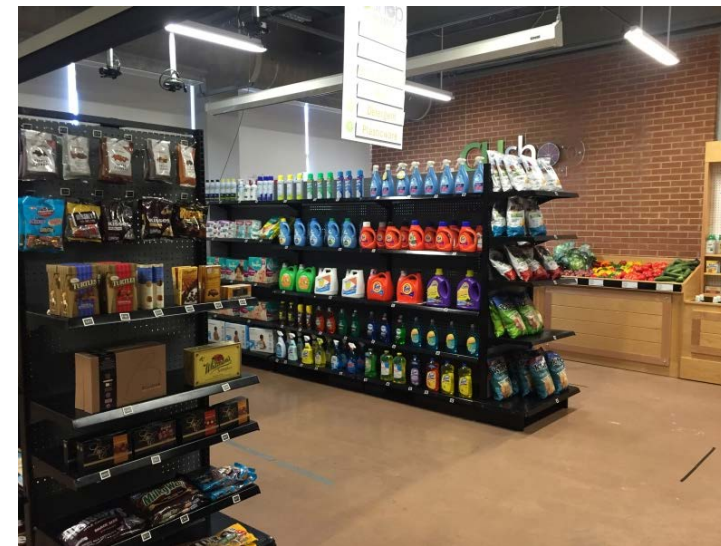
Academic and Research Life

SOCIAL & STUDY
SPACES



Academic and Research Life

RESEARCH FACILITIES





Campus Life

Plan for a rich university experience
“outside of the classroom.”

Campus Life

BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

- A **broader range of housing types** for a more diverse student body (undergraduate, graduate students, international students, older upper-classmen, and families).
- Improved quality and updated **undergraduate housing**.
- Improvements to the **Fike Recreation Center** to address general conditions and provide additional student amenity space.
- A range of **recreation opportunities** to support healthy lifestyles, including sufficient recreational fields to accommodate intramural demand.

Campus Life

BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

- **Distributed social spaces** for students to use between classes, especially upper classmen and students who live off campus.
- Ensure that social spaces are provided throughout the heart of campus.
- More and **diverse types of social spaces** and event venues, for various group sizes.
- A **larger health center** located to best serve the campus population. A comprehensive campus life strategy for the campus.



Campus Life

HERITAGE SPACE

Campus activities and Clemson rituals create memorable events and spaces for students, faculty, staff, alumni, and the Clemson community





Community Life

Support a vibrant, walkable community setting with competitive quality of life amenities.

Community Life

BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

Mobility

- Improved **bicycling connections** between the campus and surrounding communities.
- **Walkable Downtown.**
- More **transit/shuttle connections** to nearby innovation campuses and Greenville.

Recreation

- Better physical and programmatic **connections to Lake Hartwell** and the **Clemson Forest.**

Community Life

BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

Housing

- **Affordable housing** for graduate students, families, and international students.
- Off-campus housing **guidance services** to assist graduate and international students in finding housing.
- **Transitional housing** for faculty and staff.

Community Life

BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

Economic development / job growth

- Retaining Clemson graduates locally to contribute to the **local and regional economy**.
- Establishing a stronger **University presence in the downtown**.
- Greater range of **restaurants, retail, and amenities** attractive to faculty and staff.



Athletics

Plan for facilities to support
Clemson Tiger sports needs.

Athletics

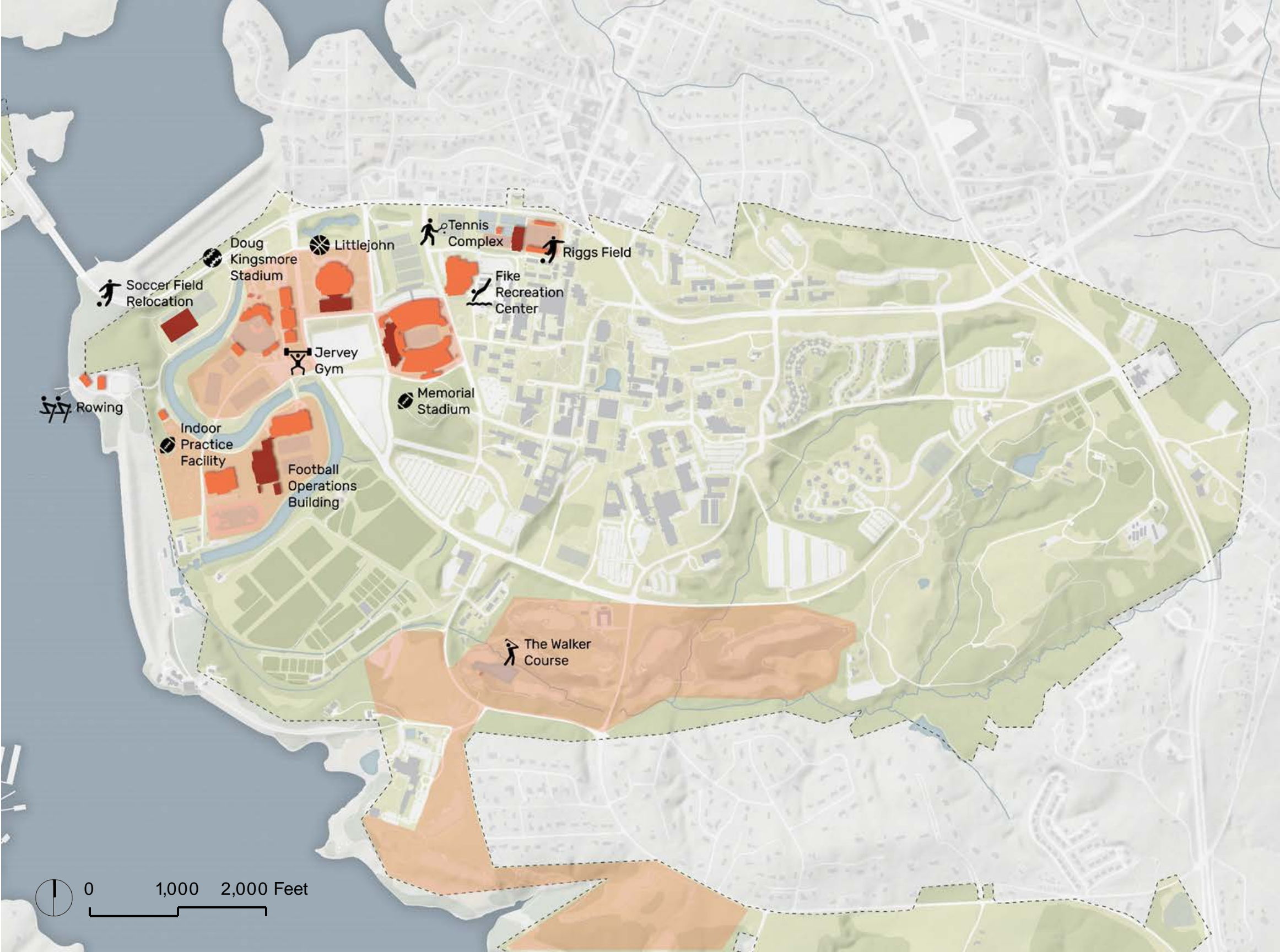
BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

- Reuse of the **Vickery Hall** area.
- Parking and vehicular circulation on **game days**.
- Reducing impacts of **tailgating** on campus recreation fields.
- Enhancing the **fan and tailgating experience** in the West End zone and adjacent parking lots.



Athletics

EXISTING ATHLETICS
LOCATIONS





Space & Programming

Plan for efficient, flexible buildings that support campus life and academic/ research needs.

Space & Programming

BRIEFING DOCUMENT IMPLICATIONS FOR THE FRAMEWORK PLAN

- Classrooms
- Research
- Collaboration / Innovation / Maker Spaces / Study Environments
- Social Spaces
- Other