# PEDESTRIANIZATION AND MOBILITY ON THE CLEMSON CAMPUS

#### Introduction

Pedestrianization of campuses has been underway in the United States for well over 50 years offering many benefits including: the minimization of congestion; improvement of pedestrian flow; reduction of pedestrian-vehicle conflicts; enhancement of campus aesthetics and character; and, contributions to a more collegial environment, among others. While there are many benefits, there are also important practical and operational issues that need to be considered including emergency and service access. Pedestrianization of a campus, therefore, requires a balanced approach addressing a broad range of mobility and access concerns.

The benefits of pedestrianizing the internal core of the Clemson Campus have long been discussed at the University. Currently, there is a renewed interest in the subject as the University prepares to "cross" Walter T. Cox Boulevard (Highway 93) with the development of Douthit Hills and the new business school. Based on input from the Campus Planning Task Force, there is growing support for improving the pedestrian experience and safety along Highway 93 and within the core of the campus. This paper explores the trends, considerations, opportunities, and constraints associated with pedestrianization.

#### **Trends**

Pedestrianization of campuses has been a long-term trend across the United States. A notable example includes the University of Pennsylvania where Locust Street was closed to become Locust Walk in the 1960s. This move transformed and unified the campus in powerful and memorable ways and created a landscaped corridor for which the University is widely recognized. This opportunity exists at Clemson as well, particularly along the Highway 93 corridor, along with internal road opportunities.

Other examples include Auburn University where a decade long strategy of pedestrianization has been underway in conjunction with a comprehensive approach to transit access and parking reorganization. The outcome is a highly pedestrianized campus core designed for people rather than the automobile. At Syracuse University, the Einhorn Family Walk was recently completed transforming a vehicular roadway at the center of campus into a community gathering space for pedestrians and bicyclists. The design of the Walk features unique paving, custom benches, street trees, LED lighting optimized for safety and comfort, and a grading strategy that maximizes accessibility. It is important to note, that these newly created pedestrian corridors still maintain service and emergency access.

#### Consideration

Pedestrianization of the Clemson core will involve limiting auto access and traffic on several internal streets that provide links to service areas, parking lots, and on-street parking. Members of the Campus Planning Task Force and other stakeholders have cited multiple reasons for creating a pedestrian-focused campus:

- · Safer environments for pedestrians and bicyclists
- · Enhanced character and beauty of central campus
- Faculty / staff recruitment and retention; a community that is pedestrian and bicycle-friendly is desired by many of the next generation of faculty and staff

Subject to further study, potential street closures include Calhoun Drive, Fort Hill St., Fernow St., South Palmetto Blvd., Parkway Dr., and several other streets that provide access to the core. Other pedestrian improvement opportunities exist along Highway 93, which recently was transferred from state to university ownership. With the development of Douthit Hills and the new business school north of Highway 93, as well as the increasing number of students living downtown, changes and increases in north/south pedestrian flow are expected. This prospect raises concerns over potential conflicts with vehicular traffic. Planning for bicycle circulation along and across Walter T. Cox Boulevard is also a key consideration.

## **Opportunities**

The potential internal street closures at Clemson offer the opportunity to rethink pedestrian flow, bike, transit, service, and emergency access in the core and—over the long term—the opportunity to redesign street sections to create pedestrian and bike corridors coordinated with the landscape strategy for the campus. The potential outcome is a more unified and pleasant campus core with limited intrusion from motor vehicles. Streetscapes can be rethought to provide new paving materials, vegetation, lighting, benches, and other street furnishings. The goal over time will be to reprioritize circulation in the core toward human-powered modes (pedestrian and bicycle) as well as transit, while maintaining service and emergency access.

University control of Highway 93, or Walter T. Cox Boulevard as it has been renamed, provides a significant opportunity to rethink this important circulation corridor and landscape gateway to the campus. The redesign of the streetscape, especially at Bowman Field, could enhance the character of the campus as well as the experience of moving through the campus. The Framework plan alternatives will explore opportunities for improving the Walter T. Cox streetscape from Newman Road to West Perimeter Road. Key crossing points will be introduced and redesigned based on pedestrian flow, the landscape context, and new facilities. Traffic calming measures and strategies for improving bicycle circulation will also be considered. The feedback received has stressed that Walter T. Cox Blvd should remain the ceremonial gateway into campus, but mobility strategies should focus on increasing the use of Perimeter Road for vehicular traffic as much as possible, especially for commuter and through-traffic.

#### **Constraints**

While internal campus streets at Clemson may be closed to general automobile traffic, access will need to be maintained for service and emergency routes as well as access to parking, especially parking for the disabled. A total of 170 parking spaces are located on key streets and in internal parking lots at Clemson. Clearly, a balanced approach and strategies for replacing this parking will need to be in place in advance of any street closure. The pedestrianization strategy, therefore, will need to be closely coordinated with a phased and comprehensive parking and broader mobility strategy for the campus.

As an interim approach to pedestrianization, one option would be to maintain existing internal and on-street parking while limiting vehicular access to members of the campus community who have a parking permit for internal spaces. By means of gates or other access barriers, through traffic could be eliminated in the near term thereby reducing the amount of traffic on the interior of the campus. Parking removal could then occur incrementally in association with pedestrian streetscape improvements and other landscape projects within the core campus. This interim approach would allow Clemson to initiate positive change in the near-term while allowing time for implementing a comprehensive and well-coordinated parking strategy. Alternatively, the University could implement aspects of a comprehensive parking strategy first before moving to limit auto access or parking in the core.

### The Way Forward

During the alternatives phase of the Framework planning process, pedestrianization opportunities will be considered as part of an overall and comprehensive mobility strategy. The intent will be to develop a long-term approach for the entire campus mobility system. This will require integration and coordination of all circulation modes—pedestrian, bicycle, golf cart, transit, and private, service, and emergency vehicles—to create a mobility system.

This comprehensive approach to mobility, in turn, will be considered relative to broader landscape and urban design goals for the campus with the goal of creating an integrated approach to circulation, landscape, and land planning. Mobility will also be considered from the user point-of-view, placing emphasis on the experience of traveling to and moving through the campus on a daily basis. The routines of the various campus population groups will be assessed taking into account the patterns of movement for resident students, "resimuters" (those living downtown or adjacent to campus within walking and biking distance), transit riders and those who drive to campus. The ultimate goal will be to provide Clemson with a mobility strategy that can be implemented incrementally over time and in association with other landscape, urban design, or new facility projects.

In summary, feedback from the Campus Planning Task Force provides direction for the mobility strategy in the Framework Plan with emphasis on the following objectives:

- Prioritize pedestrian movement on the main campus (along with service/ emergency vehicle access)
- Improve pedestrian safety on the main campus, especially across Walter T.
  Cox Boulevard
- Consider Walter T. Cox Boulevard as the ceremonial gateway into campus, but increase the use of Perimeter Road for vehicular traffic as much as possible
- Provide a connected, safe bicycle network on and around campus (including collaborations with City of Clemson and other nearby towns)
- Focus on transportation demand management to minimize growth of parking demand, and encourage off-campus students to walk, bike, or take transit, rather than driving to campus
- Provide appropriate service and emergency vehicle access, as well as handicapped parking and ADA accessibility