

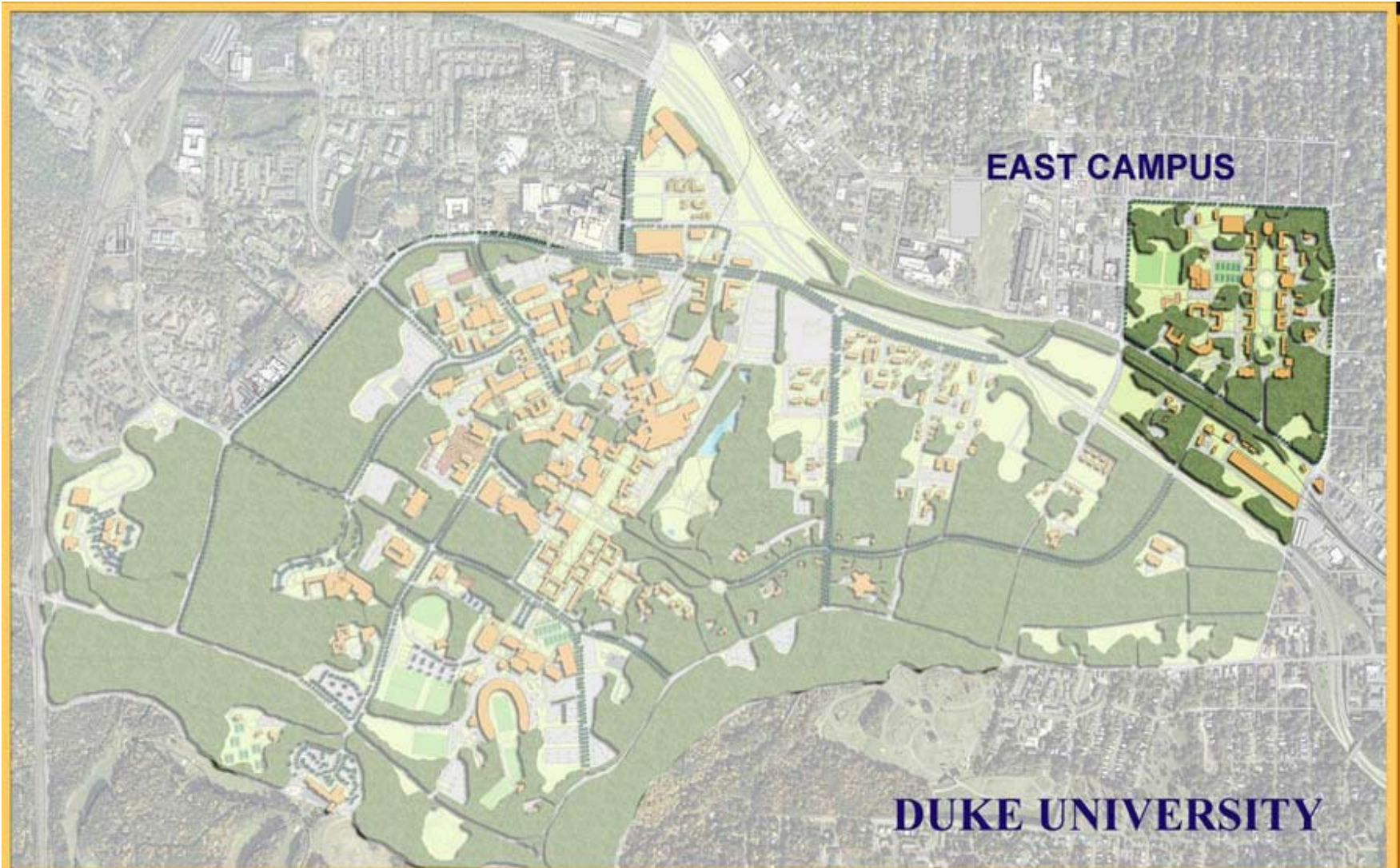
Duke University
Preserving Campus Historic Landscape & Natural Resources

John Pearce University Architect

Omlsted Brothers of Boston
Duke Forest
Metrics for a Sustainable Campus

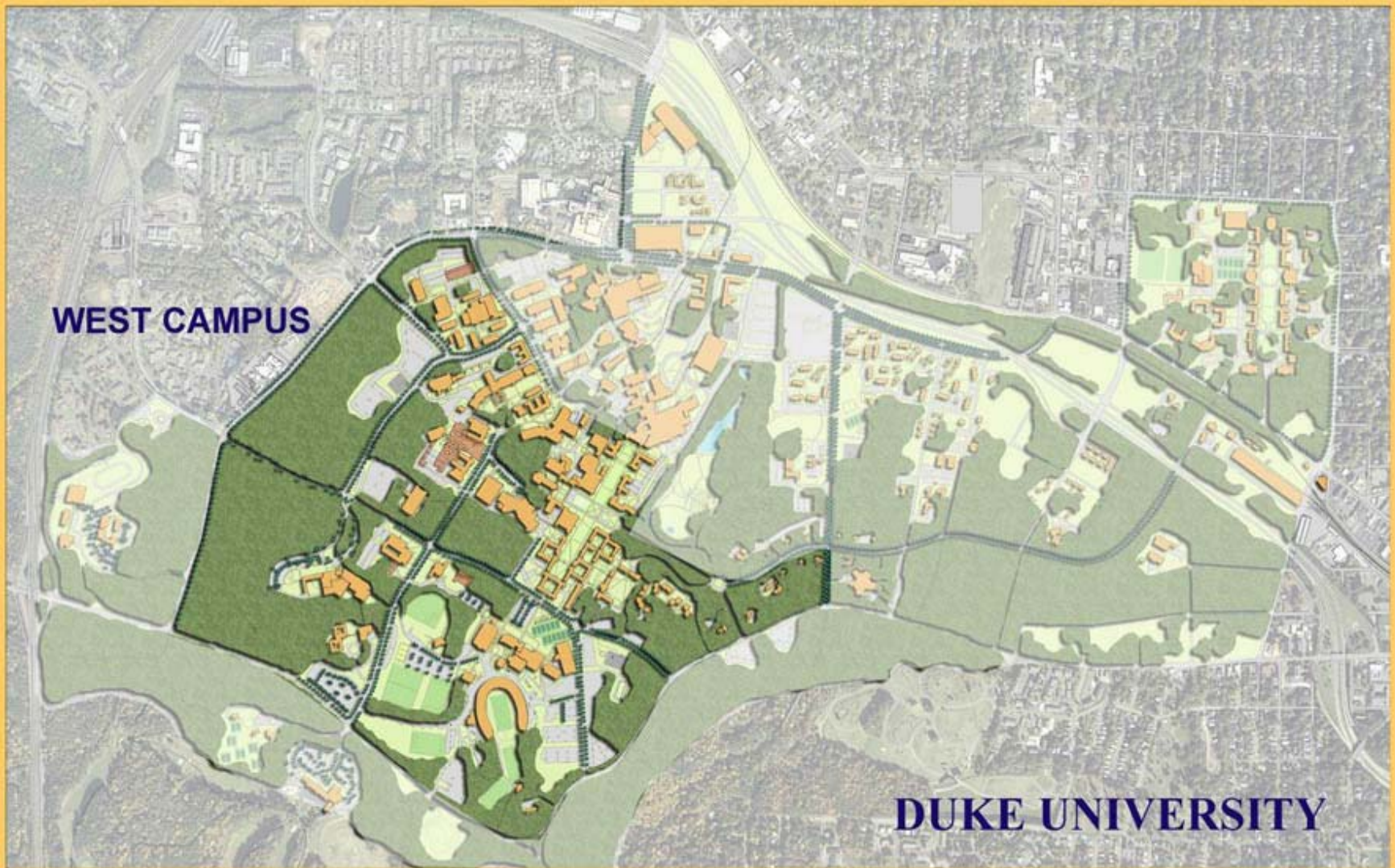


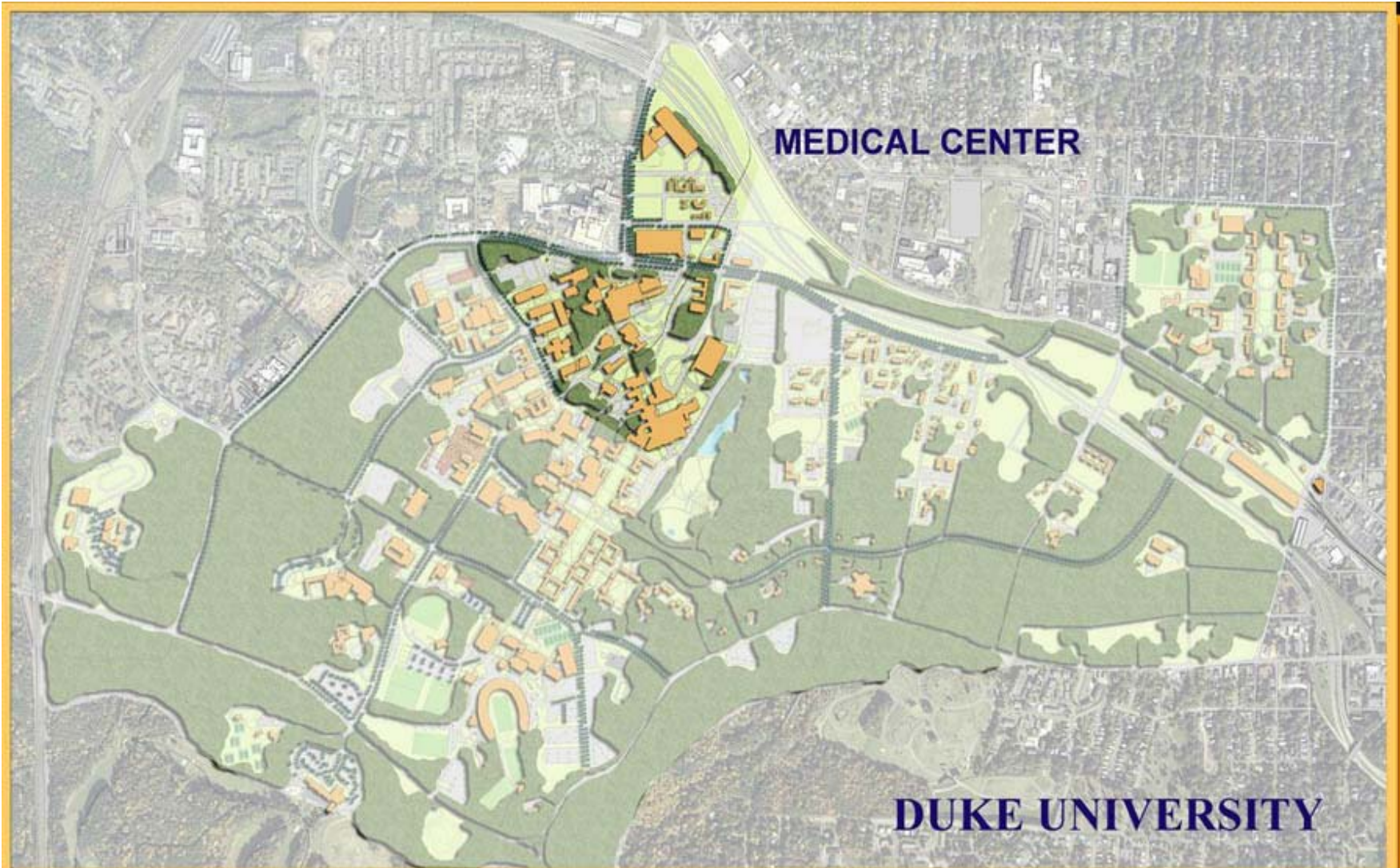
DUKE UNIVERSITY



WEST CAMPUS

DUKE UNIVERSITY

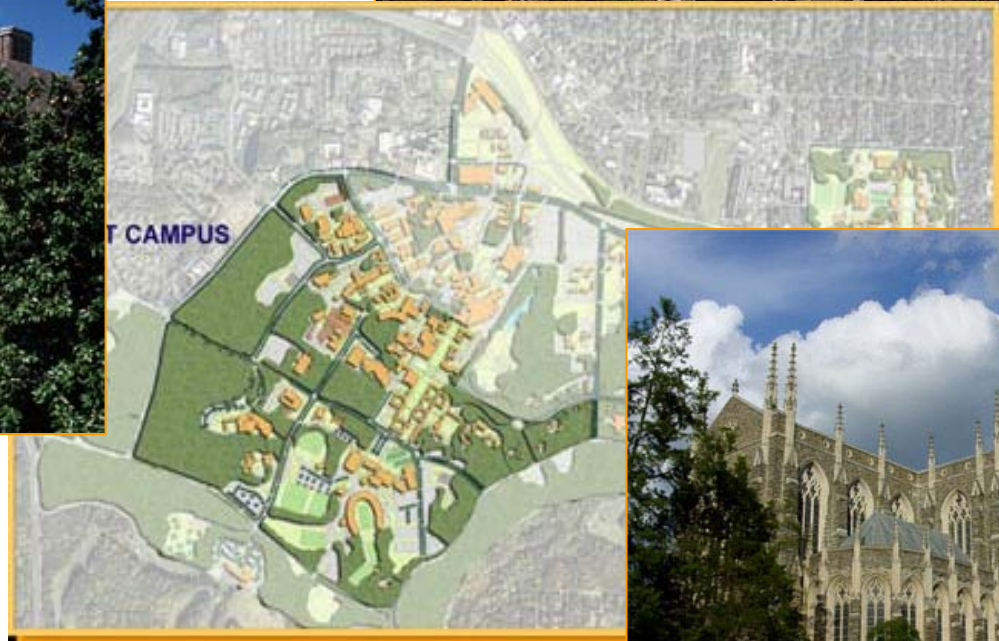
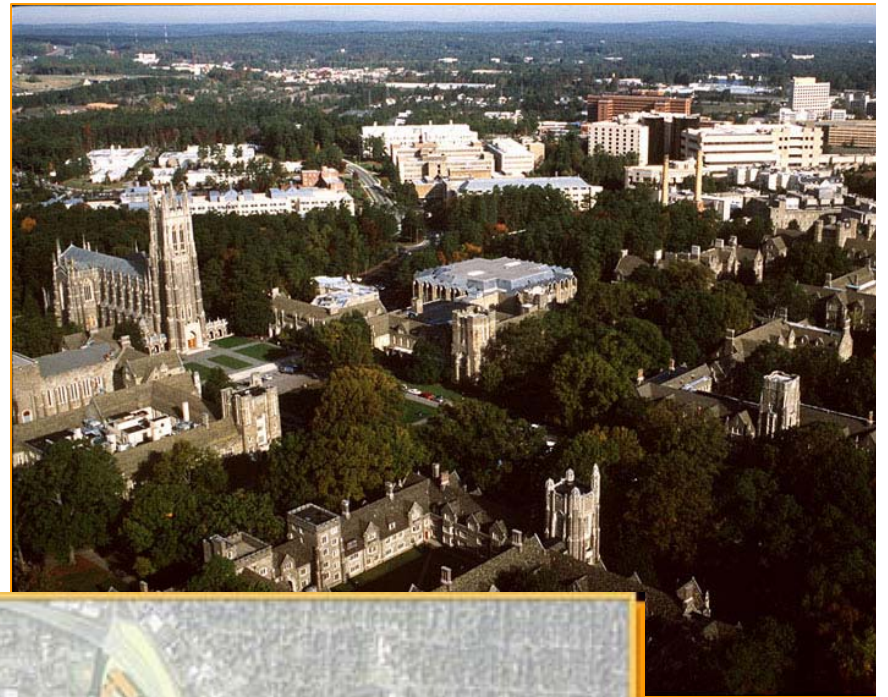
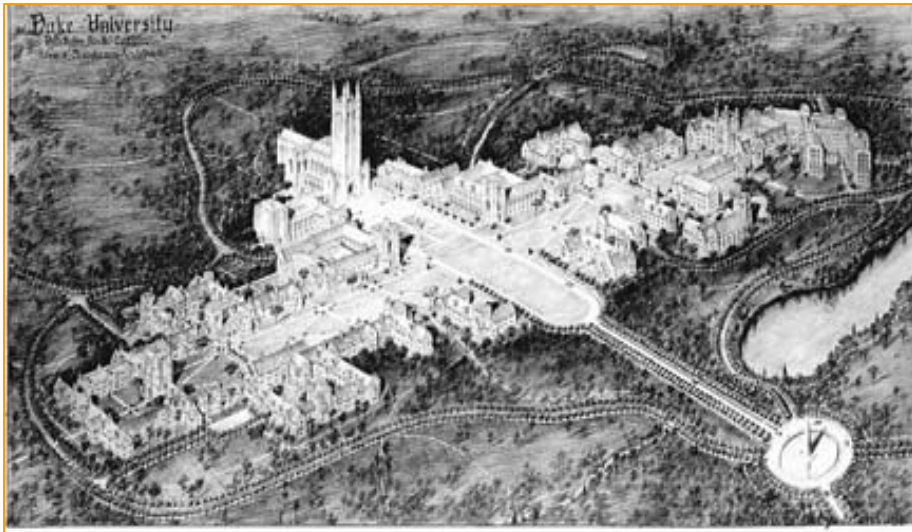


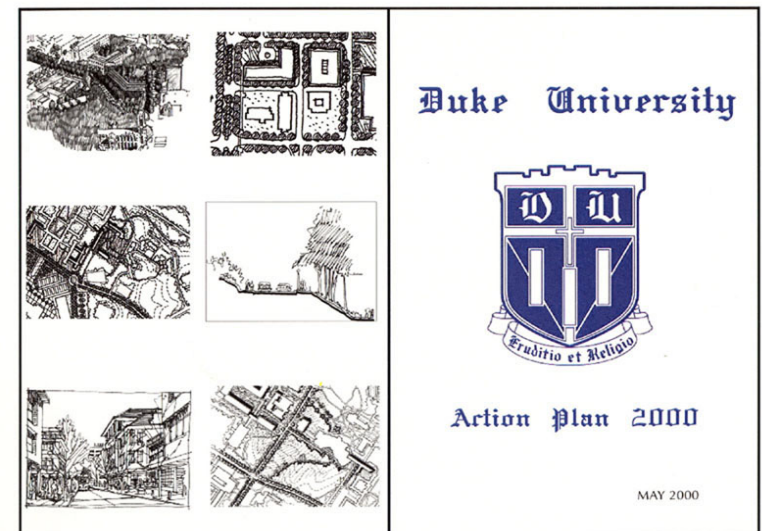
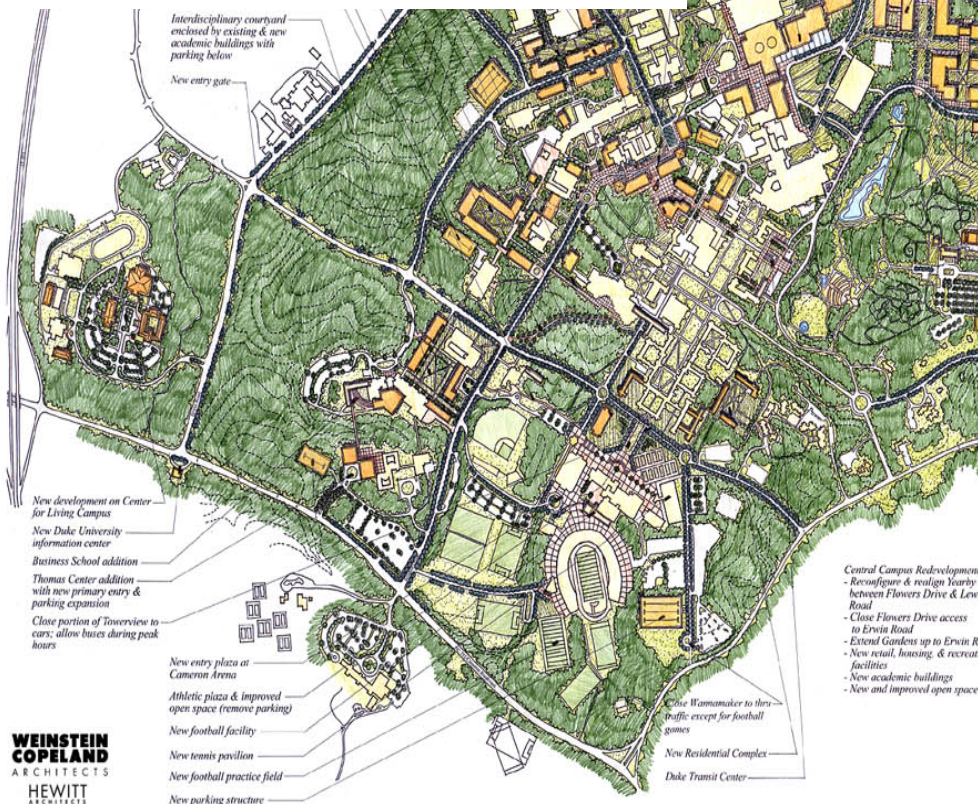
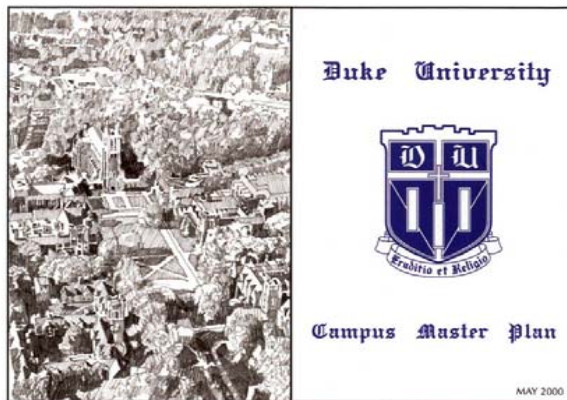


MEDICAL CENTER

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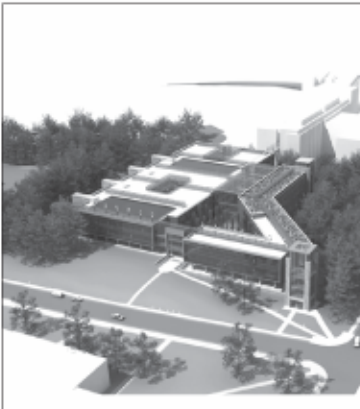
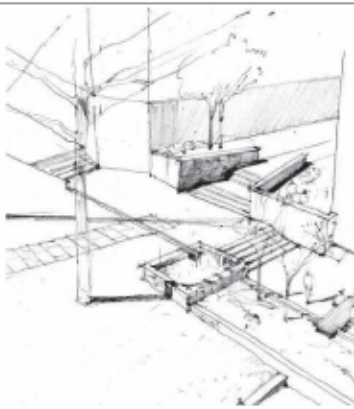
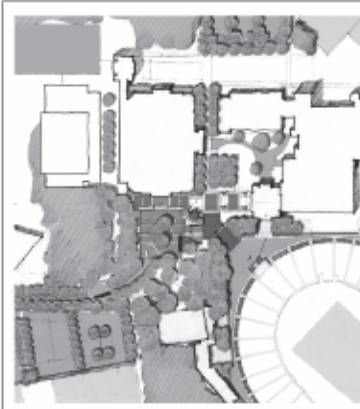






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Duke University



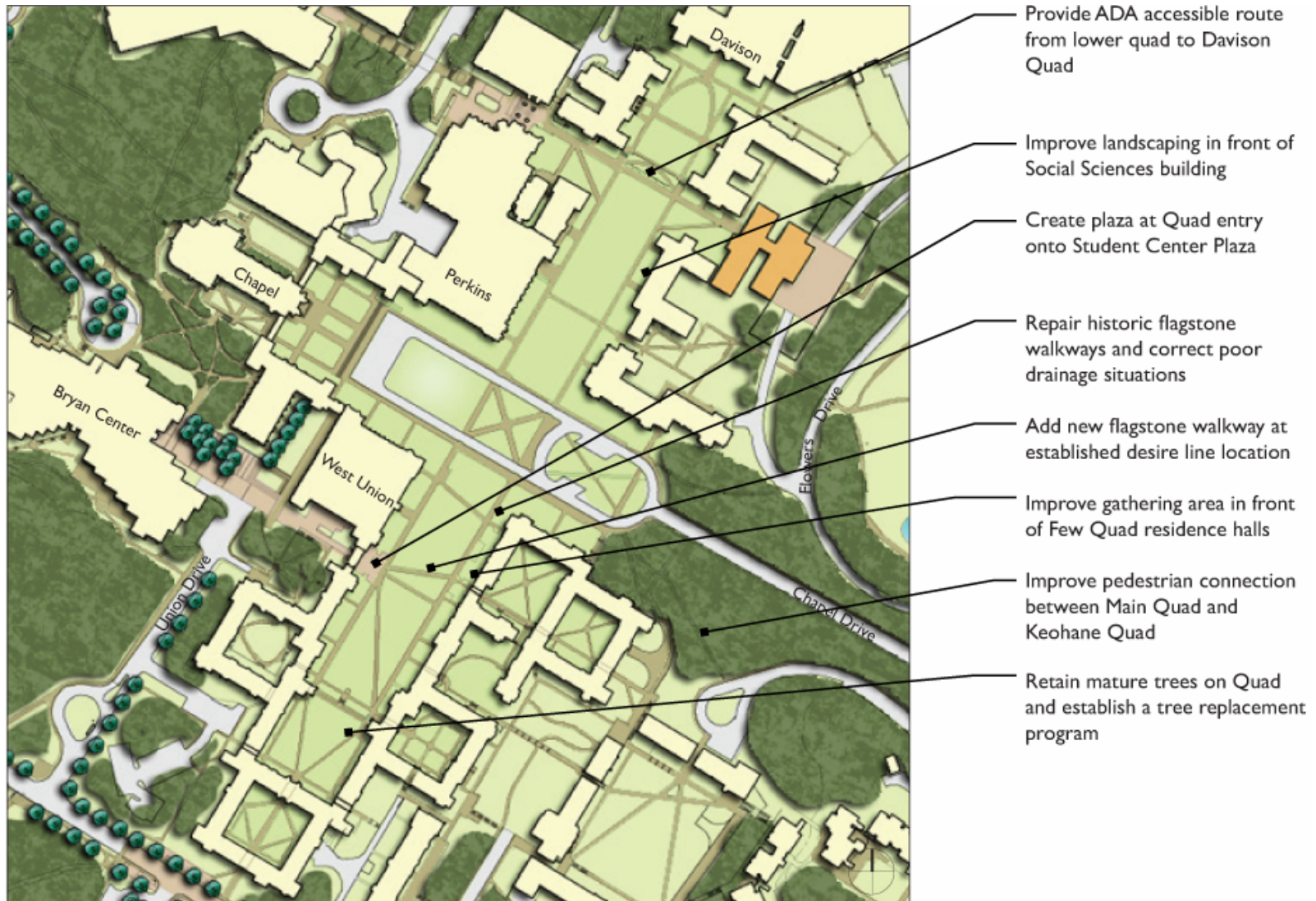
Action Plan 2006

MAY 2006

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Landscape projects



West Quad Landscape Improvements

Chapel/West Quad Precinct

West Quad Landscape Improvements

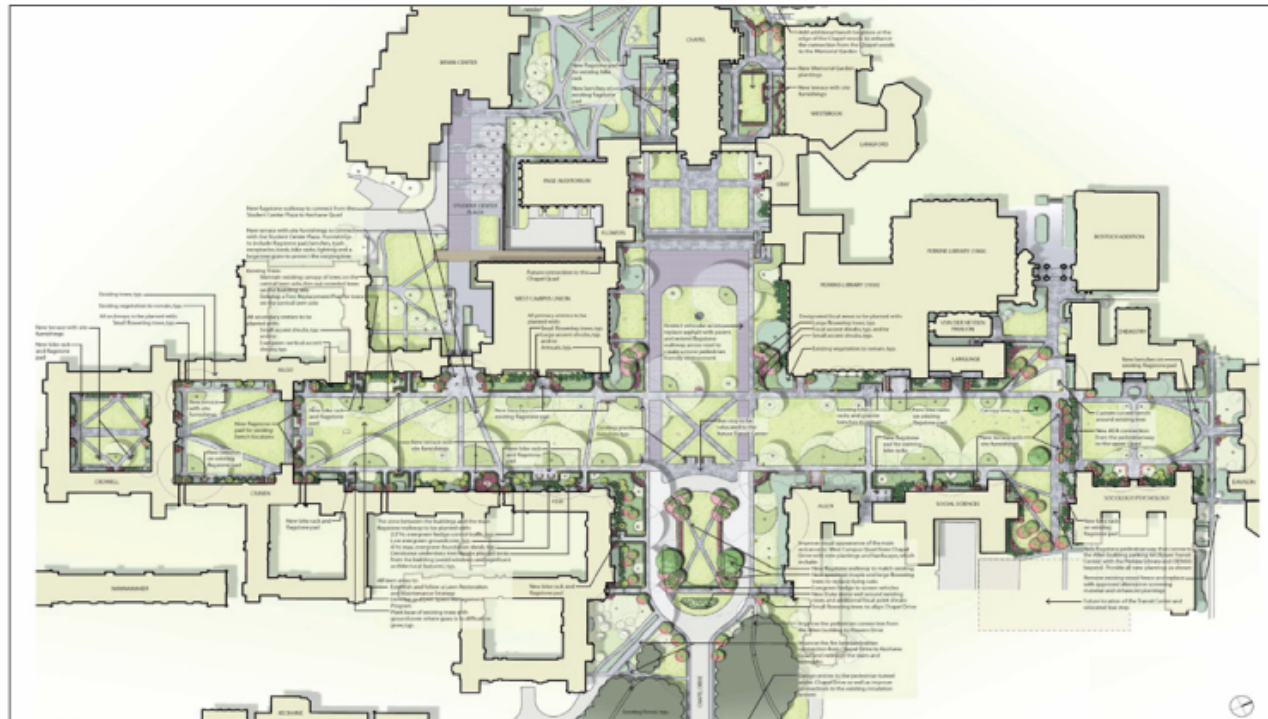
Project Description

A master landscape plan and site design guidelines were completed for the West Campus Quad in 2005. The goal was to provide the framework for a series of landscaping projects that would transform the quality of the quad landscape. Several of these projects have been completed, including the Chapel Drive entry planting, landscape improvements to the Chapel Memorial Garden and the Pedestrianway landscape.

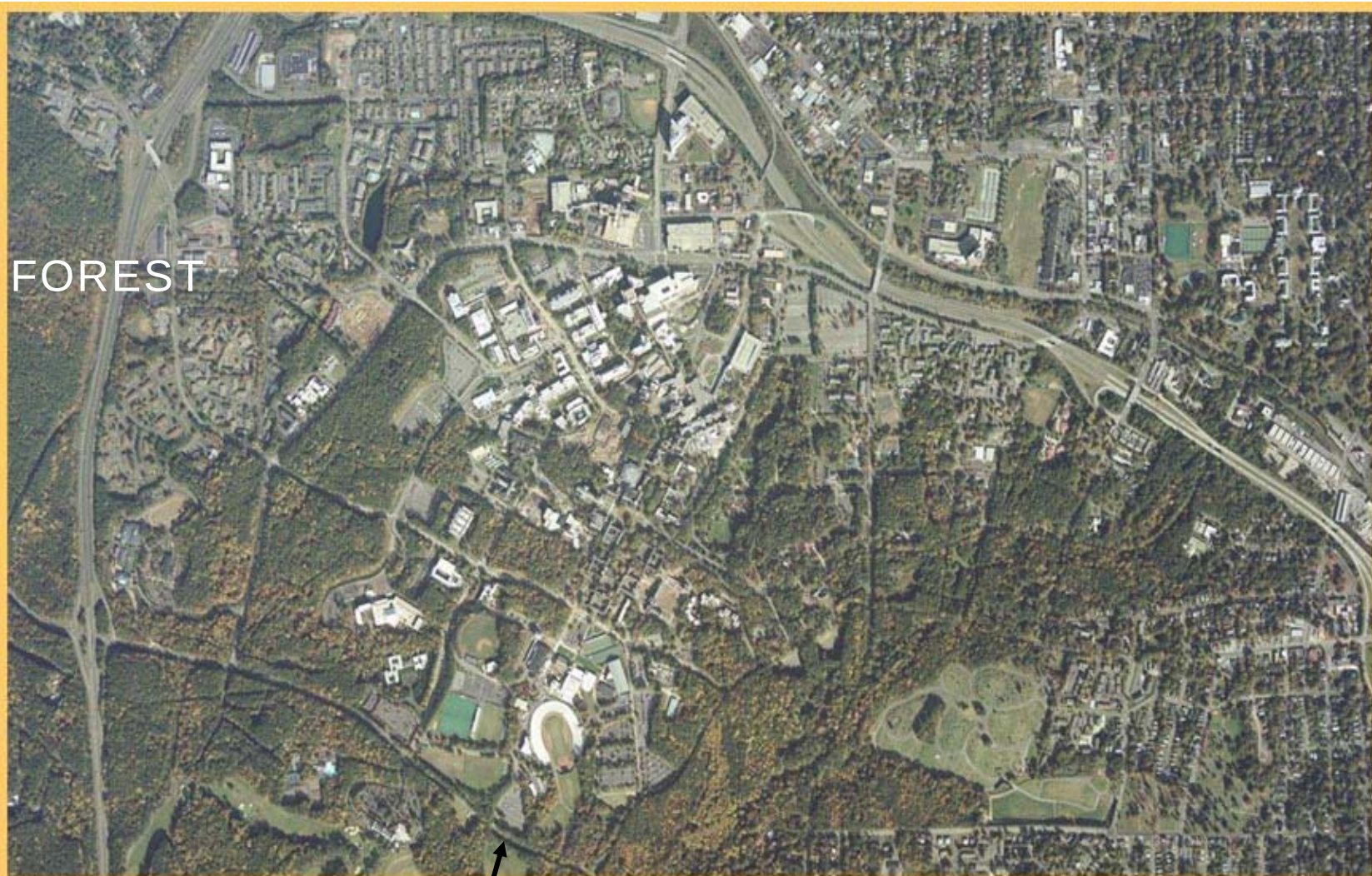
Considerations

- Provide ADA access to Davison Quad, fitting within the campus context in terms of material, geometry and scale.

- Establish and implement site furniture standards.
- Improve the landscape and hardscape in front of the residence halls in Few Quad. Consider established desire lines, drainage issues, and the presence of the mature oaks in the design.
- Promote through the Administration the creation of an Open Space Management Program for the Quad in order to manage how the space is used.
- Improve the pedestrian path system connecting Keohane Quad and Chapel Drive in front of the Allen Building. Simplify the path layouts and replace steps, handrails and paving.



DUKE FOREST



Wetlands Project

Duke Forest – 7000 Acres

[Education](#)

[Forest Environment](#)

[Management](#)

[Recreation](#)

Research

Since 1931 the Duke Forest has provided research opportunities for Duke University faculty and students in the fields of forestry, botany, zoology and environmental science. Today the Forest is also utilized by local universities and schools - plus many other universities and organizations nationwide - to study natural resource and environmental science issues. These uses include both short-term and long-term research projects which span such diverse topics as plant ecology, invertebrate zoology, forest economics and global climate change. During the 1930s and 40s, Duke scientists such as Drs. Korstian, Coile, Oosting, and Billings pioneered research in the fields of forestry and ecology with their work in Duke Forest. These early researchers were meticulous record keepers who permanently marked their sample areas. Data from their inventories and permanent sample plots continue to provide a long-term scientific record that illustrates changes in the forest ecosystem. The availability of this comprehensive database, along with the Duke Forest collection of maps and silvicultural records, [have established the Forest as an ideal site for long-term ecological research. Duke Forest researchers continue to make important contributions to the natural sciences. Funding for research projects in the Forest currently totals nearly \\$7 million annually.](#)

The Wetlands Project :

Phase I :Sandy Creek Tributary Stream Restoration Project

Provide surveying, planning, design and construction services to restore a portion of the Sandy Creek tributary from High 751 for approximately 1,750 feet. Rootwads and log vanes from existing trees were used to help slow down the slow down the speed of the stream. This project is in conjunction with the proposed Wetlands project adjacent to the Duke Golf Course. This project is to [improve storm water run-off conditions from the City of Durham and the Duke Campus, as well as improve stream water quality](#) on Sandy Creek in Durham, NC. This creek flows directly into Jordan Lake Reservoir, a major drinking water supply for the region. Thus, this project is vital to the improvement of the water quality and storm run-off in the region.

Phase II: Duke Wetlands Dam Project. The project site is near the popular Al Buehler Cross Country Trail south of Duke's West Campus and NC 751.

Construction of a 19 feet high earthen embankment dam with a concrete spillway that will be used to help restore a bottomland hardwood wetland, create a lake to control stormwater run-off and [create a research and teaching outdoor lab for the Nicholas School of the Environment and the Pratt School of Engineering.](#)

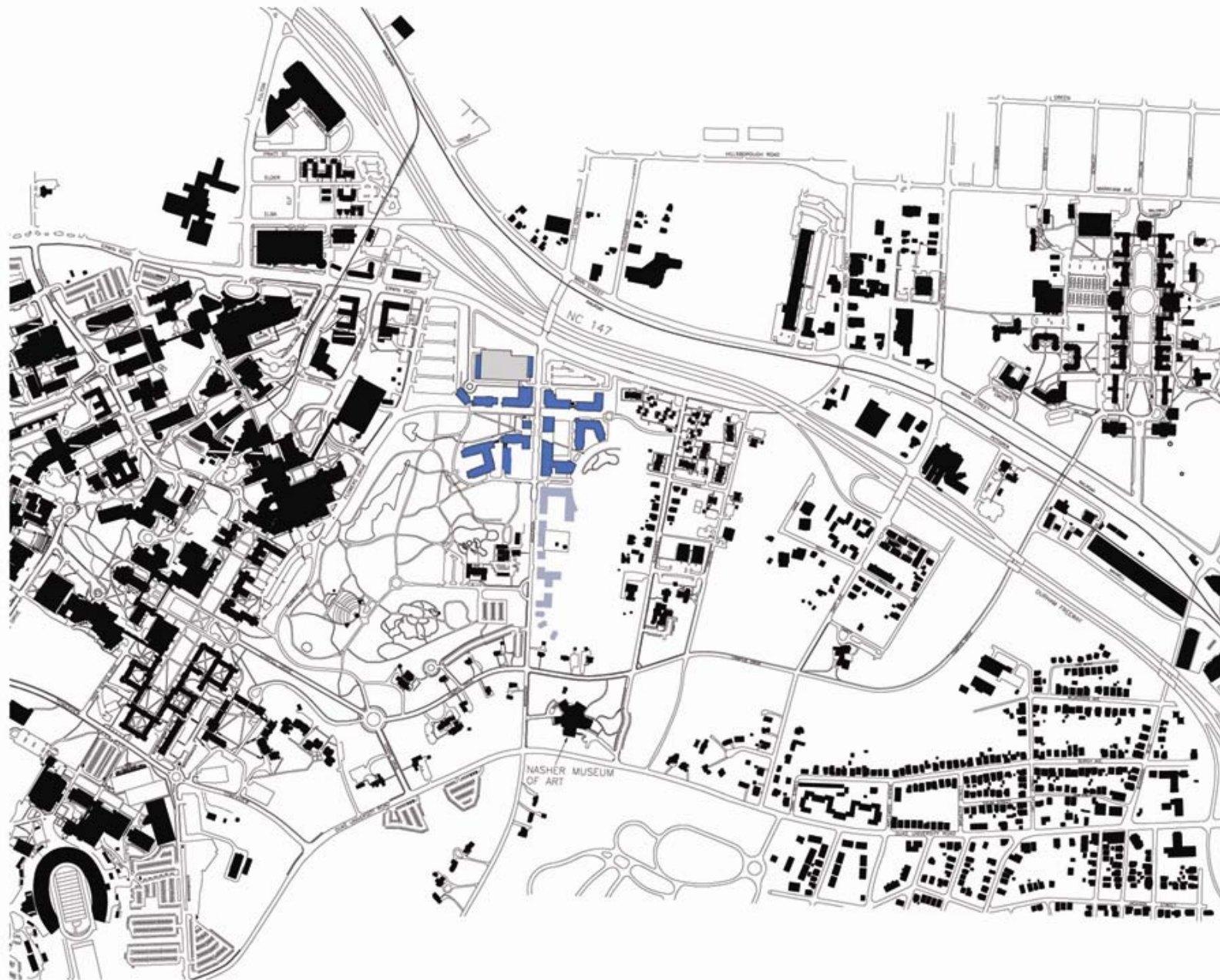
Phase III: Stormwater Treatment

Design and Construction of restore the stream coming into the main channel from the pipe under 751 and an off line step wetland put in place [to reduce the nutrient pollution before it hits the main channel of sandy creek](#). The Wetland treatment cell system will be constructed to intercept the flow of the unnamed tributary to Sandy Creek and culvert that is draining part of the central Duke campus. The wetland will be terraced to increase retention time of overbank flow from the stream. The cross-section will be based on a lower stage than bankfull in order to increase the quantity and frequency of overbank flow that accesses the wetland areas.



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Rain Gardens 2500 sq. ft. each

Rain Barrels

Runnel Trough



Sustainability Strategies

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Central Campus *Sustainability*



Duke UNIVERSITY
Duke University Central Campus
Landscape Connectivity to Sandy Creek

Legend

-  Streams
-  Primary Roads
-  Railroad
-  Project Study Area
-  300' Corridor
-  Non-Duke University Landholdings

