UNIVERSITY GROWTH PLANS: THE EFFECTS OF COLLABORATION ON SMART GROWTH CONTENT

A CASE STUDY OF THE UNIVERSITY OF NORTH CAROLINA AND NORTH CAROLINA STATE UNIVERSITY

by

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ABSTRACT

As the nation’s universities continue to develop and expand in a growing competition for students, university planning has become an increasingly important tool. However, the growth of universities is frequently constrained by their adjacent towns, which often face development pressures of their own. This relationship between the university and the surrounding town can range considerably from place to place. It is in the best interest of the university and town planners to understand this complex relationship and understand what role the town has to play in the development of university campuses. Since university and town relations are frequently an obstacle in creating growth plans, it is important that collaborative efforts are explored as a means to create more successful smart growth plans.

This study addresses the university’s relationship with the neighboring town and how this relationship influences smart growth. Does the process of negotiation in different urban settings lead to different infill policies and design guidelines? This analysis considers two major universities in North Carolina, University of North Carolina at Chapel Hill and North Carolina State University at Raleigh. After conducting several interviews with town officials, university representatives, and community advocates, and analyzing the smart growth content within the universities’ growth plans, it is clear that the collaboration process between the town and the university plays an important role in the planning process, and in many cases, can result in a final plan more accommodating to smart growth principles.
I. UNIVERSITY PLANNING

Although a university often behaves like a developer, its relationship with the town in which it resides is far more intricate. Universities do not face the same economic constraints as private-sector corporations, and as a result, they constitute a more stable presence within a community. Despite the benefits that the university often provides a town, such as job opportunities, heightened cultural and social environments, and economic benefits, towns often must struggle with the high demands that the university places on the housing supply, transportation infrastructure, and town services.

The relationship between town and university stakeholders has often been contentious. For example, Yale University has had a strained relationship with the town of New Haven, Connecticut, with outbreaks of violence between locals and Yale students dating back to the 18th century. The relationship appeared to have improved little by the 20th century, as Yale and New Haven continued to negotiate various land swaps. George Washington University in Washington D.C. has also gained notoriety for its poor relationship with the adjacent communities. Since 2001, George Washington has been in four separate court battles over real-estate disputes. While the University holds the position that it must continue to grow in order to stay competitive, the community claims that the only way to preserve its neighborhoods from encroaching development is through litigation. With each additional lawsuit, the relationship between George Washington and the community continues to dissolve.

The University of Pennsylvania has never gone to court over the University’s growth; however, the University has had its share of difficulties with the nearby communities. During tough economic times in the 1960s and 1970s, the University purchased blocks of distressed housing adjacent to its campus, and demolished the buildings in order to create a buffer zone between the school and the crime-ridden local neighborhoods. The relationship between the school and city has improved since this time, as the University now works to protect and improve the quality of life in its adjacent neighborhoods.

Harvard is yet another example of a school where the “town-gown” relationship has affected the manner in which it is able to develop. As stated in the Harvard Independent, “it is no secret that the city of Cambridge and Harvard are intricately related, and their respective governing bodies have had their share of differences.” The University is currently working on plans to expand to Allston, located across the Charles River from the Cambridge campus. Concerns over the University’s future expansion, as well as concerns over continuous infill development, have many community members up-in-arms. In an attempt to achieve better relations between the University and the community, Cambridge has established annual reports, known as the “Town/Gown Report,” for Harvard as well as Boston University. The annual reports are used as a method to inform the public of the University’s upcoming development plans and their potential future impacts.

The town of Chapel Hill, North Carolina, is also not a stranger to the intricacies of the “town-gown” relationship. Relations with the University of North Carolina date back to
the beginnings of the town, which developed simultaneously with the University. In fact, it wasn’t until the 1970s that the town established its own electric and water supply separate from that of the University. The relationship between the University and Chapel Hill has continued to evolve as the University expands not only in numbers but in size.

North Carolina State University, a land grant school, is another growing institution in central North Carolina’s “Triangle” region. Because it is located in the state capital Raleigh, the school must not only support its relations with the surround community, but also with the state. North Carolina State University and the community continue to debate the role of the school within its increasingly urban context. The relationship that the school continues to develop with the surrounding community will not only influence the success of the school, but also of the City of Raleigh.

According to Beverly Wood, participant in the Society for College and University Planning’s audio cast entitled: On the Edge: The Dynamics of Town/Gown Relationships in Higher Education, “The two most common mistakes that colleges and universities make dealing with surrounding communities is not understanding how to develop a meaningful relationship with them and not committing a sufficient amount of time and resources to build those relationships.” As universities strive to provide state of the art facilities and innovative planning for developments, it is in their best interest to also commit to fostering better relations with the surrounding communities.
II. PLANNING FOR SMART GROWTH

“Smart Growth is development that serves the economy, community and the environment. It provides a framework for communities to provide informed decisions about how and where they grow. Smart growth makes it possible for communities to grow in ways that support economic development and jobs; creating strong neighborhoods with a range of housing, commercial, and transportation options; and achieve healthy communities that provide families with a clean environment.”

Many American universities already boast of campus designs that incorporate smart growth principles. Most universities are walkable, providing a mix of land uses to meet the needs of the student populations. Many already have well-established transportation systems to move thousands of students and employees to and from campus every day. University officials are well aware that maintaining a strong sense of place and quality of life on campus plays an increasingly important role in a student’s enrollment decision. Universities are also well aware that the quality of life that the adjacent town provides is an important ingredient in the making of a successful university. Planning a university that successfully plans for “smart growth” not only contributes to the marketability of the institution, but contributes to the town as a whole.

As universities are experiencing increasing growth pressures, with less and less space on which to develop, the need for more innovative growth strategies has become apparent. The local communities that are affected by the encroaching university development also have grown in their roles as advocates for smart growth.

The idea of ‘smart growth’ grew out of the frustrations of communities who felt they no longer could control the manner in which development was taking place within their surrounding environment. Smart Growth strives to achieve development that is more sensitive to the needs of the community, to the economy, and to the environment. There are several ways in which smart growth ideas can be employed in order to reduce the negative impacts of development. Organizations, such as the Smart Growth Network, have categorized the many ideas of smart growth into a series of principles which can be used to guide new development.

As outlined by the Smart Growth Network, there are ten principles commonly employed when planning for smart growth. These are:

1. **Mixing of Land Uses**

Mixing uses encourages transportation alternatives as distances from various land uses are minimized. In addition, mixed use provides diverse and sizable populations that are better able to support commercial and public transportation investments. Also, mixed use development helps to revitalize community life and economic activity.
2. **Taking Advantage of Compact Building Design**

Compact buildings leave a smaller footprint on the landscape, thus leaving room for more open space. They are often a more efficient use of resources and can allow for wider transportation choices as buildings are closer to one another. In addition, compact buildings can be cheaper to maintain services and utilities.

3. **Create a Range of Housing Opportunities and Choices**

A range of housing helps to make housing accessible for all income ranges. A range of housing also allows for equal access to transportation by all households. This strategy also promotes more diverse populations.

4. **Create Walkable Neighborhoods**

Walkable neighborhoods create a streetscape with a broader range of users, and allow citizens to have less dependency on cars and other costly transportation options. Walkable areas often have greater social interaction and promote better personal health.

5. **Foster Distinctive, Attractive Communities with a Strong Sense of Place**

A strong sense of place is apparent in areas where the communities successfully preserve and protect the cultural resources that make their neighborhoods unique. An understanding of the values and culture of a community should be incorporated into the design plan.

6. **Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas**

Not only does open space provide a neighborhood with increased aesthetic appeal and recreational use, but the land also works to maintain environmental objectives. Open space helps to prevent flood damage, protect species, and provide for cleaner drinking water, among other benefits.

7. **Strengthen and Direct Development Towards Existing Communities**

Practicing infill development will help to prevent unnecessary growth on the periphery of towns, saving valuable open spaces. The utilization of existing infrastructure also lowers costs and saves resources.

8. **Provide a Variety of Transportation Choices**

Increasing the range of transportation options will allow for improved efficiency of the current transportation system. In addition, providing alternatives to automobile travel can reduce air pollution.
9. **Make Development Decisions Predictable, Fair, and Cost Effective**

In order for smart growth projects to be built in the first place, they must be profitable. Expediting the approval process may help to make smart growth projects more cost effective.

10. **Encourage Community and Stakeholder Collaboration in Development Decisions**

Collaboration among the various stakeholders can lead to more creative, innovative outcomes than without a collaborative process. In addition, open discussion will lead to greater community understanding of a project. Without citizen involvement, a plan has less chance of being successful.
III. EXPLANATION OF ANALYSIS

This analysis uses the ten smart growth principles outlined by the Smart Growth Network to look at development plans for two universities in North Carolina’s “Triangle” region, the University of North Carolina at Chapel Hill, and North Carolina State University in Raleigh. The four growth plans that make up the analysis are the campus master plans for each University, as well as the development plans for each school’s satellite campus. There are many important differences among these plans. While the Master Plans for each university are predominantly infill projects, the two satellite campus plans are development plans for previously undeveloped (or mostly undeveloped) areas. These differences, as well as variations in political climates, and the timing of the plans’ formations all greatly affected the planning processes, and ultimately affected the plans’ final outcomes. These factors have helped to contribute to the success of the plan, making the plan more smart growth oriented, while in other instances, these factors have led to plans with less emphasis on smart growth. In addition to these, another important factor in the planning processes was the amount of stakeholder collaboration throughout the formation of the plans. It is my hypothesis that university planning is more likely to use a broader range of smart growth concepts for campus development when community and stakeholder collaboration is emphasized in the planning process.

I carried out this study through two primary methods. First, I completed a context analysis of the four university growth plans. Plans included The University of North Carolina Campus Master Plan, The University of North Carolina Conceptual Draft Plans for Carolina North, North Carolina State University Physical Master Plan, and The Centennial Campus Plan (as outlined through North Carolina State University Master Plan and supporting documents). Second, through interviews with representatives of the stakeholder groups in each case, I was able to gain valuable insight into the processes which led to the formation of the plans. In both Raleigh and Chapel Hill, I interviewed representatives of the communities, the universities, as well as the towns to gain a better understanding of the collaborative processes. Interviewees included active members of neighborhood organizations, university architects, university planners, and town planners.

This analysis uses the ten principles for smart growth planning outlined above, and specifically tailors them for the university setting. Examples of instances where the principles are incorporated into the plans are explained within the analysis, and also referenced in the charts included at the end of the analysis (section VIII). Following the analysis of the smart growth content within each plan is an analysis of the effects that collaboration had on the planning processes and on the planning documents themselves. The four growth plans at the two universities are compared based on their relative emphasis of each of the ten smart growth principles. The factors that led to the differences in smart growth content among the plans are also explored. Finally, the study concludes with recommendations for the field of university planning based on the findings of this study.
IV. UNIVERSITY OF NORTH CAROLINA

Development History

The University of North Carolina was chartered by the General Assembly in 1789, and in 1793 the cornerstone was laid for the University’s first building. The first four buildings, comprised of student residences, classrooms, and a chapel, formed a quad which looked towards the growing village of Chapel Hill. The orientation of the buildings was structured in such a way as to engage the town, and ensure the University’s reputation as an integral part of the growing community. The University and Town continued to grow at a similar pace throughout the early years of development.

Over one hundred years after the formation of the University, it became necessary to re-evaluate the campus growth patterns. In 1920, during a time of anticipated growth, a Master Plan was prepared by McKim, Mead and White, which benefited the campus with lasting architectural spaces. Polk Place, a large quad designed in the McKim, Mead and White Plan, remains an integral part of the University’s main campus. At the quad’s northernmost end rests the South Building, one of the four original buildings constructed. The McKim Mead and White Plan called for the addition of a façade to the south side of this building, making it oriented southward towards Polk Place. Tension soon arose between the University and the Town over the University’s emphasis on expanding southward, thus ‘turning its back’ on the Town.

Towards the end of the century, it was again necessary for the University to re-evaluate the development plans. In 1997 the JJR campus plan was completed. This study was necessary to provide new direction for the University as the former plans had become dated, and no longer relevant for the University’s growth needs. The JJR plan used a joint town and university committee throughout the planning process. This plan was highly conceptual, and although the town was happy with the collaborative planning process, the University was not satisfied with the resulting plan. The final maps created were very general, which University officials felt were hard to interpret from a design perspective.

Chancellor Michael Hooker, who began his term in 1995, was unhappy with the appearance of campus, and put in place a process to create a new campus master plan. Also at this time, there were significant increases in enrollment on the UNC campus, making it more necessary than ever to create a new plan for growth on the campus. The November 2000 bond referendum made it possible to invest in such a large planning project. The resulting document, the Campus Master Plan, was passed by the Board of Trustees in March of 2001.
The design consulting firm, Ayers Saint Gross (ASG), aided the University in organizing the collaborative process. One of the first steps was to reserve a room on campus to provide a permanent space to house the Master Plan. The room was used for Master Plan meetings as well as to display the latest planning ideas, creating a consistent location for the community to visit with ideas and concerns. Also by designating a space, the Plan was able to gain a physical presence within the community, and begin to form an identity. The planning groups would meet with ASG every six weeks for three days of meetings. The teams would debate various designs drawn by ASG. When consensus was reached on a design, ASG would redraw the plan, adding in the changes. The concept of reworking the plan through continuous input from the committees allowed for a more dynamic process, as well as created a positive work environment. In order to reach the necessary level of detail in the plan, the groups divided the planning area into four precinct studies allowing more specific plans to evolve for the separate areas.

The collaborative process resulted in the formation of four guiding principles which helped to shape the multiple discussions with university, town and community stakeholders. The four principles are:

1. Support Carolina’s Mission
2. Export the Qualities of McCorkle and Polk Place
3. Enhance the University’s Intellectual Climate
4. Support Local and Regional Planning Strategies

The Master Plan was approved by the University Board of Trustees in March 2001 (see figure 1). During 2001, the University also gained approval from the Town of Chapel Hill for its new Development Plan. The Development Plan states that the University must analyze the storm water, traffic, lighting and noise impacts of the campus developments within the Master Plan before applying for building permits. In exchange,
the University needs approval from only the Chapel Hill Planning Department for a project application as long as it meets the objectives set forth in the Development Plan.

Assessment of Smart Growth Principles in Master Plan

Mix of Land Uses

Universities often boast a mix of land uses, such as mixing student residences, classrooms, recreational facilities, and retail. The University of North Carolina has historically worked to integrate the various land uses on campus. However, there are some portions of the campus that mix uses better than others. The Master Plan focuses on using the successful mixed-use model of North Campus to develop similar mixed-use centers on South Campus. This portion of campus does not have as successful an integration of land uses as can be found on North Campus. One example in the Master Plan is to redesign a portion of South Campus known as Ram’s Head. A large surface lot will be replaced by a parking deck, with recreational area, dining and stores.

Another example of promoting better mixed use in South Campus is the Bell Tower surface parking lot. This lot will be removed to make room for new academic and support buildings. Not only will these areas promote a mix of uses on South Campus, but will also provide better linkage to North Campus, allowing a better integration of uses across the campus as a whole.

Take Advantage of Compact Building Design

The campus setting has always promoted the use of compact building design to make University living and research more efficient. Limited space remaining on the central campus has resulted in a plan that makes the best use of every available space. For example, the Master Plan will rid much of the campus of a number of surface parking lots, creating addition room for more buildings or compact parking decks with green spaces on top.

The University is currently taking measures to ensure that each additional building fits with the new vision for the campus. In order to improve upon the construction methods used when constructing new facilities, the University has created campus design guidelines that clarify the standards and expectations for building construction.

Create a Range of Housing Opportunities and Choices

Chapel Hill is not the only town fighting to save its neighborhoods from the encroaching student population. Many universities have been forced to confront this issue as towns press to save their adjacent neighborhoods. During the 1960s and 1970s, enrollment on many college campuses grew faster than the on-campus housing supply. As a result, students increasingly moved into surrounding neighborhoods, while local citizens suffered the consequences of the ‘studentification.’
Through the Master Plan, the University has committed to providing all undergraduate students with housing on campus. This promise will help to alleviate the demand for housing in surrounding Chapel Hill neighborhoods as well as provide students with convenient and quality housing.

Create Walkable Neighborhoods

The emphasis on the connection of North and South Campus is further exemplified by the establishment of walking paths between the two areas. The plan calls for a pedestrian bridge which will stretch across South Road, providing a link between North Campus and South Campus. In addition, improvements will be made to the existing walking routes, by strengthening the pedestrian linkages.

Foster Distinctive, Attractive Communities with a Strong Sense of Place

The Campus Master Plan recognizes the importance of maintaining the strong sense of place at the University of North Carolina. As a means to emphasize the importance of Carolina’s distinct historical and architectural past, a Historic Preservation Survey was conducted in 2003 as part of the Campus Master Plan. This comprehensive survey documents the historical and architectural importance of all the buildings on campus that were constructed before 1953. The survey also examines the conditions of the buildings and recommends the necessary steps to be taken for future renovations. The document acts not only as a record of the campus’ current condition, but also acts to educate citizens, students, and University employees of the importance of preserving the campus’ historic, and distinctive places.

Another way that the Master Plan attempts to foster more attractive environments is through better integration of South Campus with the successful model of North Campus. The Plan replicates the successful design features of McCorkle Place and Polk Place in areas of South Campus.

Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas

An additional section in the Master Plan is the Environmental Master Plan. The purpose of this portion of the plan was to “Test the premise that the Carolina campus could accommodate significant additional square footage while preserving and even enhancing critical natural resources of land and water.” The plan evaluates the quantity and quality of the University’s water and land resources, provides insight on the means to protect and restore environmentally sensitive areas, and plans for storm water mitigation. The Environmental Master Plan was compiled by Andropogon Associates, Ltd. and incorporated into the Campus Master Plan.

The Master Plan calls for the creation of ten additional acres of defined open space, to be obtained primarily from converting surface parking lots to underground parking or moving spaces to parking decks. The plan also ambitiously proposes to have no net increase in the volume, rate or pollutant load of storm water leaving the campus. Storm
water mitigation efforts as well as storm water storage and infiltration projects will allow the University to have no net increase in the volume or pollutant load of storm water run-off even after building and renovating 5.9 million square feet of space.

**Provide a Variety of Transportation Choices**

The Master Plan provides 8,500 new parking spaces, less than the projected build-out requirement of 11,500 spaces. Additional designation of park and ride lots will also reduce the number of single occupancy vehicles on campus.

The launching of the Commuters Alternatives Program (began in August 2002) has given incentive for University students and employees to avoid driving single occupancy vehicles to campus. The program provides a free parking pass to participants. Three thousand people have already signed up for the program within the first year and a half.

In January of 2002, the Chapel Hill Transit bus system became fare-free. The University is a financial partner with the Town, which operates the bus system. Bus transportation remains a popular option for commuting students and drastically relieves the dependence on automotive transportation to and from campus.

**Encourage Community and Stakeholder Collaboration in Development Decisions**

This final principle was emphasized in the development of the Campus Master Plan. Key stakeholders and their relative influence on the outcome of the plan are further expanded upon in the following section.

**Collaborations and Partnerships**

**Town**

The Campus Master Plan involved many key stakeholders through the process of the plan’s development. The Town itself played an integral role in the process. As stated in the Chapel Hill Comprehensive Plan, the Town recognizes that “a fundamental challenge for the future is to manage University-related growth and change so as to minimize adverse impacts and maximize positive benefits for the Town and the two institutions.”

**Neighborhoods**

Members of the Elkin Hills neighborhood became active in the plans for the Campus Master Plan after a development of support service buildings was proposed for an area adjacent to their neighborhood off of Estes Road. Location of support service infrastructure was, surprising, not included in the Master Plan, and thus left the neighborhood feeling legitimately blindsided by the development proposal. The active
neighbors continued to pay closer attention to the University’s development plans, and have since become active in plans for the Carolina North project.

The Mason Farm neighborhood was also extremely active in the Master Plan planning process. The Master Plan called for the development of additional student housing adjacent to the Mason Farm neighborhood, along Mason Farm Road on the southernmost end of the University’s land use plan (see figure 1). The residents of the neighborhood were concerned about the impact that the development would have on their neighborhood and their quality of life. The concerned residents of the neighborhood were able to make some amendments to the University’s plans through a process of negotiations. While the Mason Farm neighborhood was not necessarily opposed to the addition of University housing near the neighborhood, they were concerned about how the buildings would impact the neighborhood. Residents advocated for the building to look more residential, and also requested that the University provide sidewalks. These conditions were met by the University. Although the negotiations between the residents and the University led to some compromises, Mason Farm residents are still dealing with the drastically changing landscape near their homes as the once wooded lot is cleared for construction.

PLANS FOR CAROLINA NORTH

The Horace Williams Tract was willed to the University in 1940 by Henry Horace Williams, founder and chair of the University’s philosophy department. The renowned professor left the University over 700 acres, which makes up the majority of the Carolina North site, located a few miles north of main campus. Altogether the tract of land is 963 acres (including additional acres in Carrboro), making it larger than main campus, which is 680 acres.

The plans for development of the Horace Williams tract have brought many key stakeholders to the forefront within the last few years. Although the 963 acre site is mostly undeveloped, it does have neighborhoods adjacent to many of the tract’s boundaries (see figure 2). The development is also near a major thoroughfare, Airport Road, which brings the importance of transportation planning to the forefront. In addition to concerns about the possible impacts that the development may have on the quality of life in the surrounding neighborhood, there are also concerns about the development’s impact on the environment. Citizens have formed coalitions to advocate less (or even no) development on the large tract of land.

The Carolina North Executive Committee oversees the Advisory Committee, which is made up of four groups: External Relations Committee, Infrastructure Committee, New Business Development Committee, and the University Uses Committee. The mission statement for Carolina North states that it will be a “living and learning community, expanding Carolina’s multiple missions, intensifying innovation and redefining our engagement with the region, the State and the world. Carolina North is an environment where diverse partnerships are created and new endeavors are born and nurtured.
Carolina North is a place of exceptional energy, beauty and contemplation, connecting to and enhancing both the original campus and neighboring communities.12

Plans for the Horace Williams Tract have been drafted and redrafted since the University acquired the land. The March of 2004 plan calls for development of 240 acres of the total 963 acres. This is a reduction in the size of the development since the 1998 JJR Study, which planned for development of 56% of the land (see figures 3-6). The most recent plan is divided into seven construction phases, to span at least the next fifty years.

Recent Changes to the Development Plans for Carolina North

The updated draft of the Carolina North plan was presented to the Executive Committee and made public on March 18, 2004. There were several changes made as a result of the various stakeholder inputs since the previous draft of the plan was released in December 2003. There were seven overarching amendments that were made to the plan; these included changes in building heights, green space, parking, street layout, stream buffers, and housing, as well as the addition of a school site.

The March plan proposed an increased range in building heights for the structures on Carolina North. While the December draft used building heights of three stories for the campus plan, the new draft incorporates a range in building heights, varying from one to five stories. This change was partly due to the collaborative process with the Horace Williams Citizens Committee, as a way to increase density on the site, and partly due to input from the town planning board, as a way to achieve architectural integrity on the site through the variation in building structures.

Because of the increased density created from the larger range in building heights, more land was able to be devoted towards permanent green space. The 36 acres of green space allocated in the December draft plan was increased to 48 acres in the March draft plan.

Increased acreage of land for green space was also made possible by the reduction in parking. Parking on Carolina North was reduced from 19,125 spaces in the December draft plan to 17,000 in the March draft. This change represents a reduction of over ten percent. The new number was reached through further analysis of the assumptions made on ridership trends and current parking needs of the main campus. The University stated that to reduce the number of parking spots further would require engaging with the town. As of March of 2004, the town transportation planners have not worked with the University in planning the Carolina North development, despite the University’s multiple requests. The reduction in parking reflects the University’s attempts to appease the Town’s concerns over excessive parking, and is certainly viewed by the Town as a step in the right direction. However, the debate over the adequate number of parking spaces for Carolina North is far from over.

The addition of a school site to the plan also marks a change from the December draft plan. The school site is planned to be located in the northwest corner of the site, a
location reached through collaboration among school officials and the Carolina North planning committee members. The University plans to donate the land necessary for the school site.

The adequacy of housing was also emphasized in the presentation of the March draft plan. The updated plan commits to providing “mixed income housing.” Although this did not necessarily represent a change from the previous plan, the March plan further articulated the commitments that the University will make in order to ensure that housing remains attainable for a wide range of income levels, and thus is able to serve the range of employees working for the University. The University plans to develop a business model that sets in place restrictive covenants on the homes, serving to prevent the sale price of the homes from escalating out of reach of lower income employees.

Since the unveiling of the December draft plan, there has been a significant amount of input from the community regarding the amount of land designated for preservation for future generations. Several town and community representatives are advocating that all land not developed within the 50 year development plan should be permanently preserved as open space and natural areas. Although the University does not believe this to be an option (and has no control over such a designation since land is owned by the state), the University has shown willingness to compromise. With the unveiling of the March plan, the University proposed to take the necessary actions to set aside the stream buffers on the development as permanent conservation areas. In spring of 2004, the University began working with consultants to map the steam corridors based on current state guidelines. The University will work with state officials to determine what constitutes a stream buffer in the state of North Carolina, and request that the Trustees place this land in a permanent easement. It is estimated that the buffer areas will total 150-200 acres.

An alteration in the alignment of a few of the streets planned for Carolina North was also a change proposed in the March draft plan (see figures 7-8). This change was a result of input from the North Haven Neighborhood, which was highly engaged with the planning process. The original road came close to some of the properties, and would have impacted the views from the homes, as well as caused possible light pollution in some areas. The concerns of the neighboring citizens led to the reworking of the land use plan. As a result, the road was pushed away from the neighborhood approximately 200 feet from the northernmost house in the North Haven neighborhood. This added space is now planned as a green area and residential buffer. The change in the street position resulted in a slight change in the street pattern, which will also allow for a greater dispersal of traffic throughout the street grid.
Assessment of Smart Growth Principles in the Draft Plan

Mix of Land Uses

The Carolina North Draft Plan makes great efforts to incorporate multiple land uses within the development. The plans call for a mix of research, office, residential, retail and community-use space.

Take Advantage of Compact Building Design

The plans for Carolina North seek to emulate the compact design of Carolina’s historic campus core. Of the 963 acre site, only 240 are presently planned for development.

Additional alterations to the plans made use of a range of building heights which led to even more compact development. By raising the building heights in some areas, there was more room created for open space.

Create a Range of Housing Opportunities and Choices

The plan for Carolina North incorporates 1,400 to 1,800 residential units that will provide housing for University employees, and others, spanning a broad range of income levels. In order to maintain a portion of the housing as affordable for lower incomes, the University is planning to set in place restrictive covenants.

Create Walkable Neighborhoods

One of the more important guiding principles of the Carolina North development Plan is to create an environment similar to Carolina’s successful historic campus. In order to achieve this goal, it is crucial that Carolina North campus is pedestrian oriented. The draft plans for the development reference future nodes, or neighborhood centers of activity. Walkability throughout the development will be facilitated by the compact building design.

Community and Town stakeholders are not convinced that the current plans are adequately emphasizing the importance of a pedestrian-oriented campus, stating that parking spaces are far too plentiful.

Foster Distinctive, Attractive Communities with a Strong Sense of Place

By committing to emulating the feel and strong sense of place of Carolina’s main campus, the planners of Carolina North are seeking to create a linkage between the two campuses, and ensure that Carolina North becomes as distinctive an environment as the main campus.
Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas

The Draft Plan calls for the development of only 25% of the property, leaving 75% for open space and possible future development. The town and surrounding communities are pleased with the proportionally small percentage of development, but are uneasy about the notion of possible future development on the remaining portions. The University holds the viewpoint that it is impossible to permanently restrict the future of development.

Strengthen and Direct Development Towards Existing Communities

While the development itself is an extension from the main campus, there are efforts within the Carolina North tract to direct new development towards already existing development. The airport, which is located in the southeast corner of the site, represents one of the few presently developed areas on the tract. This land is slated for development within the early stages of the development process. In fact, eighty of the two hundred forty acres to be developed are already being used now.

Provide a Variety of Transportation Choices

The draft plan calls for the development of a mass transit line which would connect the main campus to the north campus. Despite these efforts, the plan has come under much scrutiny from the community because of excessive allocation for parking spaces. The March proposal calls for 17,000 permanent parking spaces. This number may further decrease if the Town is willing to work with the University to reach additional solutions to transportation issues.

Make Development Decisions Predictable, Fair, and Cost Effective

Because the land is owned by the state, the Town of Chapel Hill is concerned about the fiscal equity of the Carolina North Development. While UNC states that the development will not be a financial burden to the community, it has yet to present a fiscal impact analysis to the town since the plans have not yet reached the level of detail needed to create a fiscal analysis.

Encourage Community and Stakeholder Collaboration

With the unveiling of the draft plan in December of 2003, there were three public meetings. From December until the release of the amendments to the draft in March, the planners held 70 meetings with community, university, and town stakeholders. The planning process for the Carolina North Development and its collaborative framework is further explored in the following section.
Collaboration and Partnerships

There are many stakeholders involved in the planning process for Carolina North. The University advocates that the development is essential in order for it to remain competitive. The various other stakeholders are not yet eager to accept the necessity of the development, and are expressing their opinions on how they feel the land should be developed.

The plans for Carolina North have undergone multiple revisions as the concerns of the town have been taken into consideration. The December 5th, 2003 version of the plan was taken off the table, as the community and various interest groups voiced concerns over several issues. After the March amendments of the draft were made public, stakeholders continue to voice their opinions on the proposed development. Further alterations to the plan will continue to be made until the plan is presented to the board of trustees for their approval in spring of 2004.

Horace Williams Citizens Committee

The Horace Williams Citizens Committee (HWCC) was established by the Chapel Hill Council on October of 2002. The Committee’s main objective is to create a formal document representing the views of the town on the development of the Horace Williams Tract. The Committee presented their first report to the council on June 9, 2003, and submitted their *Recommended Principles, Goals and Strategies for Guiding the Development of the Horace Williams Property* on October 8, 2003. After council’s comments, HWCC submitted a final draft on January 28, 2004. The report was divided into several topic areas, including: Development Management, Neighborhood and Community Interface, Water and Sewer/Storm water Management/Air Quality, Natural Areas/Parks and Recreation, Transportation, and Land Use.

Concerned Citizen Organizations

*Neighbors for Responsible Growth* is a new advocacy organization formed of representatives from neighborhoods adjacent to the Horace Williams Tract. The goal of the organization is “to provide a mechanism that will network them to the resources, individuals, and an expanded support base that will help them succeed.” Although the group intends to work on various issues, its main objective is currently to gain information on the plans for Carolina North.

Other neighborhoods near the Horace Williams Tract have become increasingly active in the planning process. The North Haven neighborhood petitioned the town in March to support efforts to not close the airport. Since the Carolina North development plan is contingent on the closing of the airport, the representative residents of North Haven argue that they would rather abut an airport than a mixed-use development. Their argument has thrown yet another spin on the ongoing debate over the future of the airport, and thus the future of the Carolina North development.
The Friends of Bolin Creek is another citizen group advocating the protection of the natural areas within the Horace Williams Tract. Currently, the greenway along Bolin Creek is frequented by many walkers, bikers, and joggers. The group recently organized a hike to educate area citizens about the present state of the tract of land, and gain support for their mission to protect the critical environmental areas. Changes to the Carolina North draft plan will recommend that the land along the Bolin Creek and Crow Branch Corridors is protected.

Town Council

Many members of the Chapel Hill Town Council were elected after running on a platform promising to limit University development. This has made it politically difficult for the University to collaborate with town officials.

Not to be overlooked, Carrboro is also part of the Carolina North discussion, since approximately 350 acres of the tract lie within Carrboro. However, since the development in Carrboro is not projected to begin until the final phases of development, Carrboro has not become as integral a player in the current collaborations. However, Carrboro is currently requesting that the University leave the Bolin Creek Corridor undeveloped.

Town Planners

Town planners have not yet been able to work with the University in the formation of the plans for Carolina North. The lack of collaboration between the two planning entities has certainly weakened the quality of the draft plans.

State Legislature

Because Carolina North will be built on state property, the state has inevitably become an important stakeholder in the decision-making process. Town and community representatives often feel that the involvement of the state gives the University less incentive to collaborate. In some instances, however, the University is caught in the middle, seeking to please both the state and local governments. For example, while the town of Chapel Hill no longer feels the need to keep the Horace Williams Airport that is part of the tract of land, the State is not yet willing to part with it. The University uses the airport for the AHEC Program (Area Health Education Center), a program which the state legislature sees as too beneficial to the state as a whole to let go until an acceptable alternative airport location is secured.
NORTH CAROLINA STATE UNIVERSITY

Development History

North Carolina State University, located in the state capitol of Raleigh, was founded in 1887. Today, NC State University covers 2110 acres on the Raleigh campus, with over 9.5 million square feet of building space. This is a remarkable transformation from the campus’ beginnings. The growth of the University picked up speed after World War II, when programs cut during the Great Depression were reinstated. The first postwar physical master plan was created in 1958; however, the plan was not formally recognized as a part of the University’s planning process until the campus planning office was later established in 1960. North Carolina State University is a Land Grant College, and thus strives to support the entire state of North Carolina through its education and research.

The 1978 campus master plan divided the campus into precincts as well as placed an emphasis on creating links among the campus green spaces. These ideas helped to form the later plans. The 1994 campus plan began the idea of fostering and creating distinct Campus Neighborhoods through the planning process. The 2000 Plan, entitled A Campus of Neighborhoods and Paths, built upon the 1978 and 1994 plans. In 1997, the Chancellor initiated a process of planning efforts for the precinct known as North Campus. The North Campus Workshop led to new plans for areas of North Campus (particularly the Undergraduate Sciences Teaching Laboratory) and also established a collaborative model for campus planning that was again used in the remaining precincts of the campus. The desire for a more attractive and pedestrian-oriented campus arose from the series of precinct workshops. These ideas were incorporated into the principles of the 2000 Physical Master Plan (see figure 9, land use map for NC State’s main campus).

PHYSICAL MASTER PLAN

The Physical Master Plan is a product that incorporates ideas created through the use of workshops, focus groups, task forces, as well as input from an advisory team, and involvement of campus, community and city leaders. The University architects and planners took inspiration for their master plan from Christopher Alexander’s book on architecture and social design, The Oregon Experiment, which details the implementation of the master plan at the University of Oregon, emphasizing the importance of neighborhoods and connector paths.

The Physical Master Plan was developed with a framework of guiding principles. These principles replicate many of the ideas fundamental to smart growth planning. For example, principles include such strategies as: the promotion of mixed-use activities, design harmony, environmental sustainability, pedestrian-oriented development, and human-scaled neighborhoods. By setting a strong foundation of guiding principles, the University planners are able to update and alter the plan while still remaining true to the fundamental vision that the plan sets forth. The guiding principles also provide the
community and other interested stakeholders with a concise description of the University’s vision for development.

The Physical Master Plan also sets design guidelines and principles for architecture, landscape and natural systems. The Campus Design Review Panel was established by the Board of Trustees to monitor design decisions. The design guidelines and principles, as well as the thirteen guiding principles, and how they relate to smart growth initiatives, are further explained in the following section.

Assessment of Smart Growth Principles in the Physical Master Plan

Mix of Land Uses

The Plan emphasizes the mix of land uses, focusing on the creation of neighborhoods that are able to provide a mix of public spaces, academic centers, libraries, cultural uses, as well as other activities. One of the thirteen guiding principles of the Master Plan states the importance of developing mixed-use activities on campus. In order to meet the University’s mission to provide a campus of “Neighborhoods and Paths” each campus neighborhood is planned to include a campus gathering place, social center, or open space. In addition, each neighborhood will have a variety of other land uses.

Create a Range of Housing Opportunities and Choices

North Carolina State University does not place the same amount of emphasis on campus housing as the University of North Carolina. The creation of more student housing at UNC gained in importance once the University stated its intentions to ‘provide a bead for every head.’ Also because NC State has a lower percentage of full-time students than UNC, on-campus housing is not as much of a priority.

Create Walkable Neighborhoods

One of the overriding goals of the NC State Master Plan is the formation of a walkable campus community. One of the thirteen guiding principles states the importance of creating a network of campus paths, building upon the already existing pedestrian routes. Maps are included in the Plan that illustrate the network of paths and proposed additions to the network.

Foster Distinctive, Attractive Communities with a Strong Sense of Place

NC State’s Master Plan puts a large emphasis on the enhancement and creation of campus neighborhoods. One of the thirteen guiding principles of the plan explains that neighborhoods represent the primary planning unit when considering campus development. Maps included in the Plan illustrate the campus’ neighborhoods.
Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas

The Physical Master Plan brought a newfound attention to the importance of environmental preservation on campus. Design principles for natural systems call for the protection of stream corridors, urban wildlife corridors, and the enhancement of storm water control measures.

Strengthen and Direct Development Towards Existing Communities

Because NC State still has a large amount of land on which to grow, there is not as much emphasis on focusing growth in or near already developed areas.

Provide a Variety of Transportation Choices

The Master Plan documents the idea of creating a “People Mover,” a mass transit line that will connect main campus with Centennial Campus. The new transportation form will alleviate the dependence on single-occupancy vehicles.

The emphasis on pedestrian transportation in the Master Plan also will decrease dependency on cars. In addition, commuters at the University can make use of one of the state’s largest bus transit systems.

Encourage Community and Stakeholder Collaboration in Development Decisions

Another of the Plan’s guiding principles is to “integrate the campus into the land-use and social-economic context of the City of Raleigh.” University planners intend to reach this goal through the coordination of plans with the Citizens Advisory Council, government and local businesses on matters of mutual concern.

Collaboration and Partnerships

Hillsborough Street Partnership is an organization that came about in 1999 to formalize discussions between the University and the Town over the future of a well-known street. Hillsborough Street is adjacent to main campus, and often is referred to as the entrance to the University. The street mainly caters to the student population, with businesses such as copy stores, pizza restaurants, and coffee shops. As many of the shops began to close, the Hillsborough Street Partnership was formed in response to concerns over the future of the street.

After a visioning effort with over 500 University and City participants, the Hillsborough Street Partnership began work on a feasibility study. The cost of the study was divided among the state Department of Transportation, the Raleigh City Council, the University, and University Park Residents.
CENTENNIAL CAMPUS PLAN

The wide expanse of land south of Raleigh, previously known as the Dorothea Dix property, once covered hundreds of acres. NC State University gained ownership of 992 acres of the land for Centennial Campus. Centennial Campus encompasses a tract of land larger than the main campus itself. Present and future uses on the land include research and development neighborhoods, university buildings, corporate and government facilities, a hotel and conference center, a golf course, condominiums, townhouses, a middle school, and town center, as well as recreational areas (see figure 10).

The area is known as “technopolis” defined as a mixture of faculty, student and research centers, industry, and government with a blend of businesses-large, small, and entrepreneurial. The University Trustees approved the Centennial Campus Master Plan in 1987. The Plan built upon the principles and ideals that were emerging in the plans for Central Campus, emphasizing the importance of creating neighborhoods with adequate connector routes. In fact, the site was specifically named as a ‘campus’ and not a research ‘park’ to clearly illustrate that the development intended to create an environment that complimented the main campus. By 1988 the Raleigh City Council approved the rezoning of 846 acres of the 992-acre property; the first of Centennial Campus’ buildings was also inaugurated the same year. The approved zoning allowed for the development to take place in four phases.

Both the Physical Master Plan and the Centennial Campus Plan seek to integrate mixed-use activities, combining academic and research uses with residential, retail and recreational land uses. The development seeks to expand upon the University’s mission by creating a research and advanced technology community, where university, government, and industry can interact to promote the transfer of knowledge.

To incorporate a variety of land uses, Centennial Campus also includes a public school. The Centennial Campus Magnet Middle School opened in July of 2000. The school is part of Wake County public schools and features special interaction with NC State, helping NC State to achieve its mission as a land grant institution. In addition to the middle school center, the school also will provide the North Carolina State University’s College of Education and Psychology the opportunity to work in the future Research and Development Center with the students’ classrooms as a nearby resource.

The Spring Hill Precinct: An Important Link in the Collaborative Process

In 2000, the state transferred another portion of the Dorothea Dix property into the hands of the University. The Spring Hill Precinct is a portion of land that can provide a link between Centennial Campus and the downtown (see figure 11). Its proximity to downtown has made the 129 acre tract a very valuable piece of real-estate, with a tax value of $120,000 per acre, even before buildings are factored into the equation. If plans for its development do not emphasize the linkage between the City of Raleigh and Centennial Campus, the effects could be disadvantageous for both areas. NC State is
currently planning 613,000 square feet of academic space and 613,000 square feet of research space on the land. In addition, 573 apartments are currently part of the plan.\(^\text{22}\)

As a possible competitor to the downtown district, the City is working to connect a link to Centennial Campus in an effort to mutually benefit from the increase in population brought by businesses and employment opportunities. As the University continues plans to grow away from the downtown area, there is some concern from the community that the University is inevitably becoming a competitor with the downtown instead of working with it. University officials argue that the land uses at Centennial Campus complement the existing developments, and are not working to detract from them.

Although construction of the Spring Hill Precinct will not begin for at least another five to ten years, University officials are already meeting with neighbors about their plans. In May of 2002, the University began work on the Spring Hill Precinct Planning Document, which was later published in December of 2002. Rezoning of the site was approved in February 2004; however, the University was already holding workshops as early as spring of 2003 to discuss the quality of design on the Spring Hill site.

In order to meet the City requirements for zoning approval, the University must meet with those impacted in the surrounding developments. In April of 2004, the University met with representatives of the Kirby-Bilyeu (also known as Pullen Park Terrace) neighborhood as well as representative from the other adjacent property owners to discuss the proposed development plans for the Spring Hill Precinct. The community members expressed concerns over the impacts that the development will have on traffic. In addition, there were concerns over the size of the buffers separating the development from adjacent neighborhoods.

Because the Spring Hill Precinct is a unique piece of land in terms of topography and environmental attributes, it has gained increased interest from the community concerning its development plans. Because the precinct is so unique, offering various natural amenities, as well as exceptional vistas of downtown Raleigh, the development plans are of high importance to university officials, city officials, and community members.

**Assessment of Smart Growth Principles in the Plan**

**Mix of Land Uses**

The Plan emphasizes the mix of land uses, focusing on the creation of neighborhoods that are able to provide a range of amenities.

Particularly in the Spring Hill Precinct, plans have incorporated natural amenities, such as tree stands and large open spaces, as well as a mix of building types.
Take Advantage of Compact Building Design

Plans for Centennial Campus focus development into a relatively compact formation on the northern portion of the tract of land, leaving the southern end mostly open for natural and recreational uses.

Create a Range of Housing Opportunities and Choices

Housing on Centennial Campus is not affordable for all income levels. There are homes, known as North Shore Residential Condominiums, along the banks of Lake Raleigh which provide those who work within Centennial with easy access to work.

Create Walkable Neighborhoods

Currently, the development is not easily accessed from main campus. Also, there is no present link between Centennial Campus and downtown Raleigh. As a result, the area is mainly car dependent and does not possess the lively streetscape of a walkable neighborhood.

Efforts are underway to better integrate Centennial Campus with the city to the north. A proposed fixed guideway transportation system will link the development to main campus.

Foster Distinctive, Attractive Communities with a Strong Sense of Place

Because the Centennial Campus development is still in its beginning stages, it is difficult to tell how successfully the plan has been able to create a ‘distinctive sense of place.’ Currently, the development feels somewhat isolated and auto-dependent. However, this will inevitably change over time as the development continues to evolve.

Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas

The Physical Master Plan brought a newfound attention to the importance of environmental preservation on campus. However, plans to preserve stream corridors were not always maintained in practice.

The plans for the Spring Hill Precinct currently preserve several of the significant environmental areas; a large pasture area is planned to remain open space; in addition, many of the trees are planned to be preserved.

Strengthen and Direct Development Towards Existing Communities

Centennial Campus has failed in this regard. The remote location of the project has weakened existing communities within Raleigh by moving development southward.
Provide a Variety of Transportation Choices

The *People Mover* is a proposed two-mile fixed guideway that will link Centennial Campus to main campus. This guideway is also planned to connect Centennial Campus to the east-west regional rail-line at a multi-modal station on the main campus.

Make Development Decisions Predictable, Fair, and Cost Effective

The mixture of state, university, and private entities on the campus has worked to balance the costs of the development. For example, the public transportation planned for the development is another example of the plan’s cost-effectiveness. The People Mover is planned to be a joint venture between the University and a private corporation, making the new form of transportation affordable for the school to construct.

Collaboration and Partnerships

Unlike the Horace Williams Tract, Centennial Campus has relatively few adjacent neighbors, and as a result has had less community involvement than in the making of the plan for Carolina North. The Kirby-Bilyeu neighborhood (Pullen Park Terrace) is the most active neighborhood adjacent to Centennial Campus. The neighbors have proven to be a vocal and politically savvy group. They often force their way onto the agenda, in an effort to protect their interests against the University’s.

The collaboration with surrounding developments in response to the Spring Hill Precinct Plan has already led to a more detailed analysis of the development than if the partnerships among surrounding land uses had not been created. The plan for the Spring Hill Precinct outlines the importance of working with the neighboring communities. Those who have participated in the planning process are not all in total agreement with the current plan for the precinct, but are nevertheless appreciative of the collaborative process during its creation.

In fact, some of the residents of the Kirby-Bilyeu neighborhood are responsible for aspects of the design plan for the Spring Hill Precinct. One member of the neighborhood advocated strongly that the open pasture area on the southern end of the property be preserved as open space, as it provides a wonderful natural location for passive recreation. His ideas were listened to, and incorporated into the plan.

In addition to the important relationship between the University and the City of Raleigh, another crucial partnership is that of the State and the University. As a land grant school, the mission of NC State University is to aid the entire state. This often complicates collaboration efforts with the city of Raleigh, which must first look to its own interests over the interests of the state. Although many city officials are eager to work with the University, allocating funding for projects can be difficult since the two institutions have different funding priorities.
VI. COMPARISON OF PLANS AND ANALYSIS

The four planning processes were each unique. Differences among them were a result of differences in the planning structures, differences in the urban contexts, differences in political contexts, and differences in the level of community input. These differences obviously led to different outcomes among the various plans, and also had an affect on the level of smart growth content present in the final plans. The following section systematically compares and contrasts the four plans’ levels of smart growth content, and analyzes what accounts for these similarities and differences. (See Section VII. Smart Growth Checklists for cross-comparisons.)

Comparison of UNC Master Plan and NC State Master Plan

Similarities in Smart Growth Content Present in the Plans

Out of the ten smart growth principles, the UNC Master Plan incorporated all ten within the plan, while the NC State Master Plan included six principles.

First, both plans were able to successfully plan for mix-use development as well as promote walkable neighborhoods. Because the universities both have historic sections in their core, walkability has been a feature always present. Both Universities understand the importance of maintaining walkable campuses, and have invested in strengthening the walkability of their campuses through their Master Plans.

In both plans, the preservation of open space was a concern as well as the importance of creating a strong sense of place. Each plan has design guidelines that specify the favored architectural elements for campus constructions. Each plan also stresses the importance of designing buildings that complement the existing architectural fabric. Also, because both campuses have historic structures in their cores, maintaining the unique cultural and architectural identity of their campuses is of importance. The town, university, and communities all benefit through maintaining a campus full of unique and beautiful places. In addition, providing a variety of transportation choices was also outlined in each plan. The need to alleviate traffic pressures created by the dense university developments has led both schools to plan for highly successful bus services.

Finally, both plans encouraged community and stakeholder collaboration in development decisions. Both schools understand the importance of involving the surrounding community in the development decisions.

Factors that Set the Plans Apart

One difference between the two plans is that UNC Master Plan stresses the importance of providing an adequate amount of student housing, while the NC State Mater Plan does not address this issue. This difference is due to the different policies on housing at the
two universities. UNC’s pledge to provide a ‘bed for every head’ is carried out through the Master Plan, where housing is added to many areas of the plan, including student housing, graduate student housing, family housing, as well as University employee housing. At NC State, housing demands not satisfied by University student housing have been met by the housing supply near the University.

Because both schools have plans underway for their satellite campuses, they are obviously beginning to direct development towards new areas. Despite this, the UNC Master Plan still scores well on Principle 7 (strengthen and direct development towards existing communities). The Master Plan for UNC emphasized making the best possible use of all remaining space on main campus before expanding to the Horace Williams Tract. A considerable amount of projects are currently underway for main campus, making improvements on the existing open spaces, neighborhoods, adding additional housing, classrooms, and parking, as well as strengthening the pedestrian connections.

The NC State Master Plan does not score as well on Principle 7 because the plan does not emphasize the importance of directing development to main campus before expanding further at Centennial Campus. This is because the Master Plan was written after Centennial Campus had already begun to develop. The school already had undergone its expansion to new areas of town, and no longer was pressured to develop only within the existing campus core.

One important distinction between the two universities that holds relevance to the comparison of the master plans is that the two have different mission statements. These mission statements, which are integrated into the daily actions of the universities, have also played a role in the development plans. Because North Carolina State is a land grant institution, its mission reflects the University’s desire to create an environment that encourages the transfer of knowledge from the academic community to the people of the state of North Carolina. The dissemination of knowledge is an important aspect of the University’s mission, which is reflected in the land use decisions for campus development. The University’s plans for Centennial Campus are an example of the mission in action. By creating an environment where university, government, and corporate interests can interact, the campus seeks to fulfill its mission to foster knowledge transfer.

Because the University of North Carolina is not a land grant school, its mission statement is slightly different, and thus has a different impact on the designation of land uses. The mission statement for the UNC focuses on the creation of an environment that fosters research and the expansion of knowledge for the improvement of the quality of life of people not only in North Carolina, but across the nation. With less emphasis on the specific ‘transfer of knowledge’ than at NC State, UNC development plans have traditionally focused less on the mix of university, government and corporate entities.
Comparison of Carolina North Conceptual Plan and Centennial Campus Plan

Similarities in Smart Growth Content Present in the Plans

Conceptual Plans for Carolina North include all ten smart growth principles while plans for Centennial Campus included six. Both plans provide a mix of land uses and emphasize the creation of walkable communities that foster a distinctive, strong sense of place. Because these principles are already inherent to their main campuses, it is expected that these features also be incorporated into the satellite campuses.

Both plans successfully provide for a variety of transportation choices. Part of the emphasis on planning for better, more efficient modes of transportation probably originated with the towns’ concerns over the negative impacts that the university developments will have on transportation and on the quality of life in the surrounding neighborhoods. The connection with the universities’ main campuses has been an important factor when planning for transportation on the satellite campuses. It may prove to be more challenging for Carolina North to connect to main campus, since the distance between the two is greater than the distance between NC State’s main campus and Centennial.

Neither plan scores well on principle 7 (strengthen and direct development towards exiting communities) since the plans themselves represent development that is away from the existing campuses on previously undeveloped land. Both Raleigh and Chapel Hill citizens have become concerned over the possible decline of business districts due to university development away from the traditionally student-populated areas. Both schools have addressed this problem in their planning process, in order to prevent the new developments from having negative effects on the local businesses. The formation of the Hillsborough Street Partnership illustrates the joint town and University concern over the well-being of a popular business district in Raleigh. Concerns over the livelihood of businesses dependent on University students is also felt in Chapel Hill. Franklin Street, similar to Hillsborough Street, has many residents concerned over its future. With the planned expansion of the University northward, many in the community are concerned that the existing business district along Franklin Street will decline as businesses are replaced by others in the new development.

Factors that Set the Plans Apart

One important factor to consider is that the plans were developed at different times, spanning from the early 1980s until the present. There have been considerable changes in the approach to development plans over the last few decades. In fact, smart growth planning was hardly part of a developer’s vocabulary in the early 1980s. Along with the evolution of the smart growth movement came the corresponding changes in development plans. For this reason, the plans that were done towards the end of the
century are more likely to display references to smart growth content than those plans that were developed earlier.

Changes in the planning field over the decades also account for some of the differences between Centennial Campus plans and the draft plans for Carolina North. Centennial Campus was built at a time when smart growth planning was not nearly as popular as it is today. The development was one of the first university endeavors to create such a broad mix of land uses in a single development. Great strides in smart growth planning have been made since the ground was broken at Centennial Campus, giving Carolina North the opportunity to learn from its predecessors.

Another factor which has led to contrasts in the development strategies at the two universities is the urban setting in which the schools are located. Chapel Hill is considerably smaller in size and population than Raleigh. There are few buildings within Chapel Hill’s central business district that are taller than three stories. Surrounded by such a small community, it proves difficult for UNC to propose large-scale development plans without igniting opposition from the community. Also, UNC is practically encompassed by neighborhoods and Town land uses, making it difficult for the University to grow without affecting the land of a neighbor. NC State, on the other hand, does not have quite as many neighbors in close proximity to its land, and therefore affects less people with its development decisions. Perhaps for this reason, the communities hold surprisingly contrasting attitudes towards development projects. Chapel Hill has gained a reputation over the years as a community with a strong anti-growth sentiment. Conversely, Raleigh has been able to remain more welcome to the changes brought by the growth of the University.

The geographic location of the two satellite campuses in relation to other area developments also illustrates the differences between the two University’s land use planning. Carolina North is surrounded by several well-established neighborhoods while Centennial Campus is adjacent only to a few neighborhoods that do not predominantly house students. Thus, it is not surprising that there is a greater degree of neighborhood opposition to the Carolina North Plan than there has been to plans for Centennial Campus.
VII. IMPLICATIONS FOR THE UNIVERSITY PLANNING FIELD

The growth plans at UNC and NC State reflect university development trends around the country. Universities everywhere must continue to grow in order to attract new students, stay competitive and economically viable. Many schools, like UNC and NC State have discovered that creating environments where private industry can work hand in hand with university research can not only benefit the university, but can also benefit the local economy. Various other benefits to the local community can help to make a university’s constant growth more palatable for the adjacent town. As universities plan their land use expansions, it is important that they also consider the benefits of smart growth development. Planning for smart growth is not only wise for the university, but also can help to create a growth plan that the community is also satisfied with.

The growth plans at UNC and NC State can offer other universities examples of the trials and successes of planning with the community for more successful smart growth plans. Because smart growth planning continues to be a growing and successful framework for development, it is crucial that universities consider what factors can make their plans more smart growth oriented. Since university and town relations are frequently an obstacle in creating growth plans, it is important that collaborative efforts are explored as a means to create more successful smart growth plans.

The Effects of Collaboration on the University Growth Plans

Collaborating with the surrounding communities in the formation of the Campus Master Plan certainly has helped to prevent neighborhood dissatisfaction over the UNC Master Plan. Since many of the neighborhoods involved in the planning process were satisfied that their concerns were heard, they will be less likely to fight the Master Plan when the land use developments occur.

The collaborative process has certainly also had a positive influence on the plans for Carolina North. The multiple changes made to the March Plan were a direct result of the input gained from meetings with University, Town, State, and neighborhood representatives. Although the University planners for Carolina North and for the UNC Master Plan are in agreement that the collaborative process certainly lengthened the time spent creating the plans, they also agree that the process led to a better plan in the end.

An important distinction between the Campus Master Plan and the Plans for Carolina North is the role that the town has played. It was not necessary for the town to approve the Campus Master Plan, as it remained an internal document. For this reason, Town participation with the project was not analogous to the participation in the plans for Carolina North. Also, because the town council has changed from the planning of the Campus Master Plan to the planning of Carolina North, the political atmosphere has altered. The current town council is not as willing to work with the University on the planning issues, and has taken a more defensive position. According to many University planners, this relationship has negatively affected the ability to plan Carolina North.
Without the town’s input when planning aspects of the development, such as traffic impacts, it has proven more difficult for the University to reach a plan that the community is happy with.

There are some UNC planners who feel that the lack of collaboration during the planning process is having a negative effect on the plans for Carolina North. Because the town has not yet been willing to work with the University on the plans for the new campus, a crucial partnership has not developed. The University is continuing ask for the collaboration with the Town on issues such as traffic and environmental impacts, but the Town has been thus far non-responsive.

The Town holds the position that the University has not given them enough time to create their own vision for the development of the property and that UNC is attempting to push the Town into a development decision too quickly. While the Town sees the University as moving too quickly on development plans, the University holds the position that the town is stalling, hoping that the development can be avoided altogether.

Many of those interviewed agreed that it would have been cheaper and quicker to have used a planning process with less collaboration and community participation, but that the collaborative process ultimately resulted in a better plan. As evidenced in the university plans, collaboration has proven to often be the best strategy against NIMBYism (Not In My Back Yard), although more time-consuming.

At NC State, the lack of input from the community at Raleigh in regards to the plans for Centennial Campus was a missed opportunity for the promotion of smart growth principles within the plan. Plans for the Spring Hill Precinct have had considerably more input from the neighbors, which has contributed to the design of the site plan, the layout of open space, and the preservation of natural amenities.

It has proven difficult to collaborate in settings where opinions on the best development strategy range considerably. For example, the different visions for Carolina North range from those who want the compact development on large expanses of the property to those who want absolutely no development at all. Polarized view points, such as in Chapel Hill, can lead to frustration during the planning process. A wide variation in viewpoints can also lead to valueless plans, as planners attempt to satisfy all interested parties, and essentially ‘water down’ the policies. However, if the collaboration process is done well, a broad range of ideas can instead help the final outcome of the plan by bringing new and valuable ideas to the forefront.

How to approach a collaborative process involving many stakeholders has been an issue continually debated within the planning field. Planners commonly express that the best way to gain approval by the community for a development project is to involve as many people as possible, as early as possible. Yet, as can be evidenced by the university plans at UNC and NC State, this approach is not without its drawbacks. By deciding to involve a broad range of stakeholders, the university planners added years to the planning process. However, many of those that I interviewed ardently stated that the final outcome
greatly benefited from the collaborative process, despite the obstacles inherently included in this method.

By involving the impacted community members as early as possible in the planning process, the planners seek to avoid a possible rise of anger and resentment within the community that can lead to failure of the plan, and damage the fragile relationships formed amongst the stakeholders. However, no collaborative planning process can guarantee that all interested parties will make it to the table.

Involving the community as early as possible also has its drawbacks. For example, with the Carolina North project, the university has made great efforts to make their plans open to community members. But since plans are still in conceptual stages, it has proven difficult for the University to form a productive dialog with many town activists. The legacy of the University does not always fit with the immediate needs of the citizens. The concept of a fifty year plan is difficult for many to envision. When plans showing details such as roads are displayed, it is natural for neighbors to want specifics on the impacts that these roads will make. In reality, the road may not impact the neighborhood for another fifty years. It is difficult to bring the community into the process when the project is still filled with many uncertainties.

Planning through a collaborative process has been a way for communities to debate the importance of smart growth principles and assess the need for smart growth within the community. Collaboration among city, university, and community leaders has allowed the ideas of smart growth planning to reach across multiple fields and thus influence the development decisions not only made by planners but by other community leaders. Only through a collaborative process will the universities be able to grow in harmony with the surrounding community.
Recommendations

When possible, planners should use a process that sets in place a committee composed of representatives from the community, town and the university.

One of the successful aspects of the UNC Master Plan process was the use of a committee composed of both town and University stakeholders. The planning process for the UNC Campus Master Plan has been commended for its collaborative framework. The framework that was used in the planning process for the Master Plan differed from the process used thus far for the formation of the draft plans for Carolina North. While the Master Plan process emphasized large meetings involving multiple stakeholders, the Carolina North Plans have thus far used a different approach. The planners have instead predominantly had small meetings, where University personnel meet with individual stakeholders to discuss issues in a more one-on-one atmosphere.

Both approaches have offered advantages. The Master Plan approach allowed all stakeholders coming to the table to be heard by all other interested parties. However, this process can be messy, and not all voices may be heard equally. The process being used for the formation of the Carolina North Draft Plans has allowed each individual stakeholder to voice their concerns with the University. However, there is a concern that this method can create barriers in communication. In an effort to create a broader avenue for the communication of information, many ideas have been brought to the town. The use of a committee where all stakeholders are present can create an environment where all ideas and concerns can be heard by all other interested parties.

Encourage neighborhood participation to alleviate conflict later on.

Many of the conflicts that have arisen over UNC’s Master Plan are in areas where neighborhoods were not as involved with the initial planning process. When neighbors do not become involved with the plan until the ground is broken, it is already too late to make amendments to the plan. Involvement early on in the planning process allows for neighborhoods to have a voice in the development plans. It is also more likely to lead to a plan that actually satisfies the surrounding community when neighbors are involved early on.

Centennial Campus’ Spring Hill Precinct is working diligently to alleviate the concerns of the surrounding neighborhood before the plan is approved. Because not all neighbors were satisfied with the draft plans, the University has extended the planning phase, continuing to listen to the concerns of the community. Because the community has had significant input in the plan, it is not as likely that they will feel the need to fight the development after the project begins.

Create a sustainability coordinator.

One of the reasons that UNC has been so successful in terms of planning for, and implementation of smart growth principles is because the University has appointed a
sustainability coordinator. The creation of a university employee whose primary task is to promote and improve the sustainability of the university’s growth and development has greatly benefited the effectiveness of smart growth planning at UNC. It would be in the best interest of other universities to also create positions that oversee the sustainability of campus in order to coordinate the many efforts across the various university disciplines as well as to coordinate and organize the concerns from the public.

Create more specific design guidelines to create better results.

Often in growth plans, the design guidelines are left somewhat vague, as a way to accommodate as many options as possible for future plans. While this may be convenient, it is not always the best approach when planning for smart growth. For example, NC State did not specify the architectural design guidelines for Centennial campus, and as a result, campus buildings are not consistent with the architecture on the main campus or of the surrounding communities. Because the guidelines were not very specific, the community was unsure of how the development would look. Uncertainty over the final outcome of a plan is more likely to lead to disputes over the development.

Draft plans for Carolina North have already emphasized the importance of creating design guidelines that are in accordance with those created for the main campus. Buildings on Carolina North are planned to be similar in style to the Colonial Revival and Classical buildings of the historic areas of the main campus. This design style is one that the community is familiar with and also approves of.

Create an environment where town and university planners can work together.

One of the most significant improvements that could be made to the planning process for Carolina North is better collaboration between the University and Town planners. Because the development of Carolina North will inevitably impact Chapel Hill’s roads, and neighborhoods, as well as infrastructure and the local economy, it is surprising that the planners are not already working together to address these concerns.

Understand that extending the planning process is not necessarily a bad thing.

One constant trend I encountered when interviewing university and town planners is that a process using collaboration among all the stakeholders will most likely lead to a lengthier planning process. However, despite the added time and energy that a collaborative process demands, most everyone agreed that it leads to a better plan, often with more emphasis on smart growth principles.

It takes time to listen to all the concerns of the community, and to find a way to reach development decisions that can successfully accommodate these concerns without compromising the quality of the plan. It also takes time to foster the relationships necessary for collaboration between the university and the communities, who may already have relationships that have been built on years of misunderstanding and mistrust. However, to create more successful smart growth plans, it is necessary to work
to overcome the obstacles of the collaborative process, striving towards communities and universities that understand the many ways in which they can benefit from each other.
### VIII. SMART GROWTH CHECKLISTS

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<td>✓</td>
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<td>✓</td>
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<td>• Strives to balance costs between community, university</td>
<td></td>
<td></td>
<td></td>
<td>✓</td>
</tr>
<tr>
<td>• Transparency of campus development decisions to community as a whole</td>
<td>✓</td>
<td>✓</td>
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<td>• Collaboration between university and adjacent town</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
</tr>
<tr>
<td>• Collaboration among all stakeholders</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
<td>✓</td>
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</tbody>
</table>
### Smart Growth Detailed Checklist for UNC Master Plan

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<tbody>
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<td><strong>Mix Land Uses</strong></td>
<td></td>
</tr>
<tr>
<td>▪ Mixing residential and</td>
<td>▪ Provide a “bed for every head,” offering housing for every undergraduate, and offering housing types that appeal to upper level students</td>
</tr>
<tr>
<td>academic use areas</td>
<td></td>
</tr>
<tr>
<td>▪ Inclusion of service</td>
<td>▪ Ramshead project</td>
</tr>
<tr>
<td>and retail uses on</td>
<td>▪ Bell Tower project</td>
</tr>
<tr>
<td>campus</td>
<td></td>
</tr>
<tr>
<td><strong>Take Advantage of Compact Building Design</strong></td>
<td></td>
</tr>
<tr>
<td>▪ Construction design</td>
<td>▪ New Campus Design Guidelines will clarify University standards and expectations for construction.</td>
</tr>
<tr>
<td>guidelines promote compact building design</td>
<td></td>
</tr>
<tr>
<td>▪ Parking structures are</td>
<td>▪ Plan removes 20 acres of paved surface parking and replaces with 10 acres of green space and 10 acres of buildings, including new parking decks</td>
</tr>
<tr>
<td>compact</td>
<td></td>
</tr>
<tr>
<td>▪ Emphasis on leaving a</td>
<td></td>
</tr>
<tr>
<td>small footprint</td>
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<td><strong>Create a Range of Housing Opportunities and Choices</strong></td>
<td></td>
</tr>
<tr>
<td>▪ Successfully integrates</td>
<td>▪ Additional on-campus housing in multiple locations</td>
</tr>
<tr>
<td>student housing with</td>
<td></td>
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<tr>
<td>community housing</td>
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<td>▪ Provides a range in</td>
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<td><strong>Create Walkable Neighborhoods</strong></td>
<td></td>
</tr>
<tr>
<td>▪ Pedestrian path system</td>
<td>▪ Pedestrian bridge linking North Campus to grass terrace on parking deck in South Campus</td>
</tr>
<tr>
<td>linking all major</td>
<td>▪ An increase in pedestrian walkways more successfully connects all portions of campus</td>
</tr>
<tr>
<td>destinations</td>
<td></td>
</tr>
<tr>
<td>Foster Distinctive, Attractive Communities with a Strong Sense of Place</td>
<td></td>
</tr>
<tr>
<td>---</td>
<td></td>
</tr>
<tr>
<td>▪ Design guidelines for new campus construction emphasize “sense of place”</td>
<td></td>
</tr>
<tr>
<td>▪ The purpose of the design guidelines within the Master Plan is “to ensure that future buildings and grounds are as well conceived and designed as those of the past.”</td>
<td></td>
</tr>
<tr>
<td>▪ Plans reflect values and culture of community, campus history</td>
<td></td>
</tr>
<tr>
<td>▪ Plan Principle: Export the Qualities of McCorkle and Polk Place</td>
<td></td>
</tr>
<tr>
<td>▪ Emphasis on preservation of historic structures</td>
<td></td>
</tr>
<tr>
<td>▪ Appointment of a Historic Preservation Architect</td>
<td></td>
</tr>
<tr>
<td>▪ Completion of Comprehensive Survey of the University’s Historic Resources as part of Master Plan</td>
<td></td>
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<tr>
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<tbody>
<tr>
<td>▪ Guidelines to encourage open space preservation</td>
</tr>
<tr>
<td>▪ Underground parking decks will allow for more green space</td>
</tr>
<tr>
<td>▪ Plan calls for the creation of 10 additional acres of open space</td>
</tr>
<tr>
<td>▪ Guidelines to encourage preservation of critical environmental areas</td>
</tr>
<tr>
<td>▪ Use of innovative construction techniques such as porous pavement, green roofs, underground cisterns</td>
</tr>
<tr>
<td>▪ Tree Protection Plan</td>
</tr>
<tr>
<td>▪ No net increase in the volume, rate or pollutant load of storm water leaving campus</td>
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<td>▪ Direct new development towards existing campus</td>
</tr>
<tr>
<td>▪ The Master Plan itself focuses on utilizing the existing spaces within main campus</td>
</tr>
<tr>
<td>▪ Emphasizes the need to better utilize existing structures</td>
</tr>
<tr>
<td>▪ The emphasis Historic Preservation is an example of utilizing the existing structure to their fullest extent.</td>
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<td>▪ Commuter Alternatives Program</td>
</tr>
<tr>
<td>▪ Free bus system</td>
</tr>
<tr>
<td>▪ Transit services link housing and academic areas, parking to campus</td>
</tr>
<tr>
<td>▪ Plan proposes to build additional park and ride lots</td>
</tr>
<tr>
<td>Make Development Decisions Predictable, Fair, and Cost Effective</td>
</tr>
<tr>
<td>---------------------------------------------------------------</td>
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<tr>
<td>▪ Strives to balance costs between community, university</td>
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<td>▪ Transparency of campus development decisions to community as a whole</td>
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<td>▪ Public meetings and public display areas for plans</td>
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<td>▪ Collaboration between university and adjacent town</td>
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<tr>
<td>▪ Principle of Master Plan: Support local and regional planning strategies</td>
</tr>
<tr>
<td>▪ Collaboration among all stakeholders</td>
</tr>
<tr>
<td>▪ Emphasis in planning process on public meetings, involvement of town representatives</td>
</tr>
<tr>
<td>Smart Growth Principle</td>
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<td>---------------------------------------------------------------------------------------</td>
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</table>
| **Mix Land Uses**                                                                      | ☐ Mixing residential and academic use areas  
☒ a mix of research, office, residential, retail and community-use spaces within ‘neighborhoods’ of development |
|                                                                                       | ☐ Inclusion of service and retail uses on campus  
☒ Retail and service uses will be provided to meet the needs of the residents.                                           |
| **Take Advantage of Compact Building Design**                                          | ☐ Construction design guidelines promote compact building design  
☒ Of the 963 acre site, only 240 are presently planned for development. Designs promote compact development, emulating the design of the historic campus core. |
|                                                                                       | ☐ Parking structures are compact  
☒ The plan currently calls for 17,000 parking spaces. Detailed information on parking structures has not yet been determined. |
|                                                                                       | ☐ Emphasis on leaving a small footprint  
☒ The plan currently is only developing 25% of total land. While not all remaining land will be permanently left for preservation, the University is negotiating to set aside stream buffer corridors for preservation as well as devote 48 of the 240 developed acres for green space. |
| **Create a Range of Housing Opportunities and Choices**                                | ☐ Successfully integrates on-campus housing with community housing  
☒ Carolina North will offer housing for University employees                                                                 |
|                                                                                       | ☐ Provides a range in housing options  
☒ The plan incorporates 1,400 to 1,800 residential units that will provide housing for University employees, spanning a broad range of income levels. Restrictive covenants will be set in place to ensure housing remains affordable. |
| **Create Walkable Neighborhoods**                                                     | ☐ Pedestrian path system linking all major destinations  
☒ The creation of a pedestrian-oriented development in emphasized through the compactness of the development plan.  
☒ Adjacent stream corridors and nature trails will be accessible from the Carolina North development. |
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<td>▪ Strives to balance costs between community, university</td>
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<tr>
<td>▪ Plans for Carolina North have not yet reached the level of detail necessary to create a fiscal impact assessment.</td>
</tr>
<tr>
<td>▪ Transparency of campus development decisions to community as a whole</td>
</tr>
<tr>
<td>▪ Between the release of the first draft plan in December of 2003 and the revised draft plan released in March of 2004, Carolina North planning committees held over 70 meetings with concerned parties.</td>
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<td>▪ The planning process has incorporated several meetings open to the public</td>
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<td>▪ Collaboration among all stakeholders</td>
</tr>
<tr>
<td>▪ The planning process emphasizes the importance of making decisions transparent to all stakeholders.</td>
</tr>
<tr>
<td>▪ Changes in the December draft plan were a reflection of the input from stakeholders’ concerns over issues such as parking, land conservation, green space allocations, as well as other concerns.</td>
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## Smart Growth Detailed Checklist for NC State Physical Master Plan

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<td>▪ Mixing residential and academic use areas</td>
<td>▪ A guiding principle of the Master Plan is to promote mixed use activities. Each campus neighborhood will have a hearth, public space or facility scaled large enough to draw individuals from across campus.</td>
</tr>
<tr>
<td>▪ Inclusion of service and retail uses on campus</td>
<td>▪ Each area designated as a neighborhood will incorporate retail uses.</td>
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<td><strong>Take Advantage of Compact Building Design</strong></td>
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<td>▪ Successfully integrates student housing with community housing</td>
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</tr>
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<td><strong>Create Walkable Neighborhoods</strong></td>
<td></td>
</tr>
<tr>
<td>▪ Pedestrian path system linking all major destinations</td>
<td>▪ A guiding principle in the plan is to create a pedestrian-oriented campus. Plans illustrate the pedestrian path network and show areas where network of paths can be strengthened.</td>
</tr>
</tbody>
</table>
### Foster Distinctive, Attractive Communities with a Strong Sense of Place

<table>
<thead>
<tr>
<th>Design guidelines for new campus construction emphasize “sense of place”</th>
<th>The Plan incorporates design guidelines for each of the campus’ neighborhoods. Each neighborhood is to include an open space or meeting center, contributing to the distinctive character of each neighborhood.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Plans reflect values and culture of community, campus history</td>
<td>Design principles for architecture and landscape reflect the importance of preserving the integrity of the historical architectural and landscape elements.</td>
</tr>
<tr>
<td>Emphasis on preservation of historic structures</td>
<td>A guiding principle states the University’s commitment to caring for and preserving irreplaceable campus buildings and landscapes.</td>
</tr>
</tbody>
</table>

### Preserve Open Space, Farmland, Natural Beauty, and Critical Environmental Areas

| Guidelines to encourage open space preservation | Guidelines to encourage preservation of critical environmental areas | A guiding principle of the Master Plan emphasizes the importance of Environmental Sustainability, to protect quality of air, water, soils and natural systems. |

### Strengthen and Direct Development Towards Existing Communities

| Direct new development towards existing campus | Emphasizes the need to better utilize existing structures |

### Provide a Variety of Transportation Choices

| Reduce use of single occupancy vehicles | One of the Plan’s guiding principles is to provide the campus with effective and appropriate vehicular movement. A web of campus paths is outlined in the plan to better connect the neighborhoods. |
| Transit services link housing to academic areas, campus to parking | People Mover  
<p>|  | Bus System |</p>
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<tr>
<th>Make Development Decisions Predictable, Fair, and Cost Effective</th>
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<td>• Strives to balance costs between community, university</td>
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<th>Encourage Community and Stakeholder Collaboration in Development Decisions</th>
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<tr>
<td>• Collaboration between university and adjacent town</td>
</tr>
<tr>
<td>• Hillsborough Street Partnership</td>
</tr>
<tr>
<td>• Collaboration among all stakeholders</td>
</tr>
<tr>
<td>• A guiding principle of the plan strives to coordinate planning efforts with the local government, business community, and larger community.</td>
</tr>
</tbody>
</table>
## Smart Growth Detailed Checklist for Centennial Campus Plan

<table>
<thead>
<tr>
<th>Smart Growth Principle</th>
<th>Example of Principle in Plan</th>
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<tr>
<td><strong>Mix Land Uses</strong></td>
<td></td>
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<tr>
<td>• Mixing residential and academic use areas</td>
<td>• The Plan emphasizes mixed use cluster development</td>
</tr>
<tr>
<td>• Inclusion of service and retail uses on campus</td>
<td>• The Plan includes service and retail uses catering to employees and residents.</td>
</tr>
<tr>
<td><strong>Take Advantage of Compact Building Design</strong></td>
<td></td>
</tr>
<tr>
<td>• Construction design guidelines promote compact building design</td>
<td>• The plan is designed to structure and focus activity in a compact arrangement of buildings and open space courtyards</td>
</tr>
<tr>
<td>• Parking structures are compact</td>
<td></td>
</tr>
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<td>• Emphasis on leaving a small footprint</td>
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<td><strong>Create a Range of Housing Opportunities and Choices</strong></td>
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<td>• Pedestrian path system linking all major destinations</td>
<td>• Campus is planned based on a approximate 2-minute walking radius</td>
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Provide a Variety of Transportation Choices

- Reduce use of single occupancy vehicles
- Transit services link housing to academic areas, parking to campus

The Plan attempts to minimize the impact of vehicular traffic through the use of parking decks and surface lots along Centennial Parkway perimeter and by using traffic calming strategies.

Plan emphasizes accessible linkages and connectivity across the campus by studying relationships among pedestrian, bicycle and vehicular networks.

Make Development Decisions Predictable, Fair, and Cost Effective

- Strives to balance costs between community, university
- Transparency of campus development decisions to community as a whole

The mixture of state, university, and private entities has helped to balance the costs of the development.

The People Mover is planned to be a joint venture between the University and a private corporation, making the new form of transportation more affordable for the school.

Encourage Community and Stakeholder Collaboration in Development Decisions

- Collaboration between university and adjacent town
- Collaboration among all stakeholders

The Spring Hill Precinct has used an extensive collaboration process with the surrounding community.
Figure 1. UNC Campus Master Plan Land Use Map
Figure 2. Carolina North Surrounding Neighborhoods
http://carolinanorth.unc.edu/concept/index.html
Figure 3. Land Use Map of Carolina North (December 2003)
http://carolinanorth.unc.edu/concept/index.html
Figures 4-6. Changes in Development Plan for Horace Williams Tract
http://carolinanorth.unc.edu/concept/index.html

1998 JJR Study, 550 acres planned for development

2000 Concept Plan, 295 acres planned for development
December 2003 Carolina North Plan, 256 acres planned for development
Figures 7-8. Carolina North: Maps Illustrating Re-alignment of Street Grid
http://carolinanorth.unc.edu/concept/index.html

December 2003 Plan

March 2004 Plan
Figure 9. North Carolina State University Land Use Map for Main Campus
http://www.ncsu.edu/facilities/univ-arch/rendering.htm
Figure 10. Centennial Campus
http://www.ncsu.edu/facilities/univ-arch/rendering.htm
Figure 11. Centennial Campus Spring Hill Precinct


Getting to Smart Growth: 100 Policies for Implementation. (2002). Washington D.C. The International City/County Management Association (ICMA) and the Smart Growth Network.

Getting to Smart Growth: 100 Policies for Implementation. (2002). Washington D.C. The International City/County Management Association (ICMA) and the Smart Growth Network.


NCSU Seeks to Rezone Land for Use in Future” (Hall, Sarah Lindenfeld. 2004, February 21). News and Observer.
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Documents:
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Smart Growth Network. www.smartgrowth.org
Congress for New Urbanism. www.cnu.org

University of North Carolina Resources

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Committee Learns from Centennial Campus Tour. (1999, January 13). *University Gazette.*


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UNC Sustainability Coalition. http://sustainability.unc.edu/

**North Carolina State University Resources**

**Documents:**


**Articles:**


**Websites:**
Centennial Campus. http://centennial.ncsu.edu/

NC State University Physical Master Plan website.
http://www.ncsu.edu/facilities/univ-arch/masterplan.htm

Interviews

CHAPEL HILL

University:

Town:

Citizens:

RALEIGH

University:

Town:

Citizen: