

SECTION 3 - HORACE WILLIAMS PROPERTY

INTRODUCTION

THE SITE

The Horace Williams property offers substantial opportunities for future University development because of its size and accessibility. Of the site's 979 acres, 550 have development potential. The remaining 429 acres are occupied by existing uses (for example, Horace Williams Airport and the University physical plant complex) which are to remain, or by significant natural features (Bolin Creek and Crow Branch) that are environmentally sensitive and require protection.

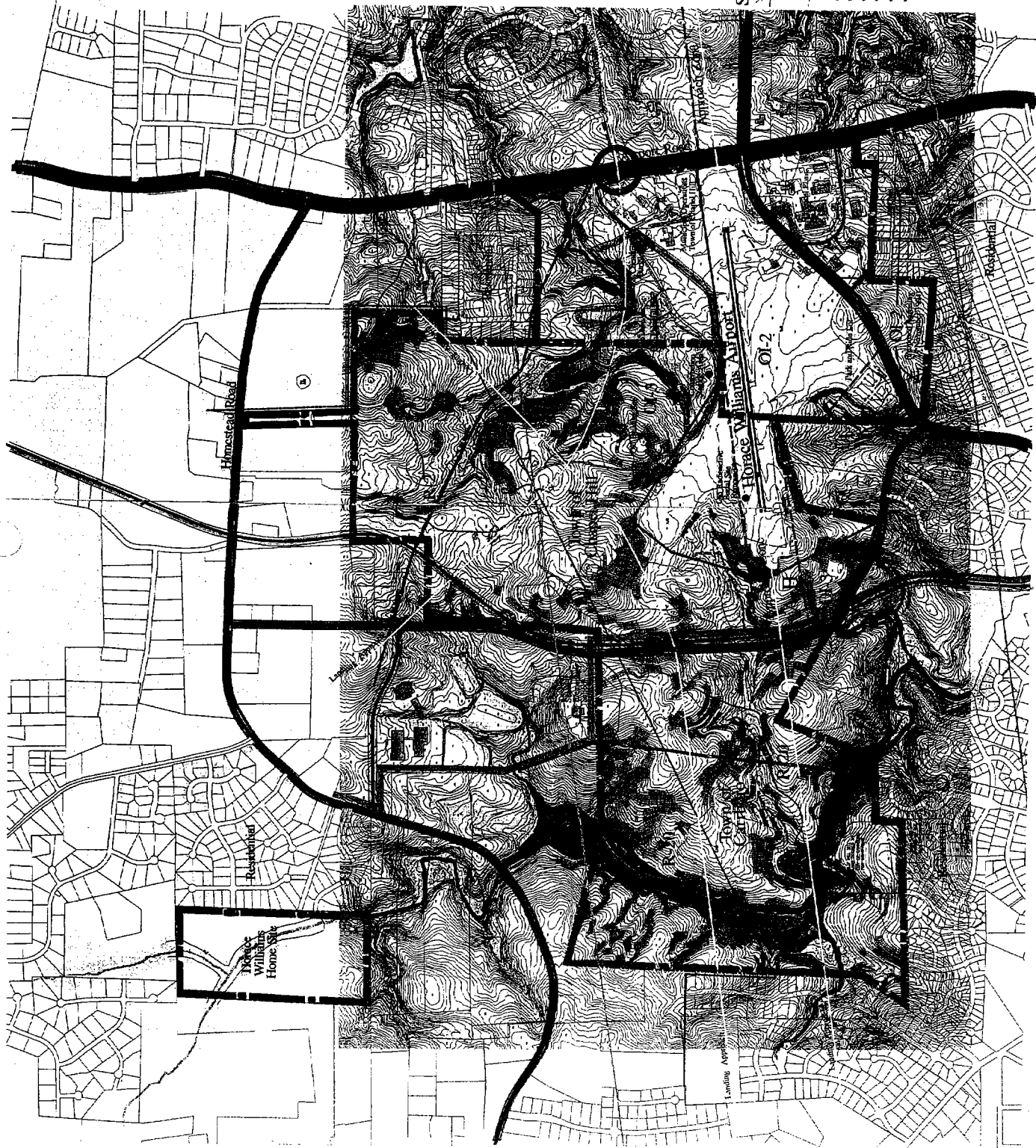
The Horace Williams property is located approximately 1.5 miles northwest of the University's Central Campus and two miles south of I-40 on Airport Road, a major thoroughfare that forms the site's eastern boundary. The northern property boundary is located about 1,200 feet south of Homestead Road, with a narrow University-owned corridor linking the property to this roadway. Seawell School Road and the University/Norfolk Southern rail corridor cross the property, separating it into east and west segments. The area to the west of Seawell School Road lies within the Town of Carrboro, while the area to the east lies within the Town of Chapel Hill. The Home Site, a non-contiguous, 57-acre parcel located to the north is also evaluated as part of the Horace Williams property.

The Airport Road corridor between the Central Campus and I-40 has experienced significant growth over the past fifteen years. This growth, including residential, commercial, office and industrial development, has increased traffic volumes, stressing the local roadway infrastructure. Community representatives have expressed concern that future University development on the Horace Williams property will exacerbate traffic problems. As a result, one of the most important challenges in planning for future long-term development has been to define strategies that balance opportunities for future University growth with available roadway capacity.

SECTION ORGANIZATION

This section of the Technical Report provides detailed information on existing site conditions and their implications for development; a broadly defined program of proposed uses; the planning alternatives which served to crystallize development issues and present important trade-offs; and the recommended land use plan for the Horace Williams property. The section is organized into the following chapters:

- Development Opportunities and Constraints
- Planning Framework
- Development Options
- Recommended Land Use Plan



Soils

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Outlying Properties Land Use Plans
September 1, 1998

Horace Williams Property
Analysis

Figure 3-1

DEVELOPMENT OPPORTUNITIES AND CONSTRAINTS

Each site's natural and cultural features define development opportunities and constraints to which planning must respond. As a result, a thorough inventory and analysis of site characteristics was the first step in the planning study. The following topics were addressed:

- Adjacent Land Use
- Traffic and Circulation Patterns
- Current Land Uses
- Natural Features

ADJACENT LAND USE

The Horace Williams property is surrounded by residential uses and the University is committed to respecting this immediate context in planning for future development. The area south of the site is predominantly single-family detached housing. East of the site, across Airport Road, lies a neighborhood of single and multi-family dwellings. Although much of the land north and west of the site is presently undeveloped, several subdivisions and the Orange County Southern Human Services Center are in various stages of planning. Two schools, Chapel Hill High School and Seawell Elementary School, are located northwest of the site.

TRAFFIC AND CIRCULATION PATTERNS

Roadways

Existing Conditions. The Horace Williams property is served by a well established road network (see Figure 3-1). Access to the area east of Seawell School Road is provided by Airport Road (NC 86) on the east and Estes Drive on the south. A narrow corridor also links the north edge of the site to Homestead Road to the north. Two entries to the site from Airport Road provide access (1) to the Town of Chapel Hill's municipal operations complex and old landfill and (2) to the University physical plant area. Estes Drive provides access to the Horace Williams Airport and University's Park-and-Ride lot from the south. Railroad tracks paralleling Seawell School Road currently prevent access to this portion of the site from the west.

Today, vehicular access to the area west of Seawell School Road is limited, although access to the area east of Bolin Creek could easily be provided from Seawell School Road. Because construction of a bridge crossing Bolin Creek would have a high environmental cost, future access to the area west of the Creek is likely to be limited to the extension of existing residential streets into the site from the south and west. Potential access to the Horace William's Home Site is also limited to adjacent residential streets which currently exist only on the eastern edge of the site.

Overall, vehicular access to the Horace Williams property is relatively good because the site is located close to I-40 and is surrounded by a system of major and minor thoroughfares on which congestion is not a significant problem. Congestion occurs if a roadway is operating

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at a Level of Service (LOS) worse than D in the peak hours. Traffic conditions worse than LOS D result in delays and interruptions to traffic flow that are generally considered unacceptable in the Triangle area. A Volume to Capacity (V/C) ratio of 1.0 in Table 1 represents the lower threshold for LOS D conditions. (It should be noted, however, that LOS E is more common and accepted for the peak hours in more developed areas.) Based on estimated 1994 traffic volumes and standard roadway capacities, traffic is not currently a major problem in the vicinity of the property. Nevertheless, volume/capacity ratios in excess of 1.0 currently exist on Airport Road north of Homestead Road and eastbound on Estes Drive at Airport Road.

Planned Improvements. Roadway system improvements are included in the surrounding communities' adopted Thoroughfare Plans and Transportation Improvement Program (TIP). Planning for the future development of the Horace Williams property assumes that these improvements will be made, although in some instances, alternative alignments for the construction of new roadway segments are recommended.

Airport Road, currently five lanes from downtown Chapel Hill as far north as Homestead Road, will be widened from two to five lanes from Homestead Road to Weaver Dairy Road and from two to six lanes between Weaver Dairy Road and I-40. With the completion of this widening, Airport Road will provide the primary access to the site from the north, as well as the south.

Weaver Dairy Road will be widened to five lanes east of Airport Road to US 15-501. The Thoroughfare Plan also proposes the extension of Weaver Dairy Road (five lanes in a new alignment) west across Airport Road to connect to Homestead Road to the north or northwest of the site. The alignment of the Weaver Dairy Road extension is critical in planning for the future development of the Horace Williams property. By connecting to Homestead Road directly north of the site, Weaver Dairy Road would expand access from the north and east. Although this alignment is not currently shown in the Thoroughfare Plan, it is important to the development of the Horace Williams property.

Homestead Road will be widened from two to three lanes between Airport Road and High School Road. This widening project is planned for the year 2001. In the longer term, Homestead Road west of High School Road will be widened to include two lanes and a median. The combination of a widened and an extended Weaver Dairy Road and improved Homestead Road will provide a partial northern loop around Chapel Hill.

Estes Drive, an important two-lane connector between Franklin Street, Airport Road, Carrboro and areas further west, will be widened to three lanes west of Airport Road. No widening is proposed east of Airport Road.

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The Seawell School Road/Homestead Road Connector is a new three-lane roadway proposed in the Thoroughfare Plan to link the southern portion of Seawell School Road to Homestead Road across Bolin Creek. An alternative alignment is proposed in the plan for the Horace Williams property to minimize the environmental impact on Bolin Creek by avoiding the need for a bridge crossing.

Projected Traffic Conditions. The traffic data in Table 1 indicate that congestion in the vicinity of the Horace Williams property will increase over time, even without University development. Estes Drive and Airport Road south of the property are projected to experience a Level of Service D in the peak hours by the year 2015. In Carrboro, Greensboro Road south of Estes Drive will also be congested. It is important to note that Airport Road and Greensboro Road are the two main routes connecting the Horace Williams property with the Central Campus and downtown Chapel Hill. Overall, future vehicular access to the site will be more constrained to the south than to the north.

Transit

The Horace Williams property is already well served by road-based bus service and offers a unique potential for the future development of dedicated busway or rail service linking the site to downtown Carrboro and, possibly, downtown Chapel Hill, the Central Campus and the larger Triangle region. The greater the diversity of travel mode alternatives which can be provided to the site, and between the site and Central Campus, the greater the opportunity to reduce future traffic volumes on the area road network.

Bus Service. Chapel Hill Transit currently operates bus routes along Airport Road and Estes Drive to serve a large University Park-and-Ride lot on the Horace Williams property (located on the north side of Estes Drive, adjacent to the airport) and a recently opened Town Park-and-Ride lot located to the north on Eubanks Road.

The University also operates a Point-to-Point Campus Shuttle van service that provides transportation from one campus location to another. Users call in advance to schedule pick-up times for this flexible transit service. Because the Point-to-Point Shuttle reduces the need for University employees and students to bring a car on campus for use during the day, it reduces parking needs and congestion. This service could be extended to include travel to facilities on the outlying properties.

Potential Transit Improvements (Dedicated Busway or Rail). The University/Norfolk Southern Railroad line runs along Seawell School Road through the Horace Williams property. This spur line extends from the North Carolina Railroad (NCRR) line near Hillsborough to Carrboro and is used primarily for transporting coal to the University cogeneration facility located at the western end of Cameron Street. The line carries very little freight traffic and is in good condition.

This rail line and right-of-way present the opportunity to establish a dedicated busway or rail service as a convenient, high volume transit link from the Horace Williams property to Central Campus, possibly as part of a larger regional transit system. The recent Triangle Transit

Authority (TTA) fixed guideway study evaluated the feasibility of this route in a regional context. The system TTA analyzed began in downtown Chapel Hill at the intersection of Columbia and Franklin Streets, traveled west on Franklin Street and entered the University/Norfolk Southern railroad right-of-way in Carrboro. After passing through the Horace Williams site (where a station was proposed), the route continued to the NCRR line just south of Hillsborough, through Research Triangle Park to downtown Raleigh, and from there to northeast Raleigh.

The TTA study concluded that ridership would be too low to justify this route as part of a regional rail system. The primary reasons for the low ridership were (1) limited opportunities for development between Chapel Hill and Hillsborough because of the development regulations associated with the rural buffer zoning, and (2) the indirect, and therefore inconvenient, routing of the rail line between Chapel Hill and Durham. However, modeling undertaken by the Town of Chapel Hill as part of the Northwest Area Plan determined that rail service between the northwest area and downtown Chapel Hill may be feasible and warrants further investigation. The type, location and density of future development on the Horace Williams property could have significant implications for future analyses of the feasibility of this transit route.

Bikeways and Sidewalks

The Town of Chapel Hill's Bikeway Concept Plan includes future bikeways along all major roads serving the Horace Williams property, including Airport Road, Estes Drive, Homestead Road and Weaver Dairy Road. In addition, a greenway incorporating a bikeway is planned for the railroad corridor which passes through the property. These bikeways will provide convenient routes to many destinations in Carrboro and Chapel Hill, particularly the Central Campus.

The Town also has plans to complete a system of sidewalks, including those along Airport Road and Estes Drive. The greenway planned for the railroad corridor will also include a pedestrian path.

ON-SITE LAND USE

While most of the Horace Williams property is undeveloped, a number of facilities that are important to the University and the community are located on the site. These include the Horace Williams Airport, the University physical plant complex, a commuter parking lot and the Town of Chapel Hill municipal operations center.

The Horace Williams Airport

The Horace Williams Airport occupies approximately 110 acres. This general aviation airport currently serves the University community and provides a transportation base for the University's Area Health Education Centers, a medical outreach program that brings medical care to areas throughout the State. As development has occurred in the surrounding area,

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community concerns about airport noise and safety have increased. Although the University has studied the feasibility of relocating the airport, no acceptable and available site has been identified. As a result, the University has determined that the airport must be retained in planning for the future of the Horace Williams property.

As part of the planning study, an independent aviation planner assessed potential development restrictions associated with airport operations; a copy of this report is included in Appendix A.

UNC Physical Plant and Other Buildings

The University's physical plant complex, a fine art studio, and miscellaneous administrative buildings occupy a 60-acre parcel in the southeast portion of the site, south of Estes Drive. These facilities will remain and it is anticipated that future additions will be needed.

Park-and-Ride Lot

A Park-and-Ride lot, occupying approximately 5 acres, is located on the southern portion of the Horace Williams Airport site, north of the intersection of Seawell School Road and Estes Drive. It has been assumed that this lot will remain.

City of Chapel Hill Municipal Operations

A tract of land north of the airport is currently leased and occupied by the Town of Chapel Hill. Several of the Town's municipal functions, including the animal shelter and the municipal bus garage and storage facility, are located on this 19-acre site. The municipal lease expires on December 31, 2006, and no commitment has been made for its renewal. As a result, it was assumed that this land will be available for University development at some time in the future.

Landfill Sites

The old Chapel Hill landfill is located north of the airport and west of the municipal storage facility. The landfill was abandoned in the late 1950's and is currently used by the University as a storage yard for contractors. A .2 acre area previously used as a chemical burial site is also located in this area. The University has been monitoring these sites for environmental hazards and has made a commitment to ensure that these areas are safe. Appendix B includes a summary of the status of these sites. For the purpose of this study, it was assumed that these areas could be developed at some time in the future. However, soil instability will limit development options.

Old Mill Site

A mill site with cultural and historic significance to the community is located south of Bolin Creek, within Carrboro's jurisdiction. Because of the mill's value to the community, the University has agreed that the immediate surrounding area should be protected from future development.

Community Gardens

A 10-acre clearing, owned by the University, but used by local residents as a community garden, is located west of the old mill site in the southwest corner of the property. The University has not made a commitment to preserve this use.

Open Space

The majority of the Horace Williams property, and the entire Home Site, are currently undeveloped. Most of this undeveloped land is forested and in various stages of succession. It was assumed that these areas are available for development, unless determined to be unsuitable for environmental reasons.

NATURAL FEATURES

Topography and Slope

The steepest slopes on the Horace Williams property are generally located adjacent to Bolin Creek and other drainage features. These slopes typically range from 10% to greater than 20% and are not well suited for development, especially when forested. However, these areas could be developed with uses that require very small building footprints and minimal parking, if care is taken to avoid erosion and other potential adverse impacts to Bolin Creek.

The majority of the site is characterized by moderate, rolling topography with slopes ranging from 5% to 10%. These areas are well suited to most types of development. The southeast portion of the site (near the airport, municipal operations complex, physical plant and old land fill) is nearly flat. These areas are especially suited to development for uses that require large building footprints.

Drainage and Hydrology

The Bolin Creek corridor, which crosses the Home Site and the western portion of the Horace Williams property, is its most significant hydrologic feature. This perennial stream is one of the region's most significant natural resources and should be preserved and protected. Because construction of a roadway crossing the creek corridor would have significant environmental impacts, Bolin Creek influences the development of the Horace Williams property by effectively isolating 78 acres in the far western portion of the site.

The Bolin Creek floodplain, which ranges in width from approximately 400 to 700 feet, serves as the habitat for several important plant and animal species, including the endangered Spotted Salamander (*Ambystoma maculatum*). The floodplain also provides water storage and filtration during rainfall events. In addition the creek corridor provides opportunities for passive recreation and nature study.

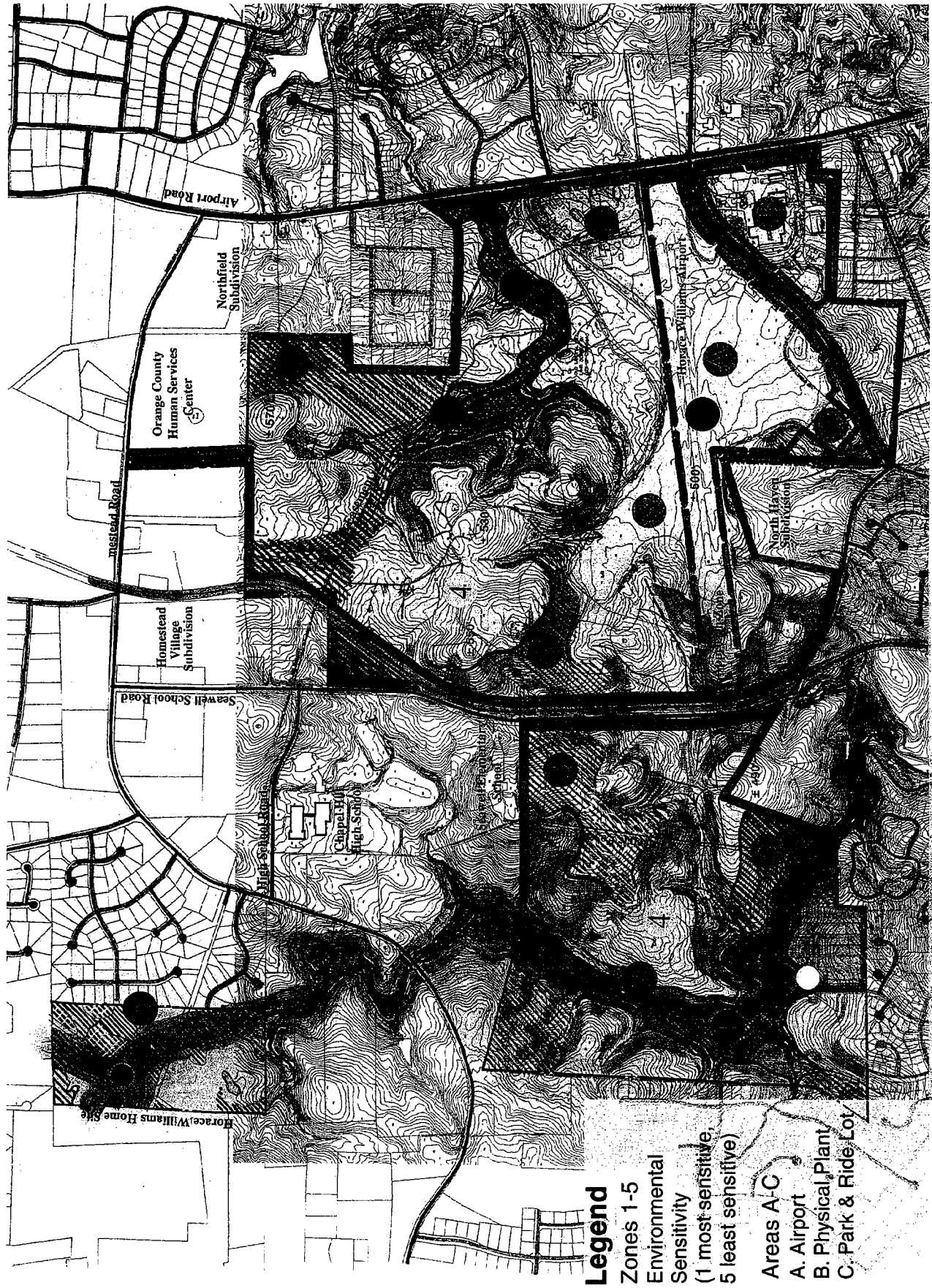
Crow Branch, a small creek that flows west to east across the northern portion of the site, is also a major drainage feature. This creek appears to have been blocked by past landfill activities, resulting in the creation of a small pond and wetland.

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Several smaller drainage courses flow into Bolin Creek and Crow Branch. Many of these have steep side slopes and are wooded. These areas should be treated with care if contiguous development occurs.

Vegetation

Approximately 200 acres of the Horace Williams property have been cleared. Most of this cleared land is associated with the airport, physical plant, municipal operations complex and old landfill. About 500 acres are covered by coniferous forest; areas which were thinned in the past are now in early successional stages. The site also contains approximately 70 acres of mixed forest, mostly located to the west, adjacent to Bolin Creek. Several pockets of hardwood forest are located in the northern and western portions of the Horace Williams property and on the Home Site. Some of these areas, especially those located west of Bolin Creek, are valuable as wildlife habitat and should be protected from intensive development.



Legend

- Zones 1-5
- Environmental Sensitivity
(1. most sensitive, 5 least sensitive)
- Areas A-C
- A. Airport
- B. Physical Plant
- C. Park & Ride/Lot

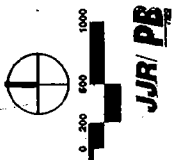


**THE UNIVERSITY OF NORTH CAROLINA
AT CHAPEL HILL**

**ENVIRONMENTAL
SUMMARY**

Outlying Properties Land Use Plans
September 1, 1998

Horace Williams Property
Figure : -2



JJR/PB

THE PLANNING FRAMEWORK

Three steps were undertaken to establish a framework for guiding future development on the Horace Williams property:

- The definition of proposed uses
- The identification of environmentally sensitive areas
- An analysis of site suitability for proposed uses

PROPOSED USES

The Horace Williams property, the largest undeveloped parcel under a single ownership in the region, offers the University significant future flexibility and capacity for growth. Because the property is beyond walking distance from Central Campus, it can best accommodate uses and programs which are not integral to the core instructional and clinical activities located in the Central Campus area, or the research which is closely related to those activities. Nevertheless, the site offers opportunities for accommodating major support-oriented facilities (administrative, physical plant, married student housing, recreation), as well as continuing education and training facilities, research activities which are not tightly coupled to Central Campus and, in certain circumstances, graduate programs and professional academic units.

A Faculty Committee was formed in early 1996 to assist in long-range planning for the outlying parcels by identifying anticipated University growth needs and those needs which might best be accommodated at Horace Williams and Mason Farm (see Appendix C). The Faculty Committee stressed the importance of effective transportation links between Central Campus and the outlying properties, while recognizing that the need for frequent trips between campuses can and should be minimized through the careful selection of the University programs to be located on the outlying parcels. While the Faculty Committee proposed some general recommendations concerning the types of uses that might be located at both the Horace Williams property and Mason Farm, they were unable to be very specific. As a result, an intentionally broad list of potential uses evolved for the Horace Williams property. These uses were grouped into categories, or districts, based on similarities in physical requirements, site impacts and function. In response to both University and community preferences for a transit-supportive, mixed-use development approach, an "urban village" use district was also proposed, combining a number of uses also found in other categories.

1. University Village District

This district includes a mix of uses developed in a compact, higher density pattern to establish a pedestrian-oriented, human scale "village" atmosphere that creates a strong sense of place, helps to reduce the need for off-site travel and supports efficient and convenient transit service to Central Campus. Uses may include:

- a. Graduate/Professional Academic Units that function relatively independent from Central Campus activities and services. These uses could include established or emerging cross-disciplinary curricula of sufficient critical mass to find an outlying location attractive because physical proximity within the curriculum outweighs the disadvantages of remoteness between the curriculum and the Central Campus.
- b. University or Corporate Research Units or Facilities that do not require physical proximity to Central Campus and can be accommodated in a mixed-use setting. Examples include data base-driven "dry lab" collaborative research, "wet lab" hospital-related analytical services, laboratory shops and support services.
- c. Administrative Functions that might operate effectively at outlying locations. Examples include administrative support and business office support functions including accounting, data processing, purchasing, human resources and materials management.
- d. Incubator Facilities for technology transfer that are appropriate for a mixed-use setting.
- e. Convenience Commercial and Service Uses that meet local or neighborhood needs. Examples include food service, dependent care facilities, small retail, small grocery store, dry cleaner and automated-teller banking.
- f. Housing could include higher density units for University students, faculty and staff; fraternity/sorority housing; temporary housing for short-term University visitors.

2. Visitor Destination District

This district includes uses that require direct auto access from the regional circulation network, accessible parking, and flat topography. Uses may include:

- a. Health Care Uses where patient accessibility is a primary consideration and services can be provided away from Central Campus. Examples include outpatient medical clinics, ambulatory patient-based research and clinical trials. Both University and private/University partnership uses are possible.
- b. Public Assembly Uses where small and medium sized groups can gather for meetings, educational activities and entertainment purposes. Examples may include continuing education centers serving non-traditional students, conference centers, theaters, auditoria, performing arts and staff training centers.

- c. Park-and-Ride Facilities that require convenient transit access to Central Campus and auto access to and from the regional road system. Flat topography and ease of wayfinding are required.
- d. Local Commercial and Service Uses that require auto access to and from the regional road system because they serve areas beyond the neighborhood scale. Flat topography and ease of way finding are required.

3. Independent Use District

This district includes single-purpose uses that can be developed as free-standing developments. Examples include major research-oriented facilities which desire a campus setting; incubator facilities for technology transfer; academic groupings or schools; "big science" and technology activities which must be remotely sited because of size or setback requirements from surrounding activities; library special collections and technical facilities and institutional records.

Park-and-Ride Facilities that require convenient transit access to Central Campus and auto access to and from the regional road system are also included in this use category.

4. Utilitarian Use District

These uses are often perceived as unsightly or obtrusive. To avoid adverse impacts on adjoining land uses, they should be sited in more isolated areas and/or be well buffered. Examples may include printing services, indoor storage and warehousing and physical plant shops. Exterior uses include vehicle maintenance, storage yards, plant nursery and composting and recycled materials handling.

5. Housing District

Component uses may include housing for University faculty, staff and students, fraternity/sorority housing, and temporary housing for short-term University visitors. Convenient transit access to Central Campus is desirable. Smaller sites and steeper topography are acceptable, especially for lower density housing formats.

6. Active Recreation District

These uses require flat topography and benefit from convenient transit access to Central Campus. Examples include playing fields for soccer, football and baseball, as well as playgrounds.

7. Passive Recreation and Natural Area District

These natural areas typically include non-developable zones or minimally improved green areas. Examples include parks, greenways, preserved natural areas, stream buffers, plant and wildlife habitats and stormwater detention ponds.

ENVIRONMENTAL CHARACTERISTICS

Although it is only possible to define the broad parameters of potential uses for the Horace Williams property at this time, the site's natural systems provide a firm basis for defining future development opportunities. In addition, both the University and the community are strongly committed to the protection of sensitive environmental resources.

The Environmental Summary drawing (Figure 3-2) provides an overview of critical environmental characteristics and identifies five levels of environmental sensitivity and development opportunity.

Level 1: Highly Sensitive Environmental Areas/Committed Uses

Areas identified as Level 1 are the least appropriate for development either because they are sensitive natural environments which require protection or because the area is already committed to an existing use. The floodplains of Bolin Creek and Crow Branch have been identified as Level 1 areas. Although these areas have been disturbed in the past (for example, the construction of sewer lines in the Bolin Creek floodplain and University waste disposal and storage activities along Crow Branch), they should not be developed in the future because they contain important aquatic and wetland habitats and provide for natural filtration and storage of stormwater run off.

Horace Williams Airport, the Park-and-Ride lot and the University physical plant area have also been identified as Level 1 areas because they are existing uses which the University must retain.

Level 2: Environmental Buffers

Areas identified as Level 2 have been established to maintain a buffer paralleling the Bolin Creek and Crow Branch floodplains. Disturbance of wooded slopes in these areas could pose a threat to the integrity of the adjacent floodplains by increasing erosion. These wooded areas also serve as filters to trap sediments before they enter streams and wetlands. In addition, they establish a visual buffer to site areas which may be developed in the future. Although these areas could be used for passive recreation, they should not be developed and overstory vegetation should not be disturbed. These buffers extend beyond floodplain and wetland areas which must be protected by existing legislation.

Level 3: Low Intensity Development Areas

Areas identified as Level 3 typically contain steeper slopes (over 10%) and many include areas of mature hardwood forest. Although these areas are not suitable for intensive development and larger scale uses, they could accommodate carefully sited buildings with small footprints and relatively minor parking requirements with minimum impact. Final decisions on the appropriate use and development of these areas must be made on an individual basis at a more detailed scale of planning.

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Level 4: Sloping/Vegetated Development Areas

Areas identified as Level 4 have moderate slopes and are vegetated by early succession forests containing a mix of hardwoods and conifers. Because of the absence of environmental constraints, these areas are suitable for most kinds of development.

Level 5: Flat/Open Development Areas

Areas identified as Level 5 are the least environmentally sensitive portions of the site. One of these areas occupies a flat zone once used as an airport runway. The other is located north of the airport and is currently occupied by the Town of Chapel Hill's municipal facilities. These areas are suited to a wide range of uses.

SITE SUITABILITY FOR PROPOSED USES

To better understand the general relationships between site and potential use characteristics the following planning "yardsticks" were developed. These "yardsticks" are based on accepted planning practices and professional experience.

1. Degree of Site Sensitivity

This "yardstick" illustrates the relationship between potential land uses and areas that are sensitive to development due to steepness of topography or value of tree cover. It provides a relative measure of the size and flexibility of the building and parking footprint (the fineness of "grain") with which a particular use can be developed. Uses with a small footprint and high flexibility in layout are most appropriate where topography is steep, valuable tree cover exists and the size of development areas is small. Uses that require a large building and parking footprint are least appropriate for these areas and most appropriate for areas where slopes are moderate and sites are open or tree cover is less valuable.

<i>Finest Grain</i>					<i>Largest Grain</i>
<i>Smaller Footprint</i>					<i>Larger Footprint</i>
Passive	SF Housing	Academic	Visitor	University	Local
Recreation Office	Research	Destination	Village	Commercial	
		MF Housing			Utilitarian
					Active Rec.

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2. Isolated vs. Accessible Location

This "yardstick" illustrates the relationship between potential land uses and the degree of a site area's relative isolation or accessibility. Certain uses can function well despite (or because of) an isolated location, while others require direct vehicular access.

<i>Highest Isolation</i>					<i>Highest Accessibility</i>
Passive Recreation	Utilitarian	SF Housing	University Village Research MF Housing Admin. Office Academic Active Recreation	Local Commercial Visitor Destination	

3. Perimeter Compatibility

This "yardstick" illustrates the relationship between potential land uses and an area's location on a site edge where compatibility with adjacent off-site development is an issue.

<i>Highest Compatibility</i>					<i>Lowest Compatibility</i>
Passive Recreation SF Housing	Active Recreation MF Housing	Research Office	Academic University Village	Local Commercial Utilitarian	

4. Degree of Visibility from External Travel Corridors

This "yardstick" illustrates the relationship between potential land uses and an area's visibility from external travel corridors. Some uses need high visibility in order to function effectively. Other uses may have a positive image impact and therefore be appropriate for a high visibility location.

<i>Visibility Not Important</i>				<i>Visibility Important</i>
Utilitarian	Admin. Office SF Housing MF Housing Active Rec.	University Village Academic Research	Local Commercial Visitor Destination	

OUTLYING PARCELS LAND USE PLANS
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The Site Suitability diagram (Figure 3-3) illustrates the application of these "yardsticks" given the potential uses proposed for the Horace Williams site, its environmental characteristics and the goals of minimizing the disruption of sensitive natural environments, as well as negative relationships both within the property and on contiguous off site properties. Three alternative uses have been identified for each zone to afford the University flexibility in addressing future needs and opportunities; The preferred use for each zone is shown in bold type. This Site Suitability diagram was used as the starting point in defining land use alternatives.



ZONE VIII

1. Site Characteristics
 - Mixed wooded cover
 - Centered around Bolin Creek
 - Surrounded by residential
 - Limited access through residential
2. Potential Uses
 - Residential
 - Independent Use
 - Active Recreation

ZONE I

1. Site Characteristics
 - Wooded
 - Steep slopes
 - Bolin Creek edge
 - Isolated
 - Access through residential
 - Wildlife habitat
 - Historic feature
2. Potential Uses
 - Residential
 - Preservation
 - Recreation

ZONE II

1. Site Characteristics
 - Wooded with some hard woods
 - Steep Slopes
 - Surface drainage features
 - Wildlife habitat
 - Bolin Creek edge
 - Direct access (Seawell School) from Highway 101
 - Separated from primary site area by Railroad and Road
 - Adjacent to School property
 - Potential relationship to Regional Transportation
2. Potential Uses
 - Independent Use
 - Residential
 - University Village

ZONE IX

1. Site Characteristics
 - Flooded
 - Hilly
 - Flow Arroyo
 - Eased by Railroad
 - Edge of Airport
 - Potential relationship to regional road
2. Potential Uses
 - University Village
 - Academic
 - Independent Use
 - Utilitarian

ZONE III

1. Site Characteristics
 - Wooded
 - Hilly
 - Local residential
 - Orange County Human Services
 - Gas Line
 - Potential relationship to regional road
2. Potential Uses
 - Visitor destination
 - Independent use (research)
 - Residential

ZONE IV

1. Site Characteristics
 - Wooded
 - Steep slopes
 - Large pervious generalablation separates the site from surrounding land
 - Direct access to Weaver Dairy Road
2. Potential Uses
 - Residential
 - Academic
 - University Village
 - Independent Use



**THE UNIVERSITY OF NORTH CAROLINA
AT CHAPEL HILL**

SITE SUITABILITY

Outlying Properties Land Use Plans

Horace Williams Property

Figure 3-3

September 1, 1998

JJR/PB