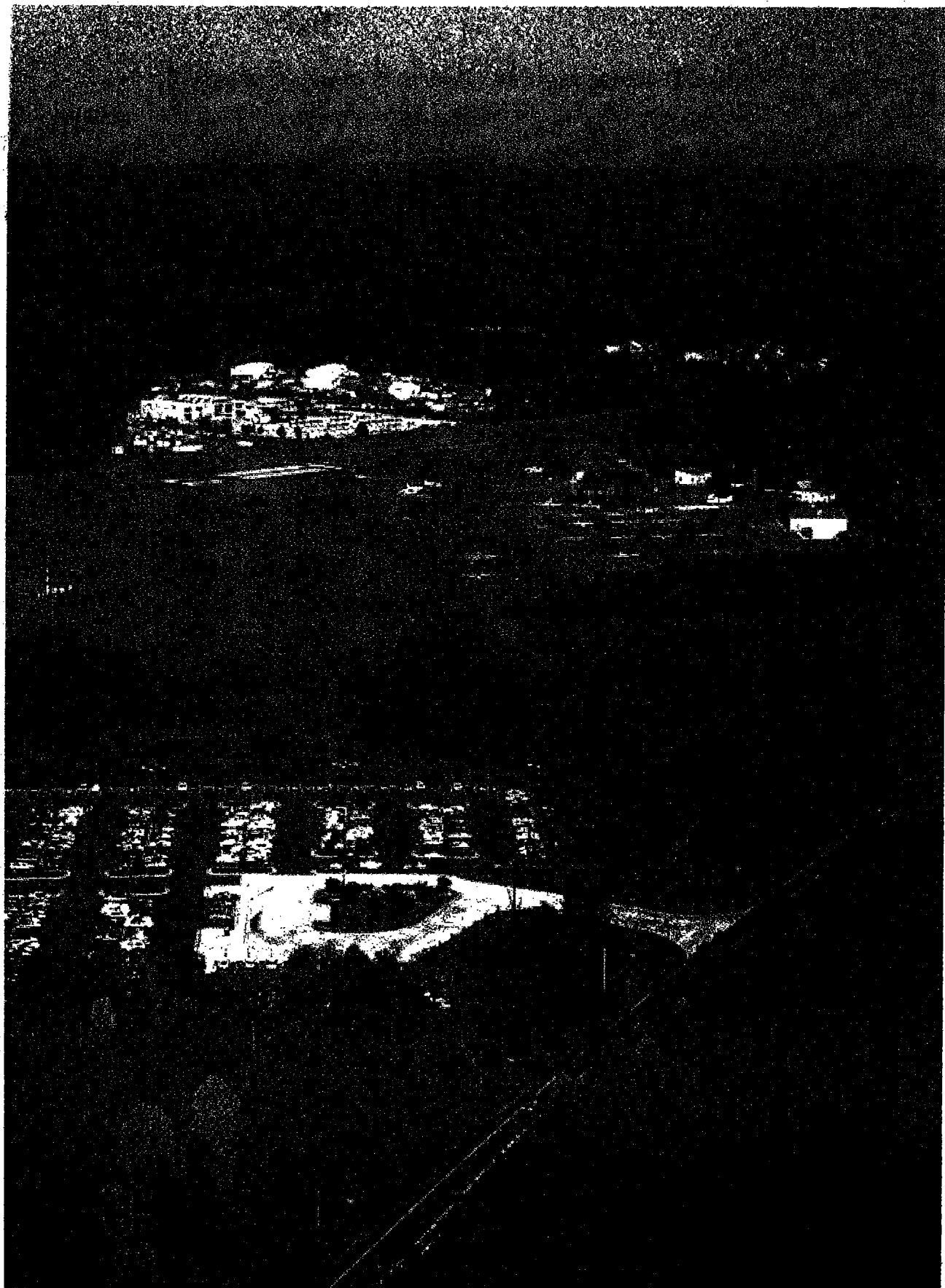


OUTLYING PARCELS LAND USE PLANS
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6. Promote a mix of uses across the site to:
 - Support the daily needs of campus residents, students and employees;
and
 - Reduce the need for off-site vehicle trips.
7. Especially in the University Village Use District, encourage a density and scale of development similar in character to the older portion of central campus.
 - Create public outdoor spaces as development focal points.
 - Foster a clear pedestrian and transit orientation.
8. Foster visual continuity in the siting and design of buildings to create a consistent, harmonious campus context.
9. Encourage the development of housing affordable to faculty, staff and students.
10. Continue a dialogue with the community on opportunities for shared facilities.
11. Promote compatibility between existing off-site uses and on-site development; provide buffers adequate to protect adjacent neighborhoods from noise, lighting, and visual impacts, where appropriate.
12. Enhance the visual character of community entranceways and project a positive campus identity.
13. Encourage traffic distribution and avoid congestion by providing multiple campus entrances. Avoid channeling increased traffic volumes onto the neighborhood streets.



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HORACE WILLIAMS PROPERTY

THE SITE

The Horace Williams Property, located 1.5 miles northwest of Central Campus and 2 miles south of I-40 on Airport Road, offers substantial opportunities for future development because of its size and accessibility. The largest portion of the Property is a contiguous tract of 979 acres of which 429 acres are occupied either by (1) existing uses to remain (Horace Williams Airport and the University physical plant complex) or (2) significant natural features to be protected (Bolin Creek, Crow Branch). The Home Site, evaluated as part of the Horace Williams Property, is a 57-acre parcel located 1 mile to the north. On the Home Site, significant natural features that warrant protection account for 24 acres.

The Airport Road corridor between the Central Campus and I-40 has experienced significant growth over the past fifteen years. Although roadway improvements are planned to the north of the Horace Williams Property, community representatives are concerned that future University development will exacerbate traffic problems to the south. 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 the available roadway capacity.

The University/Norfolk Southern rail corridor, which crosses the Horace Williams Property and extends north to Hillsborough and south to Carrboro, presents an opportunity for establishing a convenient, high-volume transit link from the property to Central Campus. This potential transit corridor has been evaluated by the Triangle Transit Authority (TTA) as part of a regional fixed guideway system linking Chapel Hill and the UNC Central Campus to the Research Triangle Park, Raleigh and Duke University. Although the route through the Horace Williams Property is not the TTA's preferred alignment, the rail corridor's potential to serve as a dedicated busway or rail transit link to Central Campus is an important factor in planning for the future development of the Horace Williams Property.

OUTLYING PARCELS LAND USE PLANS
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DEVELOPMENT FRAMEWORK

Based on a thorough site inventory and analysis, five zones have been defined to distinguish relative levels of sensitivity and development opportunity on the Horace Williams Property and at the Home Site.

Level 1: Highly Sensitive Environmental Areas/Committed Uses

These areas are least appropriate for development either because they are sensitive natural environments that are to be protected or because the area is already committed to an existing use. The floodplains of Bolin Creek and Crow Branch, the Horace Williams Airport, the University's physical plant area and park-and-ride lot have been identified as Level 1 areas.

Level 2: Environmental Buffers

These areas have been established to maintain a buffer paralleling Bolin Creek and Crow Branch (extending beyond floodplain areas which must be protected by law) to ensure that the visual and environmental integrity of these areas are maintained.

Level 3: Low Intensity Development Areas

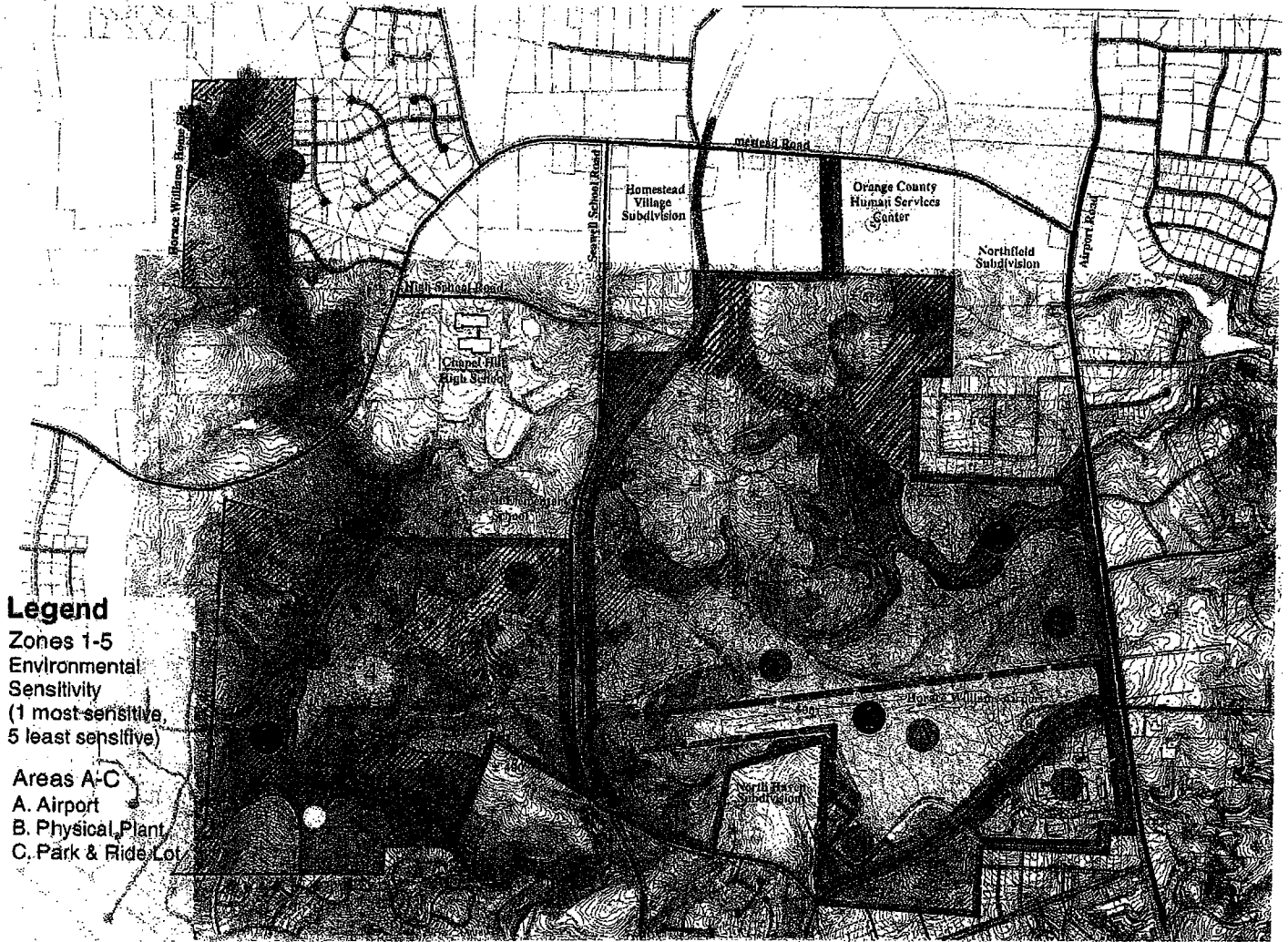
These areas include slopes over 10% and/or mature hardwood forest. Although these areas are not suitable for intensive development and larger scale uses, they could accommodate carefully sited buildings with small footprints and minimal parking requirements.

Level 4: Sloping/Vegetated Development Areas

These areas have moderate slopes and are vegetated by early succession forests with a mix of hardwoods and conifers. These areas are suitable for most kinds of development.

Level 5: Flat/Open Development Areas

These are the least environmentally sensitive portions of the site and are suited to a wide variety of uses.



Legend

Zones 1-5
Environmental
Sensitivity
(1 most-sensitive,
5 least sensitive)

Areas A-C
A. Airport
B. Physical Plant
C. Park & Ride Lot



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Outlying Properties Land Use Plans
September 1, 1998

ENVIRONMENTAL
SUMMARY

Horace Williams Property
Figure 1



JJR/PE

OUTLYING PARCELS LAND USE PLANS
SUMMARY REPORT

POTENTIAL USES

Because it is difficult for the University to anticipate long-term needs, an intentionally broad use list was created for the Horace Williams Property. Uses with similar locational needs and potential impacts were grouped in a single category. In response to both University and community preferences for a transit-supportive, mixed-use development approach, an "urban village" use district was included, combining a number of uses also found in other categories.

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 University graduate and professional academic units, administrative functions, University or corporate research facilities, incubator facilities, convenience commercial and service uses and housing.

Visitor Destination Uses

This district includes uses that require direct auto access from the regional circulation network, accessible parking and flat topography. Uses may include outpatient medical clinics, ambulatory patient-based research or clinical trials, public assembly facilities for small and medium sized groups, park-and-ride facilities and local commercial and service uses.

Independent Uses

This district includes single-purpose uses that can be developed as free-standing developments. Uses may include, for example, major research-oriented facilities, incubator facilities for technology transfer, academic groupings or schools, "big" science and technology activities that must be remotely sited, library special collections or technical facilities and institutional records.

OUTLYING PARCELS LAND USE PLANS SUMMARY REPORT

Utilitarian Uses

These uses are often perceived as unsightly or obtrusive and should be well buffered or sited in isolated areas. Uses include printing services, indoor storage and warehousing and physical plant shops, as well as exterior uses such as vehicle maintenance and storage yards.

Housing

These uses may include housing for university faculty, staff and students; fraternity/sorority housing and temporary housing or short-term University visits.

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.

Passive Recreation and Natural Area District

These natural areas typically include non-developable zones or minimally improved green areas. Examples include greenways, protected natural areas, parks and stormwater detention ponds.

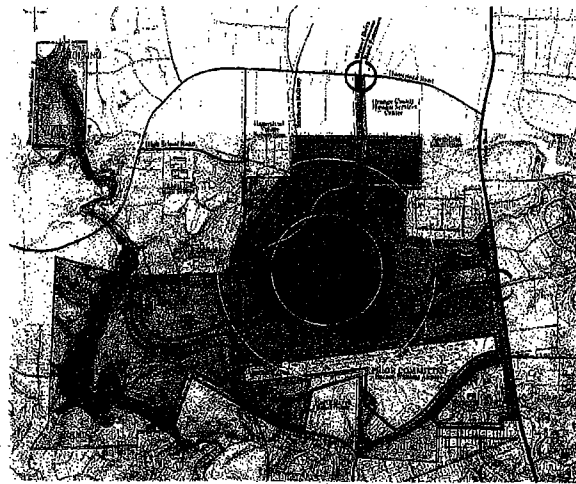
ALTERNATIVES

Three alternative land use plans were prepared to stimulate discussion concerning preferences and priorities for the long-term development of the Horace Williams Property. These alternatives illustrate different land use combinations and circulation and transit approaches. Density and transit/transportation management alternatives were also investigated to explore strategies for establishing the amount of new development that could be accommodated on the Horace Williams Property given the constraints that exist on off-site roadway capacity. After establishing a trip generation threshold for the site that would maintain a reasonable level of service on the surrounding roadway network, alternative packages of transit/transportation management policies were prepared. These policy alternatives were applied to

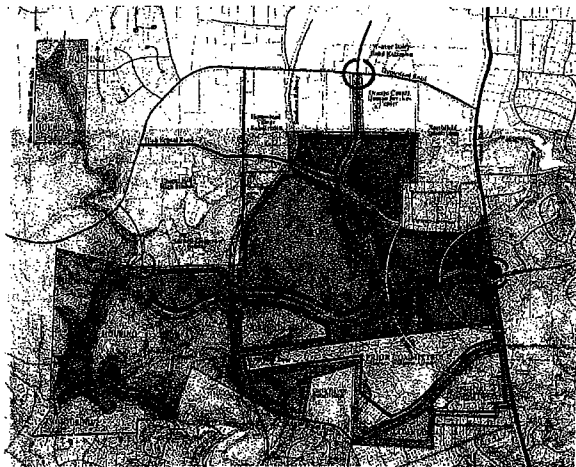
OUTLYING PARCELS LAND USE PLANS SUMMARY REPORT

the three land use plan alternatives to estimate the range of possible site development capacities. The transit/transportation management alternatives range from the status quo (including road-based bus transit service) to very aggressive efforts to encourage trip reduction and transit use (including a dedicated busway or rail line).

Major features of the comparative evaluation of these alternatives are summarized in Table 1. The land use, circulation, transit and transportation management alternatives were extensively reviewed by the University and community advisory committees. Alternative C was identified as having the greatest potential to serve as the basis for a final plan. After a number of important modifications were defined, a final plan was prepared.



Alternative A



Alternative B



Alternative C

**OUTLYING PARCELS LAND USE PLANS
SUMMARY REPORT**

**Table 1
ALTERNATIVES COMPARATIVE EVALUATION**

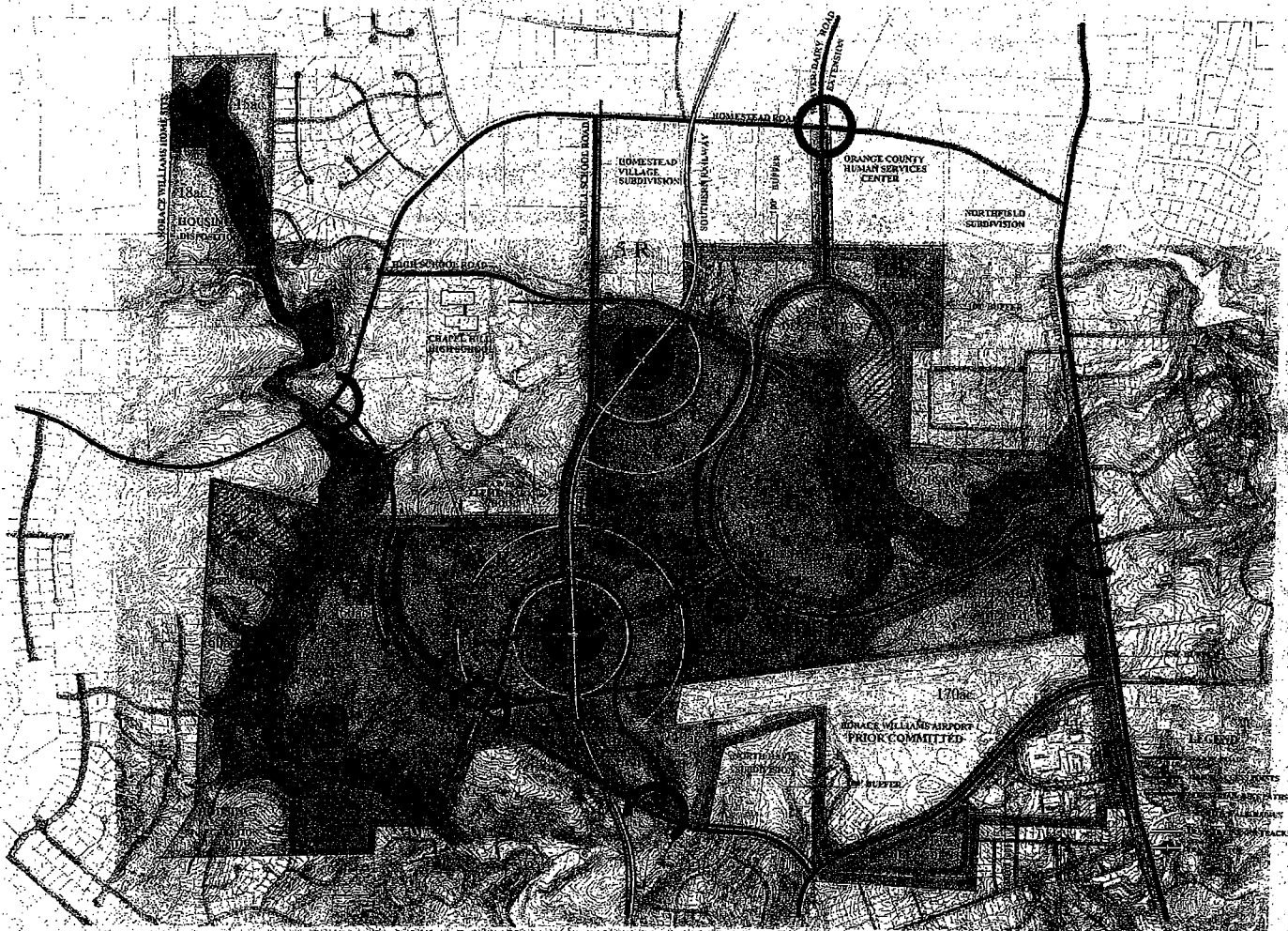
<u>Issue</u>	<u>Alternative A</u>	<u>Alternative B</u>	<u>Alternative C</u>
USE MIX AND DENSITY PATTERN			
	Emphasis on traditional academic/research; no mixed-use zone. Density fairly evenly spread.	Small higher intensity mixed-use zone on Airport Road; range of uses and lower densities on balance of site.	Large higher intensity mixed-use zone on rail line; range of uses and lower densities on balance of site.
USE DISTRIBUTION - NEIGHBORHOOD EDGES			
West	Housing	Housing	Housing
South	Housing and Utilitarian	Utilitarian and Independent	Utilitarian and Independent
North	University Research	Visitor Destination	Visitor Destination and Housing
Site Entries	Visitor Destination; University Research	University Village; Visitor Destination; Independent	Commercial; Visitor Destination; University Village
Site Interior	Academic	Independent	University Village
Home Site	Housing and Independent	Housing	Housing
DEVELOPMENT CAPACITY RANGES			
	5.9 - 6.5 million GSF	5.0 - 5.7 million GSF	6.6 - 8.3 million GSF
CIRCULATION			
Through Site Access	Through access more direct	Through access more direct	Through access less direct
Off-site Connections	Equally distributed	Emphasis on Weaver Dairy-Seawell School connection	Emphasis on Weaver Dairy-Airport Road connection
Estes-Homestead Connection		Indirect	Indirect Direct
Transit	Road-based bus; distributed stops	Road-based bus; distributed stops plus major stop	Dedicated busway or rail; major stop

OUTLYING PARCELS LAND USE PLANS S U M M A R Y R E P O R T

RECOMMENDED LAND USE PLAN

Figure 2 illustrates the recommended land use plan for the Horace Williams Property. Environmental protection and land use districts are color coded and labeled on the plans. Primary uses are shown in large type; secondary uses are also shown in smaller type for some development zones to provide the University with a degree of flexibility. (It should be noted that building, roadway and open space patterns within development zones have not been illustrated. This more detailed planning will be undertaken in the future as development needs are more clearly defined.) Vehicular entries to the Property are shown as circles and major internal road corridors are shown as thick black lines. The transit corridor appears as a red line with transit stations illustrated as large dots. Major bicycle/pedestrian routes are illustrated as green lines.

Land use districts define how the 550 acres of developable land on the Horace Williams Property can best be used (see Table 2). Extensive natural areas (259 acres) are also preserved to protect critical natural resources, provide buffers and create a continuous open space system that extends across the site. Approximately 170 acres are dedicated to already existing uses including the Horace Williams Airport, the University physical plant complex and a park-and-ride lot.



THE UNIVERSITY OF NORTH CAROLINA
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Outlying Properties Land Use Plans
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FINAL LAND USE PLAN
Horace Williams Property
Figure 2



JJR/PB

OUTLYING PARCELS LAND USE PLANS
S U M M A R Y R E P O R T

Table 2

HORACE WILLIAMS PROPERTY SITE DEVELOPMENT SUMMARY

Total Area	979 Acres	
Prior Committed Land (airport 110 ac.) (physical plant 60 ac.)	170 Acres	(18%)
Open Space Preservation (floodplain 57 ac.) (stream buffers 64 ac.) (misc. setbacks & open space 22 ac.) (runway approach zone 116 ac.)	259 Acres	(26%)
Developable Land (University Village 170 ac.) (Housing 108 ac.) (Independent Use 137 ac.) (Utilitarian Use 38 ac.) (Visitor Destinations 45 ac.) (Active Recreation 34 ac.) (Passive Recreation 18 ac.)	550 Acres	(56%)
Home Site		
Total Area	57 Acres	
Open Space Preservation	24 Acres	
Developable Land	33 Acres	
Housing	33 Acres	

OUTLYING PARCELS LAND USE PLANS SUMMARY REPORT

Highlights of the recommended land use plan are summarized below.

Linked Open Space System

In addition to protected natural areas along Bolin Creek and Crow Branch, the plan illustrates perimeter buffers, open space setbacks from major on-site roadways, an airport approach zone and active and passive recreation districts. These open space components are linked into a continuous system by bicycle/pedestrian routes.

Low Intensity Development Areas

Some areas with slopes of over 10% and/or mature hardwood forest are included within recommended development zones/land use districts. (These areas are indicated by green cross hatching.) It is anticipated that the University will develop these areas at a lower density, following special siting guidelines.

Mixed-use University Village

A large University Village district, located in the central portion of the site, is an important feature of the recommended plan. The University Village district spans the existing rail right-of-way to capitalize on its potential as a transit corridor. The highest density of development is located within 1/4 mile of the two proposed transit stops. It is anticipated that these areas will be developed to replicate the human scale, pedestrian character and mix of buildings and public spaces that characterize the older portion of Central Campus.

Independent Use Districts

Independent use districts are located to the east and west of the central University Village district and are edged by major on-site roadways (to provide appropriate access) and protected natural areas (to provide a high level of amenity). A small Independent Use district is also located on Estes Drive at the southern edge of the property adjacent to the University's existing physical plant complex.

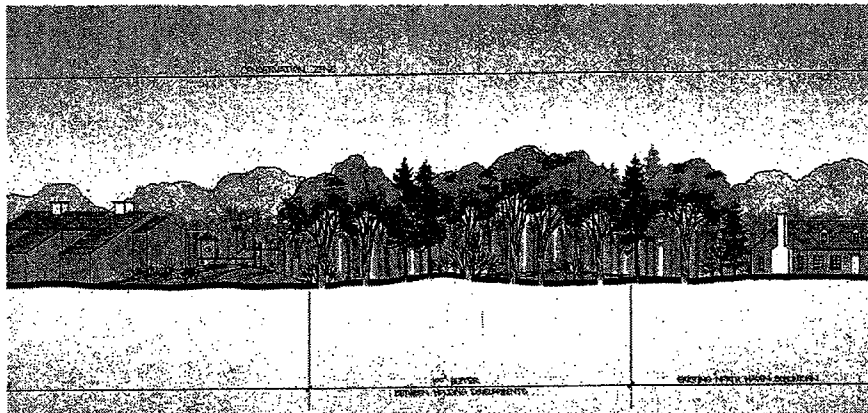
OUTLYING PARCELS LAND USE PLANS SUMMARY REPORT

Visitor Destination District

The Visitor Destination district is located on the north edge of the property, adjacent to the planned Orange County Human Services Center. Access is provided from the already planned extension of Weaver Dairy Road in an alignment that intersects with Homestead Road at the northern edge of the Horace Williams site. This location will ensure that the Visitor Destination district has excellent regional accessibility without drawing visitor traffic through the site.

Housing District

To the greatest possible extent, Housing districts are located on the property perimeter adjacent to existing off-site residential development. Housing is also recommended on the Horace Williams Home Site located to the north. On the Home Site and on the main property west of Bolin Creek, access to these new residential areas can be provided through existing neighborhoods. Possible secondary uses are also indicated on a number of the Housing districts. The "disposition" designation suggests that the University may sell (dispose of) some areas, rather than developing them for University uses.



Utilitarian District

The only Utilitarian district shown on the plan is located on the existing site of the Chapel Hill municipal operations complex. (The Town's lease on this property expires in December 2006.) This location on the interior of the site avoids any perceived conflicts with off-site residential development and may allow for the re-use of existing storage buildings. A small commercial district is located on the Airport edge of the Utilitarian district (see below).

OUTLYING PARCELS LAND USE PLANS
SUMMARY REPORT

Commercial

Commercial use outside of the mixed-use University Village district has been minimized and located on Airport Road at one of the primary entries to the Horace Williams Property. As a result, this commercial area will have a significant impact on the image of the property and must be designed and developed to a very high standard.

On-site Circulation

The recommended land use plan includes an internal road system and multiple site entry points to allow for the efficient distribution of traffic and promote accessibility while discouraging through traffic movement. An alternative to the alignment proposed in the communities' adopted Thoroughfare Plan is recommended for the connection between Seawell School Road and Homestead Road. This new alignment will avoid crossing Bolin Creek to minimize the level of environmental impact. Realignment of the southern portion of Seawell School Road around the southern University Village core/transit stop has also been proposed. In the longer term, it is anticipated that Seawell School Road will require widening to 4 lanes.

Major bike and pedestrian routes illustrated on the plan document the University's commitment to ensuring that a variety of transportation modes are available. The alignment of this bicycle/pedestrian system will be confirmed and expanded when planning proceeds to a more detailed level.

Transit

To support the construction and operation of a dedicated busway on the rail right-of-way, a minimum of 6 million square feet of academic, research, administrative and housing development must be provided on the Horace Williams Property at full build out. To support rail transit service, at least 5 million square feet of development must be located within 1/4 mile of the two University Village transit stations. Road-based bus service will link those areas that are beyond walking distance to the proposed transit corridor and transit stops. In addition, until an adequate critical mass of development occurs to support busway or rail transit, improved road-based bus service will link the Horace Williams Property to Central Campus and the larger region.

OUTLYING PARCELS LAND USE PLANS
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It will also be essential to promote additional off-site development along the transit corridor, for example, by implementing Chapel Hill's recommended Northwest Area Plan and by encouraging infill and/or higher density redevelopment at other corridor locations. Further, it will be necessary to allow traffic congestion to increase on the surrounding roadway network to encourage drivers to select a mode of travel other than driving their own car (transit, biking, walking).

Build Out Capacity and Trip Reduction Strategies

The successful implementation of transportation management strategies for trip reduction and transit will increase the quantity of development that can be accommodated on the Horace Williams Property at full build out by reducing the number of week day car trips generated to and from the site. A threshold for site-generated week day car trips was identified by comparing off-site roadway capacities to the growth in traffic volumes projected to take place without development on the Horace Williams Property. (No off-site roadway improvements other than those already included in adopted Thoroughfare Plans and Transportation Improvement Programs were assumed in estimating roadway capacities. Traffic forecasts from the North Carolina Department of Transportation, the Triangle Transit Authority and the Town of Chapel Hill were used to determine the projected growth in background traffic.) These comparisons determined that the road system to the south of the site (particularly Airport Road, Estes Drive and Greensboro Road) will constrain total site-generated traffic to 45,000 cars on an average week day, resulting in a Level of Service E in peak hours.

OUTLYING PARCELS LAND USE PLANS
S U M M A R Y R E P O R T

A "status quo" transit/trip reduction policy approach (including Chapel Hill Transit Service maintained at current levels and extended onto the Horace Williams Property, as well as an on-site ridesharing/transit coordinator and flex time work schedules) would allow 5 to 6 million gross square feet to be developed without exceeding the trip generation threshold. This status quo approach establishes a reasonable baseline for site development capacity. More importantly, aggressive trip reduction policies, in combination with a dedicated busway or rail transit service on the University/Norfolk Southern rail corridor, would allow build out capacity to increase to as much as 7.5 to 8.3 million gross square feet, but only if important off-site transportation and land use policies (as described in the transit discussion, above) are cooperatively pursued by the Towns of Chapel Hill and Carrboro, Orange County, the Triangle Transit Authority and the University. As a result, long-term flexibility for the University depends on cooperation between local governments and the regional transit authority to ensure that land use patterns and transit and trip reduction strategies are pursued in the larger region.