

## **V. ILLUSTRATIVE PLANS**



# Illustrative Plans

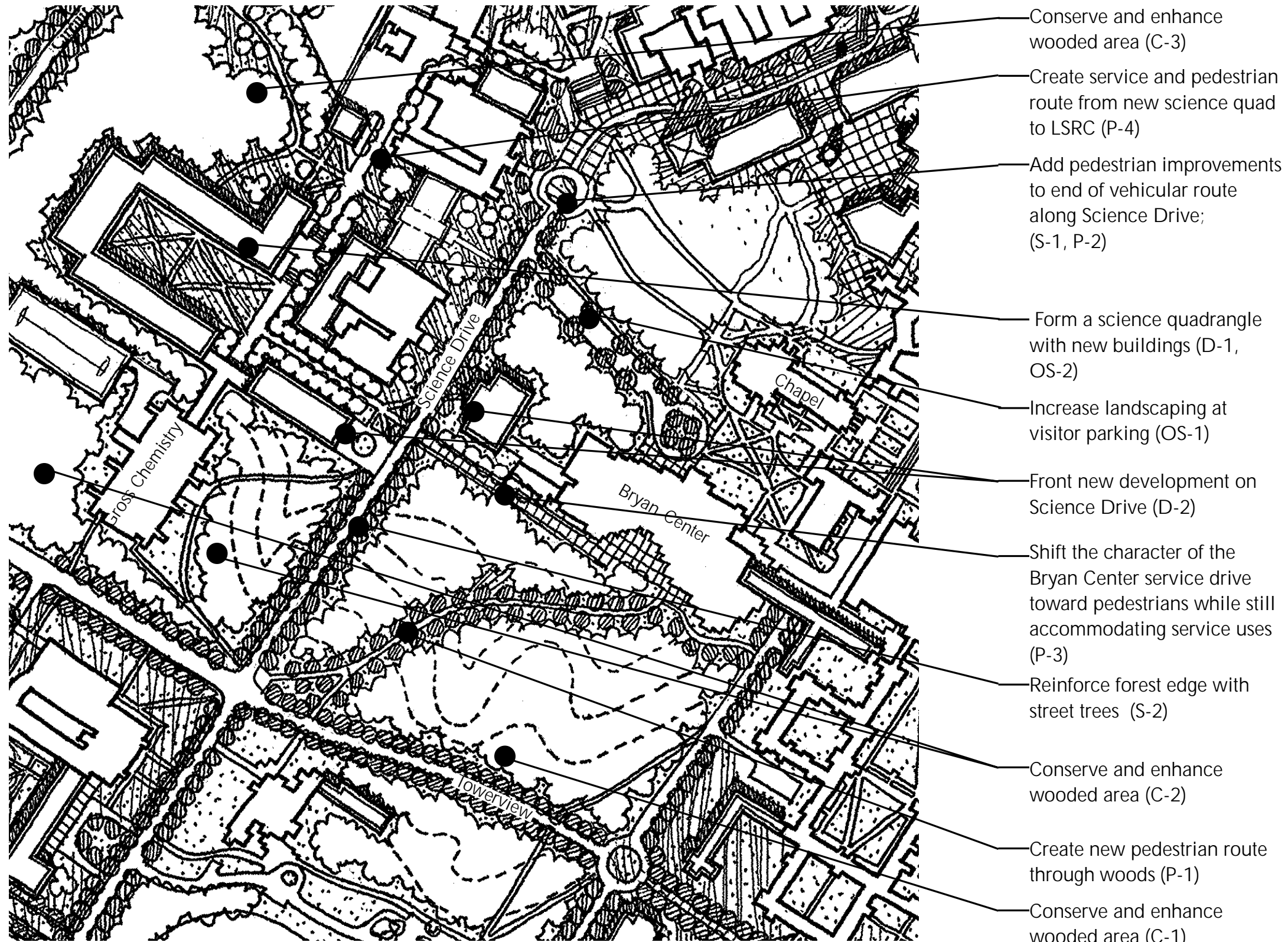
The following are site-specific illustrative applications of the principles and goals. Specific programmatic needs and timing as a part of each project will result in appropriate modifications and refinements to these illustrations.

This section analyzes individual areas of the campus in terms of opportunities for improvement and development, considering five topics considered for each area. *Conservation* includes recommendations regarding preservation of forested areas, historic buildings, and open spaces; it also covers the preservation of environmentally sensitive areas characterized by steep slopes and watercourses. *Open space development* addresses opportunities to create new places on the campus using buildings or landscaping to frame outdoor rooms for activity and gathering. The *Pedestrian connections* section looks for ways of better linking buildings, activities, and open spaces on campus. *Street improvements* make the campus more pleasant for pedestrian and

vehicular circulation, and also help make the structure of the campus more legible. Finally, the *Development* section sets forth guidelines for the location and development of new buildings and additions to best support the goals for improving the campus.

Because the master plan is schematic, new construction shown in these plans is diagrammatic, and intended to illustrate intentions and principles of development rather than indicate literal building footprints. Programs specific to new buildings will obviously affect the outcome of development. Also, there has been an effort to look for ways of achieving goals and responding to the principles of the plan in ways other than new construction: possibilities include modifying the network of internal roads and parking areas, improving streetscape, and improving walkways and landscapes.

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New Science Quad and Bryan Center Areas

## New Science Quad and Bryan Center Areas

### Description

The Gross Chemistry Building anchors the south end of the university science buildings. LSRC, an interdisciplinary science building, completed in 1994, now anchors the north end. What exists between are the older “red brick” science buildings of the mid 40’s. A new science planning effort to establish a science street or quad is recommended.

The Bryan Center houses the bookstore, the post office, many student services and a café. An outdoor patio also faces a wooded area to the south. Many students, faculty, and staff use the Bryan Center on a daily basis. The Bryan Center is connected to the West Campus quadrangle via a bridge, and a series of pathways

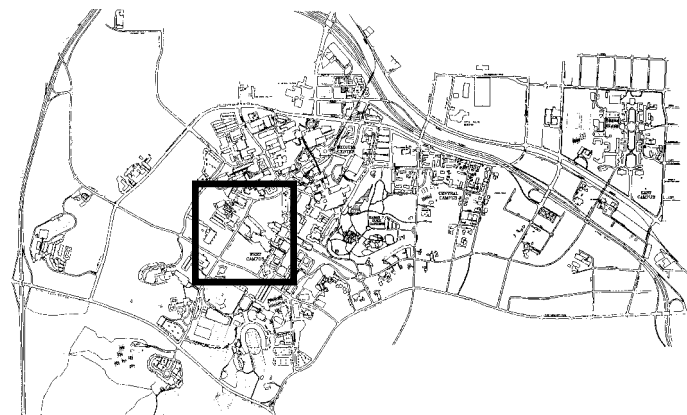
connect the center to the Chapel. Many students cut through the Bryan Center from the West quad to the science area via the service and emergency access road.

Across Science Drive from the Bryan Center is the Biological Sciences Building, the Phytotron Building, greenhouses and parking.

### Plan Concepts

In this area, the major opportunities include:

- Reinforcing Science Drive with pedestrian uses
- Strengthening pedestrian links into and within the Science Area
- Conserving selected wooded areas
- Creating new places where future buildings surrounds open space
- Landscaping the parking lot as an important entrance to the Bryan Center and West Campus quadrangle



Recommendations

Conservation

- C-1 • Retain the wooded area between the Bryan Center and Towerview as a forest preserve.
- C-2 • Preserve the wooded areas along Towerview between Circuit Drive and Science Drive.
- C-3 • Preserve the forested area with the stream to the northwest of the new science quadrangle.

Open space development

- OS-1 • Increase landscaping at the visitor parking area.

For many visitors to the campus, the short term parking area is the front door to the Bryan Center. Additional landscaping would benefit this parking area/entrance to diminish and screen the presence of automobiles and improve pedestrian access.

- OS-2 • Create a new open space with construction of new buildings northwest of the Biology Building.

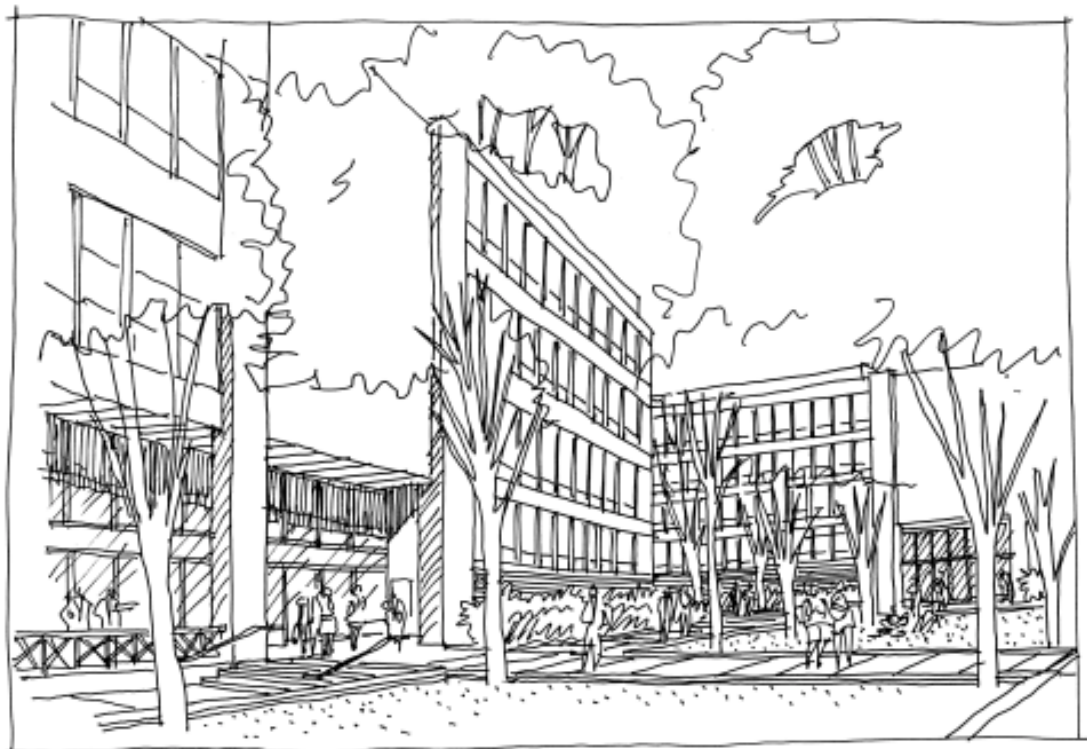
Pedestrian connections

- P-1 • Provide trails through the wooded areas connecting major destinations.

A trail from the Bryan Center to Public Policy would better connect the professional area, the Bryan Center and the West quad, and trails north of the new science quad could serve as a link to the new parking structures. Trails would allow more people to enjoy the wooded conservation areas and would make more direct walkable routes.

- P-2 • Make pedestrian improvements along Science Drive.

These improvements could create a “Science Walk” strengthening the pedestrian connection between the science area and the professional area.



Perspective Sketch - New Science Quad

- P-3 • Improve the service road south of the Bryan Center.

Many people now access the science precinct by cutting through the Bryan Center and use the service road south of the Bryan Center to Science Drive (despite a significant change in grade at the Bryan Center). The service road should be made more pedestrian-friendly. This road would connect across Science Drive to an improved path leading into expansions to the science area.

- P-4 • Define and improve a new network of pedestrian routes in the science area, connecting to Science Drive and to the LSRC.

The new science quad could be a catalyst in creating an improved pedestrian network in the science precinct. In some cases, these walkways may need to double as service routes, but pedestrian character should predominate.

#### *Street improvements*

- S-1 • Close a portion of Science Drive and develop a landscaped turnaround at the point of closure centered on the entrance to the Physics Building.

The terminus of Science Drive should have an easy turnaround and a clear connection to the parking area for the Bryan Center. The terminus should be well landscaped and act as an elegant entry to the pedestrian precinct and to the Physics Building.

- S-2 • Maintain the forested edge of Science Drive, and reinforce the edge with street tree planting.

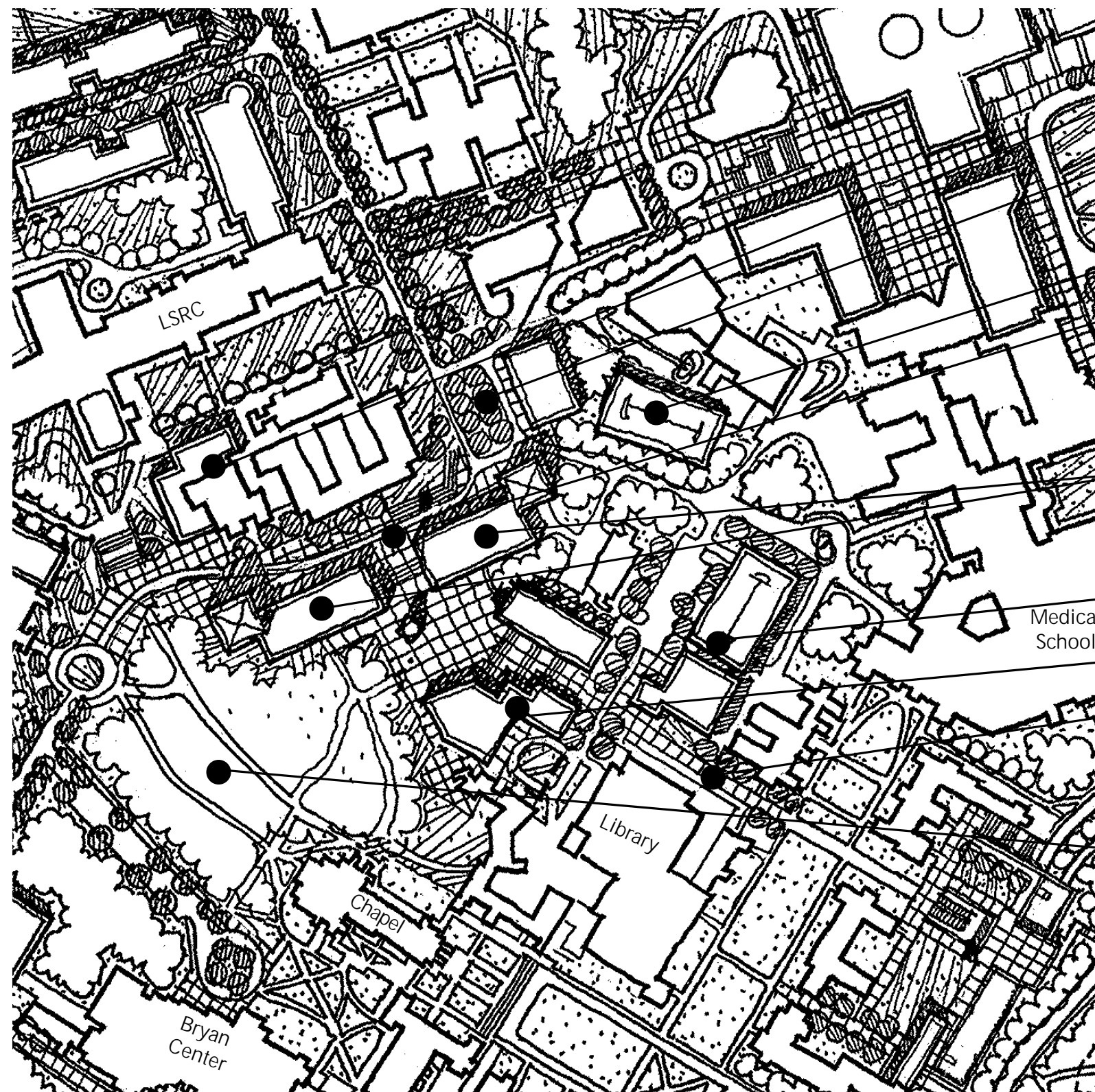
#### *Development*

- D-1 • Configure new buildings to form a new science quadrangle.

New construction is shown along the hillside northeast of Gross Chemistry. One new building addresses Science Drive and helps enclose the extended walkway alongside Biology. Several buildings work together to form a composition around new open space and terminate the walkway from Science Drive. The buildings should take advantage of views of the wooded area near the stream.

- D-2 • Front new development on Science Drive to activate the street.

There is a potential building site facing Science Drive opposite the Biological Sciences Building. Service would be located between the new building and the Bryan Center; the building should also have a prominent entry along Science Drive. The design should work together with the Biology building to create an entry to the science precinct along Science Drive.



## Design Elements

- Addition to Teer helps create enclosure around open space
- Turn-around for cars and buses at the end of Research Drive (OS-2, S-2)
- New parking structure
- New open space on closed portion of Science Drive creates a spacious entry to Hudson Hall and center of focus for Engineering (OS-1, S-1)
- New buildings visually terminate Research Drive and Science Drive and define new Plaza (D-1)
- Site for new building and parking structure (D-3)
- Divinity School addition (D-2)
- Improved and extended pedestrian walkway from West Quad to the Allen parking area (P-2)
- Conserve and enhance wooded area while improving pedestrian connections to the West quad (C-1)

General Note:  
Integrate safety considerations in plaza and walkway design, including lighting

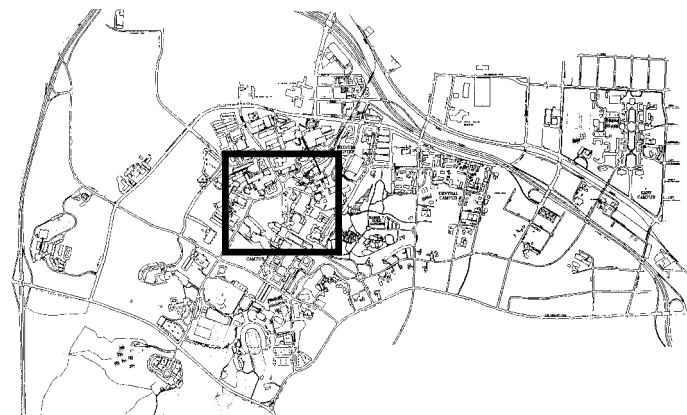
Engineering Plaza Area



## Engineering Plaza Area

### Description

This area is an important juncture between the engineering and science precinct and the West quad. Because several streets merge in this area, the existing configuration of Research Drive is confusing. It is not clear that the primary vehicular route turns south along Science Drive. At this intersection, the axis of Research Drive focuses on a parking lot and the utilitarian Telecom Building.

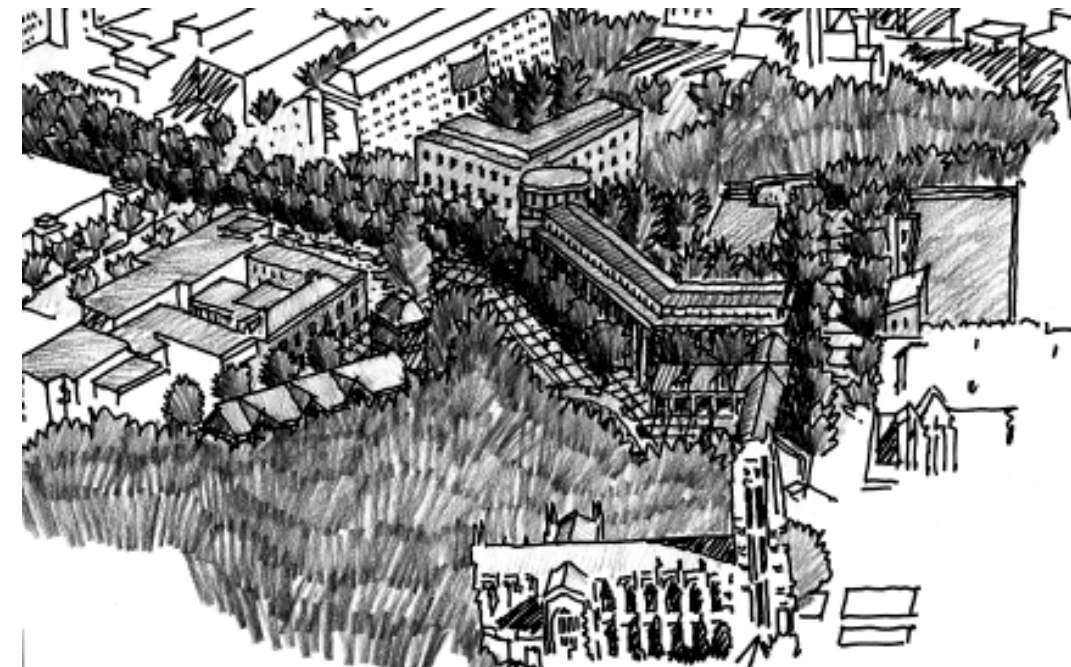


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### Plan Concepts

In this area, the major opportunities include:

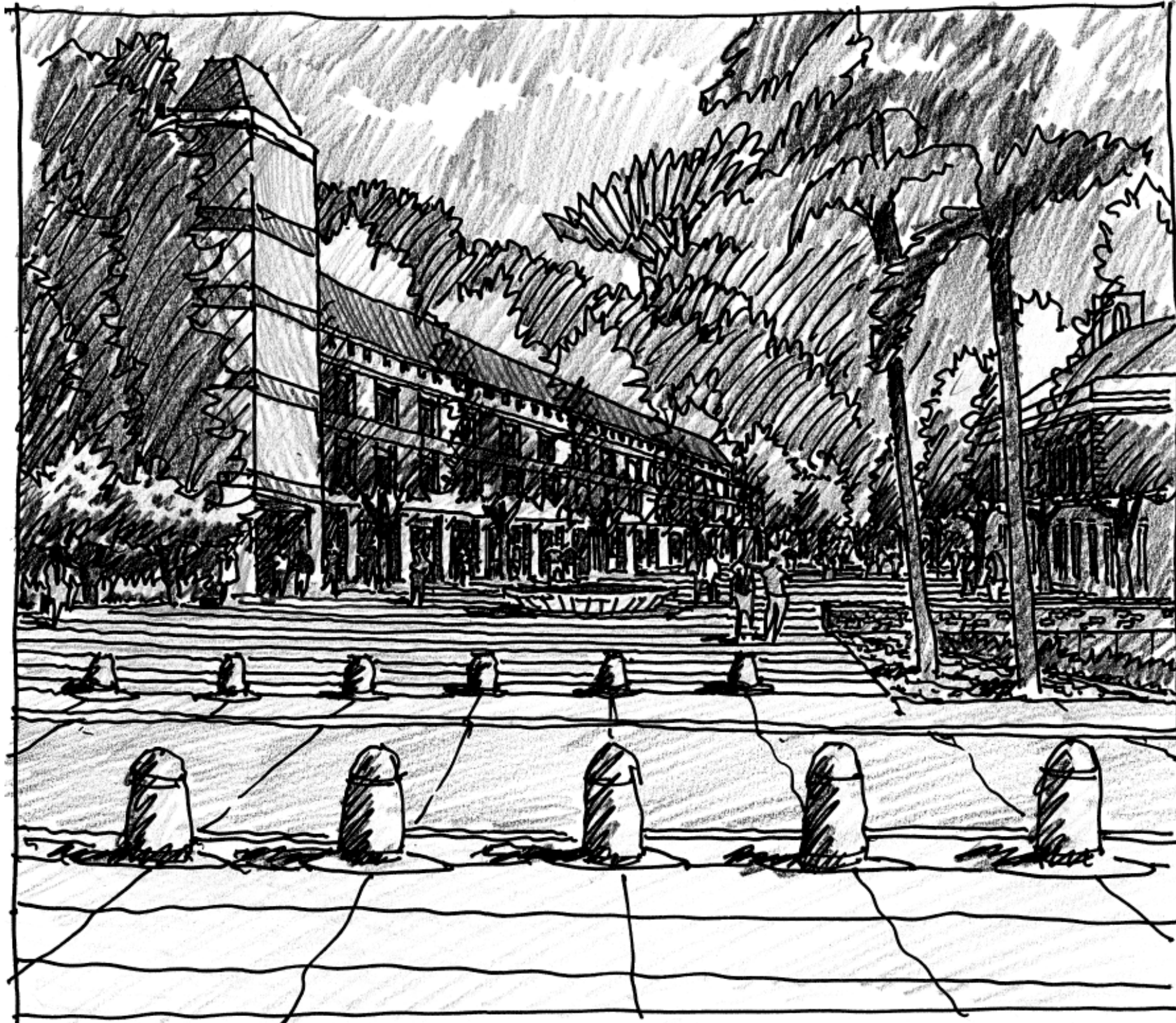
- Emphasizing pedestrian uses along Science Drive
- Strengthening pedestrian links from the West quad
- Clarifying the intersection of Science and Research Drives
- Relocating existing parking into new parking structures
- Creating an imageable entry for the Divinity School
- Conserving selected wooded areas
- Creating new places where future buildings surround open space



Axial sketch of proposed Engineering Plaza as forecourt to Hudson Hall

V-9





Sketch of Engineering Plaza with Hudson Hall to the right

Recommendations

Conservation

- C-1 • Maintain and enhance the maximum amount of wooded area north of the Chapel.  
  
The existing forested area north of the Chapel should remain largely intact. Paths through this wooded area connect to the buildings along Science Drive and are an important piece of the pedestrian network.

Open space development

- OS-1 • Create a plaza in front of Hudson Hall at the intersection of Science Drive and Research Drive.  
  
Closure of Science Drive in this area would allow for an elongated pedestrian space in front of Hudson Hall. The existing woods and a new building form an edge on the south side of the space and new construction could form closure at the eastern edge of Science Drive.
- OS-2 • Include a pedestrian space at the turn around for Research Drive that can be used for people waiting for buses.

Pedestrian connections

- P-1 • Make streetscape improvements per the Streetscape Typology section with the partial closure of Science Drive to traffic.
- P-2 • Create a new link between Science Drive Plaza, the West quad, the Allen parking area/Transit Hub, and the Sarah Duke Gardens.  
  
This pedestrian route could become a major new connection on the campus for bicycles and pedestrians. The width and the quality of improvements need to reflect its importance.

Street improvements

- S-1 • Close the portion of Science Drive between the physics building and Research Drive to traffic.

- S-2 • Reconfigure Research Drive where it now intersects Science Drive.

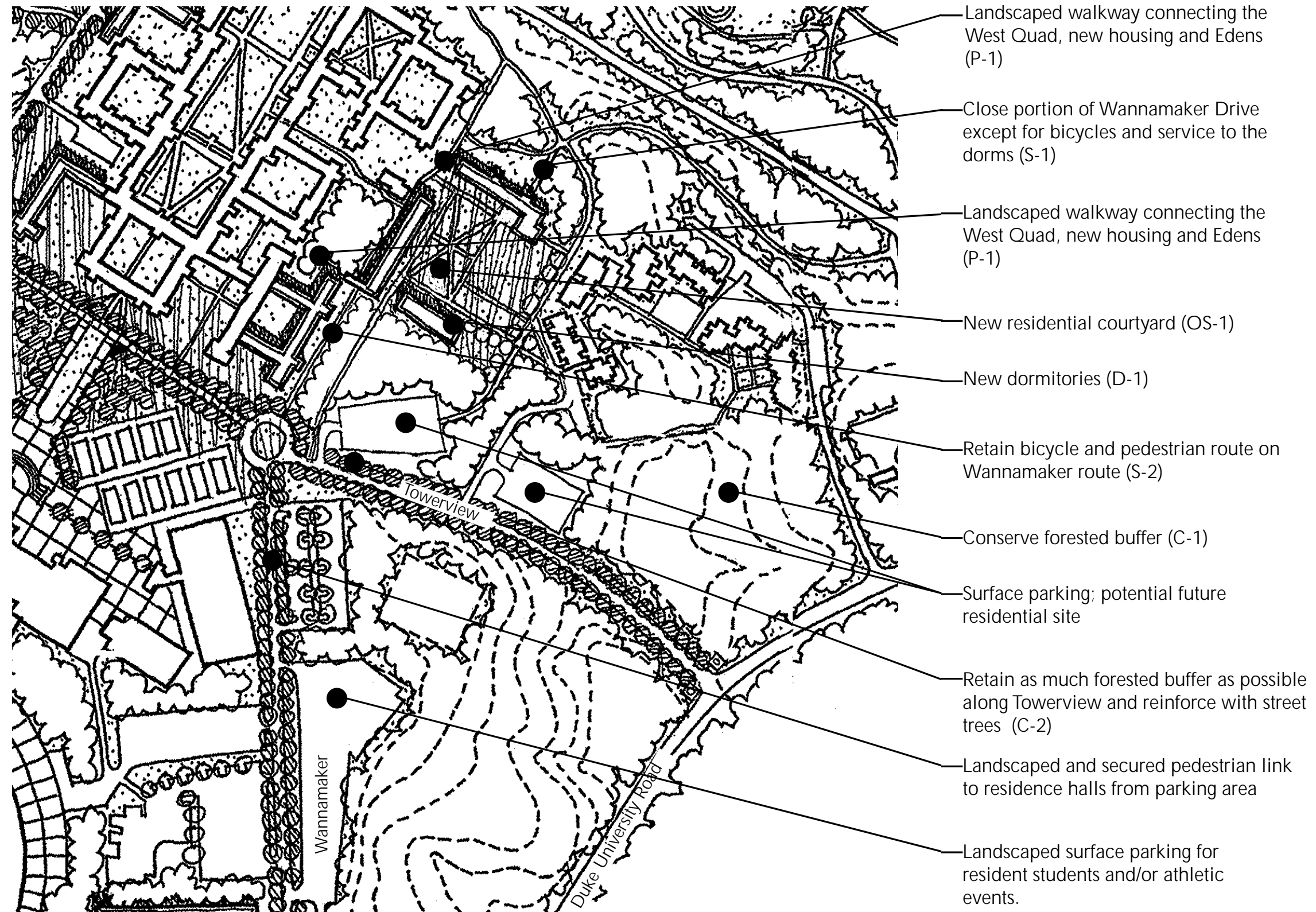
Create a landscaped turnaround space, and de-emphasize the portion of the road that continues into the service areas of the Medical Center, the Telecom Building and the north end of the West quad. Allow for potential controlled access point along Research Drive.

Development

- D-1 • Utilize building sites to enclose Science Drive Plaza. These building sites present an opportunity for cross-disciplinary interaction, and an activated new place for the campus. The architecture should create a harmonious enclosure, supportive of the facade of Old Red, assisting pedestrian wayfinding to and from the plaza.
- D-2 • Create a new entry to the Divinity School. An addition to the school could enhance this opportunity.  
  
The Divinity School can have a new approach from the north on axis with the Chapel past the Telcom building. The new Divinity School buildings should place entries on a new entry turnaround and incorporate service near the library's service area.
- D-3 • Construction behind Old Chemistry should relate to the new walkway between Science Drive Plaza and the West quad.

There are discussions regarding a building in the currently wooded area below the Old Chemistry Building on the West quad. This building, on a slope, should incorporate parking in the lower levels accessible through the service road off Research Drive. The entry to this building would be on the south and/or southeast facade, with strong connections into the West quad.





Edens to West Quad

## West Edens Link

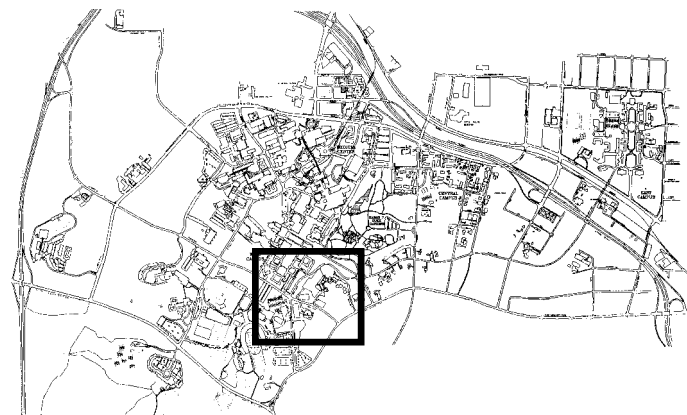
### Description

This area lies down the slope to the southeast of the residential portion of the original West quad. The “oceans” parking lot is between the Edens area and the West quad, and students must walk through the parking lot in order to reach the dining hall, library and other facilities on the West quad.

There are currently two sets of dormitories. The Edens complex, built in the 1960's with panels of Duke stone, is grouped around a stream coming from the Sarah P. Duke Gardens. The Schaefer buildings, a newer group of dormitories, are used as theme houses. Service is off of Edens Road, with access off of Duke University Road. There is a small amount of parking off of Edens Road.

The change in elevation, the location and size of the parking lot, and the presence of Wannamaker Drive contribute to a sense that the dormitories are isolated.

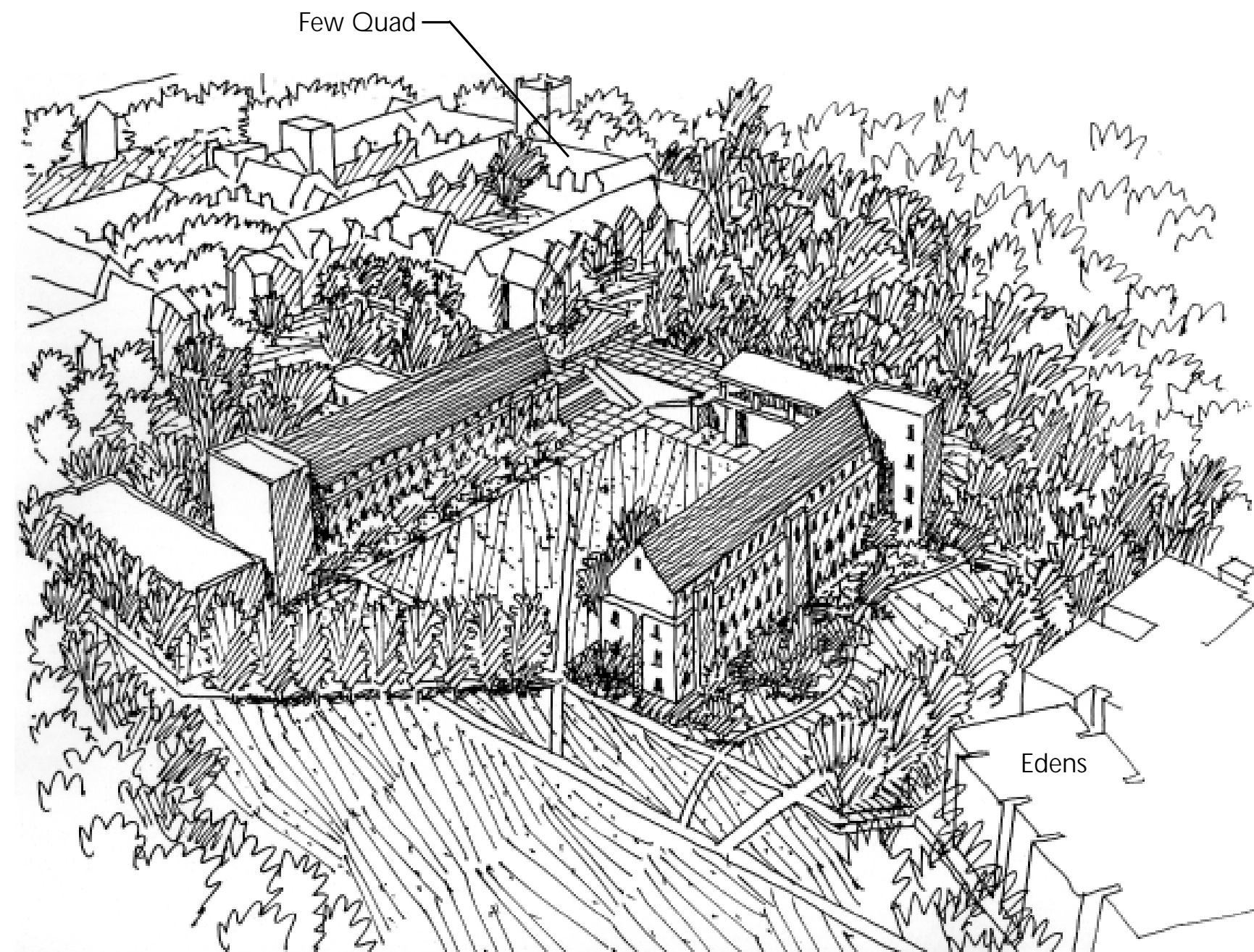
Plans are underway for an increase in residential units in this area. The design of the new units is intended to help reconnect the Edens area with the West quad. Parking solutions are also being evaluated.



### Plan Concepts

Major opportunities and issues in this area include:

- Adding new residential units
- Strengthening the connection between the existing Edens housing and the West quad with pedestrian paths, development, and open spaces
- Reducing surface parking in this area, but increasing parking in nearby structures or existing designated surface lots
- Minimizing impacts of adding parking to accommodate relocations
- Closing portions of Wannamaker Drive to vehicles, while still allowing pedestrian and bicycle access



Sketch of New Housing

## Recommendations

### *Conservation*

- C-1 • Preserve the forested area along Duke University Road.
- This area should continue north along the water course route. Development should be discouraged in the area near the stream.
- C-2 • Preserve existing trees where they can serve as a screen for parking.
- A substantial grouping of trees stands between the “oceans” parking lot and Towerview Drive, and should be used to minimize the impacts of new parking structures.

### *Open Space Development*

- OS-1 • Form a new courtyard space with the new dormitories.

### *Pedestrian Connections*

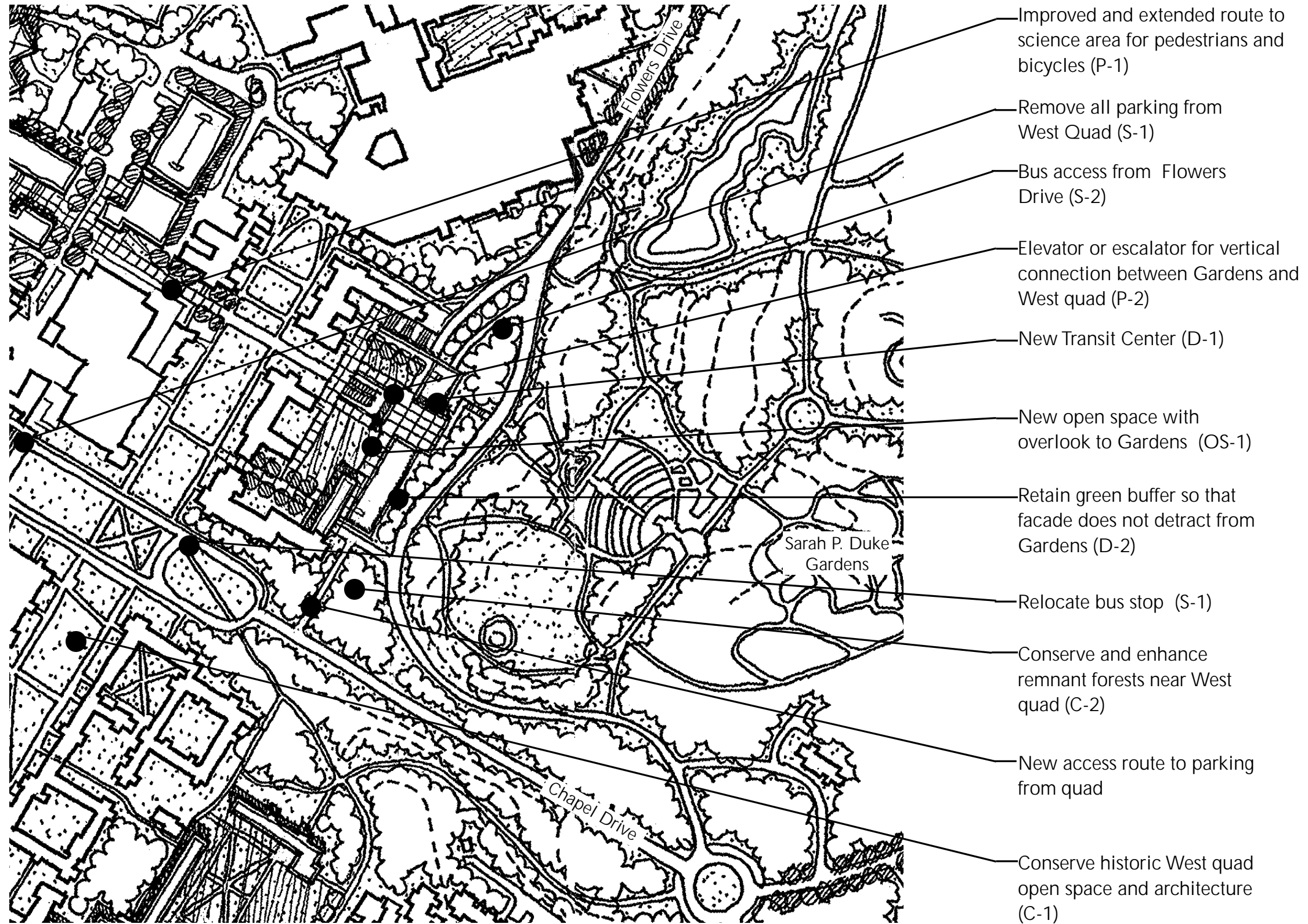
- P-1 • Improve the walkways from the Edens dormitories to the West quad.
- The quality of the walk between the Edens area and the West quad is critical to the experience of living in the lower dormitories. The Edens area and the new dormitories need to be integrated into the West quad.

### *Street Improvements*

- S-1 • Close Wannamaker Drive other than as limited access to the new residential area.
- S-2 • Retain bicycle and pedestrian access along the Wannamaker Route.

### *Development*

- D-1 • Site and design new dormitories to strengthen the connection between the West quad and the Edens area.
- The design of the new housing for this area should be sympathetic to the historic architecture of the West quad and should take full advantage of changes in topography.



West Quad Area/Transit Center



## West Quad Area/Transit Center

### Description

The West Campus quadrangle and its historic architecture are the heart of the Duke campus. The West quad is a classic example of the finest collegiate space.

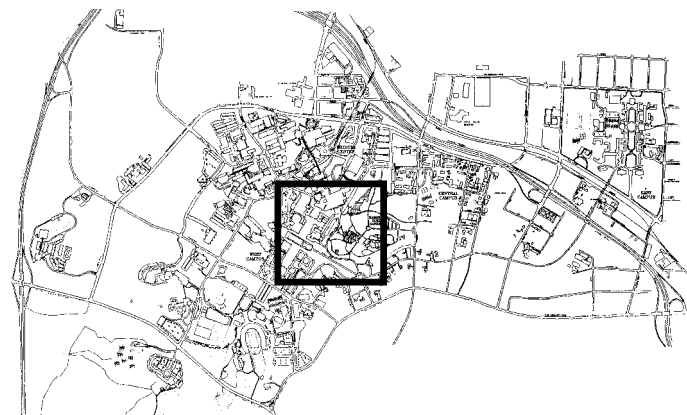
All-day and transient parking is currently allowed on the West quad, and Duke Transit buses pick up and drop off passengers there. Hundreds of visitors pass through this area daily for a “quick look” and to find visitor parking.

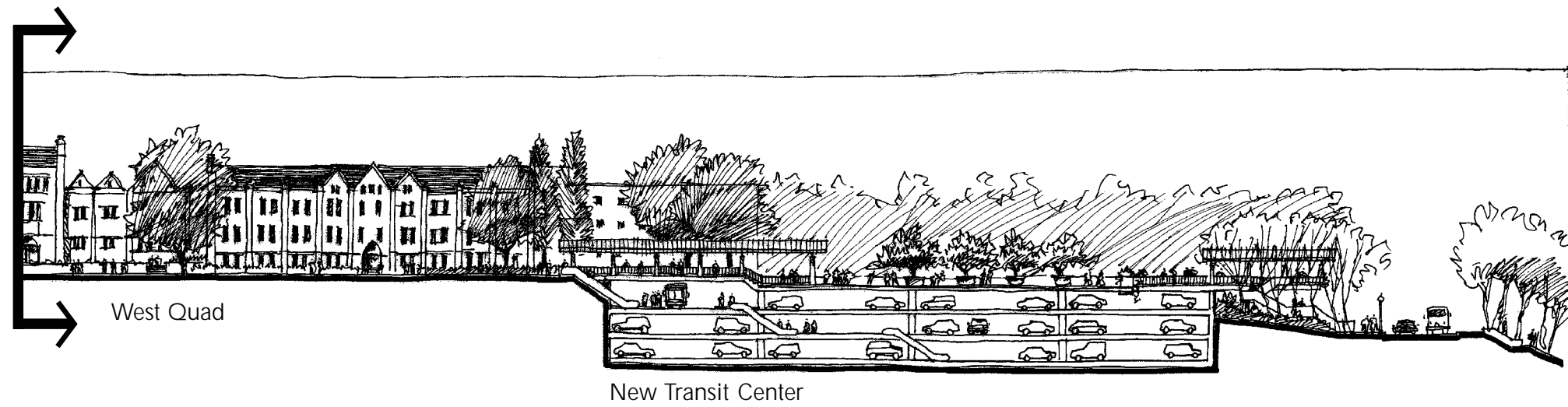
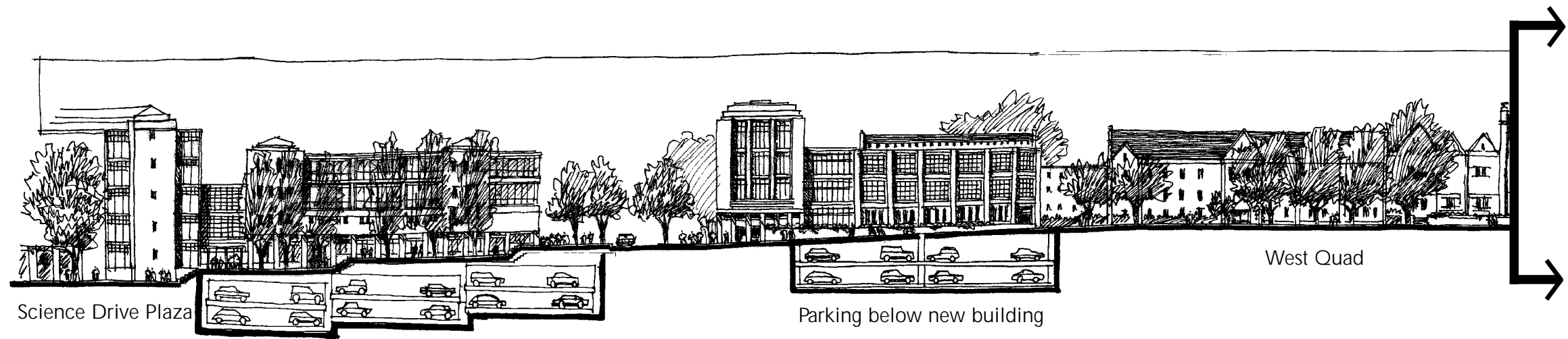
The proposed Transit Center is currently a parking area off Flowers Drive. There is a pedestrian route between the Sarah P. Duke Gardens and the West quad near Chapel Drive.

### Plan Concepts

Major issues and opportunities include:

- Preserving and enhancing historic Duke architecture and open space
- Providing accessibility while not detracting from the character of the West quad
- Removing all-day parking and buses from the Chapel area





Sketch of Transit Center

Recommendations

Conservation

- C-1 • Conserve the historic West quad, its open space, and its architecture.
- C-2 • Conserve and maintain the portions of the traditional ring of forest surrounding the original West Campus as outlined in the plan.

Open space development

- OS-1 • Create a Transit Center that expands open space at the level of the West quad, overlooking the Sarah P. Duke Gardens. This open space would be developed over the transit stop and parking.

Pedestrian connections

- P-1 • Extend and widen the pedestrian route from the Transit Center through the West quad toward the engineering and science area, terminating at Hudson Hall.
- P-2 • Include elevators and/or escalators in the Transit Center to bring people from the Garden level and buses to the West quad level.

People walking from the Gardens and from the central campus to the West Campus travel uphill to the West quad. A new Transit Center could incorporate an elevator and/or an escalator, allowing easier access from the Gardens and the Central Campus, and improving access for people with limited mobility. Handicap parking will be included within the Transit Center.

Street improvements

- S-1 • Remove parking from the front of the Chapel and relocate buses from Chapel Drive.

One challenge on the campus is providing parking for the West quad without detracting from its character. The Chapel and the quad attract visitors, and accessible parking is necessary for events held there.

- S-2 • Provide access and egress to the Transit Center from Chapel Drive and Flowers Drive.

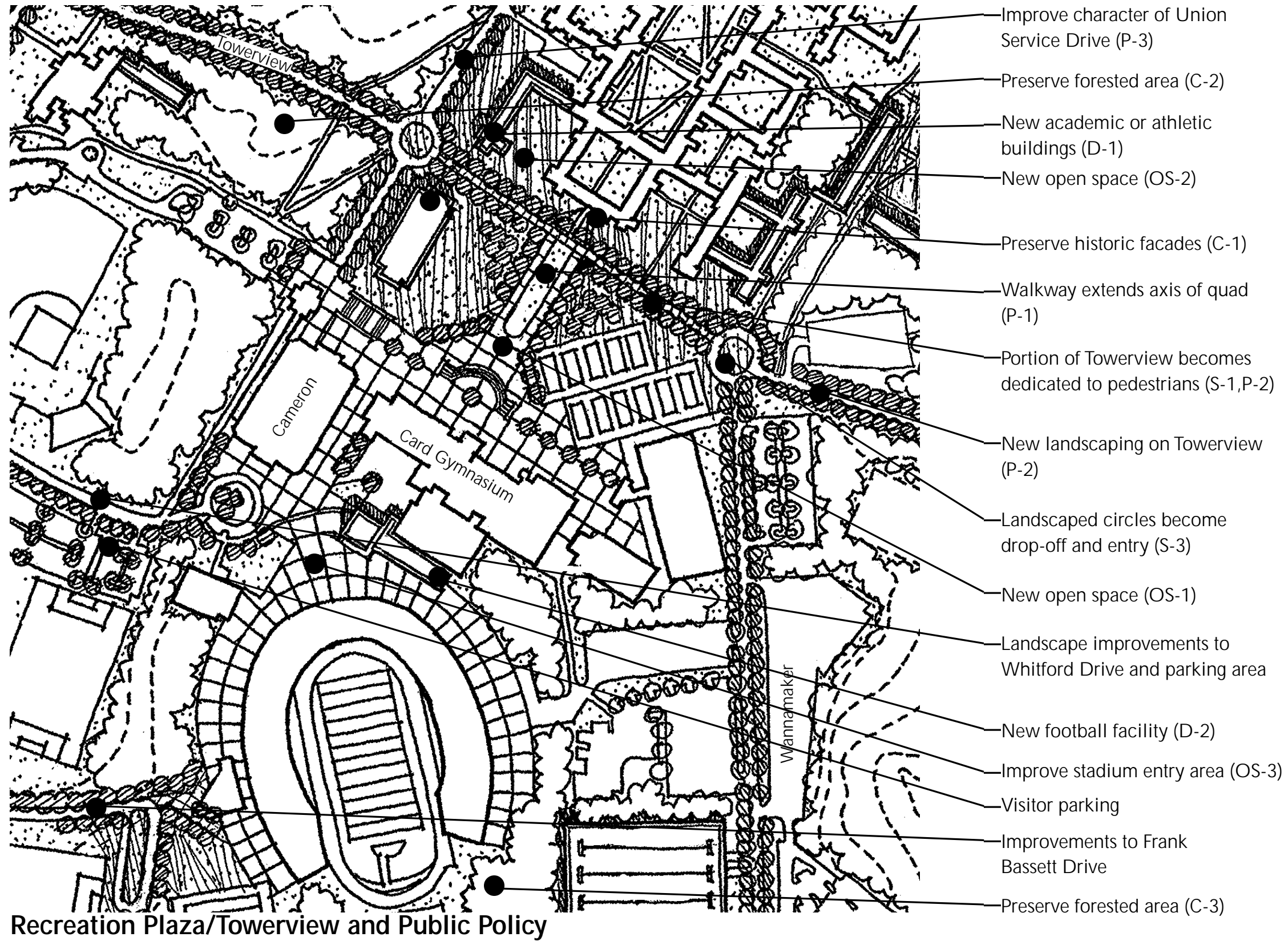
Changes in topography allow lower-level entry for buses and upper-level access for cars entering and exiting parking.

Development

- D-1 • Build a Transit Center which will include Duke Transit, regional bus service, and parking.

A near-term version of the transit center is possible simply by allowing buses to come to the Allen parking lot. With limited reconfiguration and landscape/pedestrian improvements, this area could function as a Transit Center until some point in the future when construction of full build-out is funded.

- D-2 • Design and landscape the facade of the transit center facing the Gardens so that it does not detract from views from the Gardens.



## Recreation Plaza/Towerview and Public Policy

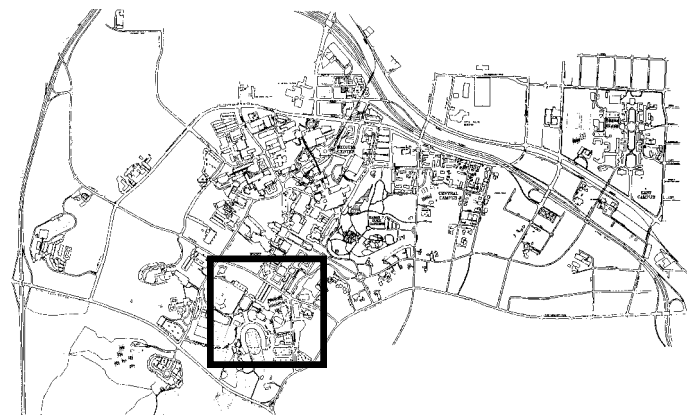
### Description

The Recreation Plaza is being built in conjunction with improvements outlined in the Cesar Pelli and Associates plan for the Recreation Area. Sporting events must accommodate large numbers of people and cars for relatively short periods of time.

The area along Towerview considered here runs from Union Service Access Road to Wannamaker Drive. Much of Towerview is wooded, but it is lined by parked cars on either side and is used as a through-route by local traffic.

Just south of Towerview, across from the entry to the residential portion of the West quad, is a surface parking lot considered to be a prime parking area. This area is also used for a portion of the year by students queuing for basketball tickets, living in tents for several weeks.

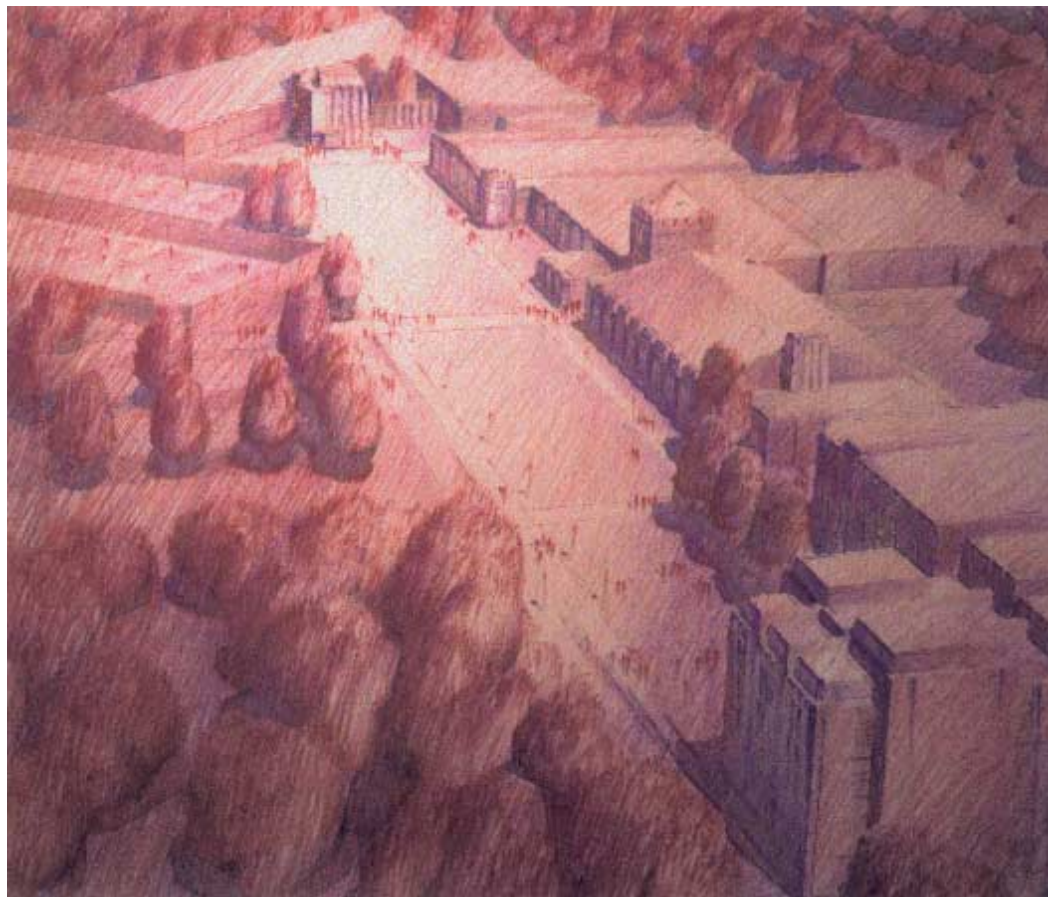
The School of Public Policy stands on the corner of Towerview and Science Drive. The primary connection to the West quad is not along these streets but through the parking area and a path through the woods. The school anticipates an addition to the existing building.



### Plan Concepts

Major issues and opportunities include:

- De-emphasizing or removing traffic on the portion of Towerview between Wannamaker and Science Drive
- Continuing the axis of the West quad across Towerview into the sports and recreation area
- Shifting the character of Union Service Drive toward pedestrians, while still accommodating service uses
- Removing remaining parking between the new recreation plaza and Towerview and developing as landscaped open space
- Improving the area around the football stadium and the entry to Cameron Stadium
- Improving the walkway from Recreation Plaza to the sports venues



**New Recreation Plaza**  
*Cesar Pelli & Associates*

## Recommendations

### *Conservation*

- C-1 • Preserve the south facade of the original West Campus architecture as well as the original facades of Card Gymnasium.
- C-2 • Preserve forested areas on both sides of Towerview to the west of Union Service Road.
- C-3 • Preserve the forested buffer along Cameron Boulevard and Duke University Road. No further fields or parking areas should intrude on this buffer zone.

### *Open space development*

- OS-1 • Create a significant new open space which connects the West quadrangle and the sports and recreation area.

Replace the surface parking area with landscaping and a walkway, and extend the axis of the West quadrangle into the plaza in front of Card Gymnasium.

- OS-2 • Develop new open space with buildings at the intersection of Towerview and Union Service Road.

The character of the new open space on the north side of Towerview should be compatible with the neighboring quadrangle area, and should contribute to a more pedestrian-oriented Union Service Drive. On the south side of Towerview, the open space should compliment the walkway along the axis between the gym and the West quad, but should belong to and be defined by the new building.

- OS-3 • Improve the character of the entry to the football stadium as well as the surrounding area, taking advantage of the dramatic setting.

The ticketing and concession functions should be consolidated, and surface treatment and paving coordinated. Hardscape surface needed for crowds at events can be used for parking during other times, but the quality of paving materials should compliment events gathering large numbers of pedestrians, rather than orient toward parking.

*Pedestrian connections*

- P-1 • Extend the axial walkway from the West Campus into the Sports and Recreation area.

Connecting the West Campus and the Recreation area would be a bold transformation of this portion of campus. The extended axis and the plaza in front of Card Gym would form a gathering space for crowds during events, and would be a new, memorable place.

- P-2 • Create a strong pedestrian area along the closed portion of Towerview.

Towerview would become an enjoyable place to walk, bringing people from the parking areas on Wannamaker into campus and becoming a viable option for walking to the professional schools. Towerview might be used by transit during limited portions of the day.

- P-3 • Improve Union Service Drive so that it has a more pedestrian character while still accommodating service.

Union Service Drive does not currently live up to its potential as a space in a heavily traveled zone. Although it must accommodate service uses, the street could take on a character that does not currently exist on campus, drawing on uses found in the Bryan Center. Temporary and seasonal markets or celebrations could occur on the drive if the atmosphere was improved on the southeast side.

- P-4 • Improve the walkway next to Cameron connecting the Sports Plaza and the stadium so that it can accommodate large numbers of spectators during sports events.

*Street improvements*

- S-1 • Close the portion of Towerview between Wannamaker and Union Service Drive, and add landscaping in accordance with the Streetscape Typology section of the Master Plan.

- S-2 • Emphasize pedestrian character on Frank Bassett Drive and Whitford Drive by incorporating street sections shown in the Streetscape Typology section of the Master Plan.

- S-3 • Add landscaped circles at ends of Towerview. Allow drop-off.

*Development*

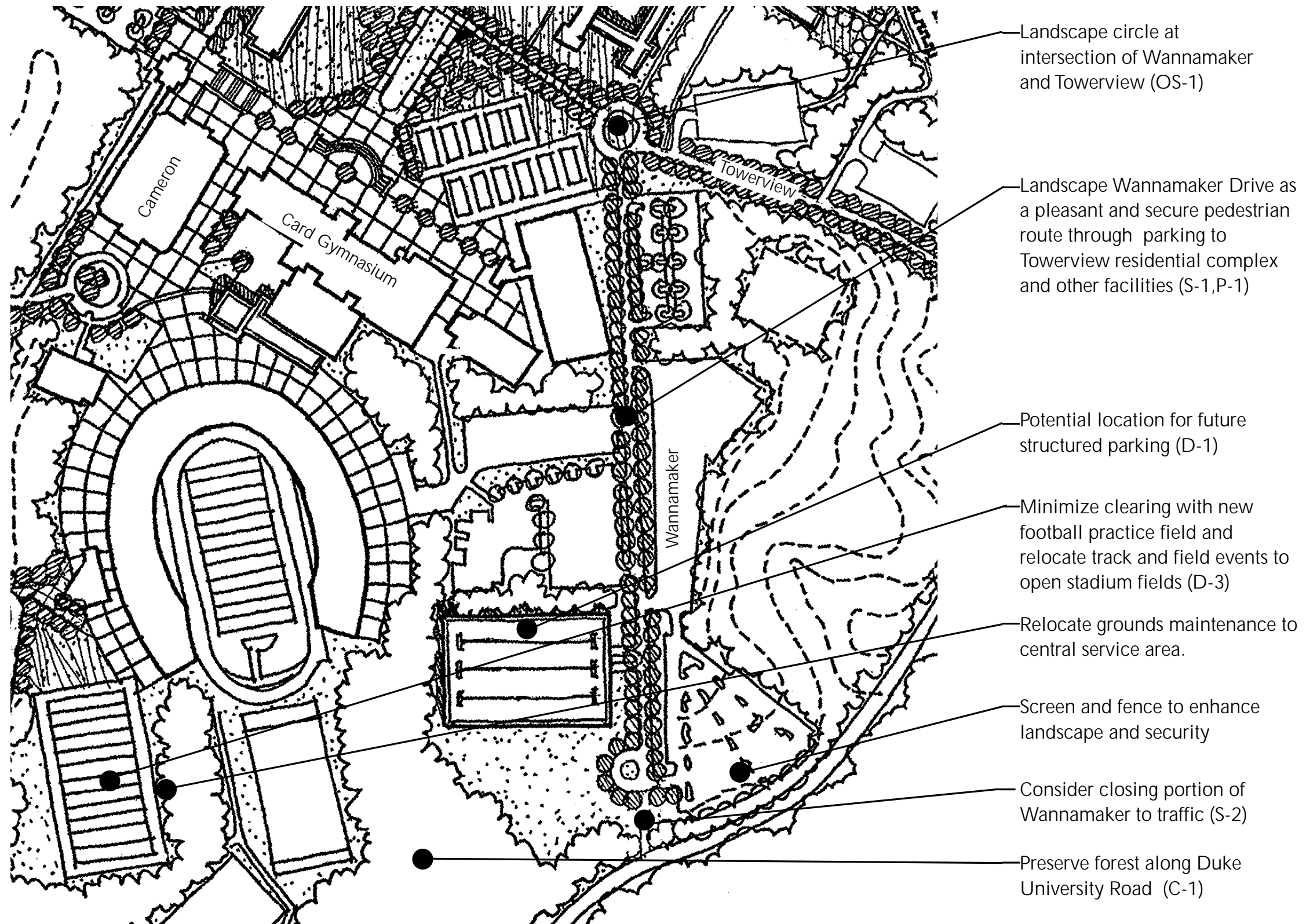
- D-1 • Ensure that new construction on Towerview contributes to the campus context without overpowering the historic architecture.

New buildings flanking Towerview near Union Service Drive could create an entry to the West Campus distinctive to the recreation/sports center. The massing and architecture of this potential pair of buildings must not overpower or detract from the historic architecture of the West Campus.

- D-2 • Use construction of the new football facility to improve the character of the stadium area.

A new football facility is planned behind Card. This facility will be partly below grade, with a connection to the football field. The south facade of the facility should help form the edge of an improved plaza at the entrance to the stadium.





Parking Area on Wannamaker



# Parking Area on Wannamaker

## Description

Wannamaker Drive originates at Duke University Road, crosses to Towerview, and extends to the circle at Campus Drive. This portion of Wannamaker Drive, from Duke University Road to Towerview, provides access to several reservoirs of surface parking.

## Plan Concepts

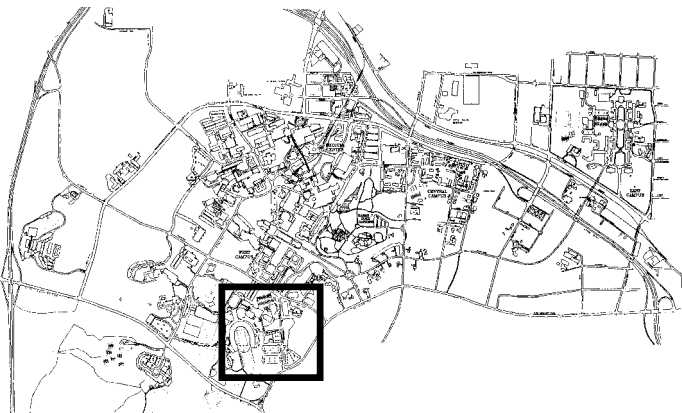
Major issues and opportunities include:

- Consolidating parking
- Creating a pleasant and secure walkway along Wannamaker
- Conserving wooded areas along Cameron Drive and Duke University Road

## Recommendations

### C-1 Conservation

- Preserve the forested area along Duke University Road as a buffer. No additional forested area should be cleared for parking or other purposes.



May 2000

### Open space development

- OS-1 • Landscape the circle at Towerview and Wannamaker.

The circle at Towerview and Wannamaker is an opportunity for landscaping that is an inviting marker of the entry to the West quad area.

### Pedestrian connections

- P-1 • Improve the streetscape along Wannamaker Drive according to the guidelines in the Streetscape Typology section of the Master Plan.

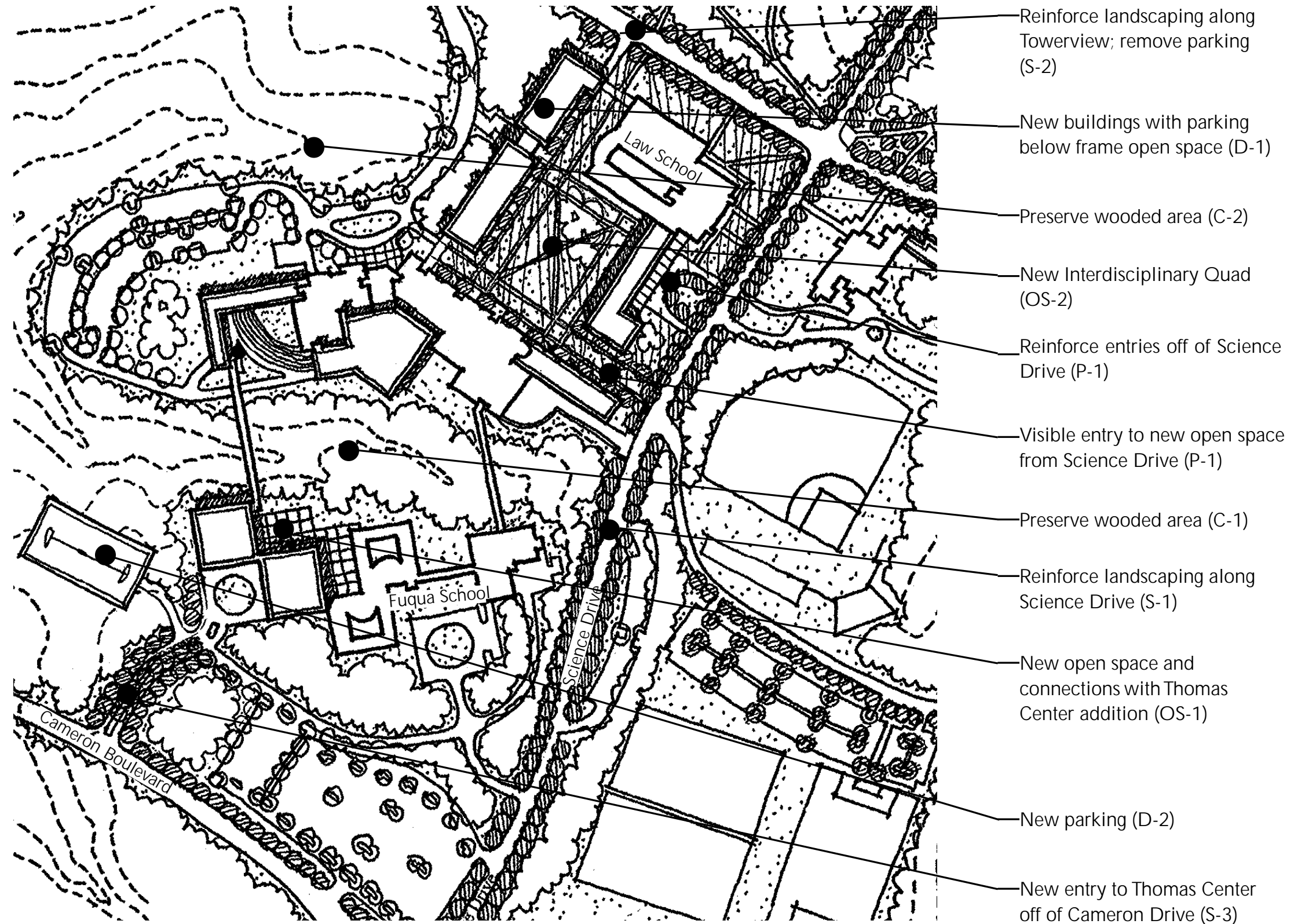
If walking from the parking areas to destinations is an enjoyable experience, the perception of distance is reduced. Improving the pedestrian routes from parking lots may reduce demand for shuttle service.

### Street improvements

- S-1 • Change the character to make the street a pedestrian walk that also functions as parking access.
- S-2 • Consider partial closure of Wannamaker south of the Tennis Center, with student parking entering via Towerview only.

### Development

- D-1 • Consider building a structured parking facility on the existing surface lot on Wannamaker near Duke University Road. This could replace lost parking when Card lot is closed. Screen structure from Duke University Road. Parking in this area is along the campus periphery, but is still convenient to major destinations, especially the undergraduate residence halls. It is also a good location for accommodating parking for events.
- D-2 • Screen service to the Tennis Center from Wannamaker Drive.
- D-3 • Minimize clearing for a new football practice field.



Thomas Center and Law/Business Interdisciplinary Center

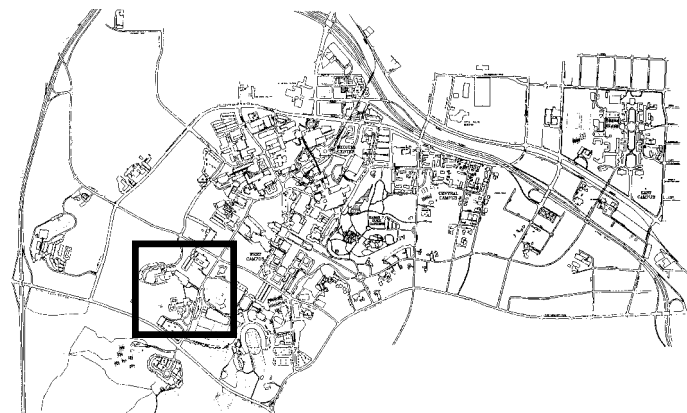
## Thomas Center and Law/Business Interdisciplinary Center

### Description

The R. David Thomas Executive Conference Center is part of Duke's Fuqua School of Business. The Center includes guest rooms, meeting rooms, dining and recreational facilities. The buildings are set along the side of a wooded ravine and are connected to the Business School by a pedestrian bridge. Cars enter from Science Drive to a drop-off area; parking is located near the intersection of Science Drive and Cameron Boulevard. The parking is largely screened from the street by trees and a change in topography.

The Fuqua School is a highly regarded, relatively new business school with about 1,000 students. Its facilities are entered by a foot bridge from Science Drive or by car from Towerview.

The Duke Law School also consists of an original building on Science Drive and a larger, recently constructed building. Parking associated with the Law School is accessed from Towerview. The Law School prides itself as a pioneer in creating interdisciplinary relationships across the University, and about a quarter of its students are enrolled in one of 18 joint degree programs.

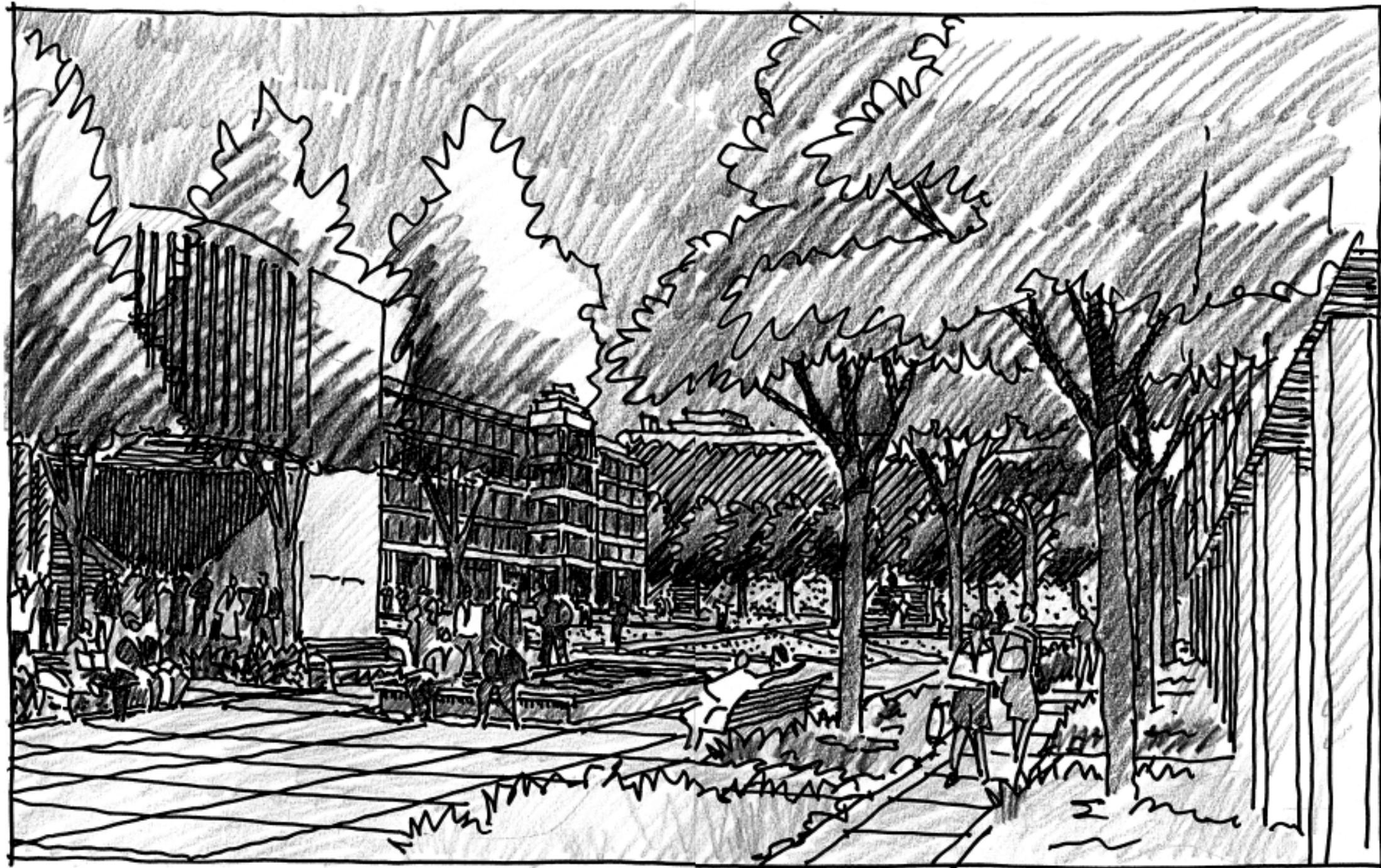


### Plan Concepts

Major issues and opportunities include:

- Using new buildings to enhance connections within the professional school area
- Creating a new quad over parking, connected to Science Drive, that can serve the Law School and promote interaction between disciplines
- Emphasizing entries on Science Drive rather than entries from parking
- Protecting wooded ravines and riparian corridors
- Meeting parking demand in an unobtrusive manner





Sketch of Interdisciplinary Courtyard looking south

Recommendations

Conservation

- C-1 • Prevent development in the wooded ravine.  
  
New development should not be allowed in the wooded ravine, with the exception of pedestrian links between the Thomas Center and the Fuqua School of Business.
- C-2 • Retain the forested buffer areas northwest of the law and business schools.

Open space development

- OS-1 • Create open space with any new development at the Thomas Center, and consider additional pedestrian links to the Business School.
- OS-2 • Develop a new quadrangle between Law and Business over parking.  
  
This portion of the professional area holds great potential for an open space promoting interdisciplinary activity. An open space between the Law School building and the Fuqua School could be an asset to both of these schools.

Pedestrian connections

- P-1 • Reinforce entries off of Science Drive to the Law School, the Business School, and the Thomas Center.  
  
The plan aims to enliven and improve Science Drive as a pedestrian connector. Entries and gathering spaces should be encouraged along Science Drive, rather than the relationship that has occurred in some recent construction where the primary entry is from parking.
- P-2 • Make a visible and inviting walkway into the Interdisciplinary Quad from Science Drive.

Street improvements

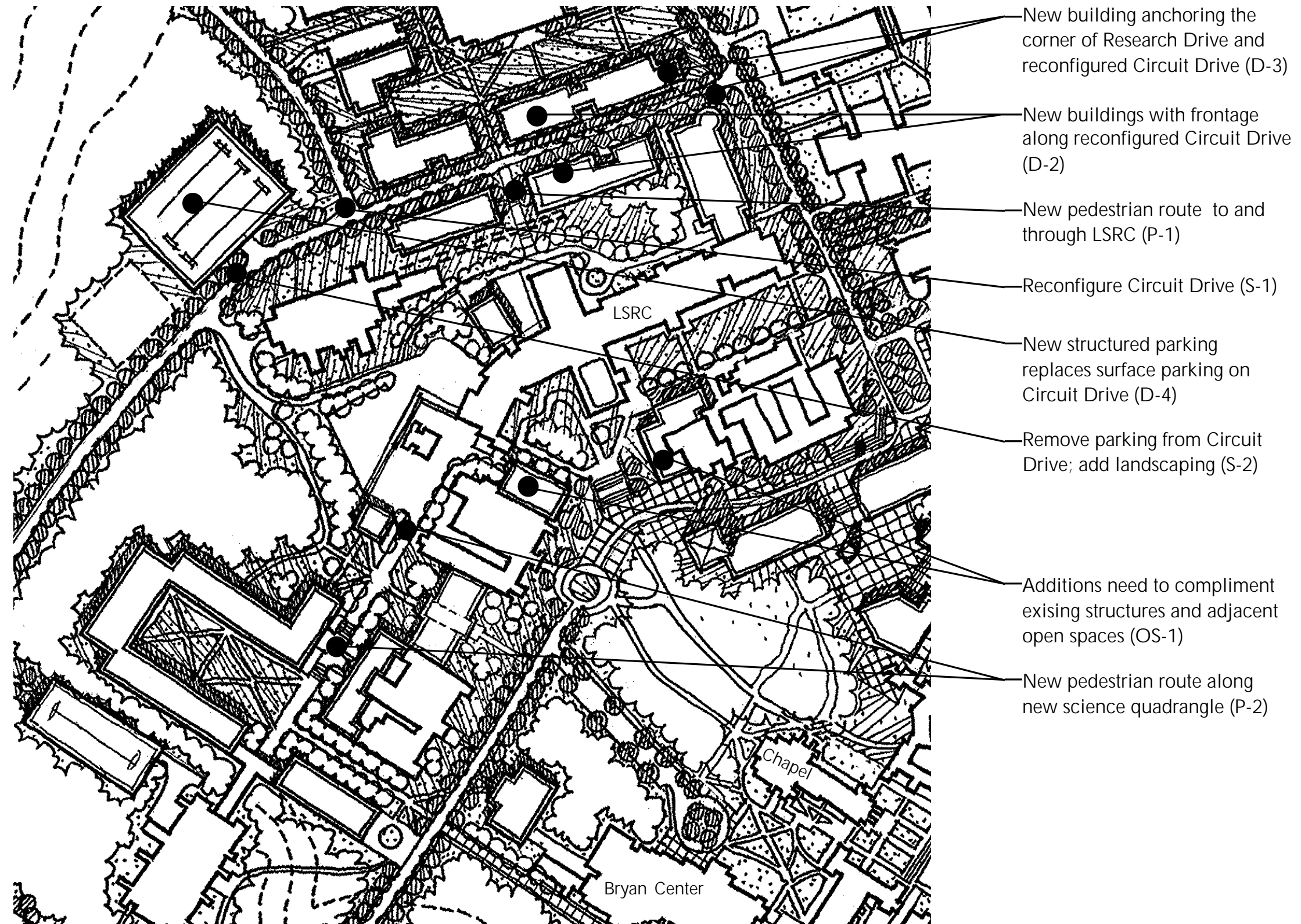
- S-1 • Add trees along Science Drive per the Streetscape Typology section of the Master Plan.
- S-2 • Remove on-street parking along Towerview and strengthen the landscape as defined in the Streetscape Typology section of the Master Plan.
- S-3 • Relocate primary access to the Thomas Center to Cameron Road with the expansion of the Center.
- S-4 • Consider renaming Science Drive to encompass a wider range of disciplines with access off the drive.

Development

- D-1 • Use new buildings (with parking below) to frame a new open space and create an Interdisciplinary Courtyard on the current site of the Law School parking lot.
- D-2 • Use any new buildings at the Thomas Center to compliment the existing character and sense of place.

Additional parking may be located with access off Cameron Drive. Consider additional connections across the ravine to the Business School.





LSRC Area

# LSRC Area

## Description

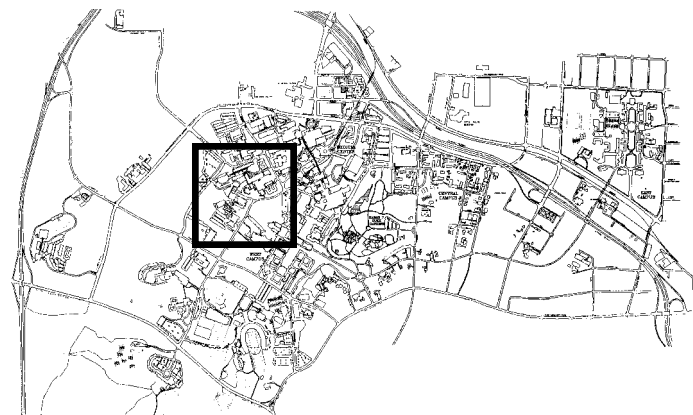
The LSRC complex is an excellent example of collegiate placemaking, with buildings defining a courtyard. The LSRC lies below Science Drive, and a set of steps leads into gardens from Science Drive. The courtyard opens toward Research Drive. A dining facility separates a portion of the quadrangle from a garden area. The LSRC complex terminates on the southwest end with a weather-protected stairway which allows access to the adjacent higher grade.

Circuit Drive is primarily used for parking, and is accessed from Research Drive and the LaSalle Extension.

## Plan Concepts

Major issues and opportunities include:

- Adding new building space in a way that reinforces the system of pedestrian routes and streets
- Designing additions to building that enhance the complex
- Improving the pedestrian connection through the LSRC toward the West quad



## Recommendations

### *Open Space Development*

- OS-1 • Additions to any buildings around the LSRC courtyard should be designed to enhance the enclosed open space and should relate architecturally to the existing buildings.

### *Pedestrian Connections*

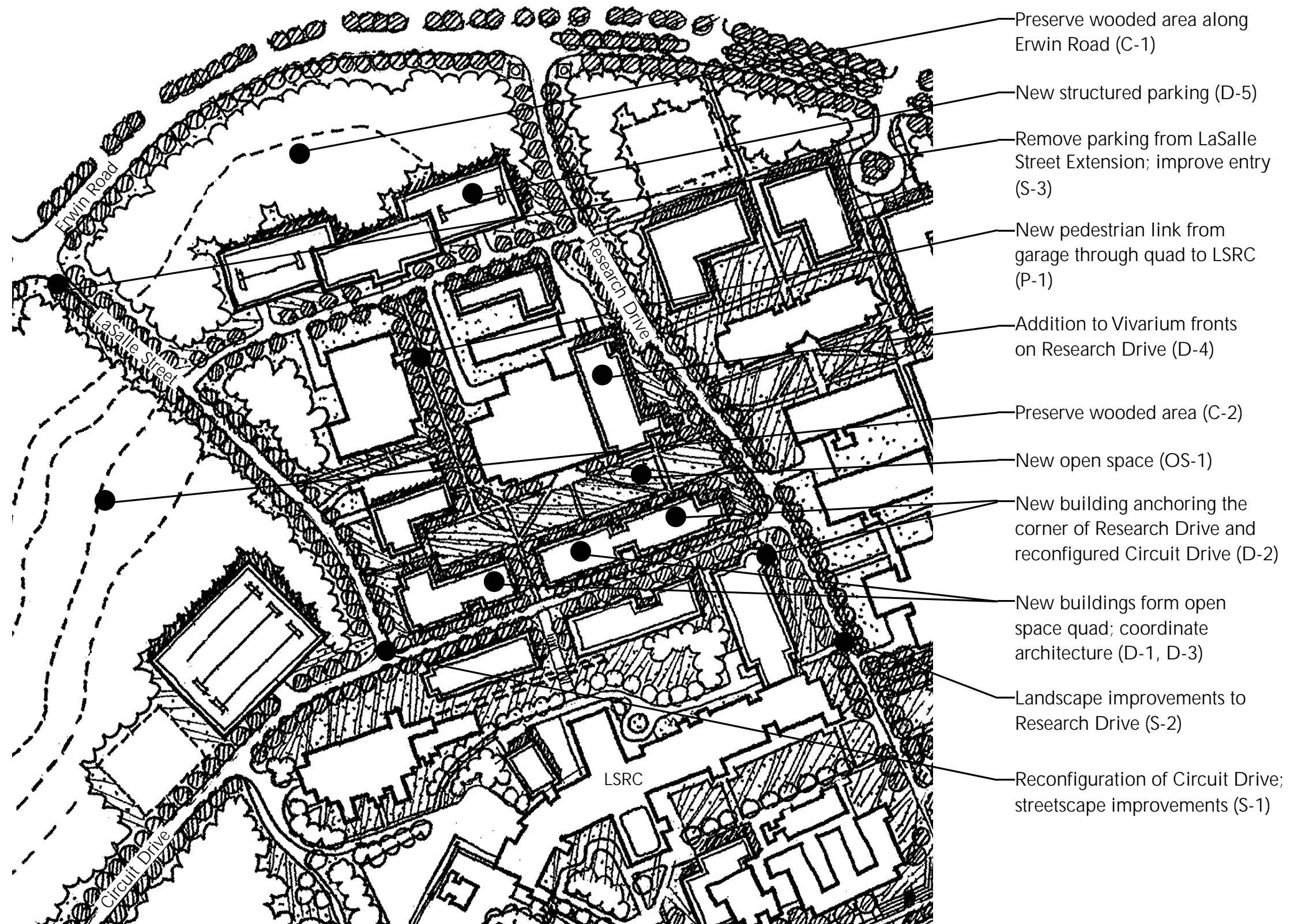
- P-1 • Develop a walkway to the LSRC from the Medical Research area and parking to the northwest.
- P-2 • Develop a pedestrian route from the LSRC courtyard to the new science quadrangle to the southwest (considering also a major elevation change).

### *Street Improvements*

- S-1 • Straighten Circuit Drive to eliminate the “kink” at the LaSalle Street Extension. Circuit Drive needs to be recognized and reconfigured as the new outer loop for traffic and parking access.
- S-2 • Remove on-street parking on Circuit Drive, and add street trees per the Streetscape Typology section of the Master Plan.

### *Development*

- D-1 • Design additions to complement both the existing structures and adjacent open space.
- D-2 • Build along both sides of Circuit Drive, leaving a route through buildings in order to accommodate pedestrian movement from the parking area into the LSRC.
- D-3 • Reinforce the intersection of Circuit Drive and Research Drive with buildings that address the corner.
- D-4 • Consolidate parking in garages along Circuit Drive on either side of the substation.



- Preserve wooded area along Erwin Road (C-1)
- New structured parking (D-5)
- Remove parking from LaSalle Street Extension; improve entry (S-3)
- New pedestrian link from garage through quad to LSRC (P-1)
- Addition to Vivarium fronts on Research Drive (D-4)
- Preserve wooded area (C-2)
- New open space (OS-1)
- New building anchoring the corner of Research Drive and reconfigured Circuit Drive (D-2)
- New buildings form open space quad; coordinate architecture (D-1, D-3)
- Landscape improvements to Research Drive (S-2)
- Reconfiguration of Circuit Drive; streetscape improvements (S-1)

West of Research Drive



# West of Research Drive

## Description

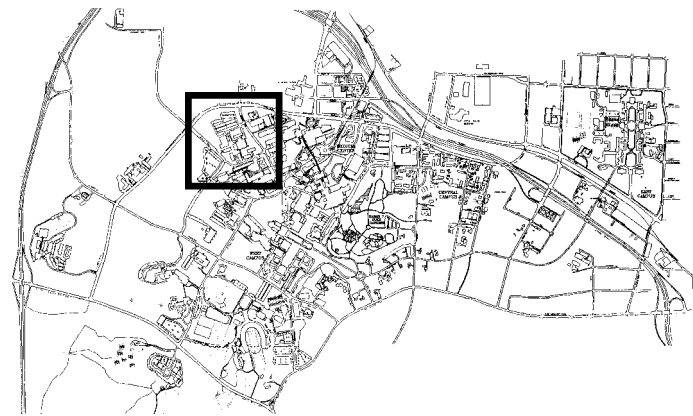
A complex of medical research buildings is now on the site, including several one-story buildings that were originally built as temporary structures. The Medical Center has done some schematic planning for new construction in this area, retaining the Vivarium but replacing most of the other buildings with a combination of research labs and open space.

A large reservoir of surface parking serves this area, with access from Research Drive. A second parking area is at the intersection of LaSalle Street Extension and Circuit Drive, and parking is allowed along both LaSalle Extension and Circuit Drive.

## Plan Concepts

Major issues and opportunities include:

- Reconfiguring the Medical Research area, with new buildings and open space
- Straightening and changing the character of Circuit Drive
- Consolidating parking in structures accessed from both Research Drive and LaSalle Street Extension



May 2000

## Recommendations

### Conservation

- C-1 • Preserve a wooded buffer along Erwin Road.
- C-2 • Preserve the forested area southwest of LaSalle Street Extension.

### Open Space Development

- OS-1 • Form a courtyard with construction of the new Medical Research buildings.

### Pedestrian Connections

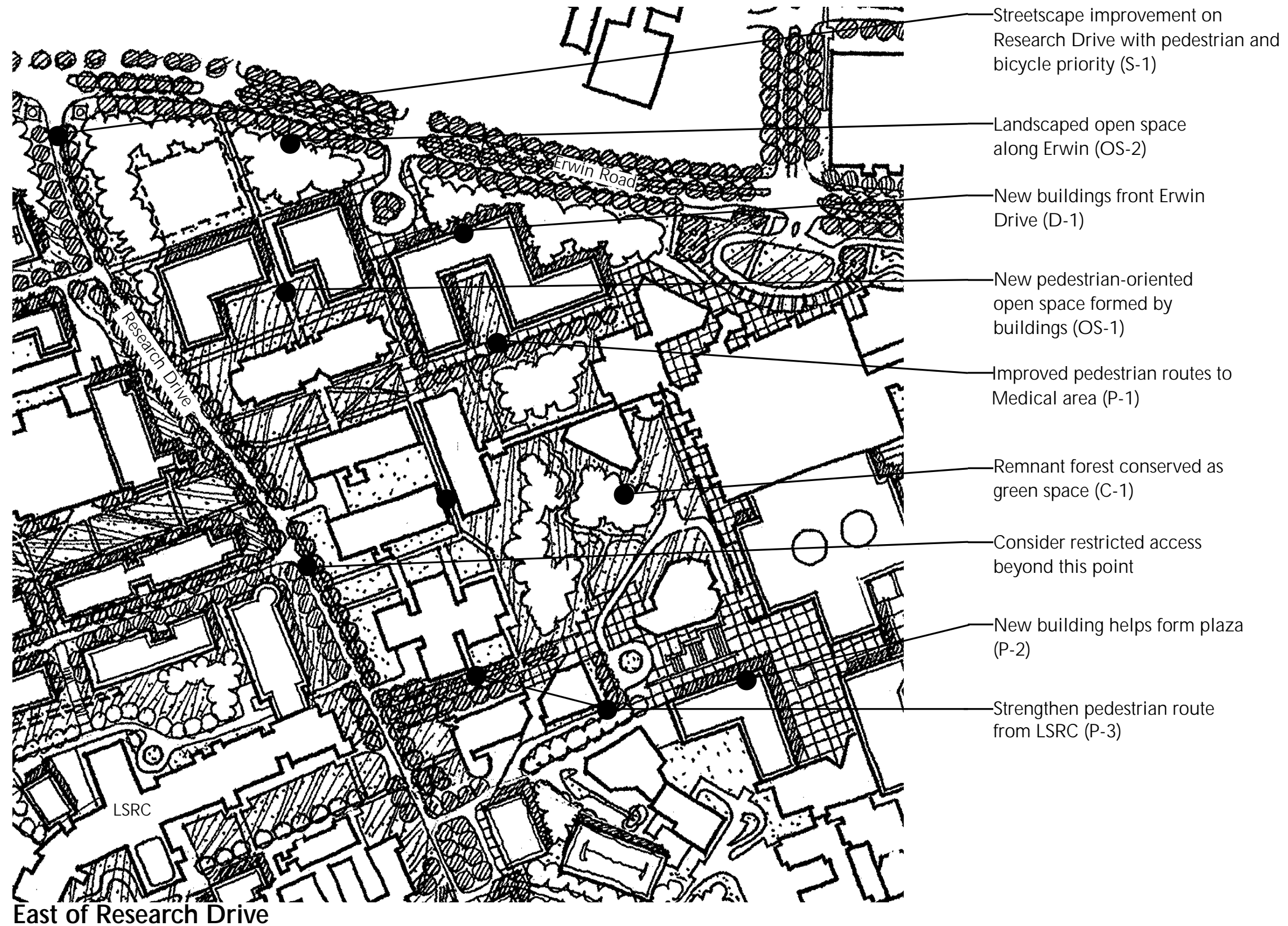
- P-1 • Develop a landscaped pedestrian route leading through the complex from the parking area toward the LSRC.

### Street Improvements

- S-1 • Straighten Circuit Drive to eliminate the “kink” at the LaSalle Street Extension; streetscape improvements per Master Plan.
- S-2 • Landscape and improve Research Drive with priority given to pedestrians and bicycles.
- S-3 • Remove parking from LaSalle Street Extension and improve the entry experience.

### Development

- D-1 • Build new research facilities around a common courtyard open at the east end to Research Drive.
- D-2 • Reinforce the intersection of Circuit Drive and Research Drive with buildings that address the corner.
- D-3 • Coordinate architectural styles among the buildings in the new complex.
- D-4 • Address Research Drive with a new building in front of the Vivarium, and include an entry on Research Drive.
- D-5 • Build new parking structure to add capacity and to relocate parking from LaSalle Street Extension and Circuit Drive. Utilize topography in order to minimize impact.



# East of Research Drive

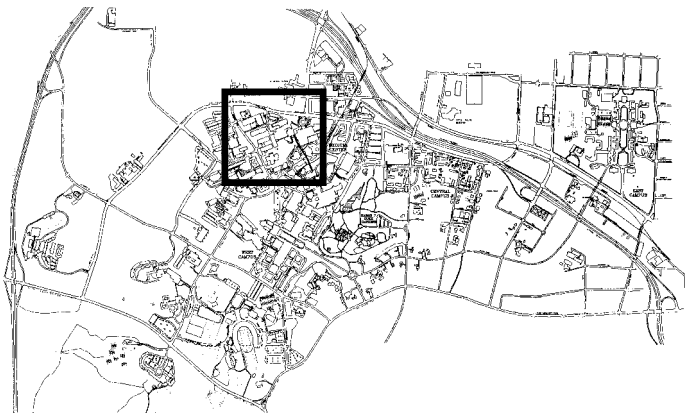
## Description

Research Drive is largely developed in this area, with buildings sited perpendicular to the street. Service to these buildings is off of Research Drive. A remnant forest lies between the development on Research Drive and the Medical Center to the northeast. There is substantial pedestrian flow between the Medical Center and the areas on both sides of Research Drive.

## Plan Concepts

Major issues and opportunities include:

- Utilizing sites for development in the northern portion of the area to improve the character along Erwin Road
- Strengthening the pedestrian character of the area by improving walkways and de-emphasizing service entries along Research Drive
- Improving the open spaces between the Medical Center and the Research Drive buildings
- Improving the streetscape of Research Drive
- Improving the streetscape along Erwin Road



## Recommendations

### *Conservation*

- C-1 • Preserve and maintain the remnant woodland area and pathways.

### *Open Space Development*

- OS-1 • Create pedestrian-scale outdoor spaces with new development
- OS-2 • Strengthen the landscaped buffer along Erwin Road.

### *Pedestrian Connections*

- P-1 • Improve connections from Research Drive through this area and into the Medical Center.
- P-2 • Strengthen and extend routes parallel to Research Drive connecting existing and new buildings.
- P-3 • Strengthen pedestrian route to LSRC.

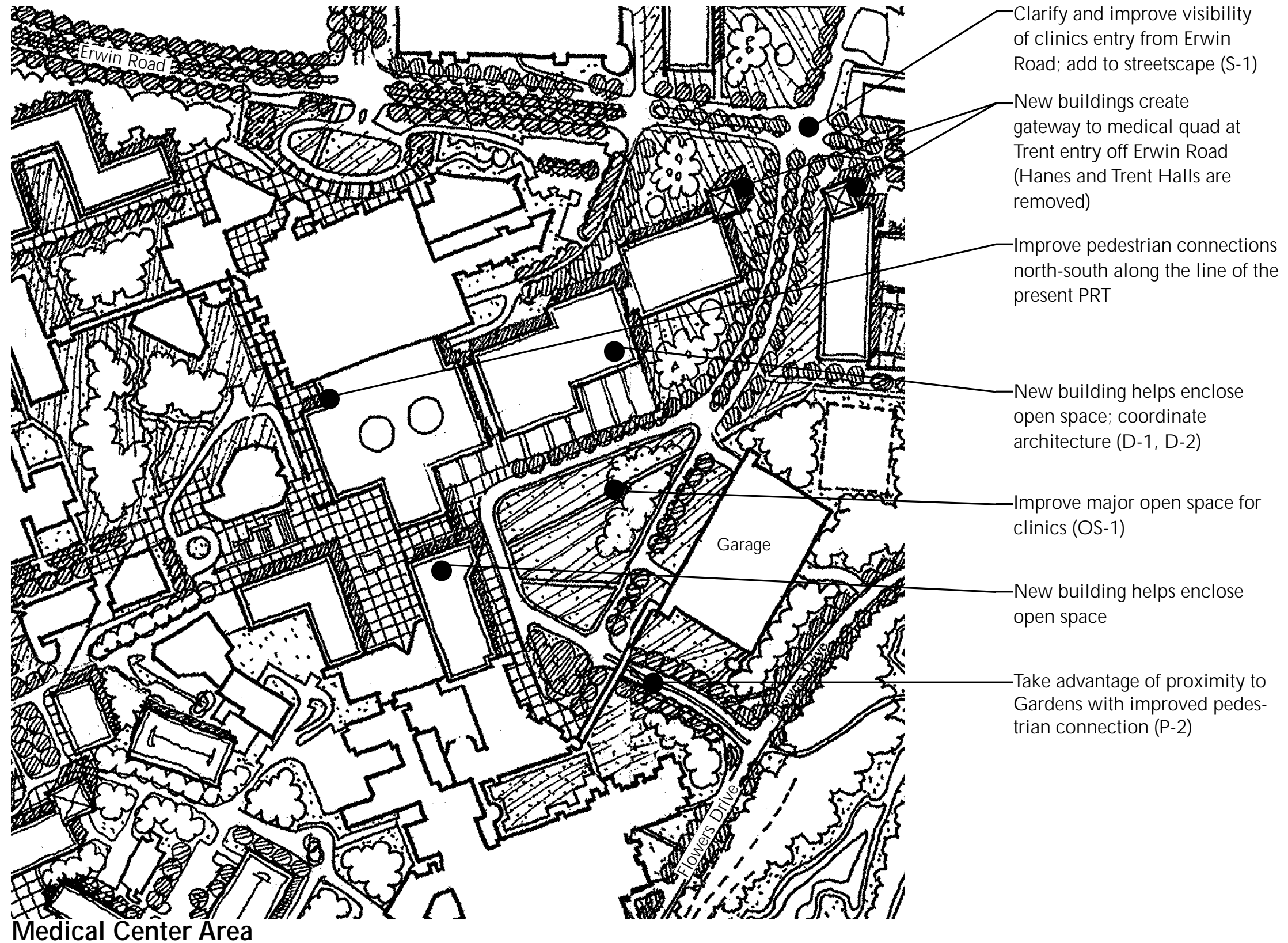
### *Street Improvements*

- S-1 • Landscape and improve Research Drive with priority given to pedestrians and bicycles while still maintaining service access to facilities.

### *Development*

- D-1 • Add new buildings that present an attractive public face along Erwin Road.

The new buildings should share a vehicular entry from Erwin Road and be more pedestrian in scale on the opposite side of the buildings. Include landscaping along Erwin Road.



# Medical Center Area

## Description

The large scale medical buildings in this area are connected by covered walkways and by a personal rapid transit (PRT) system. Oriented along a spine, these buildings are architecturally diverse. The topography drops off to the west of the PRT line.

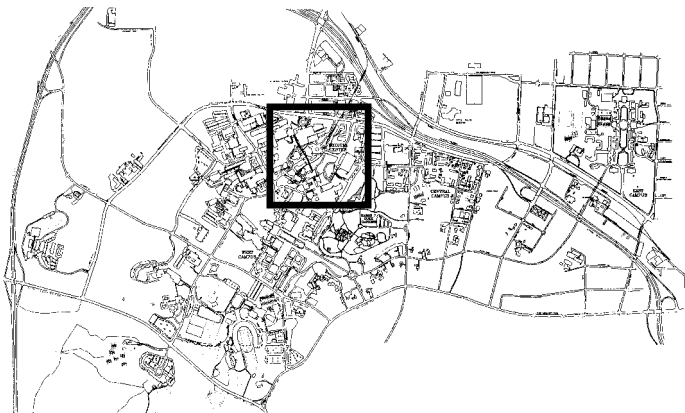
Vehicular access is off of Erwin Road, with an oval drop-off area to the Medical Center at the terminus of Fulton Street. To the east, off of Erwin Road, is an access road leading to the emergency entrance to the Medical Center. Helicopter landing facilities are also near the emergency entrance. Trent Drive provides access off of Erwin into the clinics and a large parking garage.

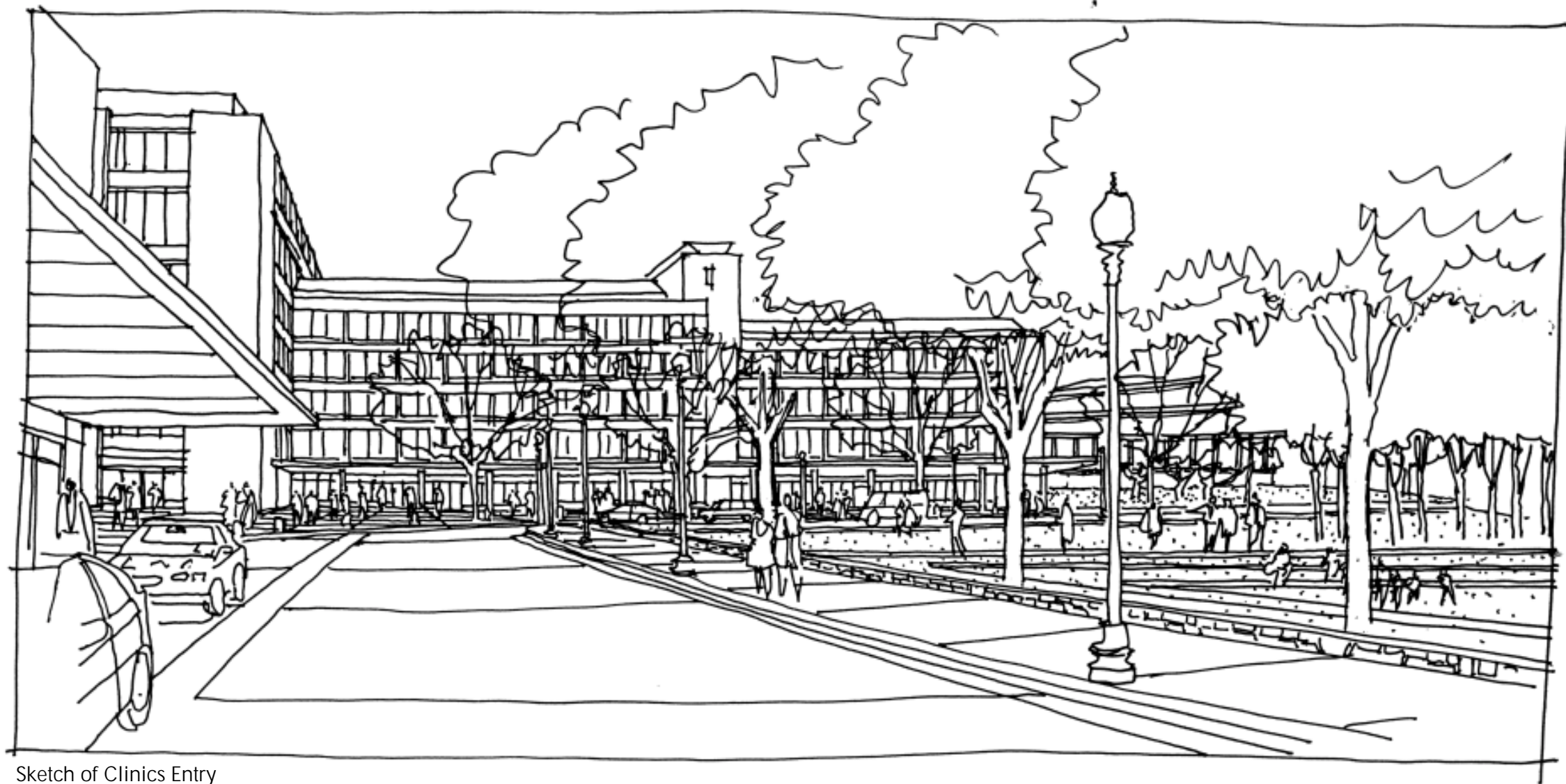
The railroad, which facilitates delivery of coal to the steamplant, eventually may be replaced by truck access. It is also possible that other sources of fuel may replace coal in the long term.

## Plan Concepts

Major issues and opportunities include:

- Accommodating major new development
- Enhancing the entry to the clinics area, with better visibility from Erwin Road
- Retaining a weather-protected spine connecting the Medical Center facilities along the line of the present PRT
- Developing a memorable, functional, and human-scale open space at the clinic area
- Allowing for improved pedestrian circulation throughout the Medical Center
- Increasing the visibility of the Gardens from the Medical Center





Sketch of Clinics Entry



## Recommendations

### *Open Space*

- OS-1 • Develop the open space at the clinics into a pleasant, usable outdoor place.

People using the clinics often have family members waiting for a long time. The open space near the clinics should be formed and landscaped in a way that invites usage, rather than simply being an open lawn or car-scaled space. Landscaping should help separate the road and parking from the green area, and walkways should encourage through-movement.

### *Pedestrian Connections*

- P-1 • Include below, above and/or on-grade pedestrian connections north-south along the line of the present PRT.

Pedestrian wayfinding is important in this area for the medical community, patients and visitors. Grade-separated circulation may be appropriate, especially for moving patients within the medical area.

- P-2 • Take advantage of the proximity of the Sarah P. Duke Gardens.

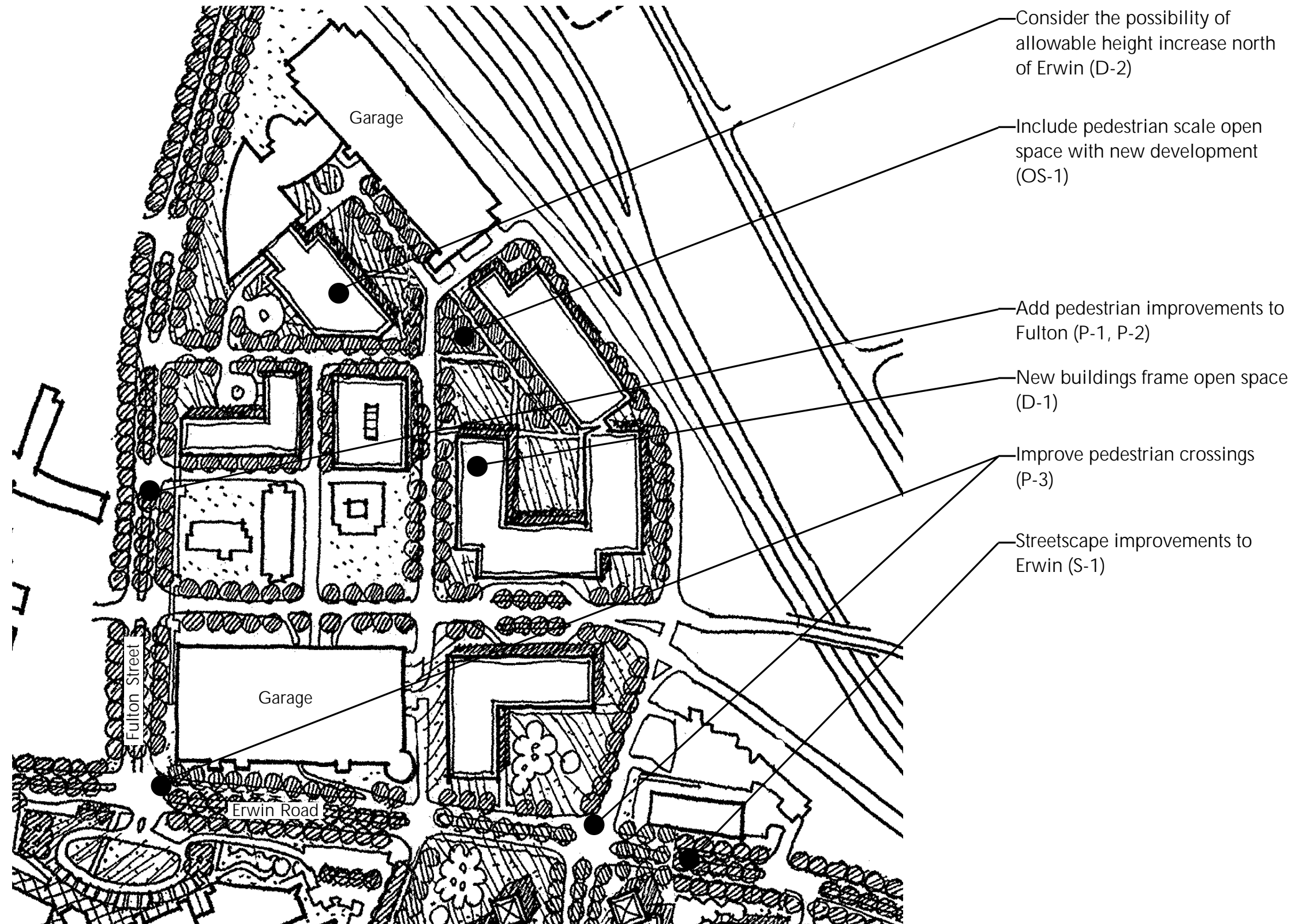
The Gardens are a short walk from the clinics, and could provide a desirable place of refuge for staff and for patients and their families. An inviting landscaped route that draws on the character of the Gardens should be brought into the clinics area, softening the mass of the parking garage and leading people into the Gardens.

### *Street Improvements*

- S-1 • Improve the streetscape along Trent Drive to indicate that it is the major entry to the clinics.

### *Development*

- D-1 • Ensure that new construction contributes to the pedestrian environment and helps clarify wayfinding.
- D-2 • Coordinate architectural styles among the buildings fronting on the Clinics entry open space.



Medical Center North



# Medical Center North

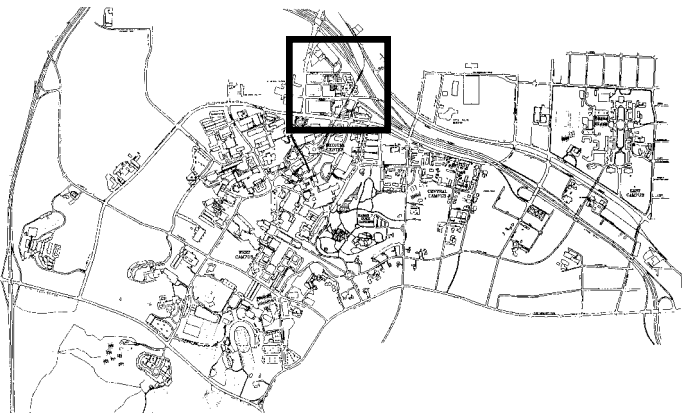
## Description

The Medical Center North is the area to the north of Erwin Road, with direct freeway access from Fulton Street. Two large garages provide parking for the Medical Center, and a recently constructed clinic is adjacent to one of the garages. Only part of the land in this area is owned by Duke.

## Plan Concepts

Major issues and opportunities include:

- Taking best advantage of the opportunity for new development for the Medical Center
- Softening the character of Erwin Road so that it is less of a barrier between the medical uses on both sides
- Improving the entry to the Medical Center via Fulton Street



## Recommendations

### *Open Space Development*

- OS-1 • Include human-scale open space with the development of new buildings in this area.

### *Pedestrian Connections*

- P-1 • Provide pedestrian routes from parking and the new clinic development to the Medical Center.

Walking should be an attractive alternative to shuttle buses, and pedestrian movement needs to be a high priority; the parking garages generate substantial volumes of pedestrian flow.

- P-2 • Improve Fulton Street as a pedestrian route.

- P-3 • Improve pedestrian crossing of Erwin Road.

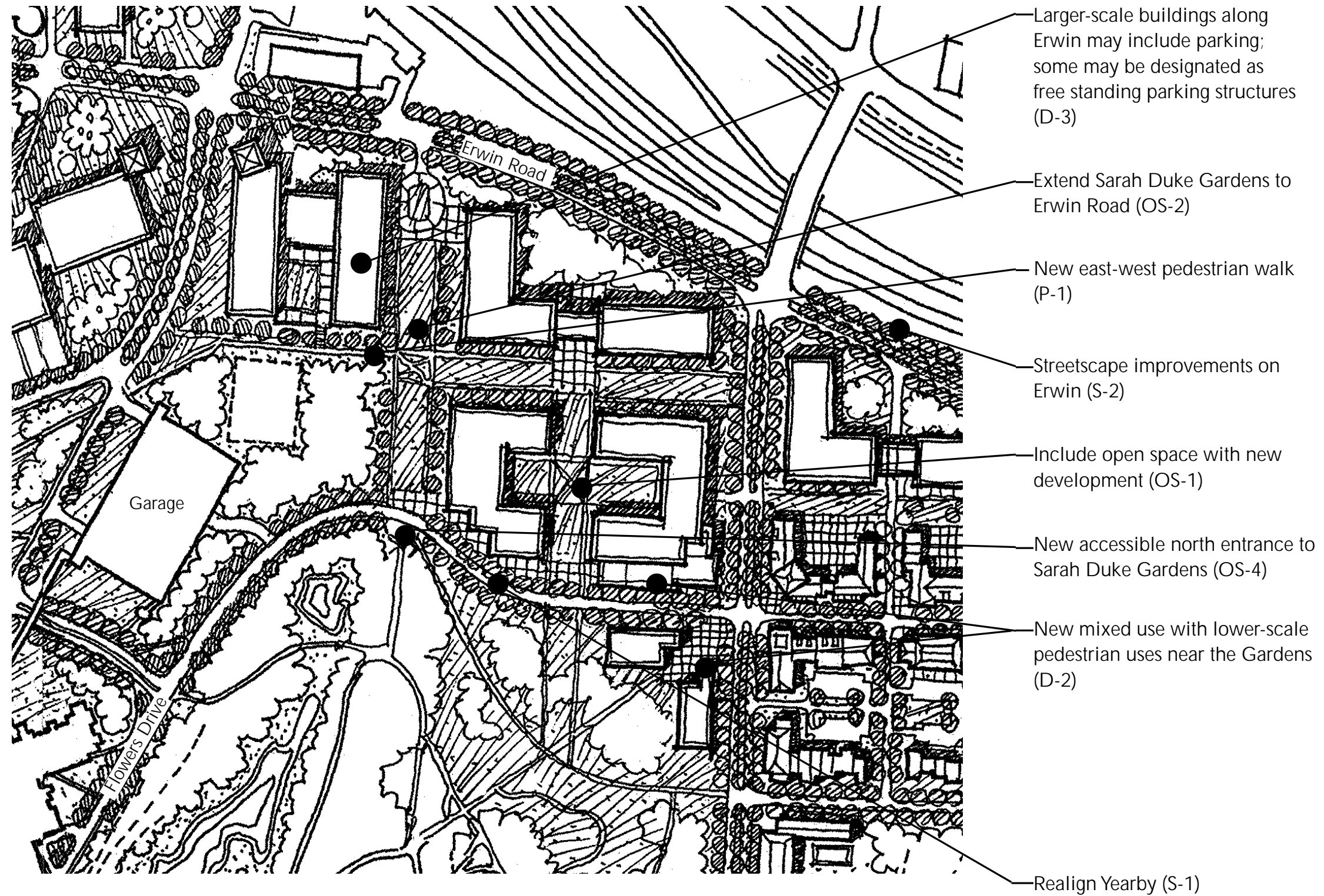
### *Street Improvements*

- S-1 • Add street trees and pedestrian amenities on both Erwin Road and Fulton Street.

### *Development*

- D-1 • Configure new buildings to create human-scale open spaces.

- D-2 • Consider the possibility of building above the height of the Chapel north of Erwin.



## Medical Center East/Mixed Use Area

# Medical Center East/ Mixed Use Area

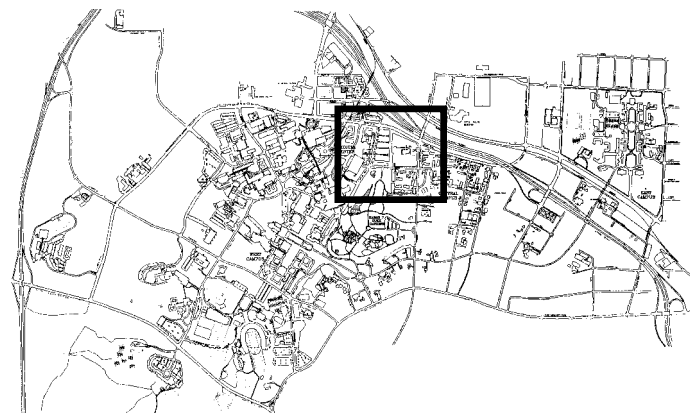
## Description

The majority of this area is currently devoted to parking, with large surface lots and an 1800 car garage. Trent dormitories are on the corner of Flowers and Erwin, and a group of apartments is on the southwest corner of Yearby and Anderson Street.

## Plan Concepts

Major issues include:

- Taking best advantage of substantial new development opportunities
- Extending the character of the Gardens into new development in this area
- Closing Flowers Drive between Yearby and Erwin Road
- Developing commercial and retail activity on the north side of Yearby to activate the street
- Using new development to create a network of walkways, plazas and green spaces
- Providing adequate parking for new development with access off of Erwin Road



## Recommendations

### *Open Space Development*

- OS-1 • Include human-scale open space with the development of new buildings in this area, creating a network of walkways, plazas and green space.
- OS-2 • Develop a green corridor extending north from the Gardens.
- OS-3 • Form a plaza with the new buildings that is active and directed towards the Gardens.
- OS-4 • Create an accessible entry at the north end of the Gardens.

### *Pedestrian Connections*

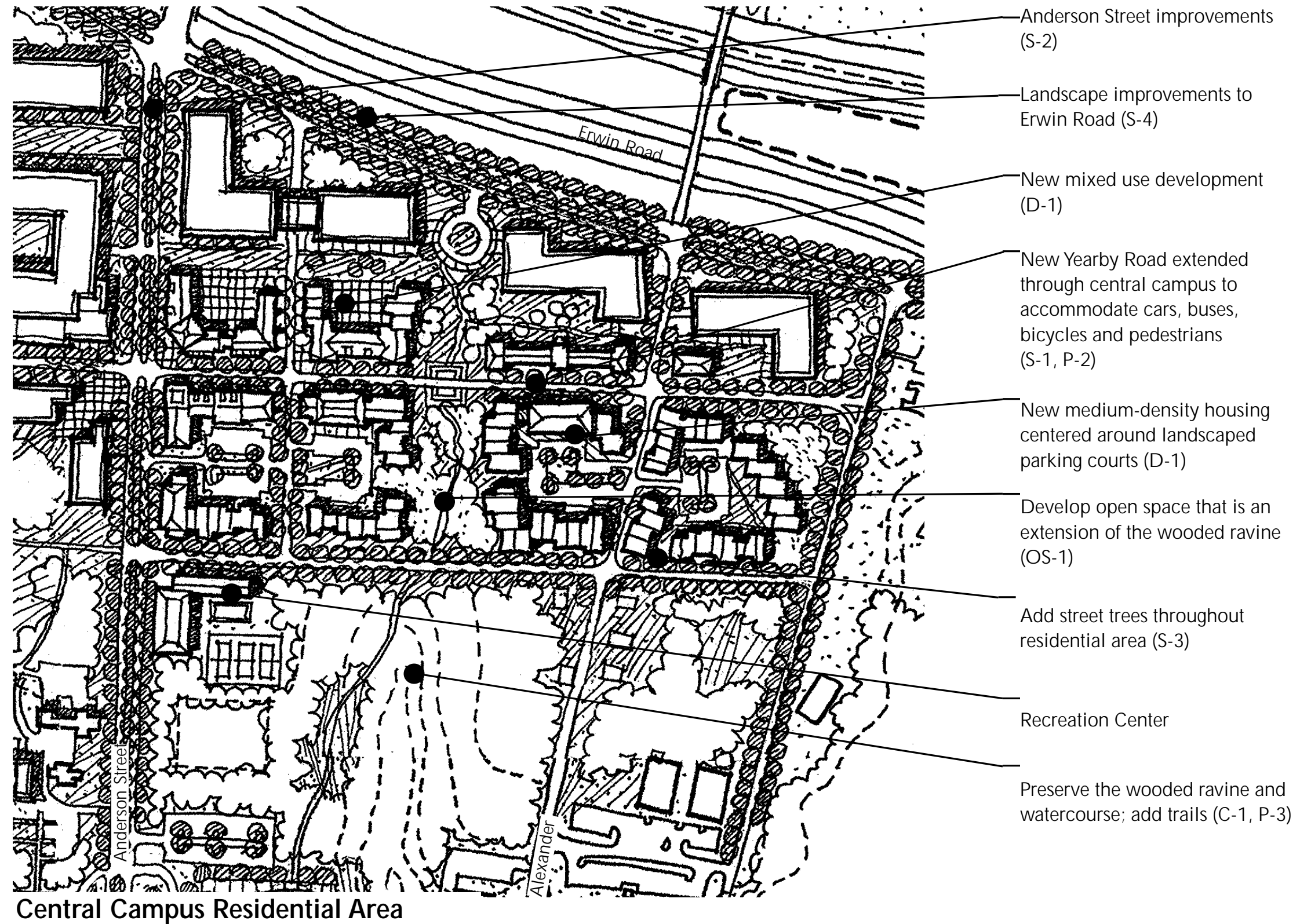
- P-1 • Connect the new development with a landscaped walkway running westward to Trent.

### *Street Improvements*

- S-1 • Realign Yearby Street north of the Gardens.
- S-2 • Add street trees and pedestrian amenities along Erwin Road.
- S-3 • Add pedestrian amenities, street trees, and a planted median to the portion of Anderson Street between Yearby and Erwin.

### *Development*

- D-1 • Configure new buildings to create human-scale open spaces.
- D-2 • Buildings near the Gardens must not detract from the character of the Gardens, and should be one or two stories with modulation and pedestrian-oriented uses.
- D-3 • Place parking under buildings as illustrated or in separate structures, with access off of Erwin.



# Central Campus Residential Area

## Description

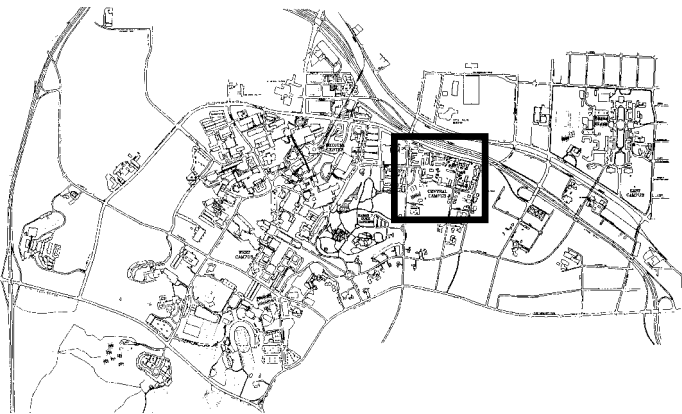
This portion of Central Campus is currently a relatively low density residential enclave, with wood frame apartments built in the 1970's. The buildings are near associated surface parking. Central Campus provides an alternative residential experience for students who prefer not to live in the dorms.

Residential amenities in the area include a recreation facility with a swimming pool and tennis courts, and some parklike green space with picnic tables. Older residences remaining along Alexander and Oregon Streets are used by various organizations.

## Plan Concepts

Major issues and opportunities include:

- Creating a desirable residential neighborhood with a memorable character, taking advantage of the proximity of wooded areas and University and Medical Center facilities
- Providing a strong network of pedestrian routes
- Strengthening the character of both Anderson Street and Erwin Road
- Developing Yearby to connect the Central Campus with the East and West Campuses



May 2000

## Recommendations

### Conservation

- C-1 • Preserve the wooded ravine south of the new Yearby extension, improving pathways to the Gardens.

### Open Space Development

- OS-1 • Develop green space for use by the community that is an extension of the wooded ravine to the south. Improve pedestrian pathways.

### Pedestrian Connections

- P-1 • Create a walkway running east-west through the center of the residential area between Alexander Street and Anderson.
- P-2 • Include pedestrian amenities in the development of the new Yearby extension.
- P-3 • Develop trails through the wooded area south of the residences.

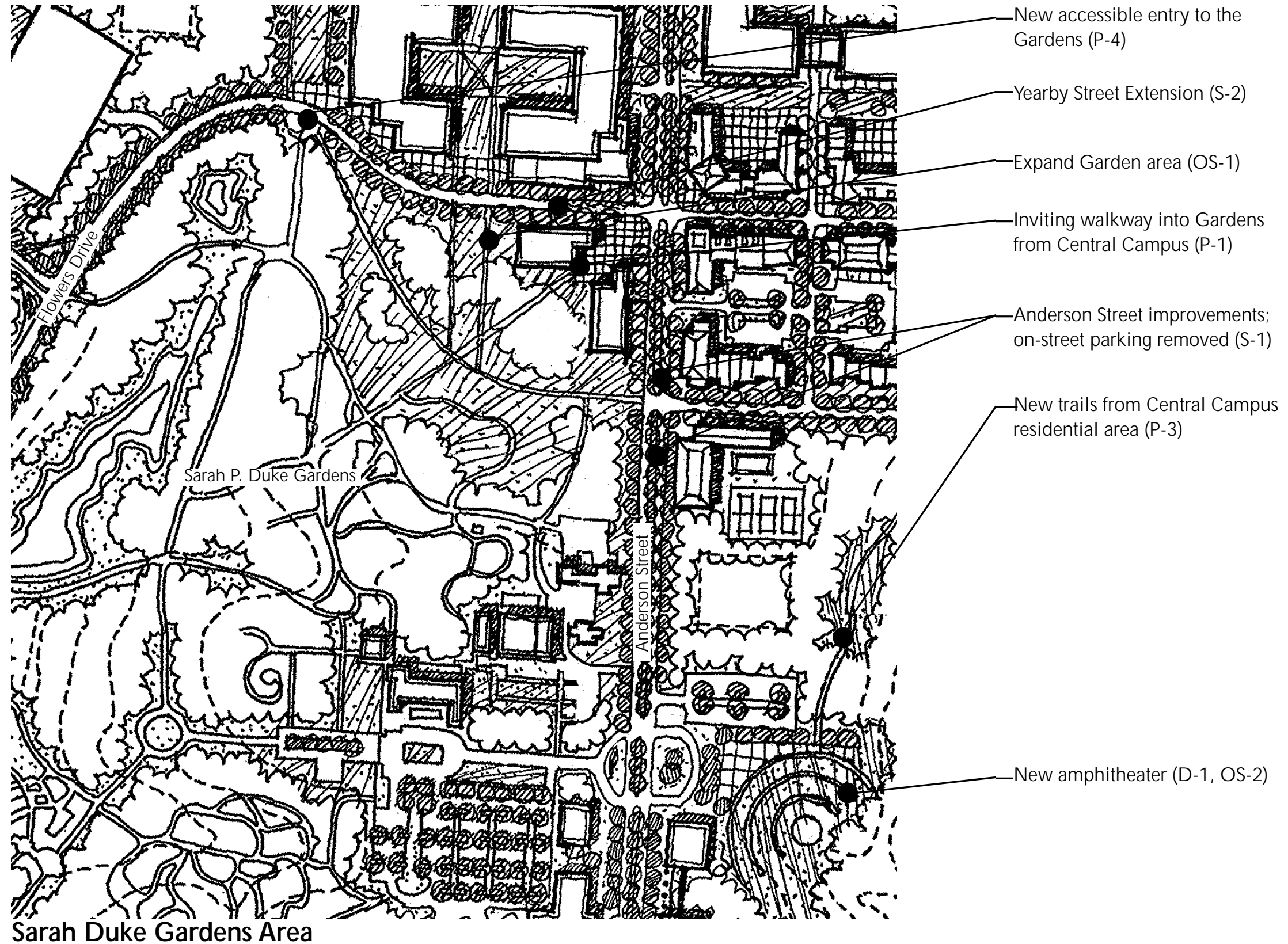
### Street Improvements

- S-1 • Extend Yearby as a tree-lined through street accommodating bicycles, pedestrians, cars and transit.
- S-2 • Recognize Anderson Street as an entry point into Duke territory, and create a boulevard character through street tree planting and a landscaped median.
- S-3 • Add street trees to residential streets in the area.
- S-4 • Continue the boulevard plantings on Erwin Road.

### Development

- D-1 • Configure new residences to form an understandable neighborhood, addressing streets and green spaces.
- D-2 • Provide parking in small, landscaped lots.
- D-3 • Ensure architectural quality and compatibility within the overall development.





## Sarah Duke Gardens Area

### Description

An important asset to the students and staff of the University as well as an attraction to visitors, the 55-acre Sarah P. Duke Gardens are considered one of the finest examples of “the garden as art form” in the Southeast. The gardens include five miles of allees, walks and pathways through woodlands, lawns, terraces and botanical collections.

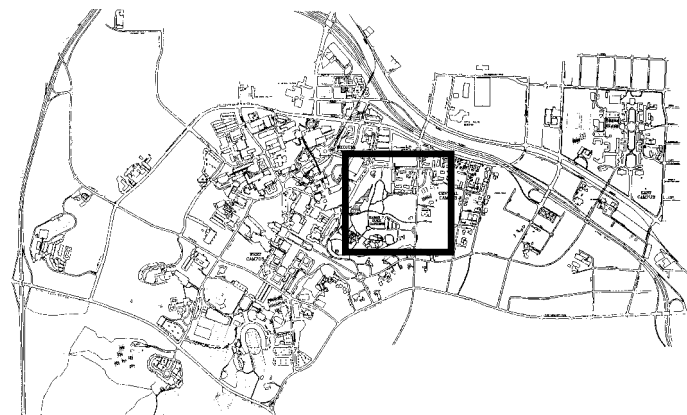
The main entry, with a notable curving wall of Duke stone, is off of Anderson Street. Parking is provided on-site, with overflow parking along Anderson Street. The Gardens are also used as a route between Central Campus and West Campus.

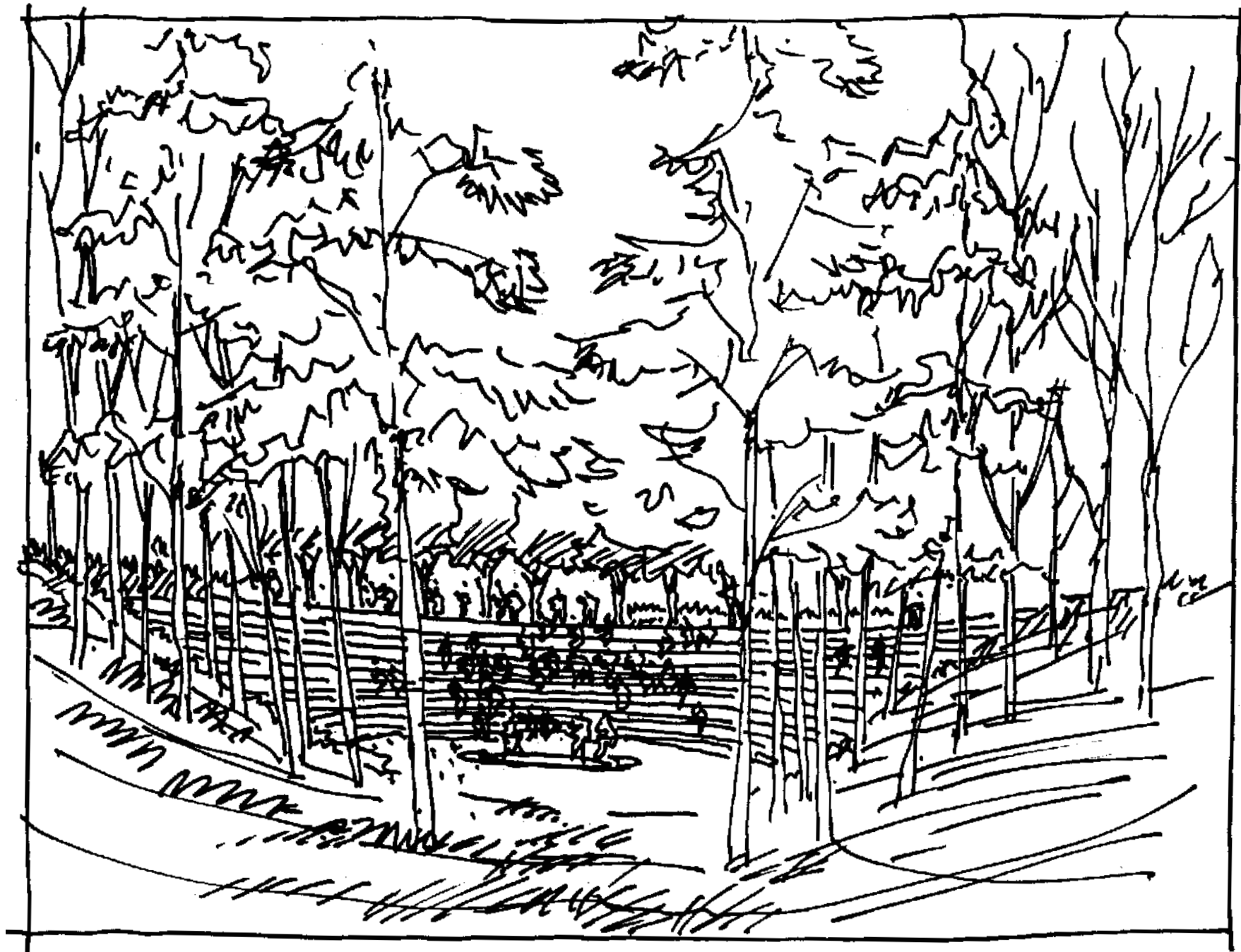
To the east of the Gardens, across Anderson Street, lies a wooded area with a ravine and a stream. Currently, there are limited uses between Anderson and Oregon Streets other than the substation.

### Plan Concepts

Major issues and opportunities include:

- Preserving and enhancing the Gardens; protecting them from visual intrusion, excessive traffic, and noise
- Maintaining an enjoyable route through the Gardens between the West Campus and the Central Campus
- Providing accessibility for people with limited mobility
- Expanding the inspiration of the Gardens beyond the current boundaries
- Improving the connection between the Gardens and the Medical Center
- Developing compatible uses across Anderson Street





Amphitheater

Recommendations

Conservation

- C-1 • Preserve and enhance the character of the Gardens.

Any new development at the edges, such as along the west side of Flowers Drive or the north side of Yearby, needs to respect the views from the Gardens.

Open Space Development

- OS-1 • Replace the housing on the southwest corner of Anderson and Yearby with expanded garden area.
- OS-2 • Develop an amphitheater in the east side of Anderson Street across from the main entry to the Gardens.

The topography can be used to help shape an amphitheater for performances and events. Limited parking can be provided off of Anderson. The entry to the amphitheater should respond to the entry to the Gardens and be human in scale rather than oriented to vehicles.

Pedestrian Connections

- P-1 • Invite pedestrians to walk from the Central Campus to the West Campus.
- P-2 • Provide a fairly direct path from the intersection of Flowers and Yearby to the commercial uses on Yearby.
- P-3 • Develop new trails through the wooded area and the east side of Anderson for better connections from the Central Campus residential area to and beyond the Gardens.
- P-4 • Accommodate those with limited mobility. The north end of the gardens may be best suited for an accessible entry because of topography and proximity to the Medical Center.

Street Improvements

- S-1 • Improve Anderson Street with street trees and pedestrian amenities.

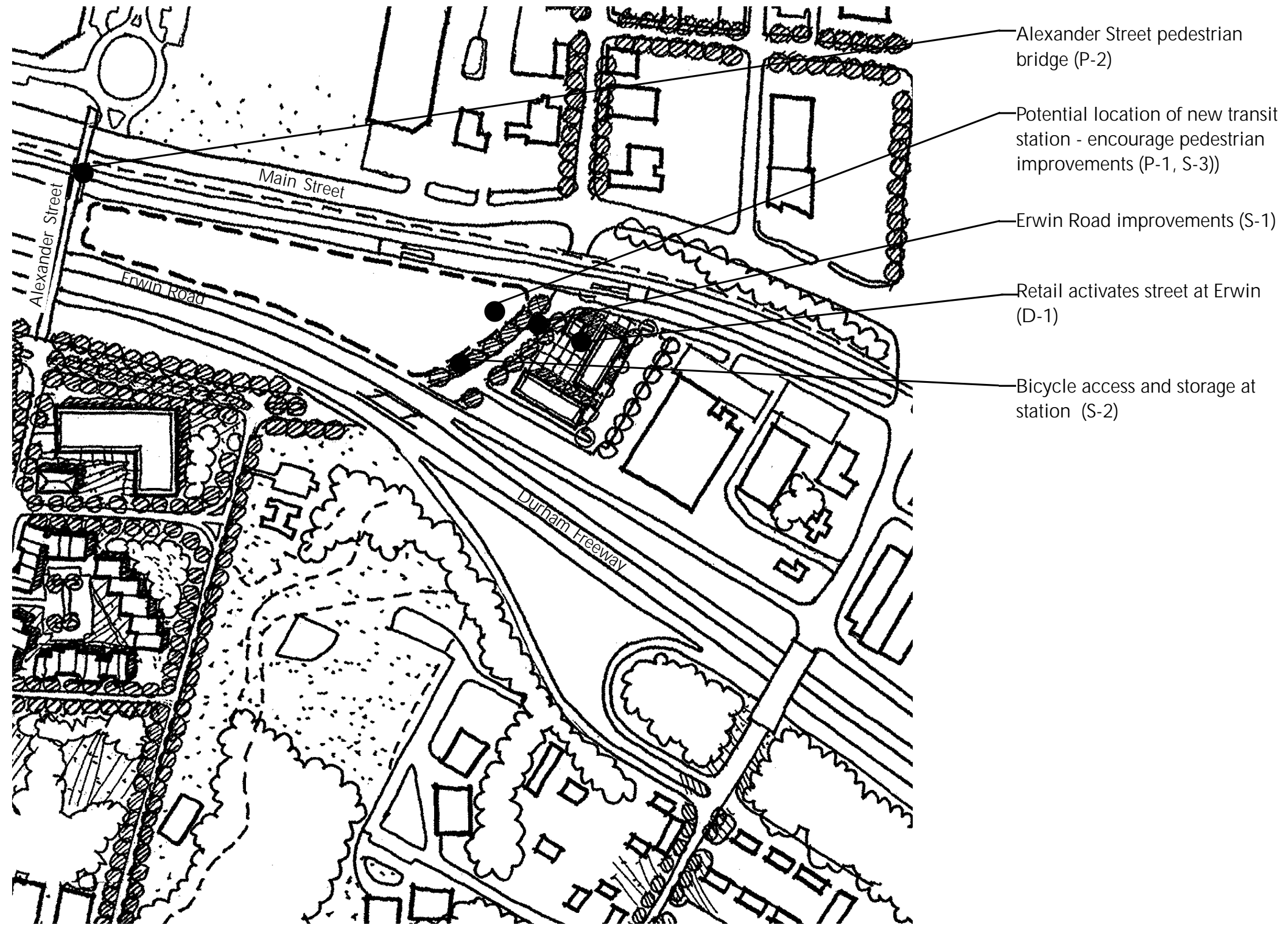
The Open Space section recommends changes to Anderson including the removal of on-street parking and the addition of street trees. Anderson should be a pleasant, walkable route and an attractive entry to the campus.

- S-2 • Shape the Yearby extension to enhance the Gardens and to direct views.

The development of the Yearby extension should be flexible in the area north of the Gardens in order to best frame the edge of the Gardens, to best utilize topographic changes, to allow for an accessible entry to the Gardens, and to direct views along the new road. The road should be configured so that the view traveling west should avoid being on axis with the Medical Center garage.

D-1 Development

- Consider the building of a natural amphitheater on the east side of Anderson Street.



Regional Transit Center Option



# Regional Transit Center Option

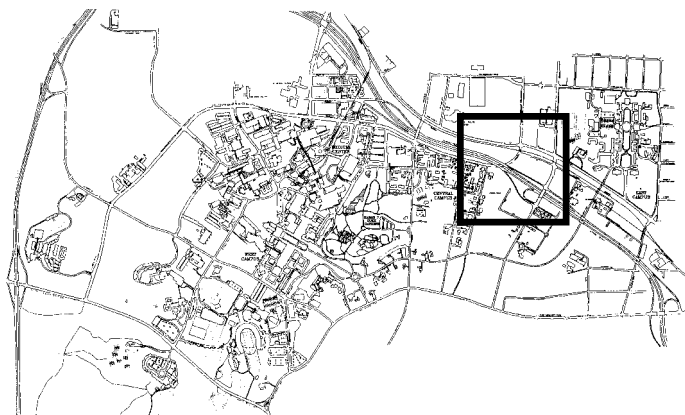
## Description

The new regional light rail transit system may include a stop along the curve in Erwin Road west of Campus Drive, on underutilized land between Main Street and the Durham Freeway. Plans for the transit stop include a large surface parking lot and a potential pedestrian bridge across the freeway at Alexander Street. Buses would bring light rail passengers to various parts of the campus.

## Plan Concepts

Major issues and opportunities include:

- Potential development of the transit stop could bring accessibility to the campus and activity to an area connecting the Central Campus and the East Campus Center
- Promoting retail development that could add activity to the street and which could itself benefit from proximity to the transit stop
- Improving Erwin in this area with landscaping, pedestrians, and bicycles



## Recommendations

### *Open Space Development*

- OS-1 • Include human-scale open space with the development of new transit and commercial buildings in this area.

### *Pedestrian Connections*

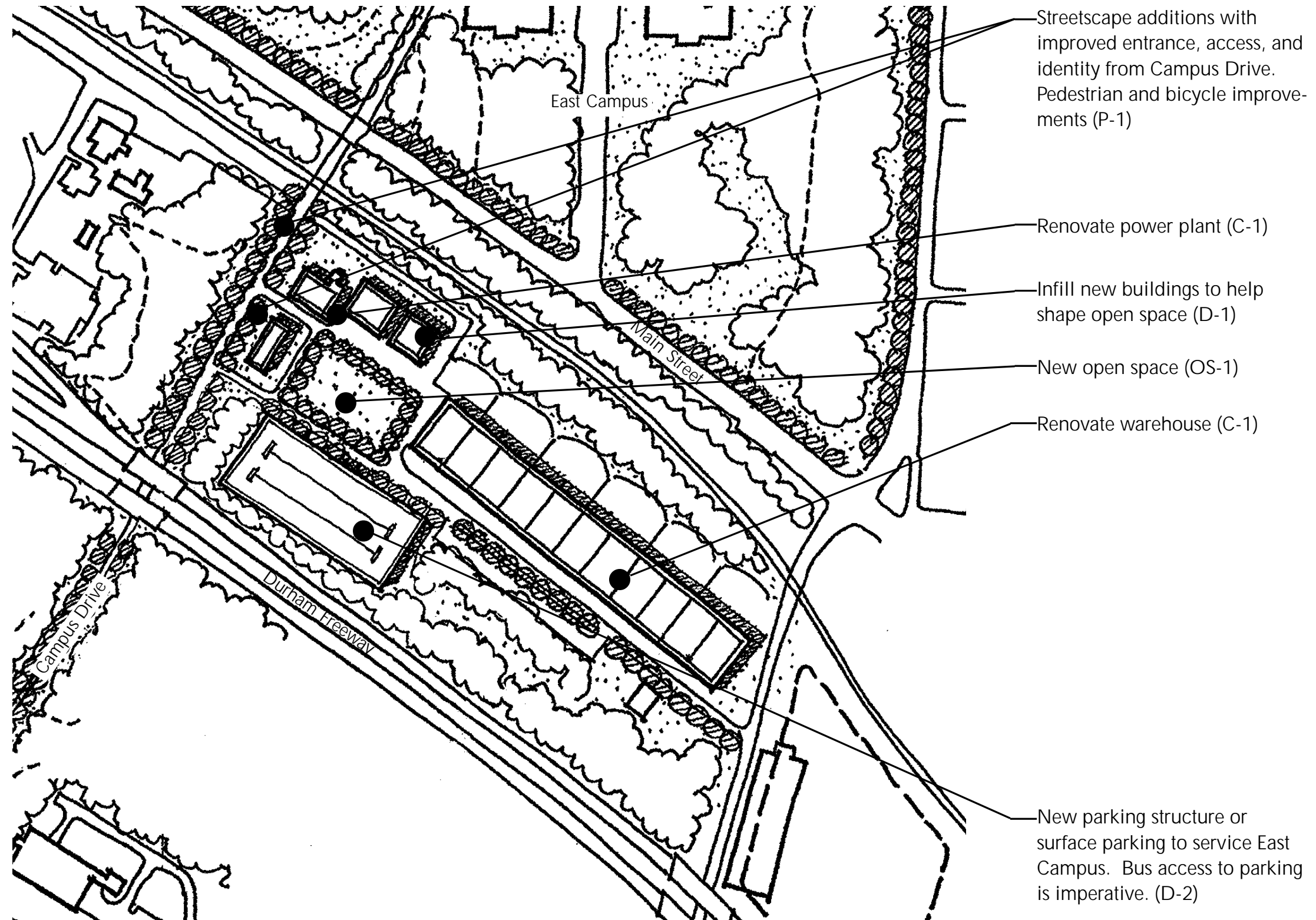
- P-1 • Include pedestrian improvements with development of a transit center in order to encourage walking to Central Campus, East Campus, and the Ninth Street retail area.
- P-2 • Maximize the benefit of the Alexander Street pedestrian bridge by extending improvements into the Central Campus.

### *Street Improvements*

- S-1 • Improve Erwin Road in the vicinity of the transit center with street trees, sidewalks, and lighting.
- S-2 • Provide bicycle access and storage at the Transit Center.
- S-3 • Provide convenient bus pick-up, drop-off, and waiting at the Transit Center.

### *Development*

- D-1 • Activate the area with retail development fronting the curving portion of Erwin Road between Main Street and the highway.



Steam Plant / Warehouse Area

# Steam Plant/Warehouse Area

## Description

This area lies off of Campus Drive between the Durham Freeway and Pettigrew Street. Although close to East Campus, the buildings are separated from it by Main Street and the railroad. The architecture of the power plant and the warehouse gives value to these older buildings, and there is potential for some attractive reuse.

## Plan Concepts

- Renovating and reusing these buildings and adding new buildings to create a complex, perhaps for housing or the arts
- Utilizing this area to help connect the East Campus with Central Campus



## Recommendations

### Conservation

- C-1 • Save and renovate the power plant and warehouse buildings.

### Open space development

- OS-1 • Retain and strengthen a vegetated buffer between this area and the Durham Freeway.

### Pedestrian connections

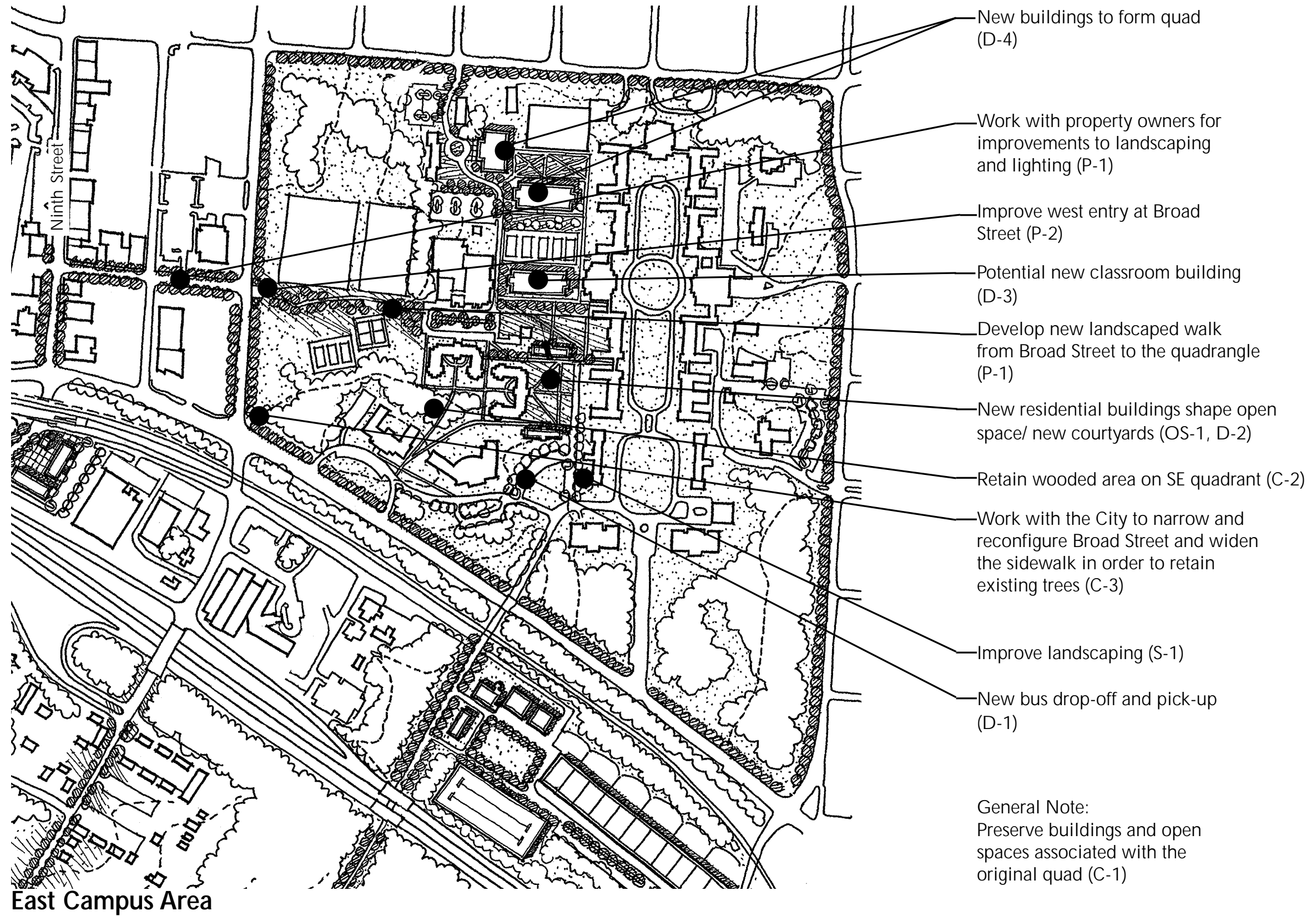
- P-1 • Provide amenities to Campus Drive, which serves as the primary pedestrian route in this area.

### Street improvements

- S-1 • Improve Campus Drive as a bicycle, pedestrian, and transit route.

### Development

- D-1 • Infill new buildings to form a coherent composition which incorporates a common open space for all of the buildings in this area.
- D-2 • Locate new parking structure or surface parking serving East Campus.



## East Campus Area

### Description

East Campus was the site of Trinity College, Duke’s predecessor. One of Duke’s great assets, the Georgian architecture, frames a classic collegiate quadrangle. More recently built residences and recreational facilities lie to the east of the quadrangle, and a stone wall defines the outer edge of the East Campus.

Landscaping on East Campus includes tree planting along the perimeter wall, an important open space on the southeast quadrant, and stands of trees on the west side of the campus.

With a formal entry off Main Street, East Campus is adjacent to the urban grid of Durham and its residential neighborhoods to the north and the east. Parking is scattered in relatively small scale surface lots. Downtown Durham lies one mile east along Main Street.

East Campus became the residential area for the freshman class as of 1996. With this change, new facilities were developed, including residential units, a dining facility, and a post office.

### Plan Concepts

- Strengthening the connection between East Campus and the retail area to the west
- Creating and improving open spaces near the residences west of the quadrangle as part of new construction
- Respecting the Georgian style of architecture that predominates on the East Campus
- Maintaining a high level of transit service between East Campus and the other areas of the University
- Adding new buildings as needed to support the freshman community, including classrooms, residences, and recreational facilities

### Recommendations

#### *Conservation*

- C-1 • Preserve the buildings and open spaces associated with the original quadrangle.
- C-2 • Retain the wooded area on the southeast quadrant.
- C-3 • Work with the City of Durham to develop a strategy to preserve and maintain the tree-lined peripheral wall.

#### *Open space development*

- OS-1 • Use new construction to improve residential courtyards if more dormitory space is needed.

#### *Pedestrian connections*

- P-1 • Improve the walkway to the retail area.  
The proposed improvements extend the reach of the pedestrian precinct of the East Campus and reinforce connections to Ninth Street--Duke’s “college town” street.
- P-2 • Improve the entry at the west side of East Campus. The west entry to East Campus is an important interface between the University and the community, and an asset to both. The quality of that entry/ interface needs to be improved.

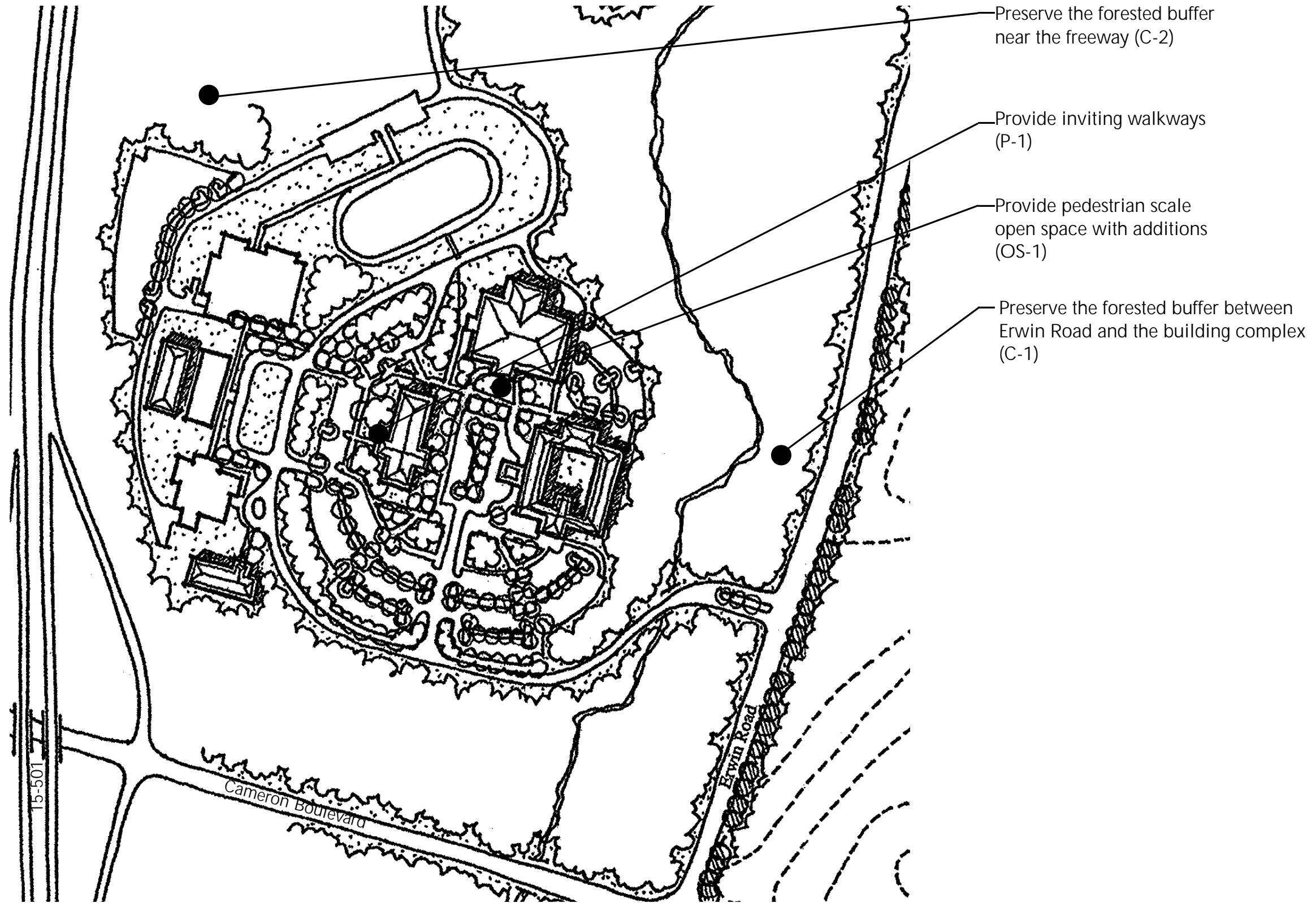
#### *Street improvements*

- S-1 • Landscape the entry road near the new residences in order to screen the parking area and service uses from the entry to the campus.

#### *Development*

- D-1 • Develop a new bus drop-off and pick-up area as shown on plan.
- D-2 • If additional dormitory space is needed, design new residence halls to create associated open space.
- D-3 • If additional academic facilities are needed, consider use of the tennis courts as a site.
- D-4 • New academic/music buildings around an open space.





Center for Living

# Center for Living

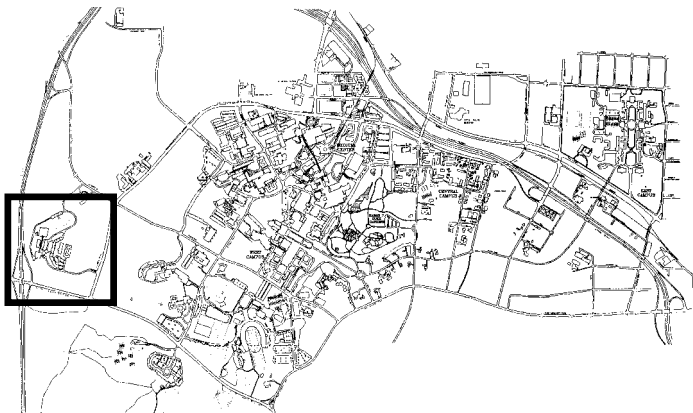
## Description

The Center for Living is part of the Duke Medical Center. Located on the northwest side of Erwin Road, the 26-acre Center for Living campus offers a secluded setting for programs including diet and fitness changes, improved cardiac health, and stress management. Facilities include a fitness center, a clinic, and a nutrition center, as well as surface parking. The Center for Living plans to expand their facilities with several new buildings and increased parking.

## Plan Concepts

Issues in this area include:

- Preserving a buffer along Erwin Road
- Developing additional space to the best advantage of clients and staff



## Recommendations

### *Conservation*

- C-1 • Preserve the forested buffer between Erwin Road and the building complex.
- C-2 • Preserve the forested buffer adjacent to the freeway.

### *Open space development*

- OS-1 • Develop human-scale open space along with any new construction.

### *Pedestrian connections*

- P-1 • Provide inviting walkways within the facility.

This area is separated from the campus intentionally, so pedestrian connections to campus may not be appropriate. Within the complex itself, walking should be encouraged.

### *Development*

- D-1 • Expansion of the complex has been proposed and is illustrated in the plan.