An aerial, grayscale photograph of a university campus, showing a grid of buildings, walkways, and trees. The image is slightly faded and serves as a background for the text.

A Master Plan for the Campus

This is the 1988 Campus Master Plan for the University of Pennsylvania.

Its aim is both to provide direction on a wide range of immediate and short range problems, and to serve the longer range needs for growth and change: to provide a vision of Penn's future. Like the plans which have preceded it, this plan must be seen as part of a continuing process, providing a framework for development while it remains responsive to the real needs of the community it is to serve. Penn's campus must be capable of encompassing growth and change over time; thus, a master plan designed to guide development must also be flexible, able to respond to future changes in the University's priorities and assumptions. Specific designs and solutions can only serve to illustrate the concepts and recommendations contained in the plan.

The University is a diverse and complex community with a population of approximately 40,000. Any physical plan for this community, if it is to be truly useful, must address the varied needs of all its members, while recognizing that their various pursuits are interrelated. This plan addresses both the needs for space in which to live and work, and the more abstract needs for a sense of community and an identifiable image.

The visionary model of the campus of the future presented by the 1988 Campus Master Plan is the necessary framework around which the components of an operational plan for guiding specific development actions are structured. That vision is based upon real opportunities for bold changes which can occur if the University lends its active support. It also recognizes the physical and political limitations of the campus' surroundings, as well as the many positive qualities of the existing campus. But it is not limited by what is in place, nor is it a working drawing for past policies and plans. It is designed to remain flexible, allowing for change, within an overall plan concept, a campus order, aimed at an ideal future.

The ideas and recommendations incorporated in this Campus Master Plan have been developed through an extensive process aimed at identifying and affirming the values and objectives of this University; developing alternative strategies for achieving its goals and presenting their implications; and lastly, incorporating the suggestions and recommendations of many groups and individuals within the University community who have participated in a review of the plan as it has evolved.

The involvement of the Penn community must continue beyond this presentation of the Plan. It is essential to view it as a working document which must be kept current by periodic review to ensure that it continues to express the policies and values of the campus and reflect changes in the campus context and campus program. Each newly approved project must be integrated into the plan so that the plan reflects the implications of the addition to the context and informs subsequent modifications.

*This document was developed for the University of Pennsylvania
by the Center for Environmental Design and Planning,
Graduate School of Fine Arts, Room 102, Meyerson Hall/6311*

Section I: Planning Context

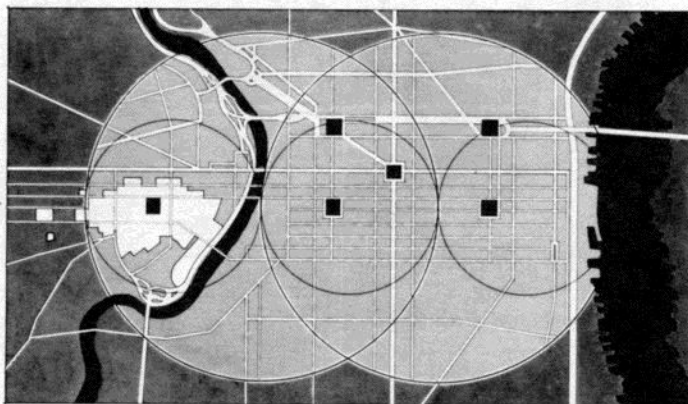
The existing campus has a strong physical and organizational structure which has changed over the last 100 years in response to a variety of internal and external factors. This structure is composed of buildings and open spaces, movement networks, and functional relationships, and provides a solid foundation for the long range development of the campus. The relationship between the campus and its surroundings has evolved from its original suburban character to a dense urban center immediately adjoining a rapidly growing downtown. In the context of the City, of West Philadelphia, and of the complex of institutions which forms its immediate environment, Penn is only one part of the total picture; but it is clearly one of the largest and most influential institutions in the metropolitan area.

A. Penn's New Relationship With the City

A new physical relationship is evolving between the University and downtown Philadelphia. The gap between Center City and the campus continues to close. Major development projects have already been proposed for both sides of the river north of Market Street. The extensive site occupied by the Post Office, south of Chestnut Street and adjacent to Penn's campus, is being promoted for private development, while the relatively low-intensity use in portions of University City provides a unique opportunity for redevelopment close to the downtown.

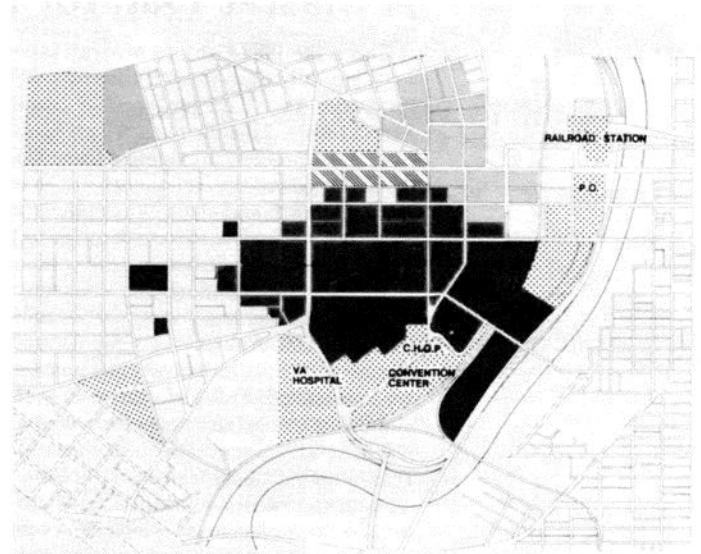
Walnut and Chestnut Streets have become the corridors of activity of the modern city, carrying the life of the downtown from Penn's Landing to the Penn campus and beyond. To the south, along the axis of South Street/Spruce Street, the link between the campus and the renewed southwest quadrant of Center City has been further strengthened by new construction and renewal projects along South Street, east of the river.

As a result of these developments, University City could become a uniquely active and important part of Philadelphia's future, boasting a major concentration of the city's cultural activity in its theatres, museums, lecture halls, restaurants, and specialty shops. To a significant extent, the direction taken by University City and the University of Pennsylvania in their planning and development will dictate the final nature of the relationship between West Philadelphia and Center City. The Master Plan for Drexel University, the Master Plan for the University City Science Center, and the grand scheme for the development of



THE UNIVERSITY AND DOWNTOWN PHILADELPHIA

The University and Downtown Philadelphia: A New Relationship.



UNIVERSITY AND WEST PHILADELPHIA INSTITUTIONS

U.C.S.C. U. OF P. DREXEL U. OTHER INSTITUTIONS

The University and other West Philadelphia Institutions.

the air rights over the tracks at 30th Street Station are all relevant to this development.

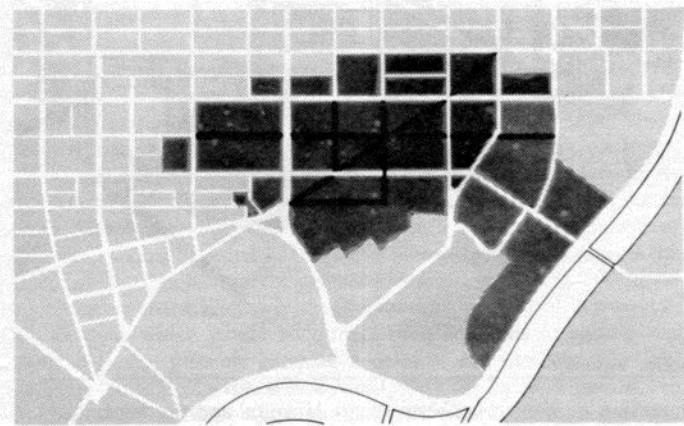
B. University City and the West Philadelphia Community

Within the larger West Philadelphia community, University City plays a key role. The ongoing growth and development of University City contributes to the future of West Philadelphia, and Penn has played an important role as a leading partner in the University City community, working to improve the quality of West Philadelphia's educational, physical, and economic environment. University City occupies approximately two square miles, one third of the distance between the Schuylkill River and the City's western boundaries. In addition to the Penn campus, Drexel University and the University City Science Center are located in University City; there is a major multi-institution medical center, including the Hospital of the University of Pennsylvania (HUP), Children's Hospital of Philadelphia (CHOP), and the Veterans' Administration Hospital, along with a number of other independent hospitals and clinics (Scheie Eye Institute, and Presbyterian Hospital). Many of the City's major facilities, such as the Civic Center and Convention Hall, the Railroad Station, and the main Post Office, are located here. There are also several public schools and many single- and multi-family residences; and University City's retail businesses are part of the West Philadelphia service network.

C. Penn Within University City

Penn's campus continues to grow within University City. Some of that growth will occur within the current boundaries of the campus. Further development is likely to occur on sites between present campus boundaries and neighboring institutions in the general area south of Chestnut Street and east to the Schuylkill River. The future of University City and that of the University of Pennsylvania are, in many ways, interdependent. The Master Plan for Penn's campus affects the structure and form of University City. Penn must join with neighboring institutions in planning University City's final development, working with the community to produce a beneficial result.

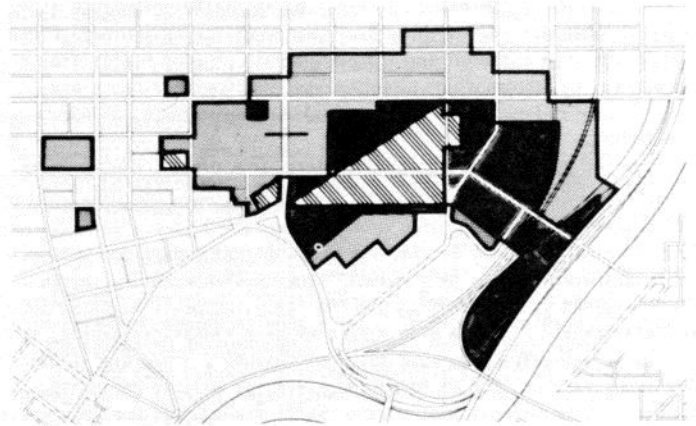
Section II: The Form of the Campus: Problems and Opportunities



PHYSICAL ORGANIZATION

The Penn campus of today is strongly oriented along a series of east/west axes. This major shift from the original north/south orientation emerged slowly as the natural outcome of growth along the major streets which extended west and southwest when the rapid expansion of the 1960s began. Numerous cross streets were closed to traffic, and Locust Street became Locust Walk, the central spine of the campus. Between the eastern edge of the campus at 31st Street (along the railroad tracks) and 40th Street on the west, this major pedestrian walkway is interrupted only at 33rd and 34th Streets, creating a core of tree lined walks, courts, and landscaped spaces surrounded by academic and residential buildings. To the south, the Quadrangle dormitories, medical center, and other related facilities create a second pedestrian-dominated zone. Hamilton Walk parallels Locust Walk and orients this area. The most recent expansion of the campus has been to the north along Walnut and parts of Chestnut Streets, the two major thoroughfares connecting the center of Philadelphia to the campus. In this area the block pattern remains intact. University buildings mix with non-University buildings and the character is clearly urban, busy and active, as new development incorporates uses which contribute to life along the street. Sansom Street offers the possibility of a secondary, more pedestrian-oriented axis through this area. The potential exists for a unique integration of campus and city, a balance between the quiet of college greens and walks, and the excitement of busy city streets filled with shops and restaurants. The imminent development of Walnut and Chestnut Streets will have much to do with the eventual character of the northern area of the campus.

The functional relationships built into the campus structure are clear and ordered. The academic core which defines the center of the campus is amazingly compact. Approximately three blocks wide by five blocks long, with some special outlying components like the Dental School, the Law School, and the Medical Center, its size fosters interaction between schools and departments. The facilities which house the various schools



HISTORICAL DEVELOPMENT

1901 - 1945
1870 - 1900
1946 - 1988

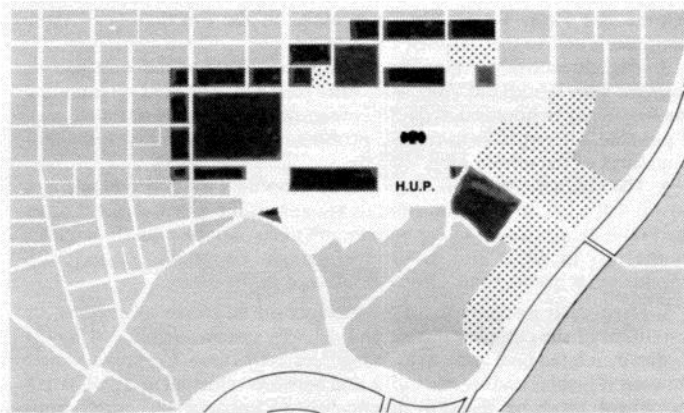
and major academic departments within the University are generally grouped around compatible disciplines. The physical sciences and Engineering School are east of 34th Street; the social sciences, including the Schools of Social Work and Education, are between 37th and 38th Streets, and the biological sciences, Nursing and Veterinary Schools, adjoin the growing medical center to the south. The Wharton School spans from 36th to 38th Streets south of Locust Walk. The School of Communications and the Annenberg Theaters are north of Locust Walk between 36th and 37th Streets, while the School of Fine Arts and the Music Department are along 34th Street. The diverse departments of the School of Arts and Sciences are, appropriately, directed from the very center of the campus, College Hall.

A continuous band of housing and support facilities surround the academic core. Student residences, both graduate and undergraduate, surround the core on its north, south, and west sides. Major parking facilities are distributed within this band, forming a ring around the central campus. A growing network of shopping facilities is also located within this band of services. To the east, where the largest open land areas exist, a concentration of athletic buildings and facilities complete the campus' surroundings.

The structure of Penn's campus suggests actions which will enhance existing patterns and correct deficiencies, rather than dramatically alter that structure.

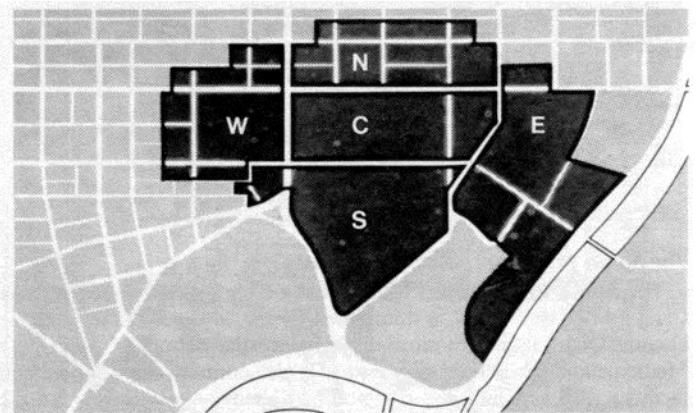
A. Campus Precincts as a Valuable Planning Asset

Over the last 35 years, the population of Penn's West Philadelphia campus has roughly doubled. It has a daytime population of 30,000, and a resident population of 7,000 (not including an additional 7,000 nearby off-campus residents). Such a large and populous institution cannot be perceived or planned as a single, uniform entity. Penn's history, the changing context, and individual functional requirements have helped to define separate areas within the larger campus whole. Each of these



FUNCTIONAL ORGANIZATION

HOUSING / SUPPORT FACILITIES
RECREATION



CAMPUS PRECINCTS

precincts has its own identity and is understandable in its own right. Together, they define the character of the overall campus. Recognizing the diversity of the campus in this way fosters richness and variation and helps to break down the scale of the large institutional environment into understandable units. This approach reinforces the reality of the existing campus with its functional and formal diversity; it also places strong emphasis on the factors which tie the overall plan together: the connecting open space and movement systems, and the consistency of architectural materials.

Within the current development pattern, five precincts have been identified, as follows:

Central Campus Precinct

The Central Campus Precinct includes the area from Walnut to Spruce and from 33rd to 38th Streets. It combines the historic campus with areas developed in the 1960s and '70s. This precinct is probably the most representative of Penn today in the minds of visitors and alumni. It is the most well-defined, having distinct gateways at a number of key entry locations. Locust Walk forms the pedestrian spine of the precinct, joining two large pedestrian-only areas. Smith Walk, to the east between 33rd and 34th Streets, is the precursor and natural extension of Locust Walk; it is an important part of the precinct, directly associated with the central campus by history and function.

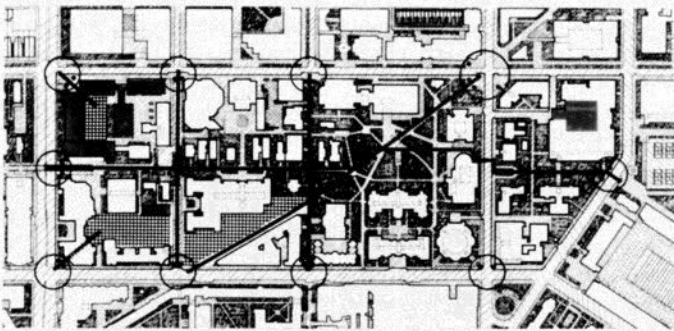
Many of Penn's most historic structures are located in the central precinct, including its first building, College Hall; its original library; and the first Student Union in the nation, Houston Hall.

In general, buildings within the precinct face inward, away from the surrounding streets. Open spaces become courtyards surrounded by buildings and linked by walks which shut out the activity of the city. In the center of the precinct is Blanche Levy Park, the major "green," serving the University ceremonially as well as functionally. Almost by itself, this setting has altered the physical image of the modern campus.

The challenge of the central campus lies in completing its development and definition while preserving its character.

Guidelines/ Recommendations:

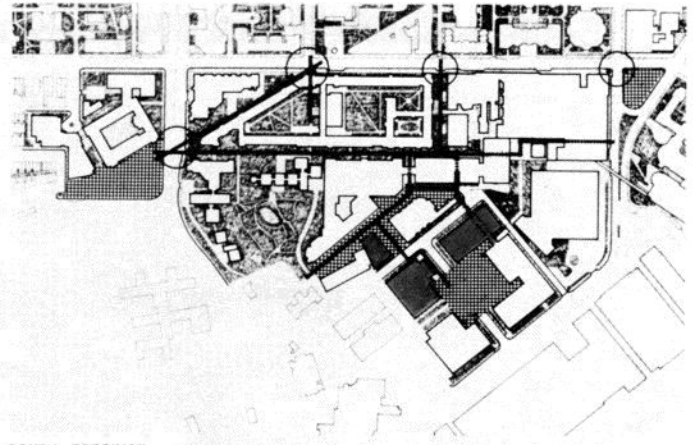
1. The area occupied by the "temporary" stores along 38th Street should finally be redeveloped; and the landscaped buffer along 38th Street, originally proposed by the 1977 Landscape Master Plan, should be implemented.
2. Improvements should be made in the way buildings relate to the major bounding streets (Spruce and Walnut), and in the character and quality of these streets as important public spaces. However, this should be accomplished without major changes to the form of the Central Precinct.
3. Opportunities exist to add to and modify buildings where necessary to accommodate growth and modernization within the existing areas of this precinct.
4. Most important, many buildings within this precinct require thoughtful conservation as part of the preservation of Penn's heritage.



CENTRAL PRECINCT

The South Precinct

The South Precinct, which lies south of Spruce Street and west of Civic Center Boulevard, is dominated by the Medical Center and the historic Quadrangle dormitories, including the School of Veterinary Medicine and the School of Nursing. It also contains major non-Penn facilities such as Children's Hospital of Philadelphia (CHOP) and the Veteran's Administration Hospital. There are two gateways into the precinct from Spruce Street, one at 37th Street and the other at the



SOUTH PRECINCT

extension of 36th Street between the Hospital and the dormitories. At 37th Street, a real gateway tower leads into the Quadrangle Dormitories. The 36th Street gateway dead ends into Hamilton Walk, which is the major pedestrian axis of this precinct. To the west, Hamilton Walk ends at 38th Street where it joins Woodland Walk, and to the east, it enters directly into the Hospital complex where it dead ends in a newly built courtyard. There is currently no clearly defined connection between Hamilton Walk, or any pedestrian path from the Central Precinct, into the new PGH development area (named for the original site of the now demolished Philadelphia General Hospital) to the south.

The development of the Medical Center and its expansion into the PGH site are changing this precinct significantly. The Medical Center is becoming a major subcenter within the campus as a whole and within the City itself.

With the completion of this complex of medical-related facilities, the majority of buildings within the South Precinct will face away from the campus, orienting themselves toward 34th Street and Civic Center Boulevard. This pattern has been developing for some time. As a result of interrupted movement systems, limited open space, and somewhat inaccessible buildings, the south precinct is less connected to the rest of the campus than any of the other precincts.

The major issues are, first, the need for a connection between the central campus and the PGH site, second, for connections within the precinct, and third, for the redesign of 34th Street and Civic Center Boulevard as an appropriate public entrance to HUP and other institutions in the precinct.

Guidelines/ Recommendations:

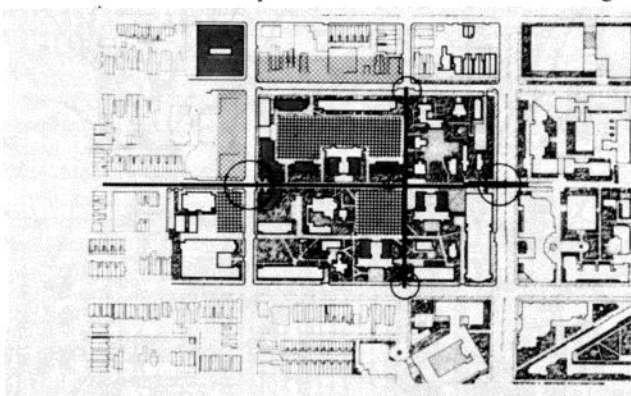
1. Extending the major north-south axis along 36th Street would provide a connection to the PGH site. Such a connection would require detailed study of the Medical Center buildings along Hamilton Walk to determine the best passage through. It would also require consideration of such a link in the design of new buildings proposed for this site.
2. The vehicular and pedestrian movement along 34th Street and Civic Center Boulevard must be redesigned to support the heavy drop-off and pick-up traffic, and cross movements occurring at the entrances to the Hospital of the University of Pennsylvania, Children's Hospital of Philadelphia and Penn Tower. This is essential to the functioning of these institutions and to the image of the campus.
3. The unresolved termination of Hamilton Walk to the west and its juncture with Woodland Walk is another problem. The area surrounding the Veterinary School and its traffic configuration should be restudied and, if possible, altered to help resolve problems as well as improve the surroundings of the school itself.
4. The character and quality of the development of the PGH site and how it will relate to the Penn campus are important. Current planning of the PGH site seems compatible with Penn's plans. Another question relates to the way in which this development might eventually connect with opportunities across Civic Center Boulevard in the future.
5. The pedestrian character of this precinct will be greatly affected by the resolution of the complex service and delivery systems demanded by the medically related uses and research facilities in this area. Current conflicts between vehicular and service traffic and between vehicular and pedestrian movement must be reduced significantly to enhance the connections between the various buildings within the precinct as well as between this precinct and other parts of the campus.

The West Precinct

The West Precinct includes the area west of 38th Street (with the exception of the School of Veterinary Medicine which is included in the South Precinct). It contains the Superblock and the edge of the much larger off-campus residential community to the west of 38th Street. The Superblock contains three high-rise dormitory towers, and a number of low-rise residential houses, which contain approximately 50% of the student residential spaces on campus. A number of handsome older houses, including the President's house, and a church, are also located within the boundaries of the Superblock. A variety of buildings face the Superblock including fraternities and private residential buildings; stores, theatres, and restaurants; and the Dental School's complex (including its clinics and research laboratories). There are also a number of older residences which have been converted to academic, research, and administrative use. Beyond this edge are numerous student and faculty residences, the Divinity School block, the newly acquired College of Physicians property, and a variety of commercial and institutional structures. Some are owned by the University, but most are privately owned. The character of this area enriches the campus environment and supports campus life.

Guidelines/ Recommendations:

1. The western edge of the precinct, at 40th Street, is poorly defined, and the entrance into the campus at Locust Walk is unmarked. A gateway should be developed at this location.
2. Locust Street beyond 40th Street should be developed jointly by the University, the City, and the Community through landscaping, as a special east / west extension of Locust Walk.
3. The open spaces in the Superblock west of 38th Street need redefinition. There is a lack of scale, and the environment can be unpleasant due to strong winds created by the disposition of the dormitory towers. More discrete spaces should be created, possibly bounded by low-rise structures interrelating with the base of the towers.
4. Special attention should be given to any new developments which are proposed between 40th Street and the Divinity School. Any plans or major improvements in this area should be planned in cooperation with the community.
5. The residential structures within the Superblock should be studied toward improving the quality of student life on campus. Alternatives should include the redesign of existing structures, the additions of new residence halls and the replacement of some residential buildings.

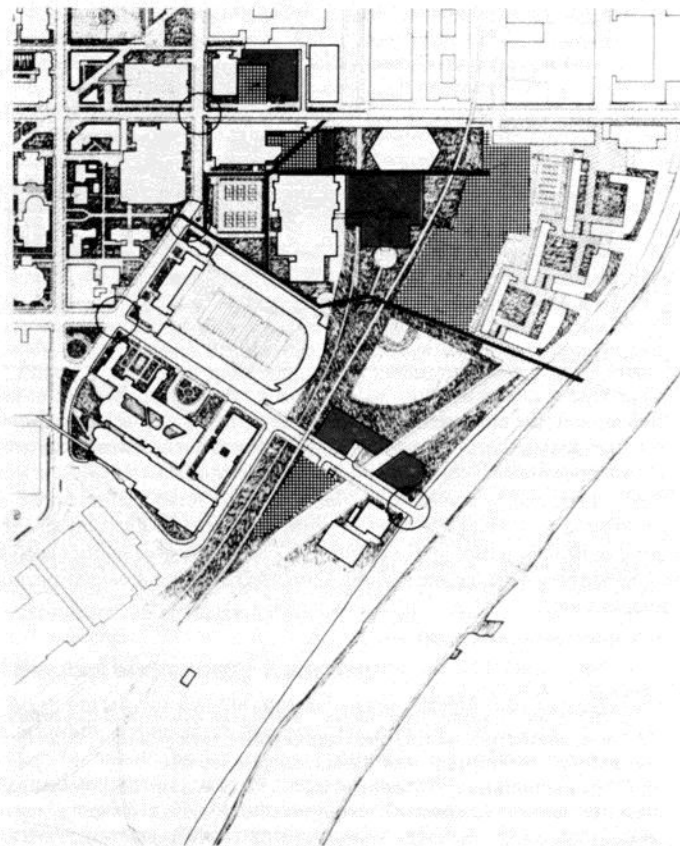


WEST PRECINCT

The East Precinct

The East Precinct includes all of the University area east of 33rd Street. At the intersection of Walnut and 33rd Streets are the David Rittenhouse Laboratory and the Laboratory for Research on the Structure of Matter. Along Spruce Street, on the south side, are the University Museum and Garage and the Penn Towers Hotel; and on the north side, the arcade of Franklin Field. In between and to the South along the river, the precinct is dominated by playing fields and large athletics structures such as the Palestra and Hutchinson Gymnasium, which, along with Franklin Field, are part of the campus heritage, and Penn's long tradition. The precinct also includes more recent additions such as Levy Tennis Pavilion, the Class of 1923 Ice Rink, and the Lott Tennis Courts.

A number of rail lines cross the precinct; these limit access to the Levy Tennis Pavilion and Bower Field to a pedestrian bridge, and render access to the river fields difficult and circuitous.



EAST PRECINCT

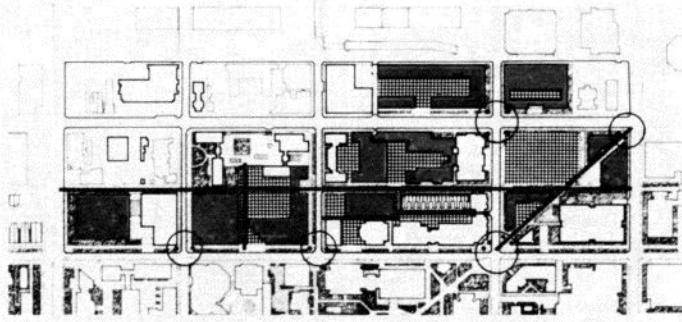
Guidelines/ Recommendations:

1. Sites along the east end of Walnut Street should be developed to create an appropriate "gateway" to the campus.
2. Improvements should be made to existing facilities and attention given to the maintenance and expansion of open space for recreation and athletic activities.
3. Greater accessibility and a better circulation system are needed between the central campus and the various facilities and river fields.
4. The University should make necessary landscape improvements to the pedestrian walk, the extension of Locust Walk, Smith Walk, east along Franklin Field to the pedestrian bridge.
5. Consideration should be given to the possibility of expansion of the campus beyond the boundaries of the east precinct to the Schuylkill River. This possible expansion would provide an opportunity for the extension of the Locust Walk / Smith Walk axis to the east and possibly across the Schuylkill River to the East Bank and the new Schuylkill River Park.

The North Precinct

The North Precinct is located between 33rd and 38th Streets, extending north from Walnut Street to Chestnut Street and, in some cases, to Ludlow Street. Most of the University's buildings in this section, including the Franklin Building, Hill House, Graduate Towers, and Gimbel Gymnasium are relatively new, dating from the 1960's and 1970's. The 3401 Walnut Building and the parking garage at 34th and Chestnut are currently under construction. Numerous older buildings also dot the area, including the Law School's Lewis Hall, Ralston House, some older residence halls, and some 19th century residences along Sansom Street, many of which have been converted to other uses. The precinct also contains many non-University structures, some with strong Penn affiliations, such as International House and the Sheraton Hotel. Sansom Street, which is closed to traffic for about half of its length within the precinct has the potential to become an important east / west campus axis paralleling Locust Walk. Hill Field, a heavily used, though undeveloped recreation area, is a major open space at the east end of the precinct.

Development of this precinct's potential for urban activity could help to restore the balance between academic and urban life which existed before the massive redevelopment activity of the past two decades. It will probably continue to combine University and non-University facilities,



NORTH PRECINCT

and remain a mixed use area with a strong retail focus. Even after full development, the character of this precinct will probably remain distinct from the central campus, oriented more towards the street, but with interior open spaces which should be incorporated into the planning of all new projects. It would be an ideal area to serve as the center of recreation and student activities because of its central location and the nature of its mixed uses and proximity to key University facilities such as the Annenberg Theater, the Faculty Club, the Christian Association, and Hillel House.

Guidelines/ Recommendations:

1. New projects in the precinct should be coordinated with a bold renewal of Walnut Street.
2. Important academic facilities such as the Law School and its proposed additions should incorporate open spaces within their plans and contribute more directly to the quality of the surrounding streets.
3. The planning and development of Hill Field as a valuable recreational resource, and the strong reaffirmation of the Woodland Diagonal are of major importance. A design incorporating an historic gateway preserved from an earlier location has been proposed as one possible solution, marking the symbolic entry to the campus at 33rd and Chestnut Streets.
4. Closing portions of Sansom Street and closing or narrowing 36th and or 37th Streets within the precinct offer opportunities for enhancing the pedestrian environment within these blocks. Before such closings should be considered, however, a coordinated plan for service and vehicular access to the campus must be developed and evaluated with respect to its long term implications for other parts of the campus and on the City's traffic system.

B. Reinforcing Campus and Precinct Boundaries

An understanding of a complex urban campus emerges only from one's perception of that campus as a series of related and overlapping, yet bounded environments, which can be identified and interpreted on an individual basis. Direction of travel, mode of transportation, and familiarity with the campus affect the perception of any given boundary. In some instances, a sequence of points, rather than a single gateway, signals the approach to the center of campus.

The boundaries of the campus need to be identified in order to strengthen its image. The concept of a boundary or "edge" implies differentiation between what is on campus and what is not. In this context, definition of an "edge" or a "gateway" is not the same as the erection of a barrier. Some edges of the campus, such as the Quadrangle and the central precinct of the campus, are sharply delineated. In other areas, such as Penn's western boundary, the edge is a broad zone of interaction or use integration. Depending on their direction and mode of travel, people may perceive a given location as a boundary or a zone of activity (for example, a shopping street could take on either designation); but in either case, campus edges help to define that "place" which is the University of Pennsylvania.

One way to strengthen a boundary is to more sharply delineate entrances and gateways (both symbolic and real) to the campus. Gateways, in this context, are not viewed as barriers or security measures in the literal sense, but as figurative markers to reinforce the edge of a precinct or of the campus: as ways of recognizing "arrival." While the architectural presence denoting "gateway" is quite pronounced at the intersection of 36th and Spruce Streets leading towards Hamilton Walk, the intersection of 34th and Spruce is of equal value as a "gateway" to the campus. The subtlety of a gateway need not compromise its value as a place of transition.

Another means of strengthening boundaries is to deal with the character and form of their edges in a consistent manner. In some places, sites provide opportunities to build new facilities which can be designed to help mark the point of arrival at the campus (for example, along Walnut Street near 38th and 33rd Streets).

Associated with the question of boundaries is the prevalent image of the campus as the sum of its precincts, each with a different character expressive of the buildings and programs located there, each with its own "edge" but all part of the one campus. This complexity suggests a plan which fosters richness and variation within an identifiable campus, breaking down the scale of the large institutional environment into understandable units. It also emphasizes factors which tie the overall plan together: the connecting open space and movement systems, and the consistency of architectural materials.

A campus is often distinguished from its surroundings by the size and character of the buildings, by the nature of the uses, and by the unity of campus development versus the diversity of the surrounding community. In the same way, the precincts may be distinguished from one another. These distinctions are manifest along the streets which bound and separate the precincts. Walnut Street offers the sharpest contrast between the Central and North Precincts. To the south, the Central Precinct is heavily landscaped, consistent in architectural character and almost exclusively inward looking. The points of entry are well defined. On the north side is a wide mixture of buildings which are variable in design, height and function, and generally oriented toward the street. Between the Central and East Precincts, the division is much more subtle; it is based primarily on differences in the scale of buildings. Larger buildings dominate to the east of 33rd Street. Surrounding the Superblock, a combination of building use, orientation, and character produces a clear distinction between the Superblock and the older development to the west. Finally, Spruce Street divides the Central and South Precincts primarily by the wall which the Quadrangle dormitories and hospital create along the south side.

It is essential that these distinctions be viewed as positive qualities, which help to create the differences that contribute to the interest and variety of the campus and allow different types of developments and functions to serve the complex needs of the institution.



Historic gate to the Central Precinct from Spruce Street.

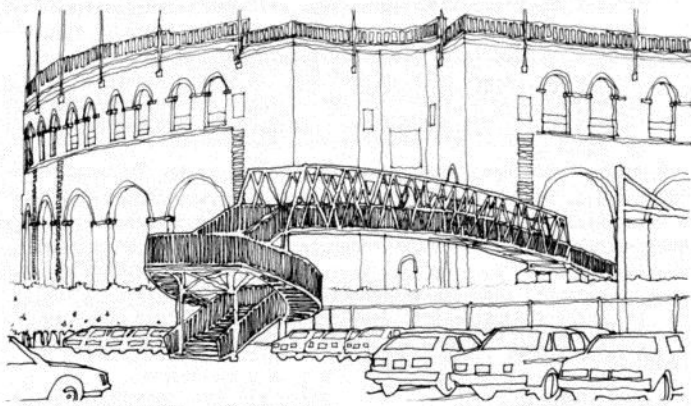
C. Reinforcing the Dominant Axes of the Campus

Within the five precincts, a number of streets and walkways are linked to form a single system. The physical structure is made more legible by these axes and dominant movement paths. Locust Walk and Smith Walk form the central spine of the campus, linking the West, Central, and East Precincts together and creating the opportunity for further extensions both east and west. Similarly, 36th Street is a natural north/south axis which joins the North, Central and South Precincts and suggests extensions into the north and south of the campus. Sansom Street and

Hamilton Walk parallel Locust Walk just as 33rd, 34th, and 37th Streets parallel 36th Street. On the diagonal, the original axis of Woodland Avenue extends through the North, Central and South Precincts and joins with the Drexel Campus to the north east. This important axis needs reinforcement. The desire to eliminate its dominance led, in part, to the creation of large pedestrian-only areas in the 1960s and 1970s, but with the campus now solidly reformed in its current structure, the architectural importance of this diagonal can be restored without any negative impact on the plan.

The major streets have undergone a number of changes over the decades. In the historic campus, though buildings such as College Hall were set back from the street and others, like the Quadrangle Dormitories, turned inward, the boundary streets were handsomely landscaped, creating pleasant pedestrian spaces. Plantings, sometimes behind ornamental wrought iron fences, set off each building. In the era of dynamic expansion during the 60s and 70s, the creation of a green interior campus was accomplished at the expense of the street environment. By turning buildings away from the street and ignoring the street environment, the bounding streets were changed into spaces unfriendly to pedestrians.

Today, Walnut Street is no longer "outside" the campus. Spruce Street never was. These streets need to be improved so that they can play their proper role in the larger campus.



A pedestrian bridge currently terminates Locust Walk to the East.

D. Campus Movement Systems: Pedestrian, Vehicular, and Service

To optimize the qualities of a pedestrian-oriented campus while maintaining access to the campus for vehicular traffic, service and deliveries, the various movement systems must be coordinated. Conflicts must be minimized not only for personal safety, but to ensure effective access to all buildings for service and delivery vehicles, security and fire fighting. Most important, conflicts between pedestrian and vehicular traffic present a negative effect on the quality of the campus environment.

Such a plan must recognize the established patterns and positive qualities of an urban campus. The movement systems through the campus are part of the city-wide traffic network. Closing a street must be carefully studied and often implies some type of compensating action. The widening of 38th Street, with all of its negative implications, was required as part of a plan to create the pedestrian zones within the central campus and the Superblock.

Service/Delivery Traffic: The service and delivery movement system is of particular importance to the University. Although walks and courts can be used in a limited manner for access to specific buildings, heavy service/delivery traffic, such as that to the rear of the Wharton School at 36th and Spruce Streets, can pose problems. Access to these service areas must also be maintained requiring that many of the public streets surrounding the pedestrian zones remain open to traffic. For example, service access to shops, such as those along Sansom and Walnut Streets west of 34th Street, requires that a portion of Sansom Street remain open. Similarly, access to parking garages must be maintained from public streets, further limiting which street closings can be contemplated.

Pedestrian Bridges: The separation of pedestrian and vehicular traffic by means of pedestrian overpasses is a possibility, albeit one which must be very carefully considered. The best opportunities exist where new

structures are constructed at both ends of the bridge and where there is sufficient reason to cross, preferably with activity at the level of the bridge.

Pedestrians rarely climb up to a bridge simply to cross a street. For this reason, bridges are particularly difficult to install at street intersections where long access ramps may be required. The best known and most heavily used bridge on the campus is along Locust Walk, across 38th Street. This bridge succeeds because the approach is unnoticed and the street is partially depressed (a condition unlikely to be found elsewhere on the campus). Also, heavy pedestrian traffic converges on Locust Walk at this point, whereas pedestrian circulation throughout most of the rest of the campus is much more evenly distributed.

Pedestrian/Bicycle Conflicts: Potential conflicts between pedestrians and bicycles presents a difficult challenge to campus planning. At present, bicycles share the pedestrian pathways, and many suggestions have been made on separating them and guaranteeing pedestrian safety. The campus is too compact and destinations too diverse to create a workable system of bicycle paths. Banning bicycles entirely from the pedestrian walks has been proposed, but has always been discarded as too harsh and possibly leading to even more dangerous conflicts between bike riders and automobiles. Barriers erected to force bikers to ride slowly or walk their bicycles would similarly hinder the handicapped. At this point, the University relies on the thoughtfulness of the bike riders and special restrictions in particularly dangerous zones (such as on the Locust Bridge over 38th Street) to minimize conflicts.

Guidelines/ Recommendations:

1. The major pedestrian/vehicular conflicts occur at points where pedestrians are encouraged to cross heavily-used streets at mid-block. Some of the more serious situations occur a) where Smith Walk intersects 33rd and 34th Streets, b) along 34th Street between the entrance to HUP and Penn Tower, which has many hospital-related functions, and c) crossing the north and south service drives to reach the new facilities being developed on the PGH site. This conflict seriously restricts communication between this new development and the rest of the campus. The separation of pedestrian and vehicular movement by bridge may be workable over the service roads to PGH but would be architecturally impossible over 33rd and 34th streets where many existing historic structures flank the crossing points. In these cases, more stringent forms of traffic control must be considered; currently, vehicles all but ignore the existing crosswalks.

The problems associated with crossing Walnut Street are equally difficult to resolve. Bridges would not work in most cases, with the only possible exceptions coming at the new developments between 36th and 38th Streets. Such bridges would not significantly reduce pedestrian/vehicular conflicts. An alternative would be to redesign Walnut Street in terms of the width of the cartway and to create special extensions of the sidewalks at crossings to minimize this distance.

2. Numerous conflicts exist between pedestrian pathways and service delivery areas. Most are acceptable as part of the nature of a compact campus, but some pose problems to pedestrian safety and also create a negative impact within the most important parts of the campus. An example is the heavily used delivery area behind Steinberg-Deitrich Hall near the intersection of Woodland Walkway and 37th Street Walk. All of this activity is further complicated by the entrance to the subway-surface line.

Another area of concern are the heavily used service drives behind the Medical School leading to HUP and CHOP. A part of this system involves a conflict with the Botany Garden and services to the Richards Medical Research Towers. This critical delivery system presents a serious barrier to pedestrian movement between the buildings in the South Precinct and between this precinct and the rest of the campus.

A third area of concern comes in the North Precinct. Servicing the shops and restaurants on Sansom Street compromises plans to convert Sansom Street into a pedestrian walkway.

Finally, developments proposed for the blocks along Walnut Street west of 36th Street could create conflicts between the pedestrian path system (including Sansom Street) and the need to service existing buildings as well as new construction.

3. The only streets which could possibly be closed without seriously compromising vehicular and service traffic, other than the parts of Sansom Street already discussed, are 36th and 37th Streets. However, given the desire to use the interiors of these blocks as pedestrian zones, a system of access must be created around them. If 36th and 38th Streets are used for service access to the buildings on these blocks, 37th Street could be closed without creating a major problem. Eliminating two-way traffic would make 36th Street more comfortable for pedestrians, using 36th as part of a

couple with 34th, thereby allowing some reduction in the width of the cartway and some widening of the sidewalks.

4. The block between 39th and 40th Streets along the north side of Walnut Street also presents an opportunity for significant development. The low intensity of the current retail strip could easily be developed further for other uses supporting the campus while maintaining street-level activities.

E. Continuing Penn's Program of Open Space Improvements

In 1977, the Landscape Architecture Master Plan (LAMPlan) for the campus was completed, setting forth a series of principles which were to guide the development of the Penn campus.

Much has been accomplished since publication of the LAMPlan. College Hall Green was transformed from a "patched up" and "bed-raggle" area (LAMPlan, p. 5) into Blanche Levy Park. Locust Walk was paved and landscaped, and a system of paths and courts developed for the central campus precinct.

The principal guidelines set forth in that plan are still valid, and they have been incorporated into the Campus Master Plan. However, they should be modified and extended to reflect new areas added to the campus and changing patterns of open space use. These guidelines are presented below, along with specific projects identified by this Master Plan as still in need of completion, and newly created open spaces which have yet to be incorporated into the LAMPlan.

Guidelines/Recommendations:

1. Landscape planning and design should focus on enhancing and developing the unique characteristics of each component of the campus landscape; streets and walkways, courtyards and greens, as well as special areas like the Botanical Gardens and the historic Quadrangles. This approach recognizes the richness and complexity of the campus and works to foster its variety.

2. The Plan for Open Space should accommodate specific functions within the existing and proposed nodes of activity on the campus, recognizing the importance of open space in this densely developed urban campus and the need for its intensive use.

a. Undefined open space in the Superblock should be reorganized and developed for both passive and active recreational use, and more intensive use.

3. The campus pedestrian system should be completed, connecting various precincts and sub-areas to one another, and extended into the surrounding community in order to connect with the different institutions and neighborhoods in University City. Specifically, it is proposed that:

a. Woodland Walk's diagonal axis from 33rd Street to Woodland Cemetery should be extended and strengthened, particularly at its northeastern end where it is a critical entrance to Penn's campus.

b. Stronger connections between the Central Precinct and the Medical Center southeast of Hamilton Walk should be developed. The optimal location for such a connection appears to be 36th Street, the primary east-west axis of the campus.

c. As opportunities arise, the central axis of the campus, Locust Walk, should be extended both east to the river and west, toward the Divinity School site beyond the current campus boundaries.

d. The walk along Franklin Field between 33rd and the pedestrian bridge over the railroad tracks should be landscaped and improved to further extend Locust Walk.

4. The system of landscaped open spaces, both greens and courts, should be extended into new developments planned for the campus, within the central precinct as well as in other areas. Buildings should be planned to create and enclose open space wherever possible. Specifically:

a. Numerous development sites provide opportunities for the creation of new open spaces enclosed by buildings. These include sites along Walnut Street east of 33rd Street, between 36th and 38th Streets, and the site along 38th Street (currently occupied by the "temporary" stores and the Book Store). Similar opportunities exist in the Superblock and the proposed development of additions to the Law School.

b. Existing open spaces such as the entrance court to the Franklin Building and the current Library service yard along Walnut Street should be replanned.

c. The redevelopment of the PGH site and the south edge of the existing Medical School complex offers important opportunities for creating a variety of open spaces for different activities.

5. Campus entrances and edges should be developed to temper, order, and enliven campus surroundings, and to define points at which one can orient oneself to and comprehend the campus interior. Many of the symbolic gateways identified in the 1977 LAMPlan remain undeveloped,

such as those along Walnut Street at 32nd Street, and along Spruce Street at the east end of Franklin Field. Also:

a. Relocation of an historic iron gate with appropriate landscaping has been proposed for the corner of 33rd and Chestnut Streets. This would strengthen this important gateway.

b. The role of the intersection of 34th and Chestnut Streets as a gateway from the north should be recognized in the developments proposed on three of the four corners.

c. A "gateway" to the central campus from 38th and Walnut Streets should be incorporated into planning for the proposed new academic facilities.

d. The intersection of 33rd Street/34th Street with Spruce Street is a major gateway from the south and east. The hospital entrance and traffic flow in this area are congested and unworkable; they should be extensively replanned. Replacing the current parking lot with a landscaped open space should be studied as a part of this project.

6. Existing historic landscaped areas of the campus such as the Botanical Garden, Smith Walk and Hamilton Walk, as well as older street settings such as those in front of the Quadrangle Dormitories, the Law School, along 34th Street flanking Smith Walk, and other areas, should be protected and rehabilitated as part of Penn's historic campus.

7. Given the dramatic expansion of the Penn campus, improving the character of the major streets to and through the campus is of the utmost importance. The boundaries of the different campus precincts need extensive landscape redesign appropriate to the special character and role of each.

a. Walnut Street should be extensively replanned and landscaped. Set-backs should be encouraged and the width of the roadway should be reduced, if possible, to ease pedestrian crossing.

b. 38th Street, between Spruce and Sansom Streets, should be heavily landscaped with double rows of trees on each side and other plantings used as a buffer between this wide roadway and the pedestrian zones of the campus.

8. All campus landscape elements should be coordinated to ensure an integrated campus setting, and the Landscape Master Plan should be maintained and continually updated. The successful transformation of many campus open spaces, such as Blanche Levy Park, may be attributed, in a major way, to the valuable recommendations of the LAMPlan. If those recommendations are to remain viable, new development must be incorporated and the guidelines modified accordingly. This is a key objective of the Campus Master Plan, and its importance cannot be overemphasized.

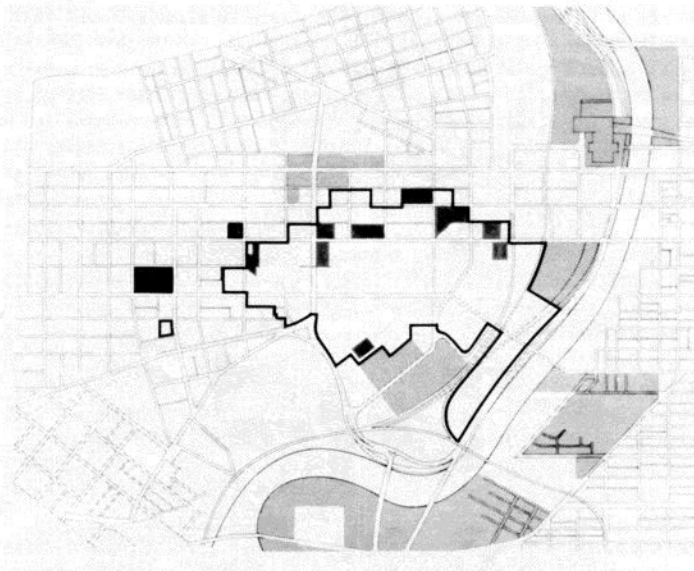


Proposed Sansom Street Walkway.

F. Development Resources and Opportunities For Growth and Expansion

Within the Existing Campus

Within the five campus precincts opportunities exist for significant new construction to meet short and mid-range needs. There are some large sites available, such as those along Walnut Street, between 36th and 38th and east of 33rd Streets, as well as parcels within the PGH site. There is also the site of the "temporary" stores along 38th Street. There are smaller infill sites whose development would further strengthen the form of the campus. Some existing buildings could also be adapted to new uses, or, in a few instances, be replaced by new facilities.



DEVELOPMENT OPPORTUNITIES

U. OF P. OTHER

Beyond the Existing Campus

For Penn's future growth and expansion there are a number of areas beyond the configuration of the current campus which offer the potential for major development. Whether Penn is able to develop these opportunities alone or as a partner with other members of the University City area or with private groups cannot be forecast. However, Penn must carefully monitor developments taking place beyond the boundaries of the current campus. These developments may present opportunities for future growth and for solutions to some of the critical needs for space. Even where they offer no development opportunities for Penn, they will affect the master plan for the University campus. The redevelopment plan for the PGH site along University Avenue, south of the Medical School, has provided for growth in medical facilities. The University is associated with the private residential development of the 34th and Chestnut Street site which will contribute new apartments, shops, and offices, and new cooperative ventures are being explored between Penn and the University City Science Center.

Other building and land resources and development opportunities may become available in the future, and Penn must be ready to take advantage of these. The Master Plan, by articulating a strategy for Penn's future development, will help to make the value of any off-campus development opportunities clear.

Guidelines/ Recommendations:

1. To the south, between the Medical Center and Penn's River Fields lies the PGH site and the Convention Center. Development has already begun on the PGH site but has not been completed. Penn must remain active in the development of this area because of its proximity to the campus and its potential to contribute to the development of the campus.

2. Beyond the PGH site, across Civic Center Boulevard, lies the Philadelphia Convention Center and Commercial Museum. When the City finishes the construction of the new Convention Center in downtown Philadelphia, this large site may be redeveloped. It could become an important component in the development of University City, and its development could affect the Penn campus. It offers excellent opportunities for institutional development, and its structures can be re-used for many key program needs, including parking and recreation, as well as providing for major assembly-type gatherings.

3. North of the north precinct, between Chestnut Street and the University City Science Center, are a variety of institutional and commercial properties. Some of these could be suitable for some of Penn's needs. Some private properties can be expected to remain and will be good neighbors.

4. To the West lies a large residential area made up of a number of neighborhoods and communities. Members of the Penn community own and rent thousands of units in this area, and though it remains fiercely independent of the University, it is dominated by Penn's presence.

5. To the east, along the river, is a large area with potential for redevelopment. This area, between Chestnut Street and South Street, includes land owned by the Post Office and the University. It offers the potential for new housing, parking, recreation, retail, and research facilities, and will

become a major gateway to University City and the University campus regardless of who develops it.

The Post Office has been exploring ways of redeveloping the land now occupied by its parking and maintenance facilities south of Walnut Street along the Schuylkill River. What is eventually built, and the extent of Penn's participation, will certainly affect the campus given the site's position along Penn's eastern border. Many of the previous campus plans have shown the river's edge as a major area for campus expansion. It is a uniquely prominent site, viewed easily from the City, and its topography offers major areas below street (bridge) level for parking and services.

Its proximity to the downtown and views of the city make it a strong site for future development as the downtown continues its expansion westward, although it will be some time before the river's edge reaches its full potential.

Whether developed privately, by Penn, or by Penn in collaboration with others, this development site will have a major effect on the form of the campus of the future.

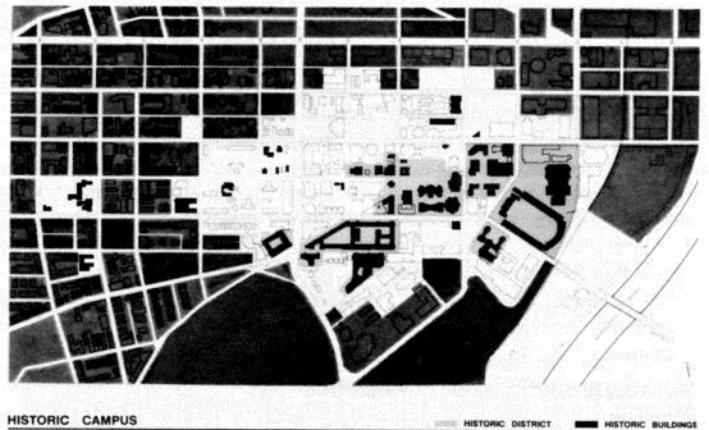
6. The east bank of the Schuylkill River is much closer to Penn's campus than it seems to be. The undeveloped river's edge contributes to the sense that it is far removed from campus. Some sites, south of South Street and near the University Avenue Bridge, are industrial in nature with low intensity development. Remaining commercial and light industrial sites immediately across the river between Walnut and South Streets are rapidly undergoing renewal, and the area offers major private housing resources for the Penn community. The east bank of the Schuylkill River offers special opportunities for development and must be considered in long range planning for campus growth as well as for meeting immediate plans for recreation/athletic playing fields and for parking.

G. Preserving Penn's Historic Campus

An important aim of the Master Plan is to support the preservation of the University's many historic structures as individual buildings as well as ensembles which collectively create historic areas on campus. The most well-known areas include historic buildings around Blanche Levy Park, the collection of buildings along Smith Walk and 34th Street, the Quadrangle Dormitories and the University Museum. Some of these buildings are historically certified by the Philadelphia Historical Commission and many more fall within the boundaries of the Historic District certified by the National Registry of Historic Buildings.

The University has organized its historic preservation effort under the Penn Treasures Program and has actively been working to restore and maintain these valuable structures. Work completed includes the President's Residence (Eisenlohr Hall), the exteriors of Hayden Hall, the University Museum and the Quadrangle Dormitories. Works in progress include the Veterinary School's Quadrangle and the interior and exterior of the University's original library designed by architect Frank Furness.

Many of these historic structures are being replanned for new uses. One example is the proposed creation of an Arts and Sciences Center for Undergraduate Education by adapting Logan Hall to this new use. Thus, while maintaining its symbolic presence in College Hall, side by side with the University's President and Provost, SAS could centralize certain administrative and advisory services into a highly visible and efficient new center, located in the heart of the campus in a worthy building.



HISTORIC CAMPUS

HISTORIC DISTRICT HISTORIC BUILDINGS

H. Character and Scale of New Development

In October 1948, an appendix to the minutes of the Trustees Meeting included the following paragraph, taken from a report of the Trustees

Committee for the Physical Development of the University; this paragraph was "unanimously adopted as the official future plan of the University."

While definite shapes and forms are indicated on (this) plan for proposed buildings, they can be materially modified to suit the ideas of the individual designer who is commissioned to do the work. Although some buildings may depart quite radically from traditional forms, while others may, to some degree, reflect the past, we believe that if we adhere generally to red brick and limestone for our exterior materials, a color harmony will exist throughout the Campus that will make for sufficient continuity.

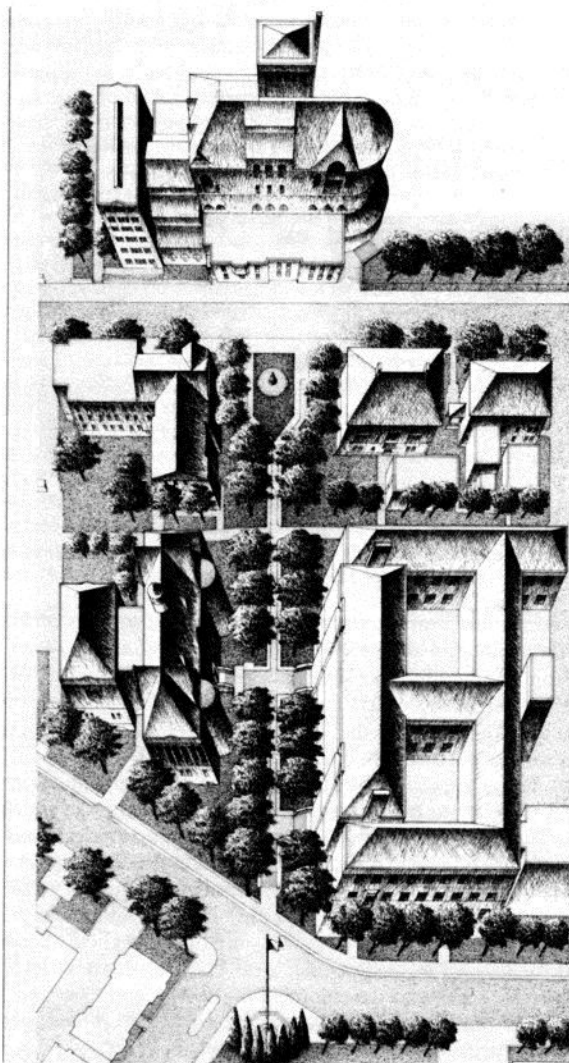
The current campus of the University of Pennsylvania has a clear order, a well-defined formal system. It is perceived as a unified "place," distinguished from its surroundings but clearly part of the University City community. The consistent architectural character of its individual buildings contributes greatly to this sense of unity.

From the beginning, the dominant building system on the campus has been masonry construction. The earliest structures were of stone, which soon changed to brick masonry. The most common exterior materials of Penn's historic campus (dark red brick with limestone trim) clearly define the architectural language of the campus. Throughout the 20th century, with few exceptions, new buildings maintained this language. Thus, important modern additions to the campus by architects such as Louis I. Kahn, Mitchell/Giurgola, and Venturi, Rauch, Scott-Brown, have maintained the brick and light stone (or concrete) trim without protest. Other buildings which clearly depart from the historic prototype of the existing campus (the highrise residential towers of the Superblock, Graduate Towers and International House, and selected garage structures) have been built primarily of exposed concrete, without destroying this overriding sense of unity.

If the unity of the campus is to be preserved—and this unity is seen as a crucial component in the concept of this Campus Master Plan—then the architectural language, in terms of exterior materials, must be maintained. This must be accomplished through a process of review and approval which protects the campus but does not limit architectural creativity and innovation. The replication of traditional forms and styles has not been supported in the expansion of the campus and the new architectural forms, rendered in the traditional materials of the campus, have clearly maintained that sense of unity.

This comprehensive Campus Master Plan recommends that the corner of the architectural design guidelines for new construction, which should be developed in detail only after careful study, should rest on the continued use of the traditional exterior materials of the campus: dark red brick with light stone or concrete trim. The plan further suggests that the successful examples of the use of concrete on high rise structures and other buildings which clearly depart from the traditional campus typologies could be used as the basis for guidelines for special situations in which the use of traditional materials would be inappropriate.

The review process should begin with the initial approval of program and site, the time when the mass of the building may actually be deter-



Historic Smith Walk.

mined, and continue through to the point where a test panel of the actual materials is reviewed prior to incorporating these materials into the construction. Representation on the Design Review Committee should include design professionals from within and without the University. The current role of the Committee as advisors to the President should continue. These recommendations have been incorporated into the University's revised "Campus Building Design Administrative Procedures," March 1, 1988.

Section III: Plans for Specific Programs

A number of important program issues are best viewed from a campus-wide perspective. These include the development of academic/research facilities, recreation and athletics facilities, student/faculty activities facilities, and parking and open space.

A major goal of the Campus Master Plan is to help guide other development strategies, land acquisition and capital planning. However, it is impossible to predict which specific programs will be the first to be funded, or for that matter, which will require new as opposed to rehabilitated facilities. The following plans are aimed at setting directions and expressing current policies as they affect the future physical form of the campus.

A. Academic/Research Facilities

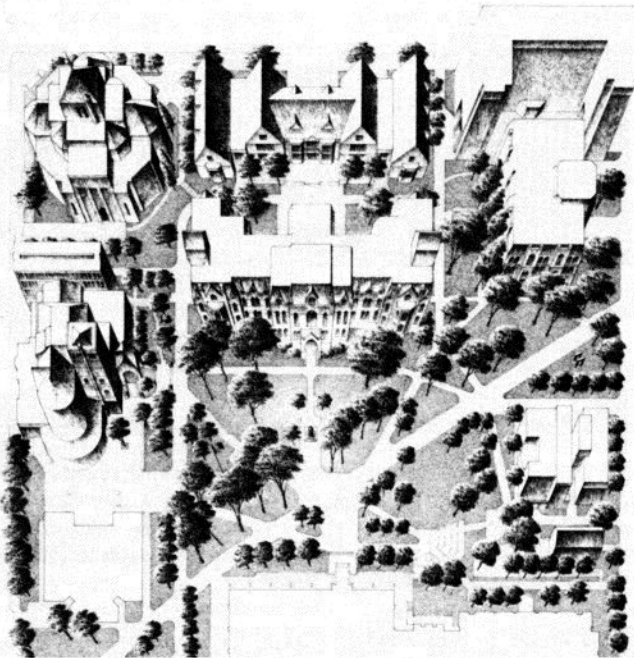
There is an immediate need for a number of academic and research facilities to extend and support Penn's research and instructional capacities. Many site opportunities for the expansion and development of academic and research facilities exist within the current boundaries of the existing campus precincts. Some of these were originally created as part

of the redevelopment activity of the 1960s, and have remained as surface parking areas awaiting programs and adequate funding. Others could become available through relocation and reassignment of space. In a few cases, new sites have been added for development.

A Program for Additional Academic/Research Facilities: Among the new academic/research facilities included in the Schools' Five Year Plans which may require sites for new construction are:

1. Integrated Research Precinct for the Physical and Engineering Sciences: One of Penn's principal needs is for an integrated precinct for the physical and engineering sciences. To this end, existing facilities in Chemistry, Engineering, LRSM, and Physics would be upgraded and expanded through building modifications and additions. The adaptive re-use of historic buildings nearby offers additional opportunities for growth, and new academic/research facilities could be constructed to meet expanded research programs in these fields.

2. New Facilities for Psychology: Psychology's current facilities are dispersed and inadequate for its needs. It has been proposed that the Department's facilities be centralized and expanded to meet its program.



Blanche Levy Park.

3. Graduate School of Education Research Wing: The key to this School's Five Year Plan is the development of a sponsored research base and the provision of facilities to house these new efforts.

4. Center for the Performing Arts: A Center for the Performing Arts is needed to serve as a home for the University's world-renowned Department of Music and as a center for student performances. A new performance hall could be provided by modifying existing facilities on campus. Studies have been prepared which indicate that a modified Irvine Auditorium could well serve this function. Another alternative would be the acquisition of appropriate facilities adjacent to campus. A third option, which would entail substantially greater expenditures, would be to build a new facility in a central location.

5. Expanded Facilities for the Law School: To provide space for Law School Library expansion and additional faculty, as well as for research and student activities, the Law School will require additional academic facilities which probably would be built in the block of the existing complex. Lewis Hall, the historic law school building, would be preserved, but structures added over the last 30 years could be modified and in some cases replaced with new construction.

6. Medical Center Research Facilities: The Medical Center, composed of the School of Medicine, the Hospital of the University of Pennsylvania, and the clinical practices, has made substantial investments in new and renovated research facilities to strengthen its position as one of the nation's most respected medical research enterprises. The most recent addition is the Clinical Research Building, currently under construction, located on the PGH site, south of the Medical Center.

Other projects which have been discussed include:

- A basic science research building
- An ambulatory care facility
- A new chiller building and support facility
- A new animal facility

Possible Sites for New Academic/Research Facilities: There are a number of sites within the current campus and immediately beyond its boundaries which are well suited for new academic/research facilities. These sites are close to the academic core of the campus. These potential sites include the following:

1. The site east of the Laboratory for Research in the Science of Materials (LRSM) Building along Walnut Street currently occupied by a parking lot.

2. The site east of the David Rittenhouse Laboratories (DRL) complex. A new building on this site could create a new courtyard at street level and a pedestrian entrance into the campus.

3. The service and parking areas behind the Towne Building offer SEAS the possibility for a major building expansion.

4. The "temporary" shopping area along 38th Street between Walnut Street and Locust Walk provides an ideal site for the construction of a major new academic/research facility.

5. The PGH site potentially offers additional opportunities for Medical Center growth and expansion. A new ambulatory facility is planned for a site near the Clinical Research Facility now under construction.

6. The parking lot east of Blockley Hall provides a key site for new facilities related to the Medical Center.

7. The area along 34th Street, flanking Smith Walk, has been studied as a potential site for new academic and research facilities, particularly in connection with the Department of Chemistry. Chemistry is seeking to construct a major new laboratory but cannot add on to its existing facilities. To create a site adjacent to its current buildings would require the demolition of one or more of the smaller historic buildings along 34th Street—the Morgan Building and Morgan Annex, and the Smith Building. The replacement of these buildings with a much larger laboratory structure would significantly alter the character and scale of the Smith Walk area which includes Hayden Hall, Towne Building, and the Furness Library. These issues must be carefully evaluated along with alternative development strategies.

8. In the future, development of new academic and research facilities could occur in the areas immediately beyond the existing campus, in the area between the campus and the Science Center, in the development along Walnut Street east of 32nd Street to the River, in the potential future development of the Convention Center site, and possibly in selected buildings within the University community to the west. New academic/research buildings should be located close to the main campus, preferably within or adjacent to the current campus boundaries to nurture inter-school and inter-departmental integration and to strengthen the ties between research and teaching.

B. Student and Faculty Activities

An important goal of the comprehensive plan for the Penn campus is the accommodation of student activities and the performing arts as one strategy for enhancing the quality of campus life. The Penn community is large and diverse, and currently supports over 250 student organizations, including various clubs, cultural groups (such as theatre, music, etc.), and other organizations. These diverse groups generate a great demand for meeting and performance space. Available facilities are dispersed throughout the campus, and are generally considered inadequate to meet current needs. One suggestion is that there be a new focal point for University life. Facilities to support the broad spectrum of student and faculty activities should incorporate formal and informal meeting places, places for recreation, performance space, offices for student organizations, and a student information center (as distinct from the visitor-oriented center proposed for the 3401 Building). Ideally, the University Bookstore should also be part of the plan. Informal gatherings should be accommodated in lounges, retail establishments, and eating places. Ideally, all of these diverse facilities should be planned in coordination with one another and unified conceptually.

Detailed plans for recreation and athletics, and for retail, are discussed elsewhere.

Guidelines/Recommendations:

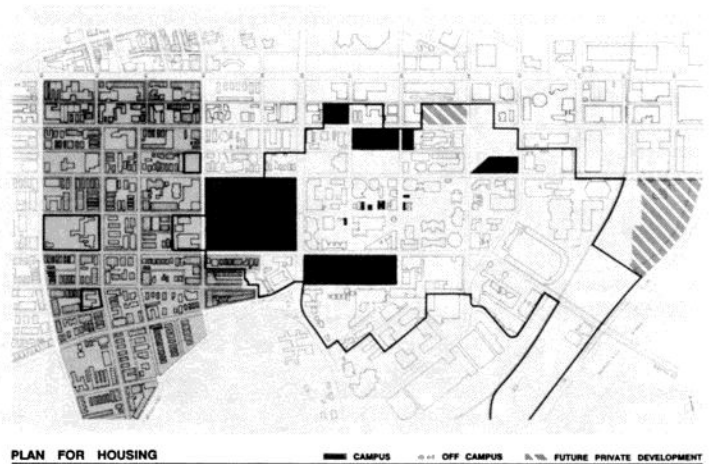
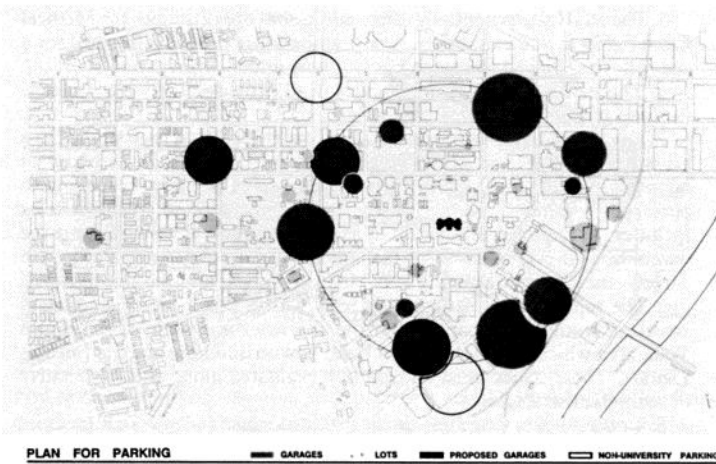
1. The University should create a center of activity to support the diverse interests and needs of the many students and faculty of the Penn community. It should be centrally located in relation to the campus as a whole, near existing facilities which currently serve University life, including the Annenberg Theaters, the Faculty Club, the proposed ICA, the Sansom Street restaurants, and the retail development at 3401 Walnut Street. The sites between 36th and 38th Streets along Walnut Street offer ideal development opportunities capable of accommodating the multi-use, multiple facility concept proposed, including the integration of retail and recreation facilities.

2. The new center should be viewed as providing a focus for student and faculty activity, while maintaining many of the current subcenters for University life, including the Faculty Club, the Greenfield Center, the Christian Association, and others. The Plan thus recognizes the need to augment existing facilities, without giving up appropriate spaces which are currently in use. By providing a new focal center while supporting some degree of decentralization, the Plan recognizes the rich complexity and the magnitude of the University community, which could be inappropriately accommodated in a single location.

Houston Hall might well serve as the administrative center for the offices of the Vice Provost for University Life, as well as a subcenter with retail and eating activity, serving the southern precincts of campus.

C. Recreation and Athletics

Penn has a very active recreation program. Clubs and intramural teams are scheduled for competition throughout the school year on every



available court and ball field. As a result, there is a strong demand for more recreation facilities to accommodate the needs of the University community. More tennis, basketball, and volleyball courts are needed throughout the campus, and there is a critical need for more play fields for recreation. It is also very important to preserve the quantity and quality of fields required by the intercollegiate athletics program.

Penn is, however, an urban university, and the large open areas required for these facilities are few. Land costs are high, and the available sites are also prime targets for other much needed facilities. Meeting the need for recreation facilities on this densely built-up campus calls for creative planning; land may have to be leased or acquired off-campus for ball fields. Every available surface, even roofs and decks over other necessary facilities, must be considered a potential site.

Of primary importance is the need for a new Field House. It should provide for a variety of recreational and athletic activities, and include an indoor track specifically designed for intercollegiate athletic competition.

Guidelines/ Recommendations:

1. Ideally, the location for a new Field House should be coordinated with the development of other recreation/athletics facilities to create a major center in support of campus life. Connecting the new Field House to existing indoor facilities such as Hutchinson Gymnasium or Gimbel Gymnasium has numerous advantages.
2. The roof of a new Field House, along with the roofs of other buildings, existing and new, should be developed for recreation activity whenever practical. For example, the roof of a new Field House would make it possible to double the current number of outdoor tennis courts.
3. Given the pressures on available land, and the urban context, every possible opportunity for providing new play fields should be explored. Decks over parking facilities associated with potential major developments along the river could be utilized. Additional remote fields could be built on land acquired directly across the Schuylkill River or southwest of the University. Hill Field could readily be developed as an all-weather, day-and-night recreation facility, maximizing its usefulness.
4. The Palestra, Hutchinson Gymnasium, and the Skating Rink could be more tightly linked and possibly added to, through the construction of new facilities. At the same time, modifications to the existing buildings could provide added space for the most heavily scheduled activities.

D. Parking

An ideal parking solution balances the needs of faculty, staff, students, and visitors with the preservation of the Penn campus as a quality setting for the activities of the University community as a living/learning/research center. Given the importance of parking in maintaining access to the campus, the Campus Master Plan advocates that sufficient parking be provided to meet real demand.

The Campus Master Plan's recommendations for parking are two-fold: first, to meet the shorter range need to provide for current demand and to replace parking lost to construction, while the second is aimed at meeting longer range projections of demand, planning for and developing parking to meet the University's growth.

Penn is situated in University City. The University community's demand for parking is currently met through surface lots, garages, and on-street parking. Not all of the existing sites are controlled by the University. For example, surface parking lots at University City Science

Center and 34th and Chestnut Streets also help to meet the needs of the University community. The Civic Center Garage's nearly 1200 spaces serve the Penn community as well. Penn's planning must take into account development by these and other entities such as the PGH Development Corporation.

Guidelines/ Recommendations:

Short-Range: In addition to the parking facility under construction at 34th and Chestnut Streets, and the development of remote parking lots on Murphy Field and the DuPont tract (on the east bank of the Schuylkill River), Penn should also consider the following actions:

1. Penn should consider developing additional parking facilities alone or in conjunction with other participants on the PGH site to meet the critical needs of the Medical Center. An underground garage is being planned to accommodate 535 cars. Penn would share these spaces. There is still an opportunity to construct an additional above-ground parking structure for between 600 and 900 parking spaces to be shared by the institutions on the PGH site. This option should be vigorously promoted.
2. The University should encourage the Civic Center to construct additional parking beyond the 500 spaces planned on the south side of Civic Center Boulevard.
3. Where possible, Penn should develop surface sites that do not negatively affect the quality of the campus environment or interfere with University activities.
4. Penn should consider joint development with the Science Center of a garage along 38th Street that could meet the parking needs of both institutions.
5. Penn should consider constructing two additional parking garages, at 38th and Walnut Streets to meet transient/visitor needs, and at 40th and Walnut Streets to meet the long-term permit parking demand. The garages could be multi-use, with ground level commercial, rooftop recreational, and in some cases, shared land uses.

Long Range: The construction of remote parking facilities will have to be considered. Remote parking would have to be connected to the campus by University bus. Such parking will be required if the University continues to grow and/or real demand remains unmet.

Any number of factors could dramatically affect the demand for parking. The memory of the fuel crisis of the 1970s and its effect on automobile use is still fresh. Public transportation and its future could also dramatically affect parking demand. Furthermore, development of sites in the area by others could also affect traffic and parking supply and demand. The University's approach must be flexible and realistic.

E. Housing

Student Housing

Of the 22,000 graduate and undergraduate students attending the University of Pennsylvania in 1986-87, approximately 7,000 lived on campus, while an equal number lived in the residential communities to the west of 38th Street and immediately across the river to the east. The rest are dispersed throughout the metropolitan area.

Students at Penn follow a pattern common to most major research universities. 70.3% of Penn undergraduates live on campus. However, while 99.1% of freshmen live in University housing, only 31.7% of seniors live on campus. Graduate students are even less likely to live on campus if alternatives are available. Only 10% of the University's graduate and professional students live on campus.

In most years, vacancies exist in almost all types of on-campus housing. Off-campus housing offers Penn students competitive rents, some recently renovated units, and housing types, such as shared houses, which are unavailable on campus. In this context, the University must become more competitive. Renovations of University housing, aimed at improving the University's position, are already under way throughout the campus. Given this situation, it is uncertain whether there is a demand for any additional units of campus housing at this time. There are strong indications, however, that the cost of renting units in University City will continue to increase at a faster rate over the next decade. At the same time, rental property is being purchased for single family use as the area becomes increasingly attractive. In addition, the concept of converting existing on-campus housing is being explored, to address the creation of housing for specific graduate schools, such as the Wharton School, similar to those already existing for the Law School. A situation could develop which would encourage more students to choose on-campus housing, possibly creating a demand for new construction. Because of the many factors which could affect the future situation, the University must maintain a continuous watch on the housing issue and be prepared to take action in sufficient time to avoid a crisis.

Guidelines/ Recommendations:

1. Additional units could be built within the existing campus. This new on-campus housing should emphasize the more desirable smaller residential halls. For instance, within the Superblock itself there are a number of potential sites for new residences which, if developed, would actually improve the quality of the plan, improving the scale and usefulness of the open spaces. The University may also want to consider a major redesign of the existing Superblock towers themselves, to improve living conditions and the quality of student life. Concern over the current conditions and plans of these towers has even led to consideration of demolishing one or more of the towers and replacing them with the more attractive low-rise residential "halls." Another suggestion has been to redesign one or more of the towers specifically for the graduate students in Wharton or another graduate program.
2. Off-campus apartments could be purchased and operated by University City Associates in the areas west of the campus.
3. Finally, new private residential developments built with or without Penn's participation, could provide additional market-priced housing to Penn's students.

Faculty Housing

The University's policy is to encourage faculty to live near the campus. This is viewed as an important way to enrich the intellectual and social life of the University community, by fostering interchange outside the classroom between students and faculty, and among faculty. A considerable number of the faculty already live on or near campus, but the majority do not. A recent analysis of faculty addresses by the University's Office of Institutional Research reveals that more than 30% of the standing faculty teaching in the undergraduate program live within the neighborhoods immediately surrounding the campus, including the Center City communities to the east. This figure is even higher (40%) for undergraduate faculty under forty. However, when all the standing faculty, including those teaching in graduate programs and professional schools, are combined only 21.2% live in these same neighborhoods. The

rest live throughout the Philadelphia region with significant concentrations on the Main Line, the Media/West Chester area, and Germantown/Chestnut Hill. There are obvious reasons for this which are associated with the quality and accessibility of many residential areas of the region. Responding to this very same issue in the 1917 Master Plan, Paul Cret wrote, "A socially compact community formed by students and instructors is certainly desirable, although perhaps difficult of attainment, in a university placed in a great city."

Guidelines/ Recommendations:

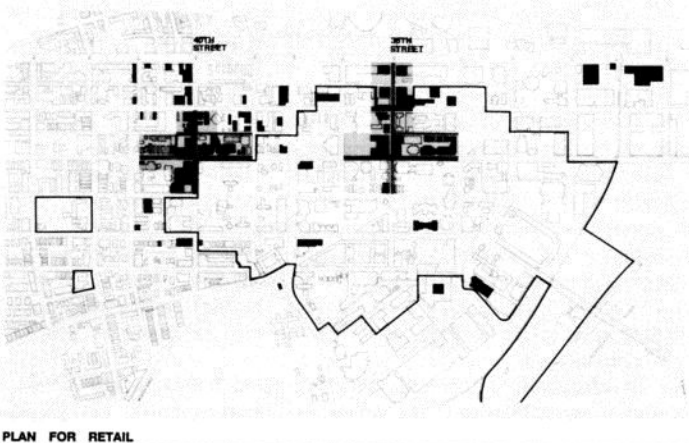
1. The University should continue to work to increase the number of faculty living on or near the campus. Current mortgage programs which financially assist faculty and staff who move into the area immediately around the campus should be maintained.
2. New private market housing which will be built near the campus, such as the development of 34th and Chestnut Streets and the possible future development of sites along the River at Walnut Street, should be looked upon as offering faculty new opportunities for quality housing.
3. Some of this new private development housing might be specifically designed to accommodate retired faculty who wish to remain in the campus environment.

F. Retail Development

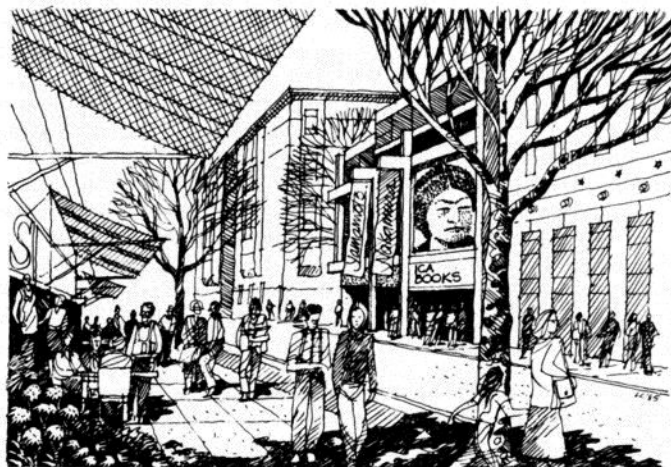
Existing retail services at Penn in 1987 are relatively dispersed and probably capture only a portion of their full market potential. More important, there is no identifiable center of activity which is so crucial to the life of a modern urban campus. A well-designed mix of retail establishments in the campus area has the potential not only to better serve the existing market, but also to reach beyond University City and West Philadelphia to a broader market. The Master Plan proposes a bi-polar development of retail services, which would create two nodes of retail activity.

Guidelines/ Recommendations:

1. The existing 40th and Walnut Street area, with its general orientation towards convenience retail, would be the foundation of one of the centers of retail activity. Through direct involvement in some of the properties in this area, the University could work to improve the quality of services as well as the character and safety of the public spaces.
2. The new development under way in the 34th to 37th Street area, including the Sansom Street shops and restaurants. This concentration is centered on 36th Street, which is rapidly emerging as a major north-south axis, including the first retail development within the Science Center and the focus of activity along 36th Street between Walnut Street and Locust Walk within the campus. This centrally located concentration of retail activity is likely to contribute significantly to the quality of student and faculty life on campus.
3. As the PGH site develops, a third, much smaller, node of retail activity, concentrating on convenience retail, could emerge to serve the large working population centered about the Medical Center as well as the large number of visitors to the area.
4. It is suggested that existing convenience retail stores located in numerous places around the campus remain to maximize access from all areas of the campus, and that they be upgraded to improve the quality of service to the University.

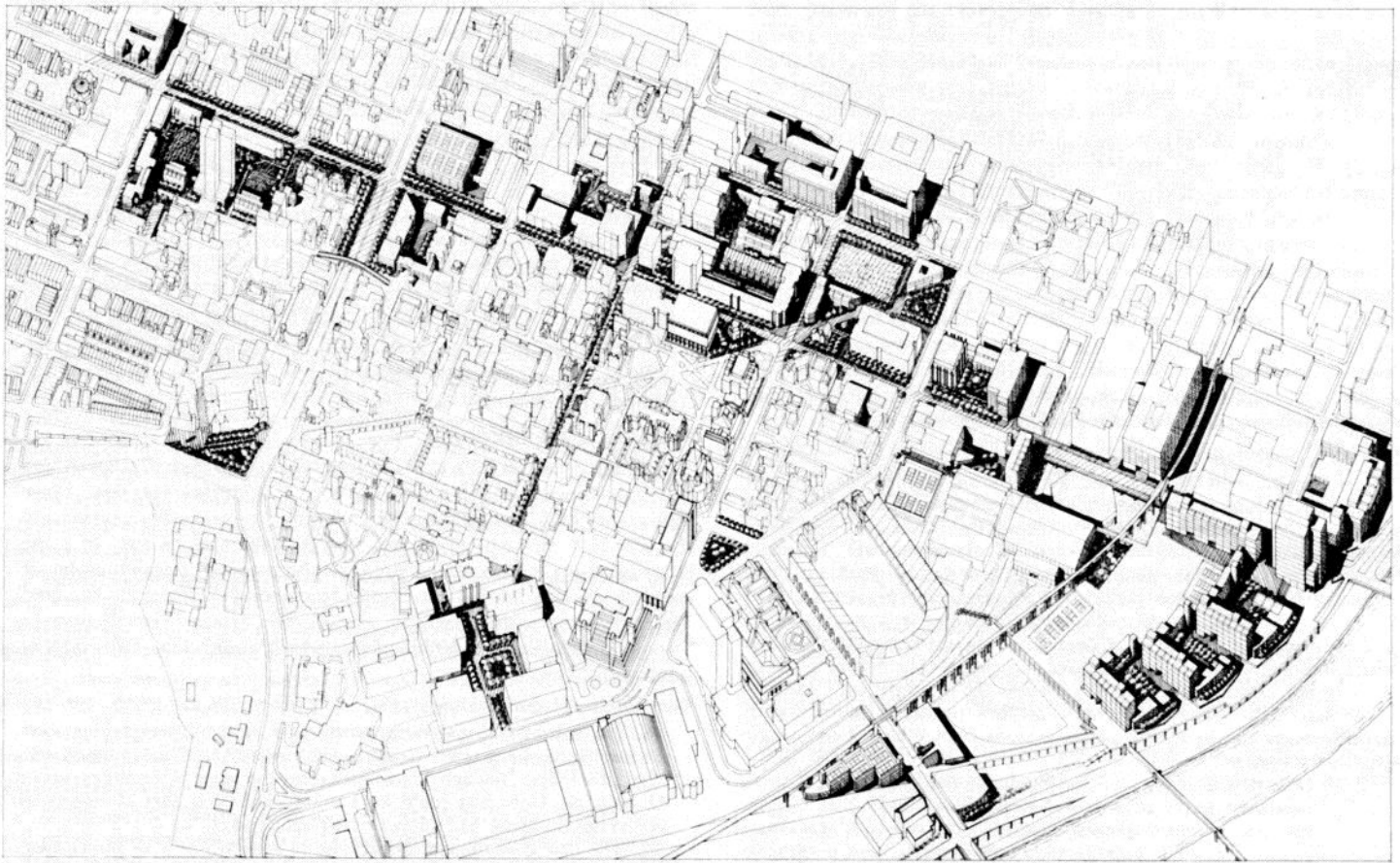


PLAN FOR RETAIL



Proposed retail shops along 36th Street.

Section IV: Developing the Walnut Street Corridor



Proposed development of the campus.

As Locust Walk was the thematic element of the master plans of the 1960s, the central theme of the Campus Master Plan for the next 25 years will be the development of the Walnut Street corridor. This corridor extends from the Schuylkill River to 40th Street ten blocks to the west, including selected development sites north to Chestnut Street and south to Locust Walk, and, as the prime westbound connection between the City and the Campus, it is undeniably a part of the campus of the 1990s and beyond.

Up to now Walnut Street has generally been treated as off-campus, neglected in preference to the interior spaces of the central campus. Now, as Walnut Street takes on a new, key role in the development of the campus, its presentation and its image directly affect how the campus is perceived. Inescapably identified with Penn, Walnut Street must be transformed into a positive open space; it should become the core of interaction between campus and city, full of life and activity. The many development sites within the corridor provide opportunities for growth and provision for special functions inappropriate to the older parts of the campus. As many as eighteen sites within the corridor could be altered to some extent, or developed with new construction. This would amount to forty-five percent of the total frontage along both sides of Walnut Street.

Fully developed, the corridor could contain academic/research facilities, recreation/athletics facilities, faculty/student/staff activity centers, parking, restaurants and retail stores, residential and office structures, performance facilities, a museum, the library, and administrative facilities.

Projects Which Could Be Developed Within the Walnut Street Corridor:

1. The gateway development at the Walnut Street Bridge: the development of the site currently occupied by Post Office parking and maintenance facilities is being explored by the US Government Postal Service.

In area and because of its topography, it is capable of supporting considerable new construction. Three levels of parking would fit below the level of the bridge, and the extensive deck could be used for recreation and open space, still allowing for considerable multi-story residential, office, or other uses. The pressure for such a large development does not yet exist, but that it will eventually be developed appears very likely. Its short-term value, for parking and open space, is much more immediate.

Any buildings constructed on this site will command exceptional views of the downtown. They will also be highly visible from the many approaches to and through Center City. The potential of the Post Office site as a gateway to University City, West Philadelphia, and the University is unequaled.

The development of a platform over this site could also extend the Locust Walk axis to the River and possibly beyond to the east bank of the Schuylkill. It also offers possibilities for improved accessibility and connections between other sites along the River.

In addition to the Post Office site south of Walnut Street, other facilities north of Walnut Street occupied by the Post Office and other users (for example, General Electric) might also be expected to be replaced by more intense development in the future.

2. Between 32nd and 33rd Streets, along Walnut Street: Two sites are available in this area which, if properly planned and developed, could create a memorable entrance to the main campus. One site, on the north, between LRSM and the University parking structure, is large enough to support a significant new structure. On the south, a valuable opportunity exists east of DRL for the development of a new building and the creation of a street level courtyard entrance to the complex and the University campus.

3. Development of Hill Field and Woodland Walkway: Hill Field is located between 33rd and 34th Streets, and between Walnut and Chestnut Streets. It occupies the northwest quadrant of this block. Hill House

and a small fraternity house are the only structures. For many years, Hill Field has been an undeveloped open field used for intramural recreation and club sports. It is intensively used, but in very poor condition.

The Woodland Avenue right-of-way originally passed diagonally through the middle of the site. With the decision to close Woodland Avenue, the diagonal connecting the Drexel campus (where Woodland Walk is fully developed) and the corner of 34th and Walnut (where the diagonal is strongly implied) was broken. The path taken by many people through Hill Field to the University of Pennsylvania campus passes through a heavily planted corner plot, a surface parking lot, and along a dirt path through the field itself.

To resolve this problem it has been proposed that the field and the walkway be redesigned and developed. The relocation of an historic wrought-iron gate has been proposed for the entrance to the block, at 33rd and Chestnut Streets, and the diagonal would be paved and landscaped appropriately. Hill Field itself would be converted to an all-weather field, possibly with night lighting for maximum utilization.

The two corner sites offer excellent opportunities for new buildings, which would further strengthen the diagonal as well as the form of the open space.

4. Development of the sites east and west of 34th Street along Chestnut Street: two important development sites are located on the north side of Chestnut Street, flanking 34th Street. To the east is the site of a major parking garage and University office building. (Construction on the parking garage was initiated in mid-1987.) The office building, which will actually front on Hill Field, will be a highly visible addition to the campus.

On the northwest corner of this intersection a private residential development is proposed. Penn is involved in the planning and could exercise some influence on its final design. As with the structure across 34th Street, this development will also be very visible, helping to form a major gateway to the campus from the north and providing market priced housing opportunities for the University community. The importance of these two buildings, along with 3401 Walnut and Lewis Hall, in creating the bounding structures of Hill Field cannot be underestimated. They will be among the four most prominent buildings on the Penn campus.

5. Additions to the Law School: a number of additions and modifications are proposed for the Law School. This complex of buildings is located on the north side of Hill Field. Lewis Hall, the original Law School building, fronts on 34th Street. The additions will be located west of Lewis Hall and could totally alter the architectural character of this complex and the courts and open spaces within it, thus enhancing the character of Sansom Street and Chestnut Street as well.

6. The 3401 Walnut Street building: this was completed in early 1988. Its design is intended to help create a gateway to the campus and an appropriate boundary for Hill Field. The street level retail uses are a first step in changing the character of Walnut Street.

7. Modifications to the south side of Walnut Street between 34th and 36th Street: the library service yard should be redesigned to eliminate the wall and introduce landscaping. Possible additions to the library with public access from Walnut Street have been explored in the past. A walkway between the library and the small 3400 Walnut building should be developed which leads directly into Blanche Levy Park, providing dramatic views of College Hall.

8. The ICA project and the Franklin Building court: with the planned conversion of the Franklin Building Annex to the new ICA gallery, a number of changes will occur. The Franklin Building parking area will be changed to a pedestrian court, and the parking area at 36th and Sansom will become a sculpture garden. Patrons of the gallery will further enliven Sansom and 36th Streets in the area around the Franklin Annex.

9. Development between 36th and 38th Streets, and between Walnut and Sansom Streets: this is one of the most important development opportunities currently available close to the center of the campus. It is across from the Annenberg Theaters and the Faculty Club, and close to the Sansom Street restaurants. Gimbel Gymnasium is located along 37th Street; the Graduate Towers are north of Sansom Street. A program has not yet been defined, but some important programmatic and design criteria can be stated. The Retail Plan has demonstrated the importance of the 36th Street area to the overall development of a strong retail center. Other program proposals have included a new performance hall, parking

facilities, student and faculty activity spaces, recreation space, offices, and housing. The final mix of uses is still under study, but the importance of this development resource is unquestioned.

10. The development of the site along 38th Street: upon the removal of the temporary stores on 38th Street between Locust Walk and Walnut Street, a site becomes available. This site is ideally located for development of an academic/research facility close to the academic center of the campus. Any new building on this site should be set back a significant distance from 38th Street to implement the landscaped buffer proposed in the LAMPlan. The new facility should be integrated with other buildings in the Stitler Plaza complex to create new outdoor spaces, well landscaped and designed to provide a proper entrance to the campus from 38th and Walnut Streets.

11. Modifications to the Superblock along Walnut and 40th Streets: recent Master Plan Studies have proposed enclosing the Superblock with low-rise buildings to create internal courts and more strongly define the bounding edges of this area. This Master Plan supports these proposals, viewing them as necessary to the quality of the spaces within the superblock as well as its definition. The opportunity to provide a gateway into the Superblock at 40th and Locust Walk, and strengthen Locust Walk, is also an advantage.

12. Possible construction of a mixed use development on the northwest corner of Walnut Street and 40th Street: plans for development of the site on the northwest corner of 40th and Walnut Streets suggest a parking facility with retail uses at street level. There are also opportunities to combine other uses—office or research—with the parking facility. This corner is one of the outer gateways to Penn, but it is less institutional in character than other corners of the campus.

13. Modifications to the shopping area along Walnut and west of 40th Street: the shops at 40th and Walnut Streets closely resemble the independent retail clusters surrounding many campuses. They are full of life, very student oriented, and varied in both quality and character. Some of the stores in this concentration occupy property owned and managed by University City Associates.

Maintaining or increasing the University's involvement and improving the quality of stores and the variety and character of the shopping environment must be carefully planned so as not to destroy the vitality associated with these "off-campus" retail areas. The block between 39th and 40th Streets along the north side of Walnut Street also presents an opportunity for major development. The low intensity of the current retail strip could easily be developed further for other uses supporting the campus while maintaining street-level retail activities.

Walnut Street Redesign

The final physical design for the overall development of the Walnut Street corridor will depend to a significant extent on the landscaping and redesign of the public streets and on the way buildings are planned in relation to these public spaces. The following are recommendations for the redesign of Walnut Street and other rights-of-way in the corridor and suggested guidelines for the siting and disposition of new buildings.

Guidelines/ Recommendations:

1. Reduction of the width of the Walnut Street roadway: the current roadway supports three moving lanes, plus two parking lanes. Elimination of one parking lane would substantially improve the quality of the pedestrian environment and allow for extensive landscaping, both along the curb and in front of existing buildings. This possibility should be seriously explored.

2. Extension of sidewalks at pedestrian crossings: associated with the reduction in the width of Walnut Street could be the extension of the sidewalk at the corners, on the parking side, to further reduce the width of crosswalks.

3. Changes in traffic patterns on 36th and 37th Streets: both 36th and 37th Street are three lanes wide (two moving lanes and one parking lane). 37th Street is one-way south, and 36th Street is a congested two-way street. It is recommended that traffic patterns be changed, making 36th Street one-way north. 37th Street is already one way south. This could allow for the closing of one lane on both streets, further enhancing the pedestrian space. It would allow for accessibility to the campus while improving the quality of the public environment. It is also possible, under this plan, to contemplate the closing of 37th Street, if it provides any significant advantages.

4. Street tree planting: street trees should be planted along all public streets. Wherever dimension allows, particularly where new buildings can be setback, double rows of trees should be planted.

5. Coordinated design and materials for sidewalk paving: the University should apply a consistent set of guidelines for sidewalk paving throughout the renewal of the Walnut Street corridor.

Siting and Disposition of New Buildings

Guidelines/ Recommendations

1. Building setbacks: buildings should be set back from the right-of-way to permit landscaping comparable to the historic pattern in West Philadelphia, where modest gardens contribute to the quality of the public environment. Setbacks need not exceed fifteen feet but should be sufficient in depth to allow appropriate planting. Excessively deep setbacks which result in major open spaces fronting on the public street should be avoided in favor of interior spaces.

2. Creating interior courts: wherever site dimension and building configuration permits, or where buildings must turn their backs on public streets, a well-designed and inviting sequence of spaces should be created, leading from the public street through a gateway to interior landscaped courtyards. The juncture of this secondary or connecting walkway with the public street should be prominently marked as a gateway or entrance to the inner campus.

3. Building entrances: pedestrian-oriented frontage along Walnut Street should be maximized wherever appropriate, as in the case of shops and entrances to visitor-oriented buildings. Where building entrances are turned away from the street and located on pedestrian walks or interior courts, identifiable gateways to these interior spaces should be positioned along the public streets.

Section V: Suggestions for a Campus Master Plan Review Process

Independent of the Design Review Committee for new construction on campus, a process should be established and regularized for the ongoing review and modification of the Campus Master Plan.

This process should be supported by a professional plan study which would identify necessary changes, review recommendations for plan modification, and prepare a report with possible alternative actions, for the Plan Review Committee.

Specifically, the review process should

- note the addition of any new buildings or approved building projects to the campus and note implied modifications to the plan.
- note recommendations, complaints, questions raised in reference to the application of the plan to campus development or campus life relevant to facilities, public spaces and/or services.
- incorporate new development opportunities resulting from new sites

- becoming available, new land acquisition, or significant movement within existing structures on the campus.
- reflect changes in University policies, priorities or resources.
- reflect changes in the surrounding community context as well as changing relations between Penn and its neighbors.

It is equally important to recognize that this Master Plan, like those of the past, is temporal; it belongs to its own time, expresses current values and priorities. At some point in the future the basic concepts underlying this plan will no longer represent the goals of this university. Even if the plan has been regularly reviewed and continuously modified, the plan will cease to serve the University's needs. The University must then initiate a new comprehensive planning process, which will build on this plan and all of the plans of the past, as this one has, but which will speak to its own time.

