

PENN CONNECTS: *A VISION FOR THE FUTURE*



VISION PLAN REPORT
SEPTEMBER 2006

SASAKI

MESSAGE FROM THE PRESIDENT

More than a century ago, the University of Pennsylvania embarked on a building plan to support its burgeoning role as a home for innovation and discovery. Penn has since grown into a world leader in research and academic practice.

Now we have another once-in-a-century opportunity to redefine Penn; this time as a premier urban research university with the most far-reaching local and global perspectives.

Expanding our campus to the east will profoundly transform our teaching, research, student life, and clinical practice at Penn, while also replacing a

24-acre industrial zone with a vibrant, mixed-use neighborhood. Successful completion of this project also will integrate our entire Penn and West Philadelphia community within the City of Philadelphia as never before.

We named our plan Penn Connects to underscore our commitment to build ever stronger connections to our region and our world. We at Penn are committed to working collaboratively, locally and globally, to ensure that our contributions to human progress will benefit all who live and work in our community.

Amy Gutmann
President, University of Pennsylvania





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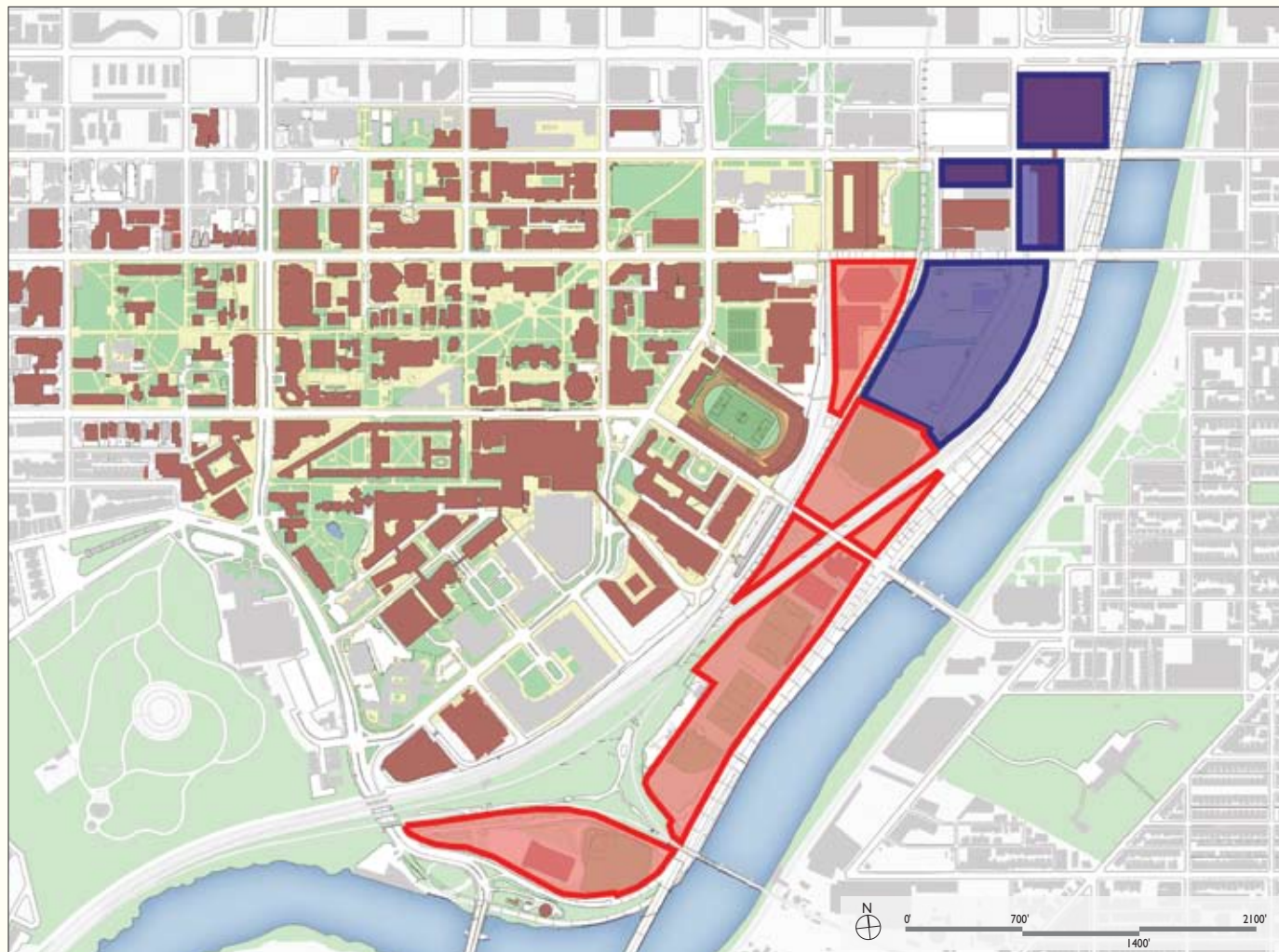
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Executive Summary

The acquisition of the postal properties by the University of Pennsylvania provides an unprecedented opportunity to transform the Penn campus. The land will enable the University, for the first time in its history, to establish a major physical presence along the Schuylkill River corridor, to create new gateways to the campus from Center City, and to establish new connections with the surrounding communities. It also will enable the University to address short-term programmatic needs as well as strategic priorities that may arise as the properties are developed and improved over the next 30 years or more.



East campus area indicating the postal lands to be purchased in 2007 and the land currently owned by the University

- UNIVERSITY LAND IN THE EAST CAMPUS
- POSTAL LANDS 2007

The postal properties include 24 acres extending from Market Street on the north to Penn's Bower Field on the south. They encompass the main U.S. Postal Building on Market Street, the Postal Annex site located between Chestnut Street and Walnut Street, the Vehicle Maintenance Facility Garage along Chestnut Street, and the 14 acres of surface parking south of Walnut Street.

The Penn Connects Vision goes beyond determining how best to utilize the postal properties. It addresses the planning and design opportunities for the land in the context of the entire campus, a dynamic urban district, and the mission of the University as guided by President Amy Gutmann's Penn Compact. The outcome is an inspiring and achievable vision for the future of the entire campus and, in particular, the new and existing landholdings in the east

campus area. It sets forth a vision rooted in the tradition and history of the campus; one which extends and enhances the successes of previous planning and design initiatives that have transformed the campus, such as the creation of Locust and Woodland Walks and College Green.

The plan is based on a rigorous planning analysis of the opportunities and constraints of the east campus area, and it draws upon the organizational framework established in the Campus Development Plan completed in 2001. It also addresses, in more detail, several sub-areas of the campus that provide significant opportunities for new development.



GUIDANCE AND CONSULTATION

The planning process leading to the Vision Plan commenced in April 2005 under the direction and guidance of the Campus Development Planning Committee (CDPC) appointed by President Gutmann. The CDPC was responsible for advising the President on priorities for land uses, and the consistency of the design and planning recommendations with the Penn Compact.

Provost Ron Daniels and Executive Vice President Craig Carnaroli served as co-chairs of the CDPC. The other members of the CDPC included Omar Blaik (Senior Vice President for Facilities and Real Estate Services), Scott Douglass (Vice President of Finance and Treasurer), Gary Hack (Dean, School of Design), Vanda McMurtry (Vice President for Government and Community Affairs), Joann Mitchell (Chief of Staff), Arthur Rubenstein (Dean, School of Medicine, EVP/UPHS), Wendy White (General Counsel), and John Zeller (Vice President of Development and Alumni Relations).

The process was further guided by an Ad Hoc Committee on Campus Development representing the Trustees. Members of the Trustee Ad Hoc Committee included Chairman James Riepe, William Mack, Christopher Browne, John Clark, David Cohen, Wendy Evans Joseph, David Silfen, Deborah Marrow, and Gil Casellas.

One of President Gutmann's priorities was to ensure that the process was broadly consultative and that the CDPC sought advice and counsel from the broad campus community. Deans, senior administrators, students, faculty, and staff were consulted and given periodic updates on the Committee's progress through the following groups: Council of Deans, Faculty Senate, Academic Planning and Budget, Penn Alumni Society, University Council, University Council Committee on Facilities, Undergraduate Assembly, Graduate and Professional Student Assembly, Penn Professional Staff Assembly, Weekly Paid Professional Staff Assembly, Senior Planning Group, University Health System, Provost's direct reports (including Museum and Library), and a University-wide Faculty Advisory Group. In addition, town hall meetings were held in the fall of 2005 to widen the consultation process.

The CDPC worked with the Offices of Communications and Government and Community Affairs to ensure that the campus community and appropriate external constituents, including elected officials and representatives of neighboring communities, were consulted with regard to progress on the project.

Michael Harris, Associate Vice President, and Mark Kocent, Principal Planner, coordinated the work of the CDPC and the consultant team led by Dennis Pieprz, President of Sasaki Architects, PC.



Walnut Street corridor looking towards Center City

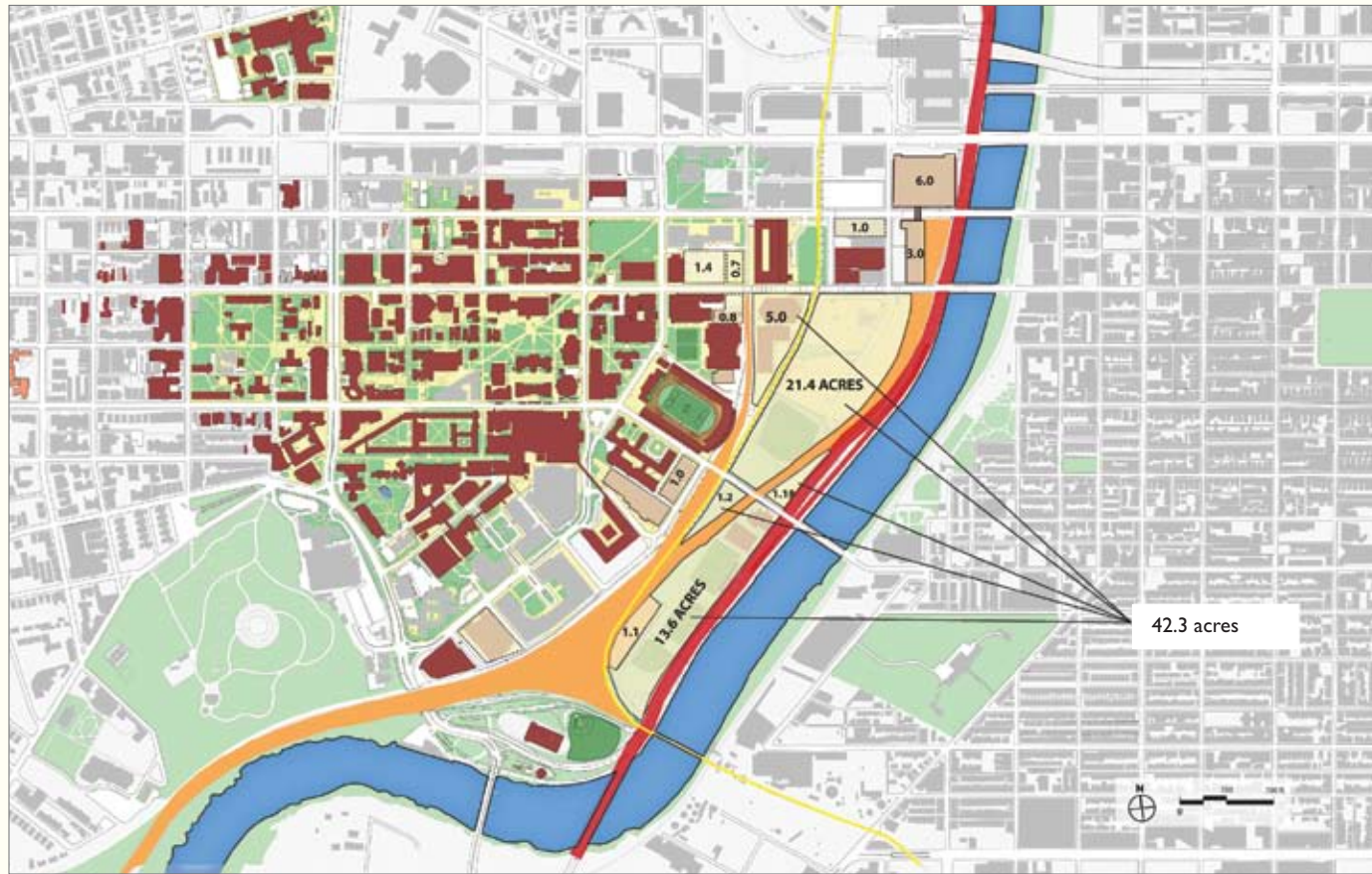
View of the east campus area with the surface parking area of the postal lands in the foreground.



GOALS OF THE STUDY

The charge issued to the CDPC by President Gutmann provided the key goals of the study:

- To articulate a long-term vision for the development of the campus consonant with the three principles of the Penn Compact: 1) Increased access to education; 2) Integration of knowledge from different disciplines and professional perspectives in research and teaching; and 3) Engagement at a local and global level to advance the central values of democracy: life, liberty, opportunity and mutual respect. *In response, the plan offers opportunities for increasing research interaction in academic and social settings, and fosters connectivity within the campus and in the broader urban context.*
- To recommend optimal uses for sites on the acquired parcels, taking into consideration financial models and/or fundraising opportunities for each project. *In response, the plan includes a flexible and achievable implementation and phasing strategy.*
- To develop well-structured plans for the development of the campus that take account of the University's highest priorities. *In response, the plan is developed with a comprehensive campus-wide approach with attention to emerging sub-area initiatives.*
- To outline a feasible timetable and process for overseeing the implementation of the plan and ensure it is integrated with the capital planning process. *In response, the plan is coordinated with the strategic, financial and operational plans of the University, and includes cost estimates for each major implementation phase over the next 25-30 years.*



The east campus study area encompasses 42 acres, including the postal lands

PROGRAMMATIC NEEDS

When examined concurrently with University-owned properties, the east campus area encompasses over 42 acres of land for future development. The consultation process revealed a wide range of potential programming priorities that were considered during the planning process. These priorities include (in no particular order):

- Housing - undergraduate, graduate, family, alumni, visiting faculty, and retiree
- Athletics and recreation facilities - open spaces, public spaces, a modern field house, intramural and club sports
- Undergraduate and graduate student centers - study and recreation spaces
- Cultural - universal performing art space
- Conference center - hotel, international conferences, continuing education
- Retail shopping and dining
- Daycare
- Research - flexible interdisciplinary space, corporate co-location
- Non-academic offices relocated from core of campus
- Parking

The planning process focused on evaluating the connectivity, adjacencies and other physical factors such as visibility, the Schuylkill River floodplain and rail and roadway corridors that traverse the land, and how and where this probable list of program needs might be best accommodated.



View of existing conditions in the east campus area illustrating the South Street Bridge, Highline, University City SEPTA Station, and the Amtrak corridor.

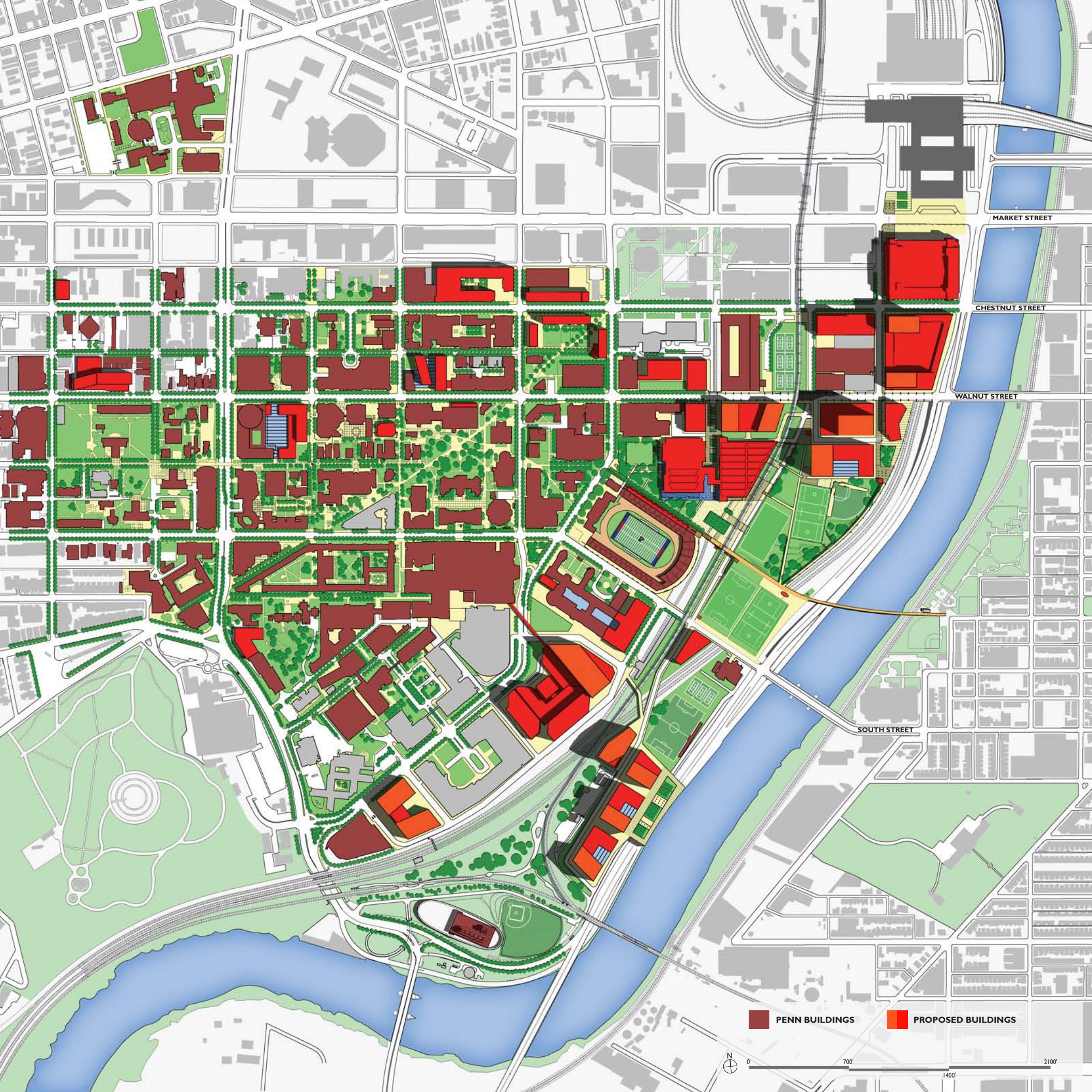
EXISTING CONDITIONS IN THE EAST CAMPUS AREA

The east campus area encompasses a series of transportation corridors listed from west to east as follows: the SEPTA regional rail line connecting 30th Street Station with the western suburbs and with the Airport; the CSX “Highline” freight railway, which is elevated some 60 feet above the ground plain on a combination of stone and steel supporting elements; Amtrak’s northeast corridor; and Interstate 76 (Schuylkill Expressway). Combined, these transportation corridors segment the site into several parcels, many of which are physically disconnected.

While there are approximately 42.3 acres of land available for development in the east campus area, many of the parcels are difficult to develop as a result of irregular and triangular configurations, and the lack of direct access from the roadway network. The available parcels are as follows:

- 21.4 acres—area south of the Walnut Street Bridge, including the existing postal surface parking lots and the existing University-owned Bower Field. This area is defined on the west by the Highline, on the east by the I-76/Schuylkill Expressway, on the south by the South Street Bridge, and on the north by the Walnut Street Bridge. It is connected to the Palestra and Franklin Field areas by the Paley Bridge, which crosses over the SEPTA line.

- 1.18 acres — a triangular parcel north of the South Street Bridge defined by the AMTRAK corridor on the west and I-76 on the east. Current uses include parking and landscape maintenance facilities.
- 1.2 acres — a triangular parcel south of the South Street Bridge defined by the Highline/SEPTA line on the west and AMTRAK on the east. The University City station on the SEPTA line lies to the west of this parcel.
- 13.6 acres — site of the existing Rhodes, Stewart and Warren Fields. This parcel is defined on the west and south by the Highline, on the east by I-76, and on the north by the South Street Bridge. The site is adjacent to a 1.1-acre AMTRAK electrical substation. It includes the Hollenback Center and Annex, which are accessible from South Street.
- 5.0 acres — site of the Class of 1923 Ice Rink and Levy Tennis Pavilion.



MARKET STREET

CHESTNUT STREET

WALNUT STREET

SOUTH STREET

PENN BUILDINGS

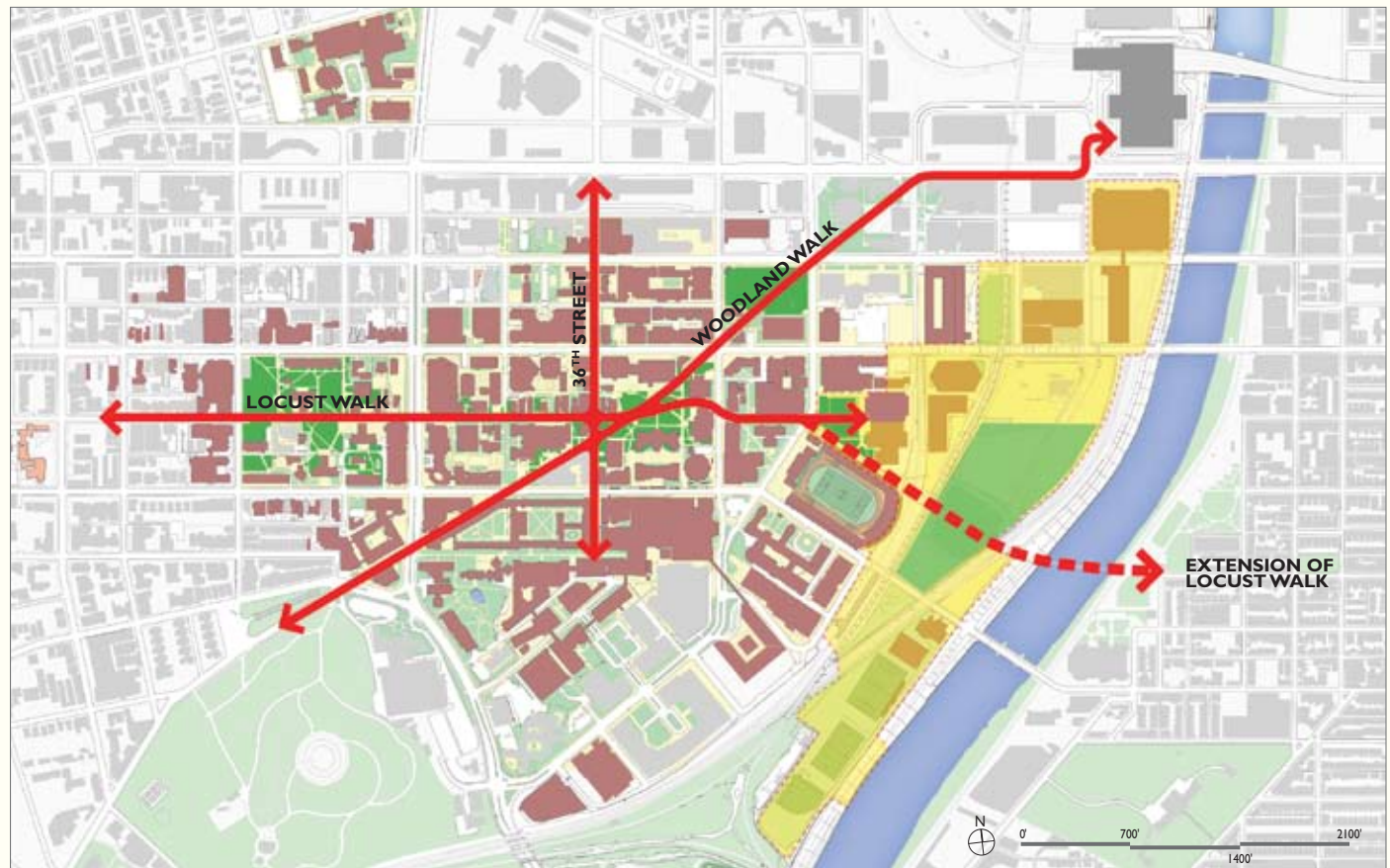
PROPOSED BUILDINGS



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< Proposed Campus Plan - 2040

The Vision Plan extends Locust Walk, Woodland Walk, and 36th Street pedestrian routes. Locust Walk is extended through the Franklin Field area and across the east campus to link with the proposed Schuylkill River Pedestrian Bridge.



CAMPUS VISION

Connecting the University to the City and the City to the University is central to the Penn Connects Vision for the campus. The vision emerges from a broader goal of establishing stronger connections, not only within the campus, but in the surrounding community context as well.

The Vision Plan adopts the pedestrian circulation framework set out in the 2001 Campus Development Plan, including the extension of Locust Walk to the east; reinforcing Woodland Walk and 36th Street Walk as important pedestrian corridors. It coordinates these key recommendations with several major new open space, circulation and development concepts that will collectively improve conditions within the existing campus context and help establish the east campus area as a vibrant new district.

The Penn Connects Vision Plan:

- Establishes new connections and gateways between the campus, Center City and surrounding areas in West Philadelphia at the Walnut Street and South Street Bridges;

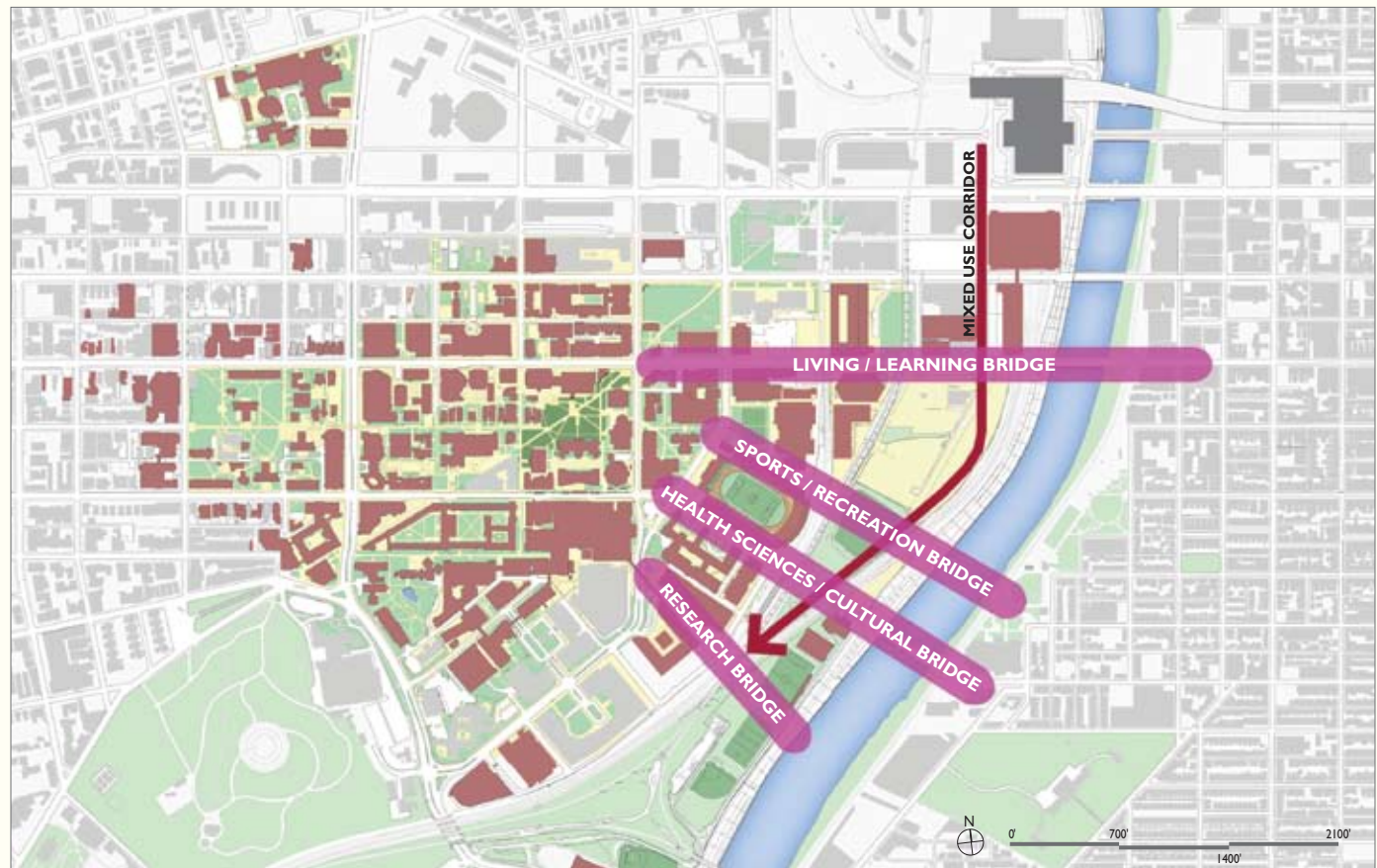
- Creates a signature new sports and recreation park east of Franklin Field on the site of the existing Bower Field and the surface parking areas of the postal lands;
- Provides for a series of new public gathering and circulation spaces in the Palestra and Franklin Field area that serve to link the postal lands the campus;
- Creates connections and future expansion potential between the River Fields area and the medical district;
- Accommodates significant development potential for future academic, research and supporting program elements; and
- Establishes a University presence along the Schuylkill River corridor.

The Penn Connects Vision Plan is described in the following sections in terms of civic and open space structure, circulation linkages, land use and development zones.



Vision for the east campus area

*The Conceptual Bridges of Connectivity
link the campus to the City.*



BRIDGES OF CONNECTIVITY

The circulation, landscape framework and development opportunities of the campus vision are organized by the “Bridges of Connectivity,” a series of existing and proposed bridges that link the east campus area to the campus and to Center City. Conceptually, the bridges are viewed as armatures for physical improvements. Development sites are identified along each of the bridge corridors to enliven the pedestrian experience and create vibrant gateways to the campus.

Reviewing these physical connection opportunities in the context of land use and other desirable design and programmatic considerations suggests the following themes:

- **Living / Learning Bridge** – Walnut Street is envisioned as the gateway connecting Center City with the core of the Penn campus. The proposed mix of uses is intended to contribute to the academic and research environment, and includes retail, food services and, potentially, hotel and residential uses.
- **The Sports / Recreation Bridge** – extends Locust Walk through the revitalized athletics complex, continuing onto new fields and culminating in a new pedestrian bridge over the Schuylkill River.
- **The Cultural / Health Sciences Bridge** – the South Street Bridge is envisioned as the cultural gateway to the campus in recognition of the Museum of Archaeology and Anthropology. Future uses along the bridge could include social and cultural activities.
- **The Research Bridge** – a pedestrian bridge is planned to connect the medical district with the River Fields, opening this area up for medical expansion and research space in the long term.
- **Lower 31st Street Corridor** – the corridor along 31st Street is envisioned as a link connecting the 30th Street Station area and new development such as the Cira Centre with the postal lands and fields to the south.



Proposed view of the Franklin Plaza and Promenade illustrating the renovated Hutchinson Gymnasium and infill of the Franklin Field arcade for health and fitness uses.

Civic and Open Space Structure

The proposed civic and open space structure of the east campus is based on a new framework of parkland, public gathering spaces and circulation routes that collectively link the east campus area to the core campus and the surrounding urban context. The key public gathering and parkland spaces of the civic structure include:

- Palestra Green
- Franklin Plaza and Promenade
- The Sports and Recreation Fields
- Museum Plaza

Palestra Green

Palestra Green, located to the west of the Palestra on the site of the existing Lott Tennis Courts (the courts will be relocated to Highline Park adjacent to the Left Bank), will serve as the gateway to a rejuvenated athletic district and to the broader context of the east campus area. It is envisioned as a new open space providing passive recreation opportunities, a gathering space for use during major events, and a foreground landscape for the iconic west façade of the Palestra. It will consist of a sunken lawn defined by shade trees and seating areas.

Franklin Plaza and Promenade

Franklin Promenade serves as the link between Palestra Green and the east campus area. It runs parallel to the Franklin Field arcade and is designed as a shaded circulation route, which will be enlivened by new fitness and recreation activities incorporated into the existing arcade of Franklin Field. It connects to Franklin Plaza.

Franklin Plaza, a new public gathering space, is located between Franklin Field and the Hutchinson Gymnasium. The plaza incorporates a series of ramps and stairs descending from the plaza to the park and fields. The plaza will bridge over the SEPTA line, which currently separates the Palestra and Franklin Field areas from the sports fields. It is designed to include both softscape and hardscape areas, and is envisioned as a linkage space, a space for daily recreational use, and a gathering space for major sporting events. Franklin Plaza also serves as the launching point for a new pedestrian bridge that will link to the South Street Parking Garage and, ultimately, span the Schuylkill River.

Franklin Promenade and Plaza both connect to Walnut Street to the north via a deck over the SEPTA line. The deck is defined by a renovated Palestra / Hutchinson Gymnasium and the new Field House proposed on the site of the existing Levy Tennis Pavilion. The deck will provide a north / south pedestrian route linking Walnut Street and South Street.

The Sports and Recreation Fields

The sports and recreation fields are central to the civic and landscape framework of the east campus area. They will be located in a park-like environment complementing and connecting to the emerging regional park system along the east bank of the Schuylkill River. Although physically separated from the River by I-76 and the Amtrak northeast corridor rail line, the park is designed to provide views of the river and Center City. It incorporates a series of sculptural landforms and berms that provide visual and acoustical separation from the rail line and highway. The landforms rise to the height of the bridges where a boardwalk is proposed to provide a pedestrian connection between Walnut and South Streets and to facilitate views of the River and Center City.

The landforms are conceived as grass terraces and are designed to work with the ebb and flow of the river, which may periodically flood the low-lying lands of the east campus. They incorporate two major openings to allow water from the river to enter the site during storm surges. The sports and recreation fields are constructed in the floodplain and include softball, soccer and multipurpose recreation.

The Highline rail structure is utilized as the armature for a north / south circulation route which extends Lower 31st Street from Lower Walnut Street ramping up to the South Street Bridge level. This corridor provides a landscape linkage between Highline Park and the sports and recreation fields. The route also provides vehicular access to the proposed South Street Garage and emergency / service access to the sports fields.

Combined, Palestra Green, Franklin Promenade and Franklin Plaza are intended to serve as the symbolic extension of Locust Walk toward the River.



Proposed view of the recreation fields and boardwalk along the rail lines, looking north.

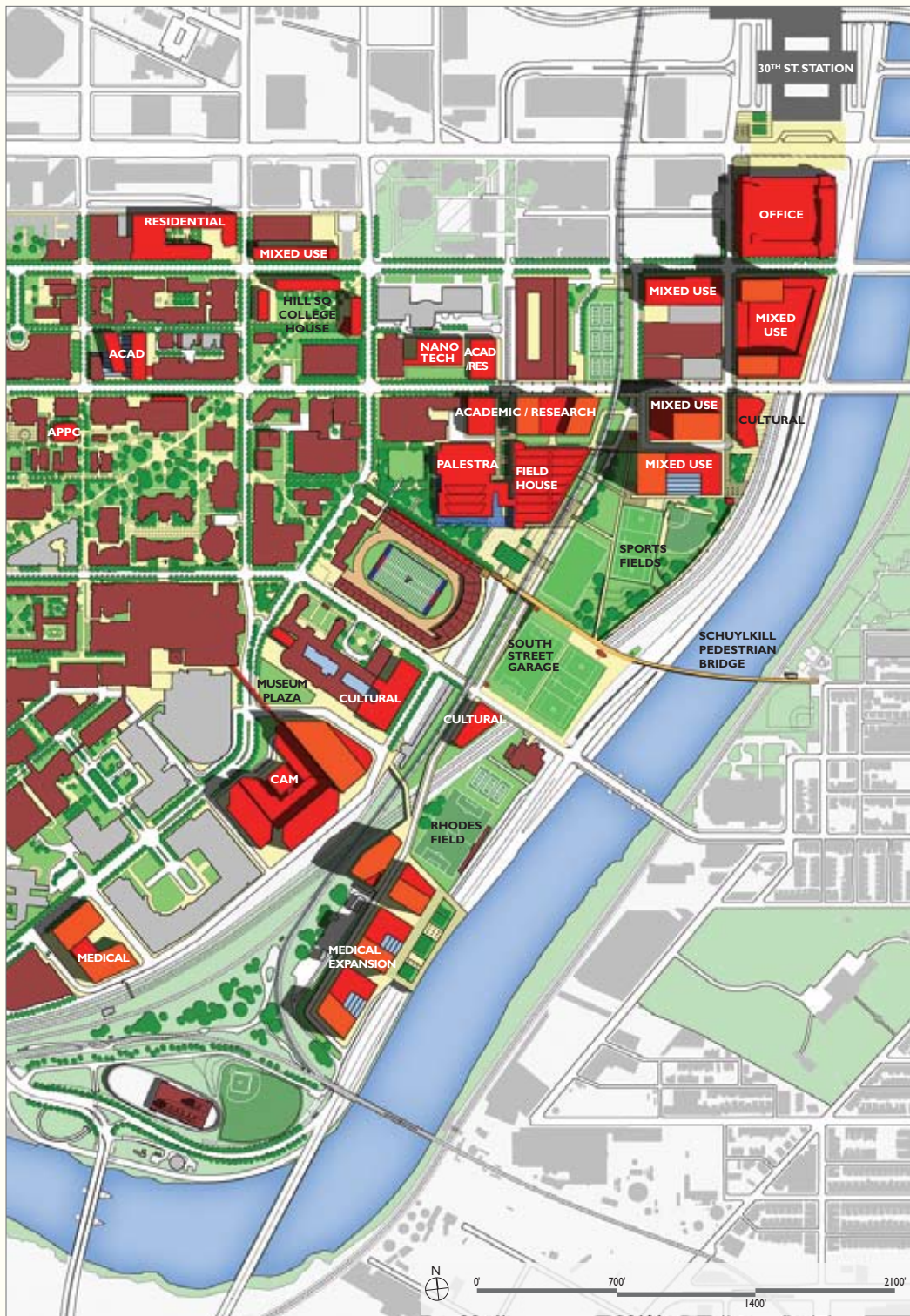


Proposed view of the recreation fields and the Schuylkill River Pedestrian Bridge. The ramps and stairs descending from Franklin Plaza are shown on the left.





Proposed view of the Walnut Street Gateway illustrating the vibrant streetscape and dense mix of uses.



East Campus Development Proposals

Museum Plaza

Museum Plaza, located to the south of the Museum on the existing Penn Tower site, will provide a much needed public open space in the densely developed medical district. It is intended to offer glimpses of the river beyond the Highline, provide more convenient and visible access to the University City Station (SEPTA line), and provide a pedestrian link to future development east of the Highline. Museum Plaza will link to the existing River Fields area via a pedestrian bridge constructed over SEPTA and under the Highline. The bridge will connect with a parking garage that will serve ultimately as a podium for future medical facility expansion. A deck is proposed over I-76 to provide a riverfront overlook.

LAND USE AND DEVELOPMENT ZONES

The civic and landscape structure of the plan defines several major land use and development zones:

Walnut Street - Academic

A combination of infill and new development is proposed for University-owned parcels extending from the river westward to 33rd Street. As with all development proposed along Walnut, the aim is to create a new gateway to the campus focused on learning, research and support amenities. The proposed infill includes the 3200 block of Walnut where a new nanotechnology facility and future academic uses are proposed, and the area to the north of the Palestra, where future redevelopment could accommodate academic or research related facilities. Other infill parcels include the redevelopment of the Class of 1923 Ice Rink site. A total of 616,000 gsf could be provided on the Ice Rink site. Given the Walnut Street Bridge height at this location, 300 spaces can be accommodated below the bridge level in a deck.

Walnut Mixed-Use

East of the Highline, a major new mixed-use node is proposed on the postal lands. This area is envisioned as a new gateway to the campus and could include research, office, hotel, residential and retail / commercial uses. An estimated 1.7 million gsf of space can be accommodated in the proposed development, which would be constructed at the level of the Walnut Street



View of the South Street Bridge following reconstruction, illustrating the sports fields proposed on the top level of the South Street parking garage. The garage includes two floors of parking below the bridge level.

A new North/South Road (Extension of Lower 31st Street) linking the parking garages is included in the plan. Four garages are proposed, each constructed below the upper level road network elevation, serving as the podiums for future development.

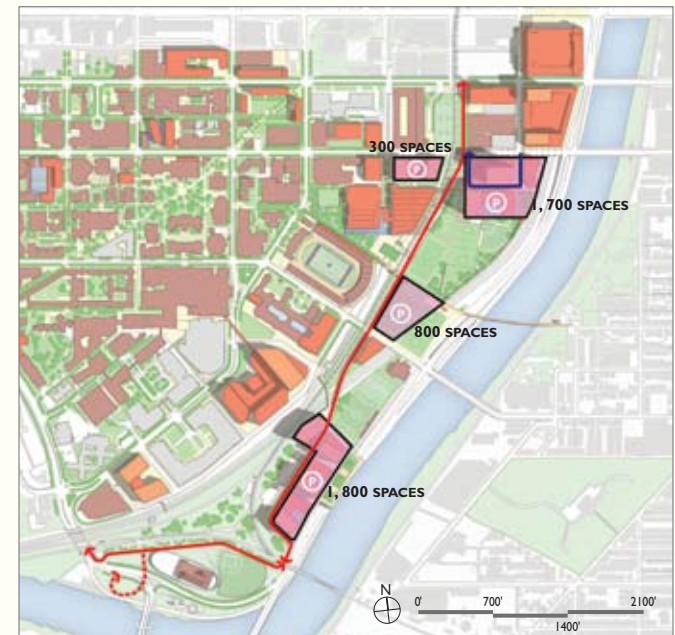
Bridge, with parking provided below in a deck. Development of the site is proposed in two phases. Phase 1 includes the parking deck with the potential of providing a Penn cultural gateway building on the eastern end of the deck. Subsequent phases include 30-story mixed-use and 15-story mixed-use and research towers constructed over the parking deck.

South Street Garage

The central portion of the east campus area is designated for sports and recreation fields in a park-like setting. Directly adjacent to South Street, an 800-car parking garage is proposed below the bridge level. The garage will be accessible from Lower 31st Street and via a ramp leading from South Street to Lower 31st. A multi-purpose field is proposed for the top level of the parking deck. The intent is to increase the total number of fields, to provide an attractive foreground to the iconic Franklin Field façade as viewed from the east, and to create a green gateway to the campus along South Street. Over the long term, a sports deck extending over the Amtrak line is identified as an opportunity. Other development in the central area includes a new cultural activity building to the west of Hollenback on the triangular parcel between the Amtrak lines and the Highline. Still further west of the Highline, the existing parking garage will be demolished to make way for a potential addition to the Museum. Combined, all of the development along the South Street Bridge is intended to contribute to the proposed cultural corridor and gateway to the campus.

Medical Expansion

The proposed medical expansion district provides the long-term opportunity to accommodate approximately 1.55 million gsf of research and medical facilities east of the Highline on the River Fields land area. As with the development on Walnut Street, this site would include a podium deck with parking beneath and the potential to construct medical research towers above the deck. Four 15-story towers are proposed with a potential to provide 1,800 parking spaces in the deck. Rhodes Field and the recently completed gateway and support facilities are maintained in the plan.



VEHICULAR ACCESS AND PARKING

Vehicular access in the east campus area occurs at the upper and lower levels of the existing street network. Vehicular access is divided into the north zone (north of South Street) and the south zone (south of South Street).

In the north zone, access will be provided to the Walnut Street Garage, central sports fields, Palestra complex, Ice Rink site and the South Street Garage via Lower 31st Street, which will ramp upward to the level of South Street in the area east of Franklin Field. Upper 30th Street will be extended south of Walnut and loop through the proposed mixed-use node in this location.

In the south zone, access will be provided to the proposed parking structure and medical / research district via the existing River Fields Road. This route will require improvements at the intersection of River Fields Road and University Avenue, including a tunnel connection and ramp to provide better turning movements and to address road capacity issues.

Parking

At ultimate build-out, four parking garages are proposed in the east campus area for a potential total of 4,600 parking spaces.

ARCHITECTURAL FEASIBILITY & SUB-AREA STUDIES

The architectural feasibility and sub-area studies comprise the second element of the Vision Plan. The studies provide guidance on specific building projects and redevelopment areas of the campus, and have been incorporated into the overall plan.

Hill Square

Hill Square, defined by Chestnut, Walnut, 33rd and 34th Streets, is an important site in the campus framework, given its connectivity to College Green via Woodland Walk, and proximity to the academic core of the campus. It also serves as an important gateway to the campus from the northeast.

This study focused on the capacity of Hill Square to accommodate future development while maintaining a substantial campus open space and the recently completed (2003) text-based sculpture, *125 Years* by Jenny Holzer.

Programmatic uses identified by the University include a new College House with approximately 350 beds in suite-style units, resident assistant units, a housemaster apartment and faculty apartments. Common facilities include a dining hall, servery and kitchen, a café, lounges, computer rooms, and music rooms. The total gross square footage proposed for the site is 200,000 gross square footage.

The layout for Hill Square maintains the sculptural walk and a central open space defined by new residential structures, which bound the site along 34th street, Chestnut Street and 33rd Street. A central lawn is provided as an informal passive recreation space for residents and other members of the campus community. It is framed by an extensive terrace or platform forming the base for the buildings. The terrace features seating steps and outdoor gathering areas, including dining.

The proposed structures vary in height. Six-story structures are proposed along Chestnut and 33rd Streets. A four-story structure is proposed along 34th Street, a scale in keeping with the Law



School (Silverman Hall) on the opposite side of the street. The uses within the buildings have been arranged to provide activity at the ground level, including a dining hall in the 33rd Street structure facing the central open space, and lounges along Chestnut and 34th Streets, and retail concentrated at the intersection of 34th and Chestnut. At the ground level, the structures allow for movement between the surrounding streets into the central open space via portals. Each building is connected by a covered walkway at the ground floor level. Service access to the buildings is concentrated on 33rd Street in conjunction with the dining facilities and the existing loading dock at Hill College House.

Plans of Hill Square College House illustrating the proposed ground floor uses and landscape intent.



*Proposed view of Hill Square
illustrating the future College House.*



Palestra and Hutchinson Gymnasium

Currently, the athletics district, defined here as the Palestra / Hutchinson Gymnasium, Franklin Field, the Levy Tennis Pavilion and the Class of 1923 Ice Rink, does not function as a unified zone in terms of design expression or appearance. The design proposals of the Vision Plan are intended to unify the district for users of the athletics and recreation facilities as well as visitors to the campus during major events.

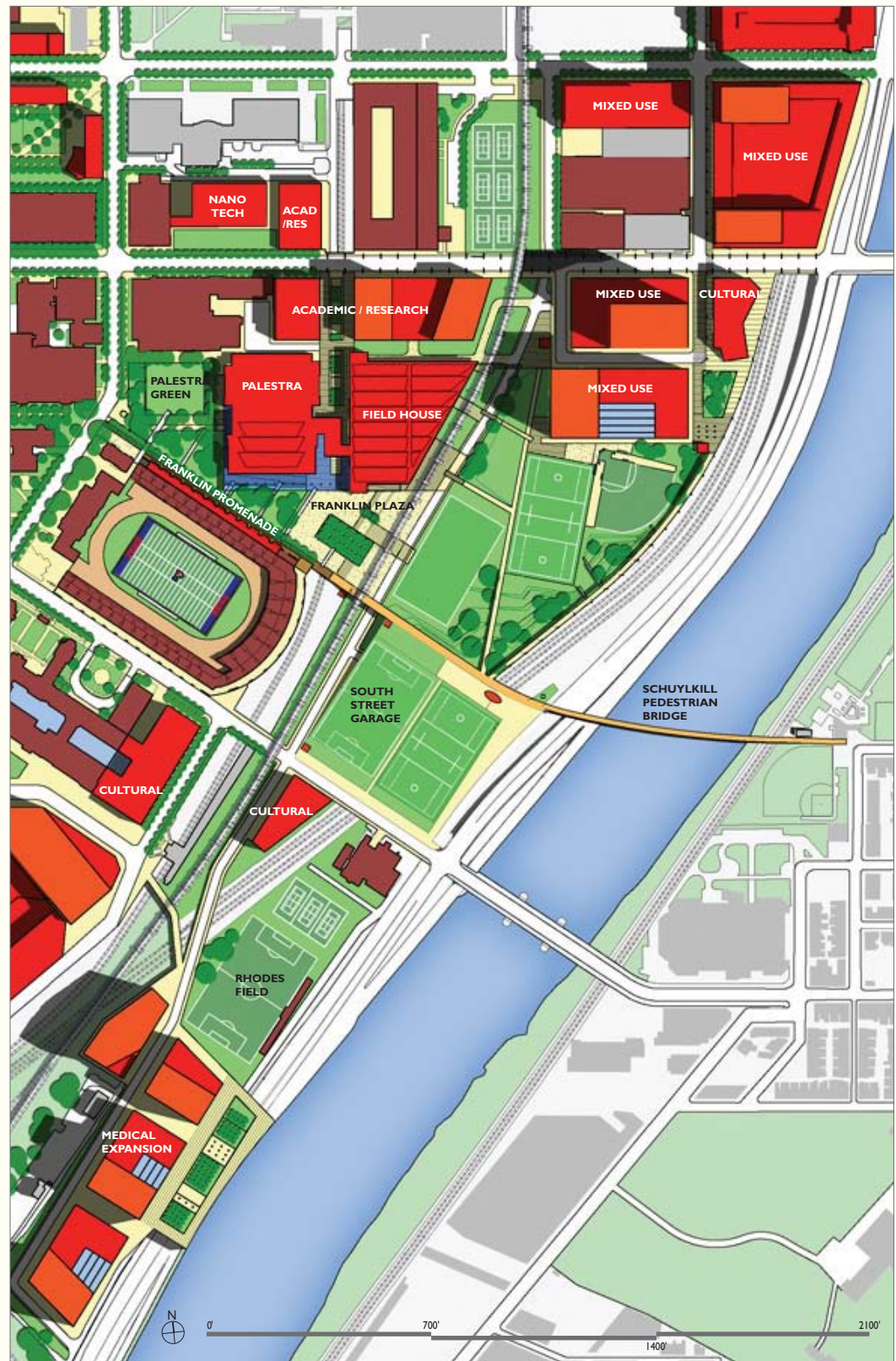
The Vision Plan includes Palestra Green to the west of the Palestra / Hutchinson Gymnasium as a new gathering space and foreground for these important iconic structures. The gathering space is conceived as a sunken lawn framed by shade trees.

The open space structure extends eastward toward the proposed sports fields via Franklin Promenade. The Promenade is located in the area between Hutchinson Gymnasium and the Franklin Field arcade. The Promenade extends eastward to Franklin Plaza, which is envisioned as a shaded gathering space, combining hardscape and softscape elements to create a new entrance plaza to the revitalized Palestra and Franklin Field. The hardscape portion of the plaza extends over the SEPTA lines to facilitate access to the fields to the east. Steps and ramps descending from the plaza level will provide a dramatic means of access to the park-like environment proposed around the sports fields.

Franklin Field Plaza extends northward to connect with Walnut Street via a deck over the SEPTA lines, which currently separate the Palestra from the Class of 1923 Ice Rink site. The proposed deck will provide convenient and direct pedestrian access to the Palestra, Franklin Field and the new field house from Walnut Street. The proposed pedestrian bridge over the Schuylkill will connect directly to the plaza level.

Programmatically, the Vision Plan includes the renovation of the Palestra and Hutchinson Gymnasium to meet modern needs, and the construction of a new field house on the site of the existing tennis pavilion. It will include a 50-meter pool, 200 meter track, gymnastics area, indoor tennis courts, squash courts, crew tanks, basketball and volleyball courts, and supporting locker and office space.

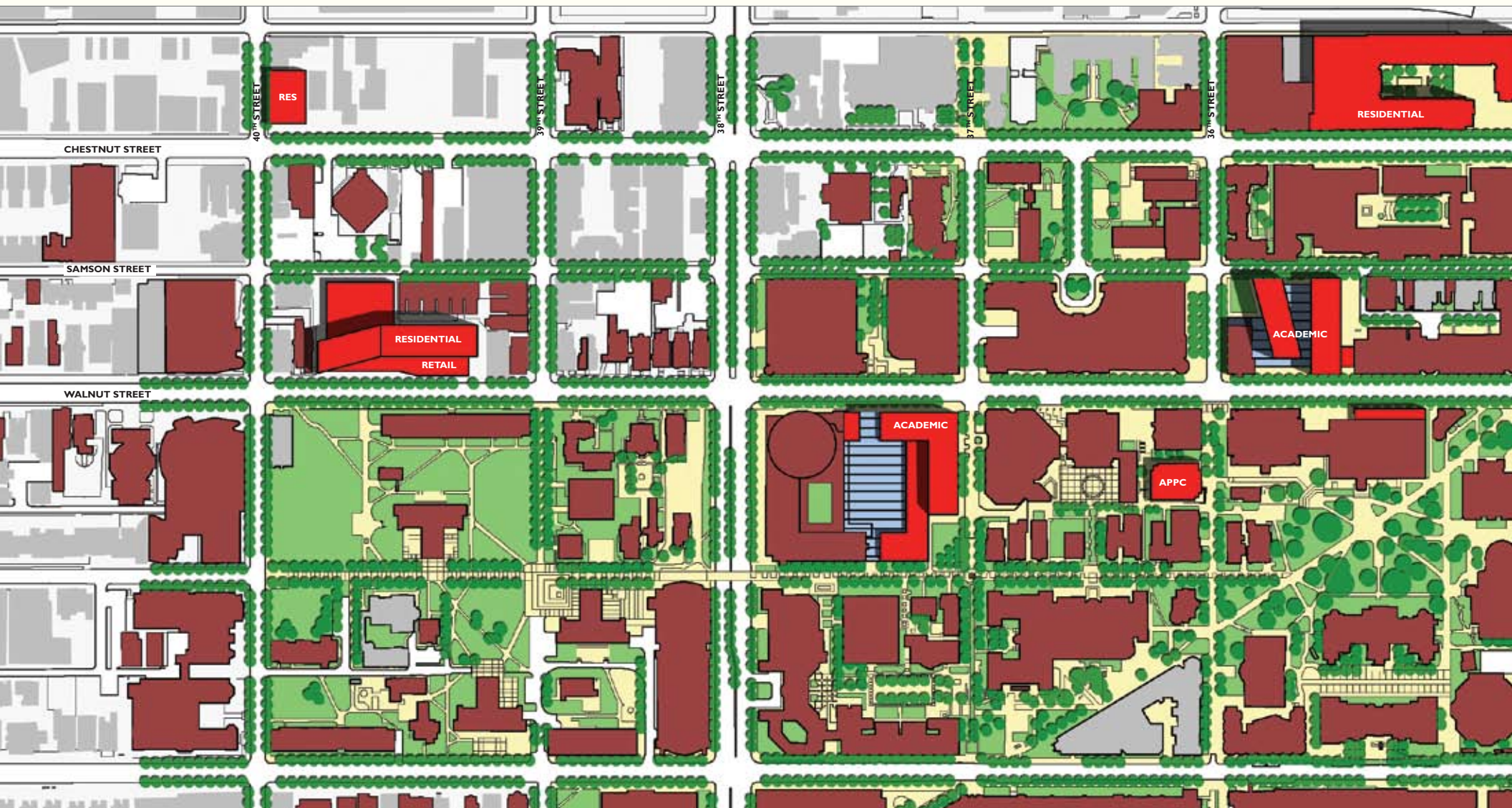
Over the long term, new academic / research development could occur on the site of the surface parking lot east of DRL and on the site of the Class of 1923 Ice Rink.





Franklin Plaza and Promenade





Walnut Street Corridor

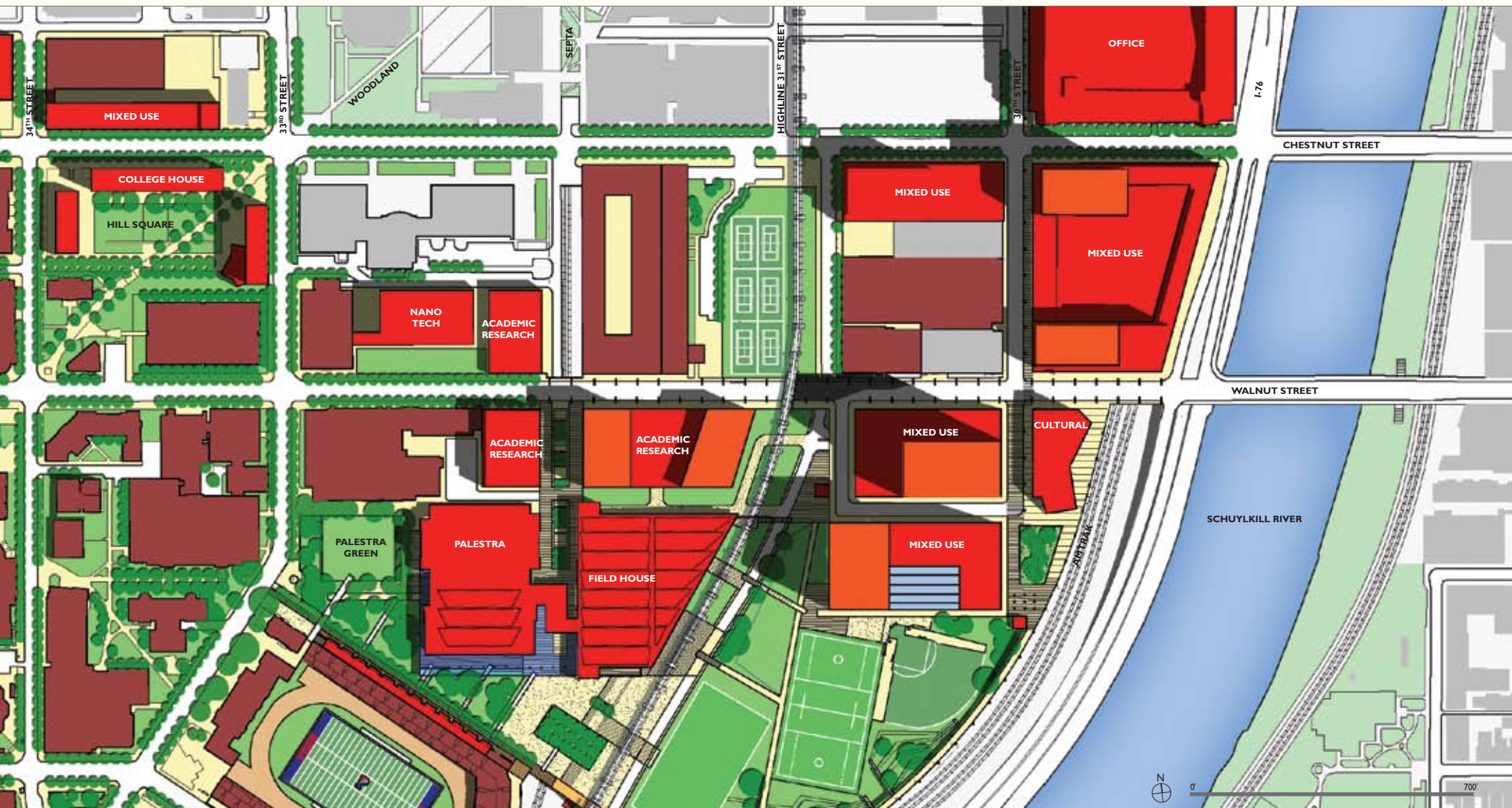
3700 Block of Walnut

The 3700 block of Walnut occupies an important place along Locust Walk and Walnut Street. It currently includes a series of facilities constructed during the 1960s for the School of Education, Social Policy and Political Science. The Vision Plan illustrates how the site could be redeveloped to accommodate 200,000 gsf of academic space. The proposed design concept includes atrium space envisioned as a major gathering and lounge space that will serve as a pedestrian connector and node with linkages to Walnut Street, Locust Walk and to the pedestrian passage west of the Pottruck Fitness Center.

3400 Walnut

The north side of Walnut Street, the 3400 block, occupies an important position along Walnut Street and relative to Samson Street. Located directly across from the Van Pelt and Dietrich Graduate Libraries, the block is within close proximity of the core academic functions surrounding College Green.

The block currently contains the West Philadelphia Title and Trust Company Building, Franklin Building, the Franklin Annex, and 3401 Walnut developed by the University in the 1987. The West Philadelphia Title and Trust building is currently utilized for office



space and ground floor retail. The Franklin Building and Franklin Annex are utilized by the University for support and administrative functions.

The proposed redevelopment of the Franklin Building and Annex site illustrates a new academic facility in the range of 150,000 gsf and is designed to be compatible with the scale of adjacent buildings and to incorporate active uses on the ground floor level.

3200 Walnut Street-Nanotech Site

The north side of the 3200 block of Walnut is currently the site of the Laboratory for the Research of the Structure of Matter, the Edison Building, a surface parking lot and Parking Garage 26. The block occupies an important position along Walnut Street, given its proximity to the academic core and location along the major east / west pedestrian and vehicular connections of Walnut Street.

Consistent with the broader planning concept of creating a “living/ learning” corridor along Walnut Street, redevelopment of this pivotal block is proposed to accommodate a nanotechnology facility in the range of 100,000 gsf. Over the long term, the aim is to redevelop the Parking Garage 26 site for academic or research uses.

An aerial photograph of University City, Philadelphia, with a red semi-transparent overlay indicating the University of Pennsylvania campus and an expansion area. The overlay is bounded by a red line. The text 'UNIVERSITY CITY' is centered over the top part of the red area. 'UNIVERSITY OF PENNSYLVANIA' is centered over the main campus area. 'EAST CAMPUS EXPANSION' is centered over the eastern extension of the red area. The background shows a dense urban grid, a river, and a highway interchange.

UNIVERSITY CITY

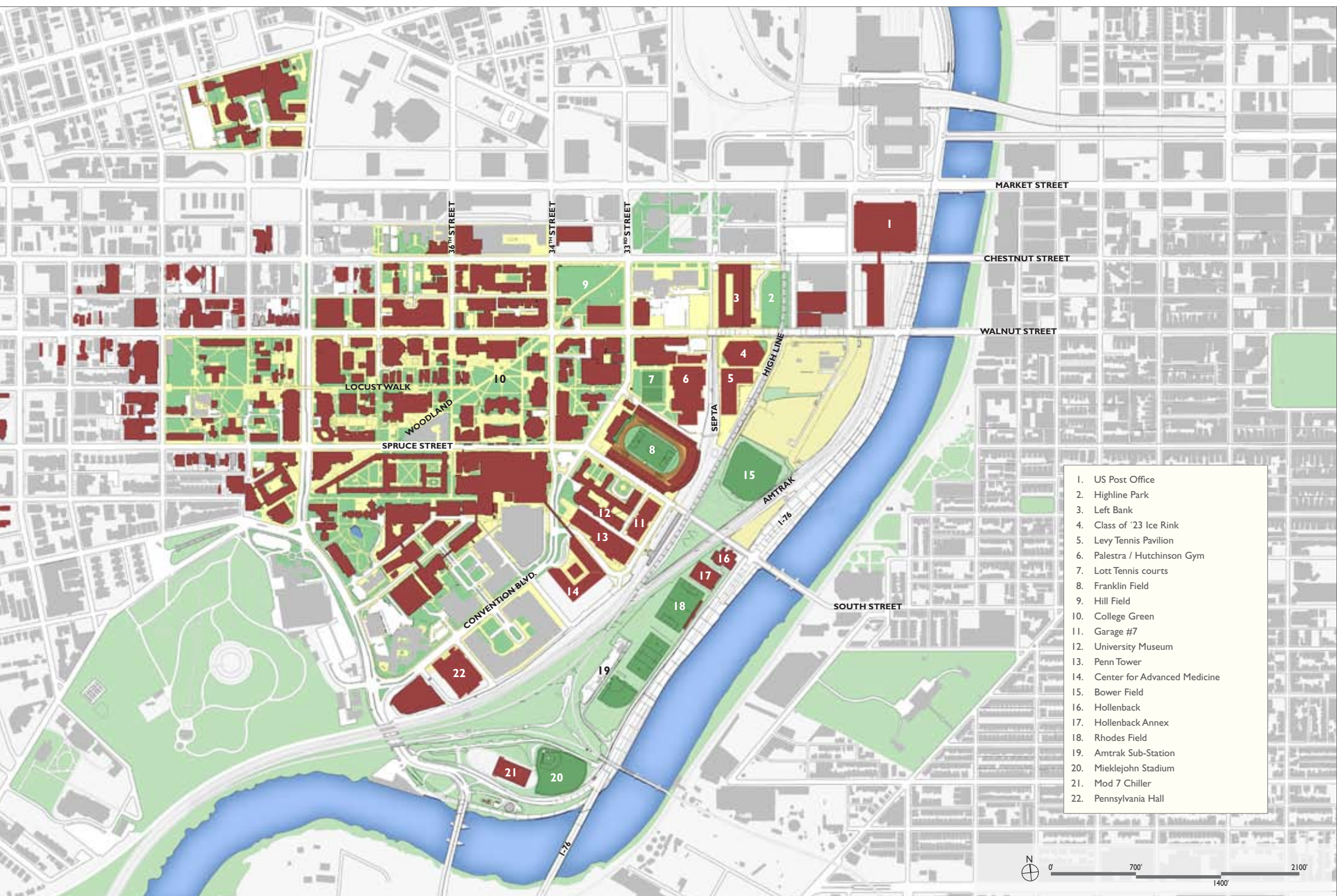
**UNIVERSITY OF
PENNSYLVANIA**

**EAST CAMPUS
EXPANSION**

An aerial photograph of a city grid, showing a dense pattern of streets and buildings. The text 'CENTER CITY' is overlaid in the center of the image in a bold, white, sans-serif font with a black outline. The grid is composed of numerous small, rectangular blocks, with some larger, more prominent buildings and green spaces interspersed. The overall color palette is dominated by the greys and browns of the urban landscape, with some green from trees and lawns.

CENTER CITY

Acquisition of the postal lands combined with existing land holdings of the University in the east campus area will facilitate stronger connections between University City and Center City



1. US Post Office
2. Highline Park
3. Left Bank
4. Class of '23 Ice Rink
5. Levy Tennis Pavilion
6. Palestra / Hutchinson Gym
7. Lott Tennis courts
8. Franklin Field
9. Hill Field
10. College Green
11. Garage #7
12. University Museum
13. Penn Tower
14. Center for Advanced Medicine
15. Bower Field
16. Hollenback
17. Hollenback Annex
18. Rhodes Field
19. Amtrak Sub-Station
20. Mieklejohn Stadium
21. Mod 7 Chiller
22. Pennsylvania Hall

Existing Conditions

1

Planning Background

Penn Connects provides the University of Pennsylvania with a clear vision for the future – a vision responding to the history and tradition of the campus, the surrounding urban context, and the previous planning and urban design initiatives that have transformed the Penn campus: College Green, Locust, Woodland and 36th Street Walks.

The catalyst for developing a new vision for the campus arises out of the planned acquisition, in 2007, of the U.S. Post Office Building at 30th and Market Streets, and the associated Annex, garage and surface parking areas. This Vision Plan provides planning and design recommendations for integrating these properties and existing University-owned parcels along the Schuylkill River corridor into the functional core of the campus. In doing so, it addresses the entire Penn campus and provides recommendations for extending the positive qualities of the campus eastward toward the Schuylkill River. The plan also draws upon the organizational framework established in the Campus Development Plan completed in 2001 by the Olin Partnership. Major aspects of the Campus Development Plan framework considered in the Vision Plan include a proposal to extend Locust Walk through the east campus area and over the Schuylkill River via a new pedestrian bridge; the creation of a new campus open space to the west of the Palestra; and the reinforcement of Woodland Walk and 36th Street walk as major pedestrian spines.

The Vision Plan addresses, in more detail, several sub-areas of the existing campus that have been identified for new facilities or as significant opportunities for redevelopment.

While the Vision Plan is based on a rigorous planning analysis of the opportunities and constraints of the entire campus, it focuses, in greater detail, on strategies for integrating the east campus area, including the postal lands, into the functional core of the campus. The east campus area, defined here as the land extending from Market Street on the north to University Avenue on the south and, generally, from 33rd Street on the west to the Schuylkill River on the east, includes a number of uncoordinated



College Green

land uses and infrastructure corridors which collectively form a gap in the urban fabric, thereby separating the Penn campus from the river corridor and Center City. The east campus area encompasses approximately 42 acres of land, including 24 acres of postal land extending from Market Street on the north to Penn's Bower Field on the south. The postal lands include the U.S. Postal Building on Market Street, the Postal Annex facility located between Chestnut Street and Walnut Street, and the Vehicle Maintenance Facility Garage on 31st and Chestnut Streets.

Existing conditions in the east campus area



SCOPE OF THE VISION PLAN

The planning process leading to the Vision Plan included two scales of design that evolved and expanded to address the emerging issues and needs of the University: 1) strategies for developing and connecting the east campus area with Center City; and 2) a series of architectural and feasibility studies within the established core of the campus.

The architectural feasibility and sub-areas studies included:

Palestra and Ice Rink - explored opportunities for regenerating the historic Palestra and its environs, providing a new field house and improved intercollegiate athletic facilities. Existing uses on this site, in addition to the Palestra, include the Hutchinson Gymnasium, the Ringe Squash Courts, and the Hunter Lott Tennis Courts. Adjacent uses include the David Rittenhouse Laboratories to the north and Franklin Field to the south. The Paley Bridge, which crosses the SEPTA regional rail line, links the Palestra area with the land to the east where the Class of 1923 Ice Rink, the Levy Tennis Pavilion, Bower Field and the postal lands are located.

Hill Square - explored the development potential for Hill square to accommodate housing and academic uses while maintaining its valued open space qualities. The Hill square block is defined by Chestnut Street on the north, Walnut Street on the south, 33rd Street on the east and 34th street on the west. Existing uses include Hill College House, a fraternity house, and the McNeil Center for Early American Studies (MCEAS).

Post Office Annex - explored development opportunities for the Postal Annex site, which is partially constructed on Amtrak air rights. The study examines these parcels in the context of recent development north of 30th Street Station, the Cira Centre, as well as other opportunities to improve the streetscape and circulation patterns.

Redevelopment potential for the 3200 block of Walnut - focused on the redevelopment potential for the 3200 block of Walnut to accommodate a Nanotechnology facility and future development. The block currently accommodates the Laboratory for Research on the Structure of Matter, the Edison Building, the Penn Transit Operations facilities in Lot 1 and Parking Garage 26. Drexel University's student union is located on the north side of the block facing Chestnut Street.



Hutchinson Gymnasium

Regeneration potential of the 3400 block of Walnut - currently the site of the Franklin Building and Franklin Building Annex, this block is evaluated in terms of its redevelopment potential to serve academic uses in the core campus area. Existing uses in addition to the Franklin Building and Annex include 133 South 33rd Street (former West Philadelphia Title and Trust Building). The study area is defined on the north by Samson Street, and on the east by 3401 Walnut, a site previously developed by the University. The study examines options for removing the Franklin Building and redeveloping the site.

Regeneration potential of the 3700 block of Walnut - currently the home of various Social Sciences departments, this block was evaluated for its redevelopment potential. Existing buildings located on the site were considered for removal, including Graduate School of Education, Solomon Laboratories of Experimental Psychology, Stiteler Hall, and the Caster Building. The site is directly adjacent to Jon M. Huntsman Hall, home of the Wharton School of Business.

Traffic Study - a traffic study of the east campus area east of the Highline is provided to determine how new development in this area could be accessed and if parking can be adequately served from the road network.



Hill field looking east toward Center City

PLANNING PROCESS

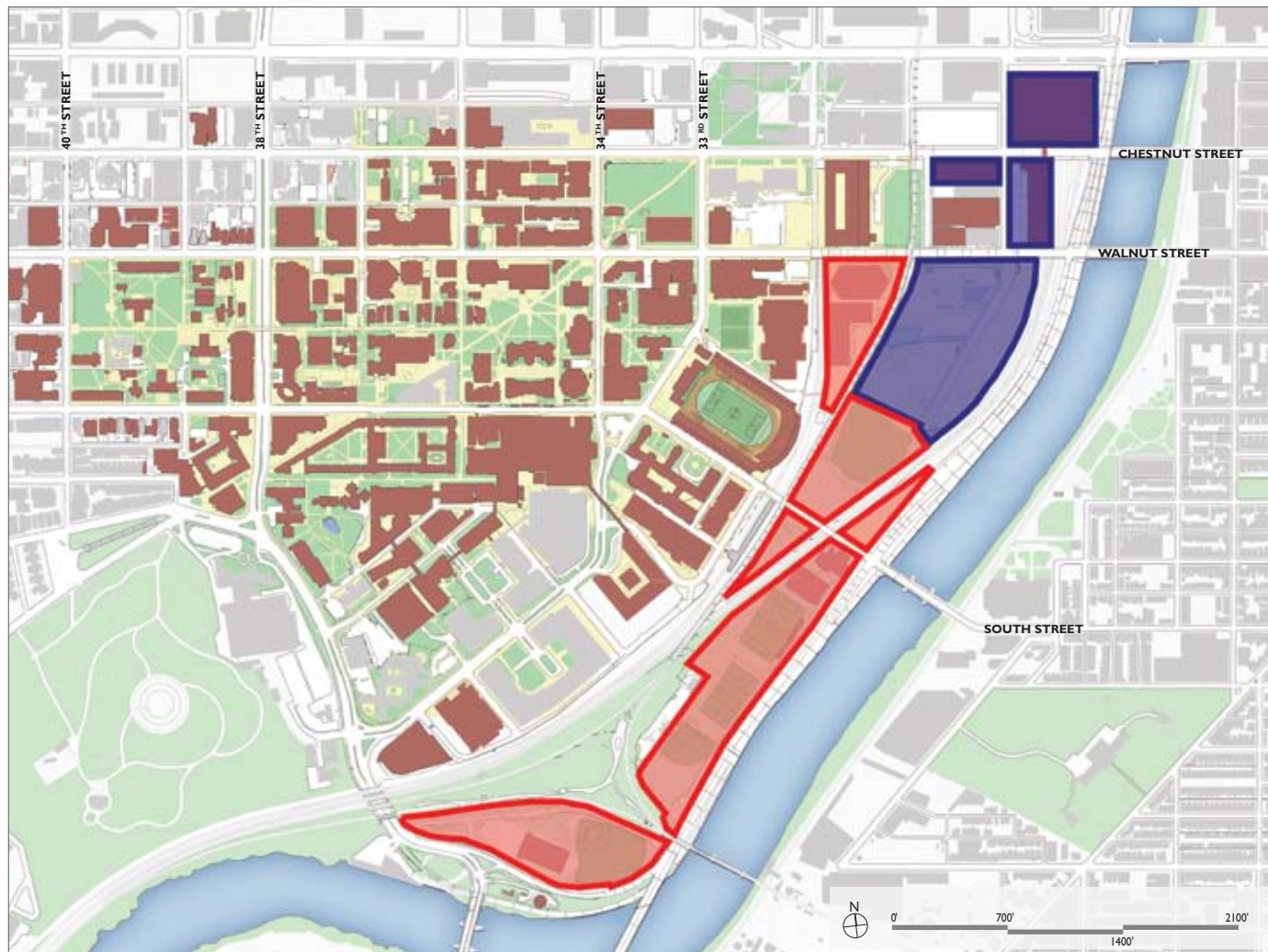
Development of the Vision Plan commenced in April 2005 under the direction and guidance of the Campus Development and Planning Committee (CDPC) appointed by President Gutmann. The study was carried out by Sasaki Architects, PC of Watertown, Massachusetts, over a one-year time frame extending from June 2005 to June 2006, and involved three phases of work:

Phase 1: Inventory and Site Reconnaissance - involved extensive site analysis of the campus, the urban context and the east campus area during the summer of 2005. The inventory included bus and boat tours of the east campus area with members of the CDPC. The findings of this phase informed the alternatives developed in Phase 2.

Phase 2: Concept Alternatives - several planning and design opportunities were explored for integrating the east campus area into the campus, for addressing the broader campus context, and several architectural feasibility and sub-area studies.

Phase 3: Master Plan Documentation - focused on documenting and illustrating the planning and design concepts for the campus, including the Executive Summary and Final Report.

Each phase of work included monthly presentations / work sessions with the CDPC and other stakeholders. In addition, interim on-campus meetings were scheduled as necessary to address emerging issues or move the work plan forward in a timely manner. Town forums were held to widen consultation on the emerging concepts and planning issues for the campus.



East campus area indicating the postal lands to be purchased in 2007 and the land currently owned by the University

- UNIVERSITY LAND IN THE EAST CAMPUS
- POSTAL LANDS 2007



PRINCIPLES AND GOALS

The principles and goals that guided the development of the Vision Plan came from several sources, including the Penn Compact, President's Gutmann's charge to the Campus Development Planning Committee (CDPC), and the East Campus Advisory Group.

The Penn Compact

The CDPC was responsible for advising President Gutmann on priorities for land uses, and on the consistency of the design and planning recommendations with the Penn Compact.

President Gutmann's Penn Compact is based on three principles: 1) increased access to education; 2) integration of knowledge from different disciplines and professional perspectives in research and teaching; and 3) engagement at a local and global level to advance the central values of democracy: life, liberty, opportunity and mutual respect.

The planning team, in conjunction with the CDPC, set out to define how the plan should respond to each of the three principles of the Compact:

Increased access to education. The plan will need to respond by:

- Improving connectivity to the community to improve outreach and involvement opportunities
- Providing community access to campus facilities, programs and events
- Integrating the campus learning environment with the City

Integration of knowledge from different disciplines and professional perspectives in research and teaching. The plan will need to respond by:

- Providing formal and informal hubs for interaction among disciplines
- Providing program adjacencies and connections (learning and research)

Engagement at a local and global level to advance the central values of democracy: life, liberty, opportunity and mutual respect.

The plan will need to respond by:

- Viewing the entire campus and the surrounding urban context as a learning environment
- Focusing on sustainable principles to link the campus to the broader environment and community
- Supporting local educational, economic and community development opportunities
- Supporting diversity



The planning process included frequent consultation with the Campus Planning Development Committee

Campus Development Planning Committee

The President's charge to the CDPC was:

- To articulate a long-term vision for the development of the campus consonant with the Penn Compact – a vision that fosters connectivity and opportunities for the Penn community in the broadest sense.
- To recommend optimal uses for various sites on the acquired parcels, taking into consideration financial models and/or fundraising opportunities for each project that it recommends, as well as a flexible, achievable implementation and phasing strategy
- To develop well-structured plans for the development of the campus that take into account the University's highest priorities consistent with the principles articulated by the East Campus Advisory Group in a comprehensive campus-wide planning approach
- To outline a feasible timetable and process for overseeing the implementation of the recommendations and to ensure that it is integrated with the capital planning process; a plan coordinated with the strategic, financial and operational plans of the University

East Campus Advisory Group

The appointment of the CDPC was preceded by a previous group assembled to assess the benefits of purchasing the postal lands. Known as the East Campus Advisory Group (ECAG), this committee recommended that future University growth in this area would occur in accordance with the following principles:

1. Planning for the eastern expansion must be carried out in the context of the entire campus and be driven by University-wide

2. Undergraduate education should remain on the core campus. *The plan will need to identify university-wide priorities for consideration in the planning process*
3. Penn should create an aesthetically appealing mixed-use, around-the-clock, urban environment with strong east/west links between the campus and Center City. *The plan will need a strong focus on urban design and connectivity*
4. Development of the east campus should be phased by zones with land-banking being employed to preserve options for future needs. *The plan will need to provide a logical, flexible development framework and phasing strategy*

In conclusion, a summary of urban design issues identified and addressed in the Vision Plan include:

- Connecting the east campus area to the established core of the campus
- Connecting the entire campus to the surrounding urban context, including Center City
- Responding to the opportunities of the Schuylkill River Corridor
- Providing a flexible framework for future development
- Providing a phased strategy for realizing the plan
- Focusing on the creation of major new public spaces of a quality equal to College Green and Locust, Woodland and 36th Street Walks
- Providing a mixed-use environment to encourage collaboration and interaction
- Responding to the environmental issues of the site

GUIDANCE AND CONSULTATION

The planning process leading to the Vision Plan commenced in April 2005 under the direction and guidance of the Campus Development Planning Committee (CDPC) appointed by President Gutmann. The CDPC was responsible for advising the President on priorities for land uses, and the consistency of the design and planning recommendations with the Penn Compact.

Provost Ron Daniels and Executive Vice President Craig Carnaroli served as co-chairs of the CDPC. The other members of the CDPC included Omar Blaik (Senior Vice President for Facilities and Real Estate Services), Scott Douglass (Vice President of Finance and Treasurer), Gary Hack (Dean, School of Design), Vanda McMurtry (Vice President for Government and Community Affairs), Joann Mitchell (Chief of Staff), Arthur Rubenstein (Dean, School of Medicine, EVP/UPHS), Wendy White (General Counsel), and John Zeller (Vice President of Development and Alumni Relations).

The process was guided further by an Ad Hoc Committee on Campus Development representing the Trustees. Members of the Trustee Ad Hoc Committee included Chairman James Riepe, William Mack, Christopher Browne, John Clark, David Cohen, Wendy Evans Joseph, David Silfen, Deborah Marrow, and Gil Casellas.

One of President Gutmann's priorities was to ensure that the process was broadly consultative and that the CDPC sought advice and counsel from the broad campus community. Deans, senior administrators, students, faculty, and staff were consulted and given periodic updates on the Committee's progress through the following groups: Council of Deans, Faculty Senate, Academic Planning and Budget, Penn Alumni Society, University Council, University Council Committee on Facilities, Undergraduate Assembly (UA), Graduate and Professional Student Assembly (GPSA), Penn Professional Staff Assembly, Weekly Paid Professional Staff Assembly, Senior Planning Group, University Health System, Provost's direct reports (including Museum and Library), and a University-wide Faculty Advisory Group. In addition, town hall meetings were held in the fall of 2005 to widen the consultation process. Also, a joint UA/GPSA Task Force conducted a successful university-wide student survey to determine programing and design preferences.

The CDPC worked with the Offices of Communications and Government and Community Affairs to ensure that the campus community and appropriate external constituents, including elected officials and representatives of neighboring communities, were consulted with regard to progress on the project.

Michael Harris, Associate Vice President, and Mark Kocent, Principal Planner, coordinated the work of the CDPC and the consultant team led by Dennis Pieprz, President of Sasaki Architects, PC.

PROGRAMMATIC NEEDS

When examined concurrently with University-owned properties, the east campus area encompasses over 42 acres of land for future development. The consultation process revealed a wide range of potential programming priorities that were considered during the planning process. These priorities include (in no particular order):

- Housing - undergraduate, graduate, family, alumni, visiting faculty, and retiree
- Athletics and recreation facilities - open spaces, public spaces, a field house, intramural and club sport field venues.
- Undergraduate and graduate student centers - study and recreation spaces
- Cultural - universal performing art space
- Conference center - hotel, international conferences, continuing education
- Retail shopping and dining
- Daycare
- Research - flexible interdisciplinary space, corporate co-location
- Non-academic offices relocated from core of campus
- Parking

The planning process focused on evaluating the connectivity, adjacencies and other physical factors such as visibility, the Schuylkill River floodplain, and rail and roadway corridors that traverse the land, and how and where this probable list of program needs might be best accommodated.



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Analysis

The Vision Plan is based on a rigorous analysis of the existing campus context, its history, previous planning initiatives described below, current conditions and circumstances. The analysis examines the entire campus, but particular focus is placed on the east campus area.

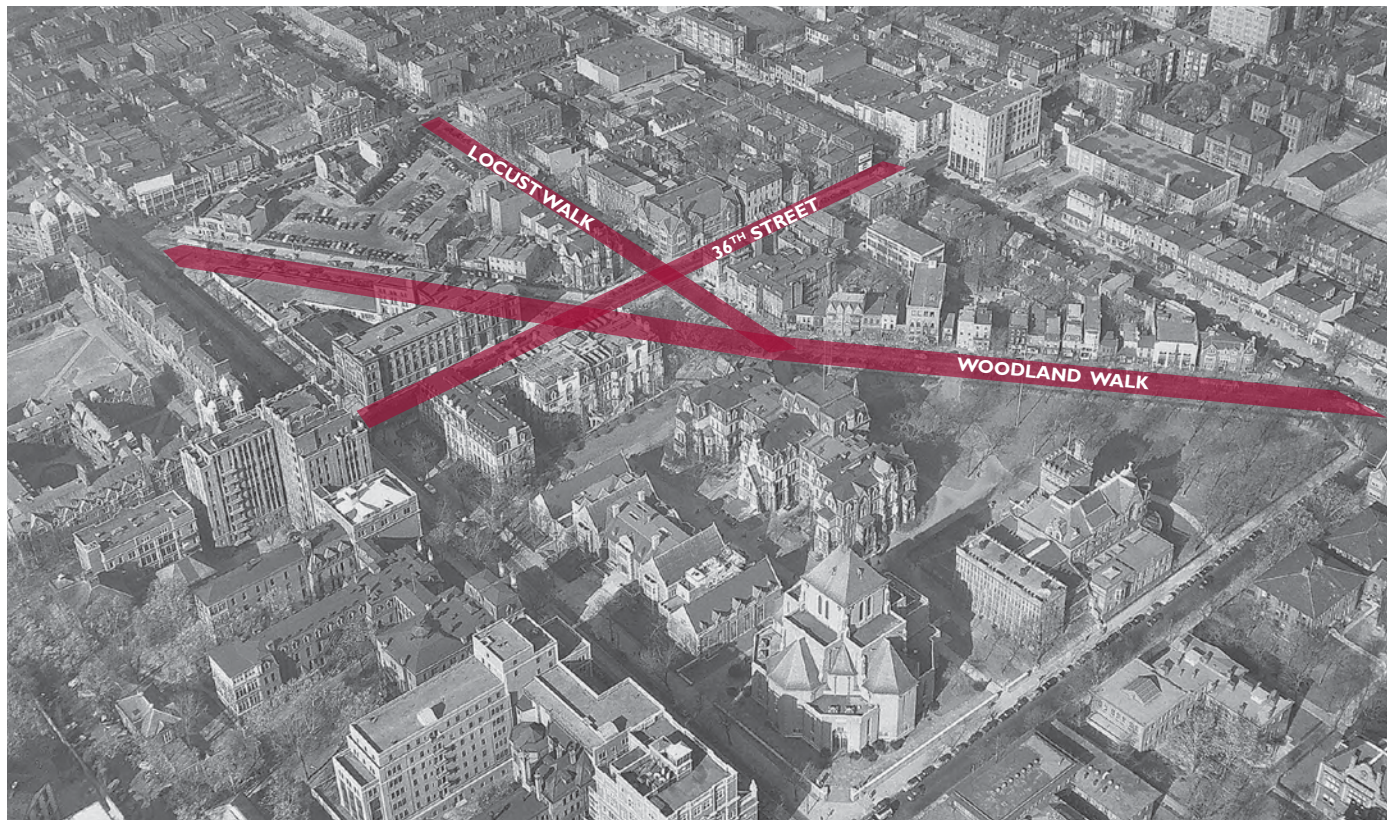
THE CAMPUS PLANNING CONTEXT

A key aim of the Vision Plan is to integrate the east campus land and postal property into the campus core. To that end, the plan builds upon, enhances and extends the previous bold campus planning moves made by the University. These include the creation of College Green, a space which transformed the historic core of the campus, and the establishment of several major new pedestrian routes: Locust, Woodland and 36th Street Walk.

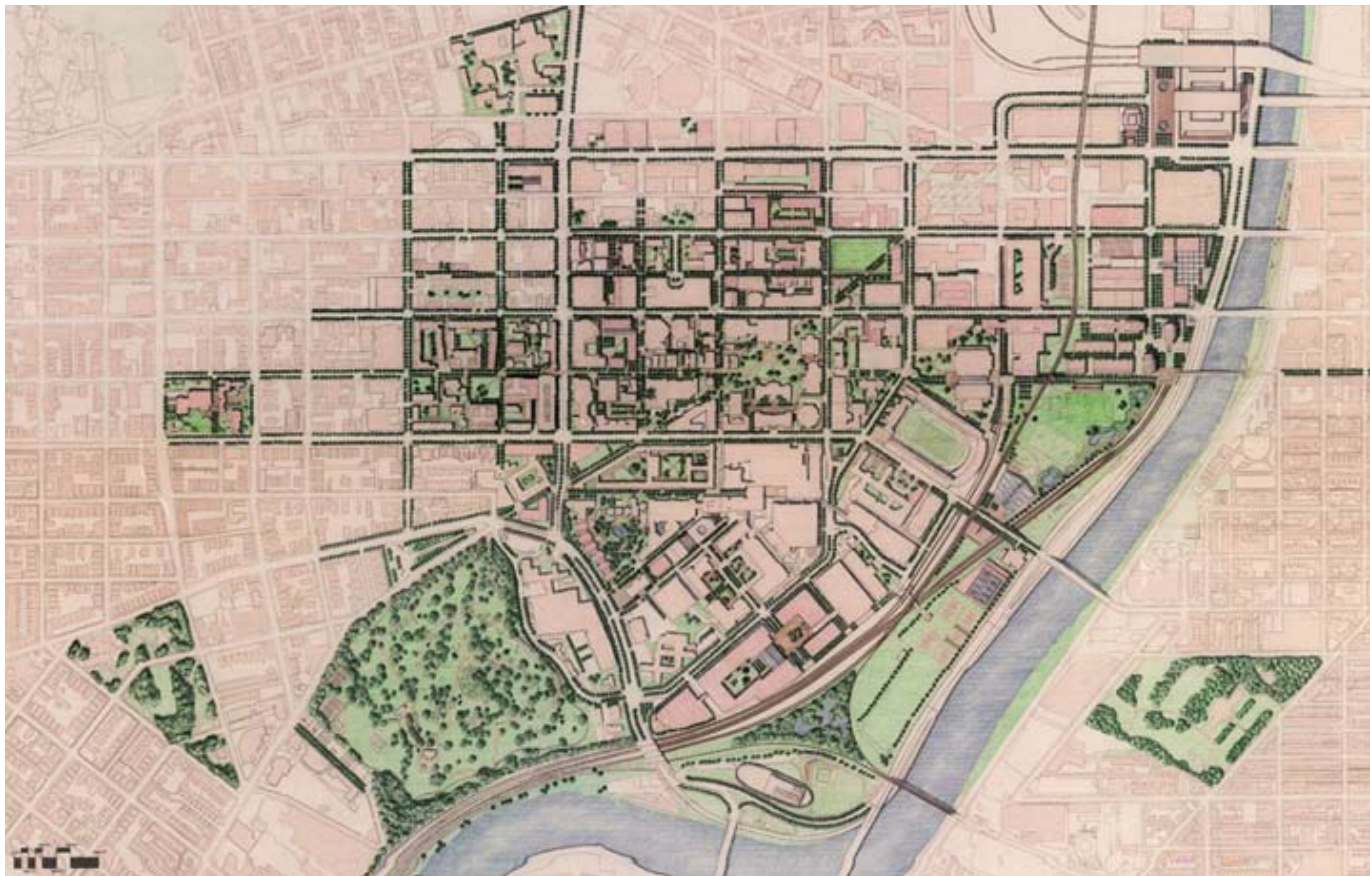
Framed by College Hall, the Van Pelt Library and the Fisher Fine Arts Library, College Green now serves as the key central open space of the campus. The closure of Locust, Woodland and 36th Streets represents an important planning strategy which today provides Penn with a very pleasant and comfortable pedestrian oriented campus. Collectively, these routes form the key spines of pedestrian movement and connectivity on the campus.

As called for in the 2001 Campus Development Plan, the Vision Plan extends and enhances these key routes to integrate the east campus area, Hill Square and the Walnut Street corridor into the campus environment. Improvements made along Walnut Street over the last 20 years through infill development and direct investment by the University also represent noteworthy initiatives that link the campus with the surrounding urban context.

Locust, Woodland and 36th Street corridors prior to the street closures and the creation of the primary pedestrian routes of the campus



The east campus circa 1928 prior to the construction of 30th Street Station and the U.S. Post Office Building on Market Street. The photo illustrates the industrial and railyard uses of the day.



2001 CAMPUS DEVELOPMENT PLAN

The 2001 Campus Development Plan provided a comprehensive landscape strategy for the entire Penn Campus and included several key recommendations which informed the Vision Plan. Specifically, the Vision Plan adopts the organizational framework of the 2001 plan: the extension and enhancement of the three primary circulation spines. It also incorporates the idea of creating a major new open space west of the Palestra where the Lott Tennis Courts are located. The 2001 Plan provides a thorough landscape structure, which has been adapted in the Vision Plan and modified where necessary to address current issues.



View of the east campus area looking east



Fresh Grocer and Garage



University Square

WEST PHILADELPHIA INITIATIVES

In the late 1990's, Penn began to focus on development and regeneration of the neighboring campus environment through the very successful and publicized West Philadelphia Initiatives. They aimed to stimulate neighborhood investment in West Philadelphia through a major commitment of University leadership, administrative support, funding and academic services, sustained over a period of years.

The initiatives focused on five broad and comprehensive areas, which were addressed simultaneously:

- **Clean, safe and attractive streets and neighborhoods** - The University supported the creation of a special services district, expanded Penn's public safety operations and launched block improvement programs that included sidewalk lighting and landscaping.
- **High quality, diverse housing choices** - University-sponsored homeownership initiatives attracted more Penn faculty and staff to West Philadelphia neighborhoods, stimulated many home improvements projects and strengthened the neighborhood real estate market. Penn also improved the availability, affordability, and quality of rental housing in University City, which attracted further market rate investments.
- **Reinvigorated retail options** - By supporting the development of a series of shopping, dining, and entertainment ventures,



Penn-Alexander School

while assisting in the revitalization of traditional neighborhood commercial corridors, Penn strengthened University City as a retail destination.

- **Excellent school options** - The University partnered with the Philadelphia School District for the development of a new public school, assistance to three other public schools and various community partnerships.
- **Increased job opportunities through economic inclusion** - Penn began using purchasing power more strategically to increase business opportunities for minority-owned and community-based businesses.



Historic view of the east campus/ 30th Street area illustrating the former industrial character of the site. Railroads and transportation infrastructure have been a feature of the east campus area for over a hundred years.

HISTORY OF THE EAST CAMPUS AREA

The area east of the Highline historically has been utilized for industrial and rail related purposes. University and eastward expansion of West Philadelphia toward the Schuylkill River, in general, was contained by the Highline and the railyards. By the 1920s, the University had expanded up to this boundary with the construction of the Palestra and Franklin Field. The current South Street Bridge, the Central Power Station (Hollenback Hall), and Rhodes, and the adjacent river fields were also constructed in the 1920s. With the construction of 30th Street Station and the U.S. Post Office facility in the 1930s – two major city icons – the area around Market and Walnut Streets was transformed into a major new gateway into Philadelphia. In 1935, the Convention Center was completed (recently demolished).

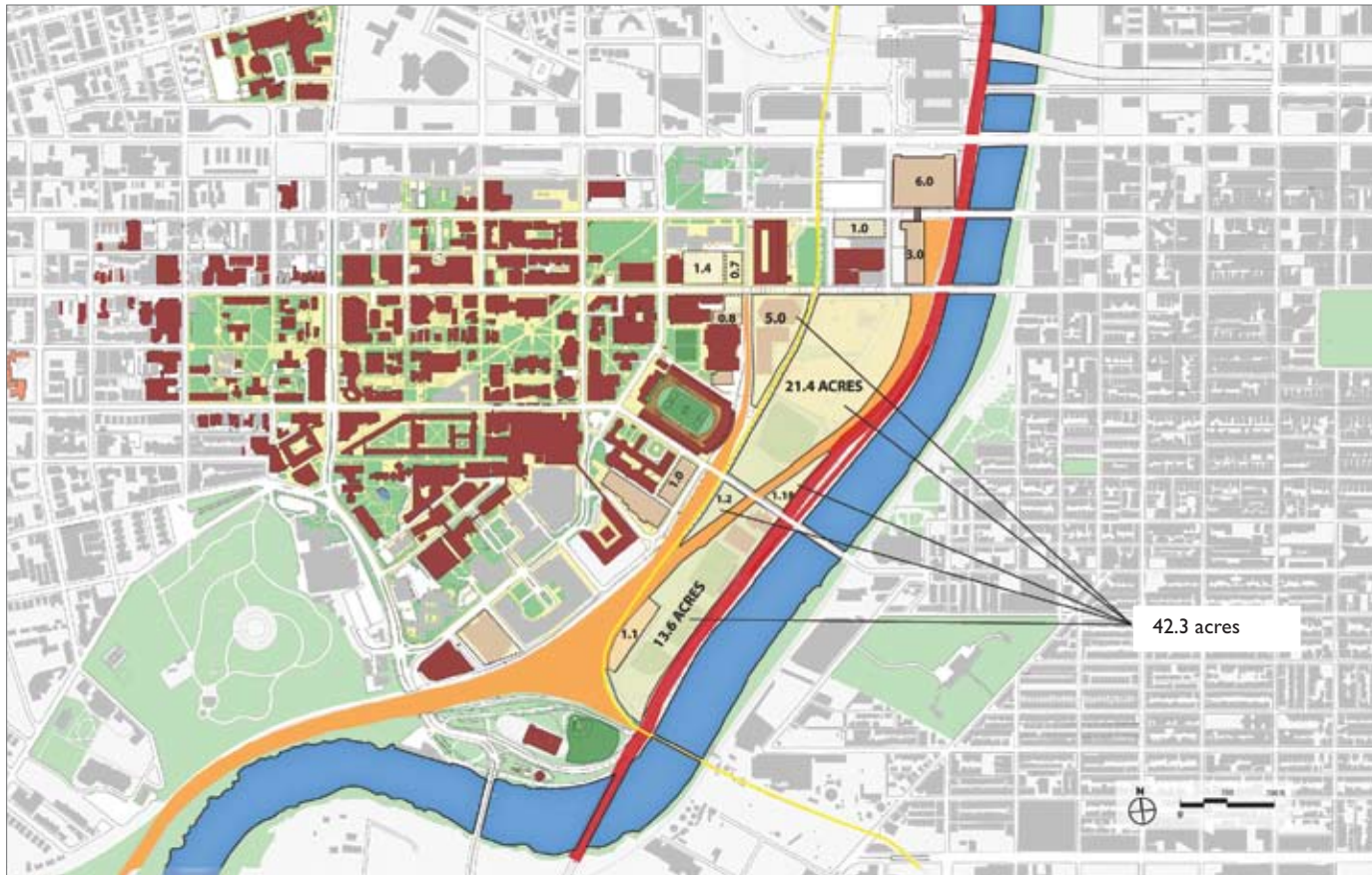
Other changes over the years included the westward realignment of University Avenue in the 1940s to make way for development in the medical district, and the construction of I-76 in the 1960s. In the 1970s, the Levy Tennis Pavilion and Class of 1923 Ice Rink were completed, followed by the Hollenback Annex and Bower Field in the 1980s. By 2000, the MOD 7 Chiller Plant was in place.

*Franklin Field and the
Palestra in the 1920s*



*Photo of the Walnut Street Bridge
circa 1960. At the time, the Left Bank
building was utilized for industrial
purposes. The Class of 1923 Ice Rink
site was utilized as a railyard.*





EXISTING CONDITIONS IN THE EAST CAMPUS AREA

The east campus area accommodates several land uses ranging from the extensive surface parking areas adjacent to the Walnut Street Bridge, the athletic fields located to the north and south of the South Street bridge, and the landmark MOD 7 chiller plant located on University Avenue.

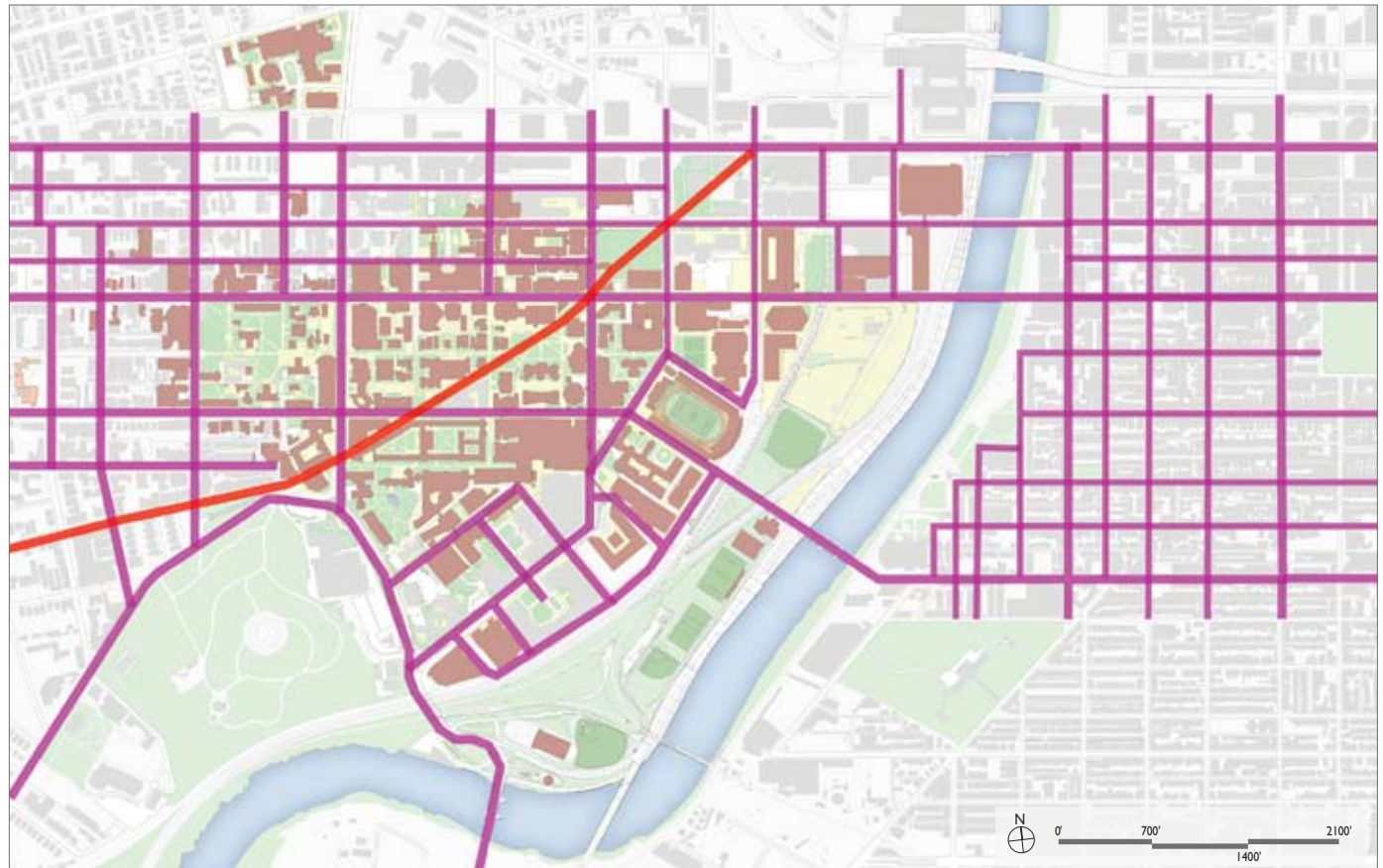
The East campus area encompasses a series of transportation corridors listed from west to east as follows: the SEPTA regional rail line, the CSX Highline freight railway, which is elevated some 60 feet above the ground plane on a combination of stone and steel supporting elements; Amtrak's Northeast Corridor; and Interstate 76 (Schuylkill Expressway). Combined, these corridors segment the site into several parcels, many of which are disconnected.

Approximately 42 acres of land are available for develop in the east campus area; however, many of the parcels are difficult to develop as a result of irregular and triangular configurations and lack of direct access from the roadway network. The available parcels are as follows:

- **21.4 acres** - area south of the Walnut Street Bridge, including the existing postal surface parking lots and the existing University-owned Bower Field. This area is defined on the west by the Highline, on the east by the I-76/Schuylkill Expressway, on the south by the South Street Bridge, and on the north by the Walnut Street Bridge. It is connected to the Palestra and Franklin Field areas by the Paley Bridge, which enables pedestrians to cross over the SEPTA line.

The east campus area is located at the convergence of the West Philadelphia street grid, the Medical District grid and the Center City grid.

STREET GRID

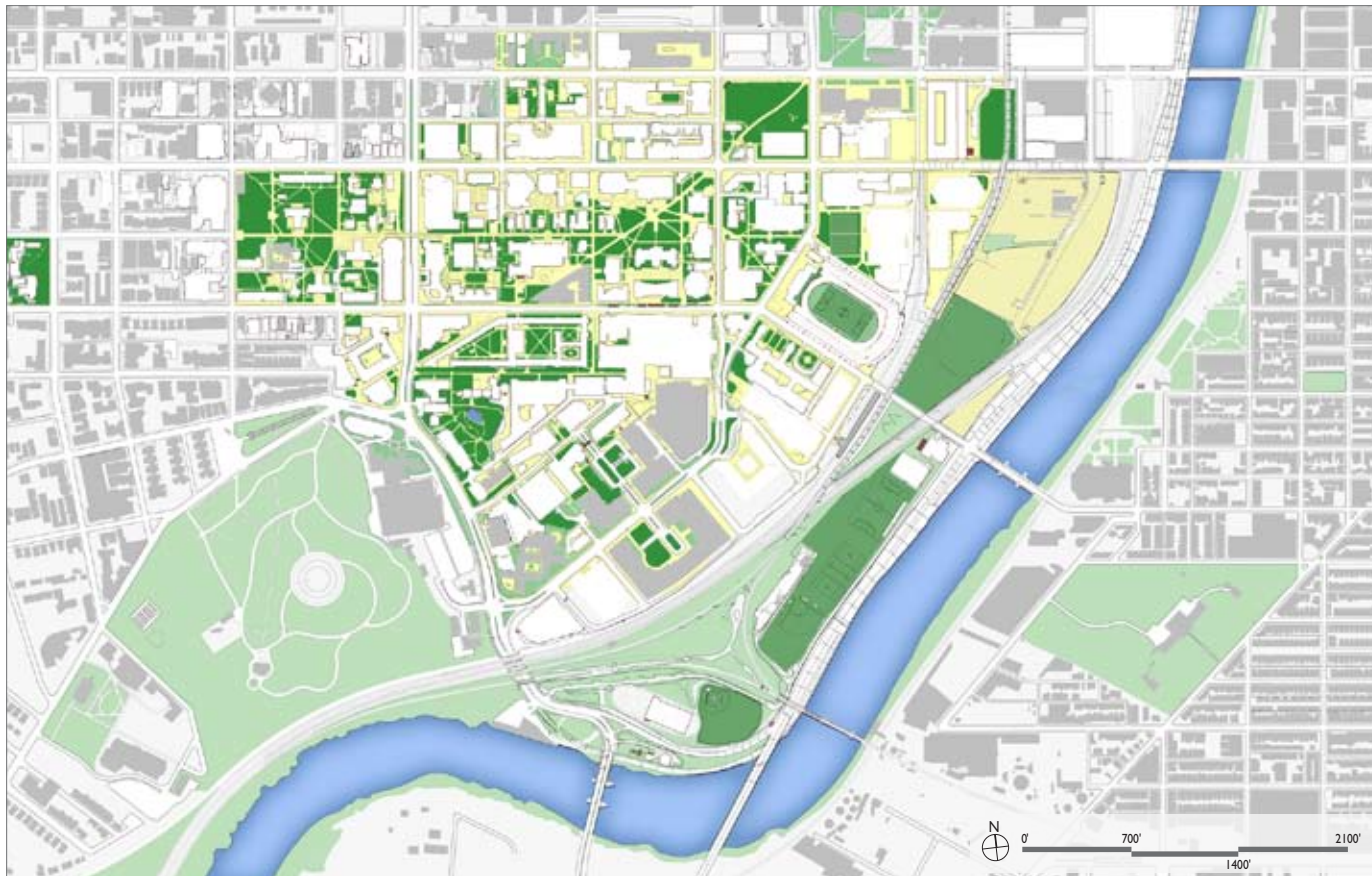


- **1.18 acres** - a triangular parcel north of the South Street Bridge, defined by the Amtrak corridor on the west and I-76 on the east. Current uses include parking and landscape maintenance facilities.
- **1.2 acres** - a triangular parcel south of the South Street Bridge, defined by the Highline / SEPTA line on the west and Amtrak on the east. The University City station on the SEPTA line lies to the west of this parcel.
- **13.6 acres** - site of the existing Rhodes, Stewart and Warren Fields. This parcel is defined on the west and south by the Highline, on the east by I-76 and on the north by the South Street Bridge. This site is adjacent to a 1.1- acre Amtrak electrical substation. It includes Hollenback Center and Annex, which are accessible from South Street.

Civic Structure of the Campus

The existing civic structure of the east campus area and surrounding context reflects the orthogonal street grid of West Philadelphia, and shifts within that grid as necessitated by the angle of the river and the major circulation infrastructure constructed parallel to the river. In addition to the orthogonal grid and the routes responding to the angle of the river, the civic structure also includes the Woodland Walk diagonal running in a northeasterly direction across the campus toward Market Street. The east campus area is where these differing organizational systems are resolved. The resulting land use and development pattern responds to the grid, the Woodland diagonal and the angle of the river. The angle of the South Street alignment in particular determined the layout of two important structures in the east campus context: Franklin Field and the Museum of Archaeology and Anthropology.

Existing open space structure of the campus



Open Space Structure

The analysis process included an examination of the open space structure of the campus and surrounding context with the intent of identifying ways to link the east campus area with this structure.

The campus open space structure consists of the iconic space of College Green, Locust Walk, 36th Street Walk and Woodland Walk. Other major open spaces include Highline Park and the Schuylkill Riverfront Park on the east side of the river, which connects to a regional open space system of parks along the river.

Pedestrian Access

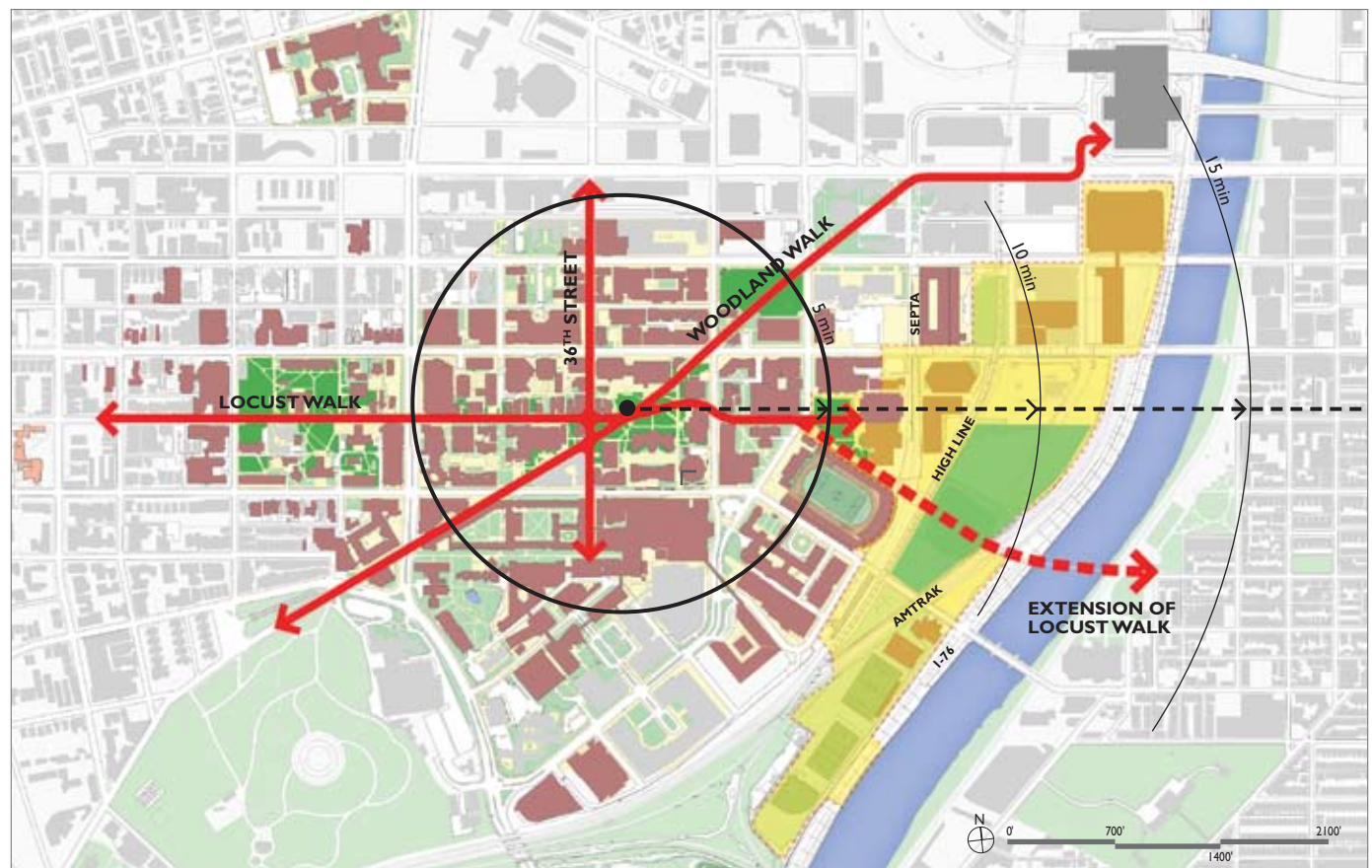
Pedestrian access routes from the existing campus into the east campus area are possible via the Paley Bridge (1985) and via South Street at Hollenback Center. The east campus is within a 10 minute walk from College Green, although it is perceived to be more remote as a result of the disjointed and unpleasant pedestrian connections to the area.

Access from the north is possible via Lower 31st Street, which connects with Highline Park in the area of the Left Bank and with stairway connections to the north side of the Walnut Street Bridge. North-south pedestrian movement is interrupted by the South Street Bridge; Pedestrians must utilize the South Street Bridge to move between the north and south zones of the site. Vertical access is provided on the north side of South Street near Franklin Field and on the south side at Hollenback Center. A new bridge connection over the Amtrak corridor is under consideration in order to provide more convenient and continuous pedestrian movement between the east and west sides of the tracks, especially during the reconstruction of the South Street Bridge, which is scheduled to commence in 2007.

Several major opportunities exist to extend the key pedestrian connections of the campus to the east campus area. They include:

- Connections to Highline Park along Lower 31st Street

The current perception of the east campus and postal lands is that of a remote, disconnected area of the campus. However, when considered in terms of walking distance from the core, the east campus area is within a 10-15 minute walk from College Green.



- Connections to 30th Street Station along upper 30th Street
- Extension of Locust Walk through the east campus, connecting to the Schuylkill Banks Park on the east side of the river.
- North-south connections to link Walnut to South Street and South Street to University Ave.

Transit Access

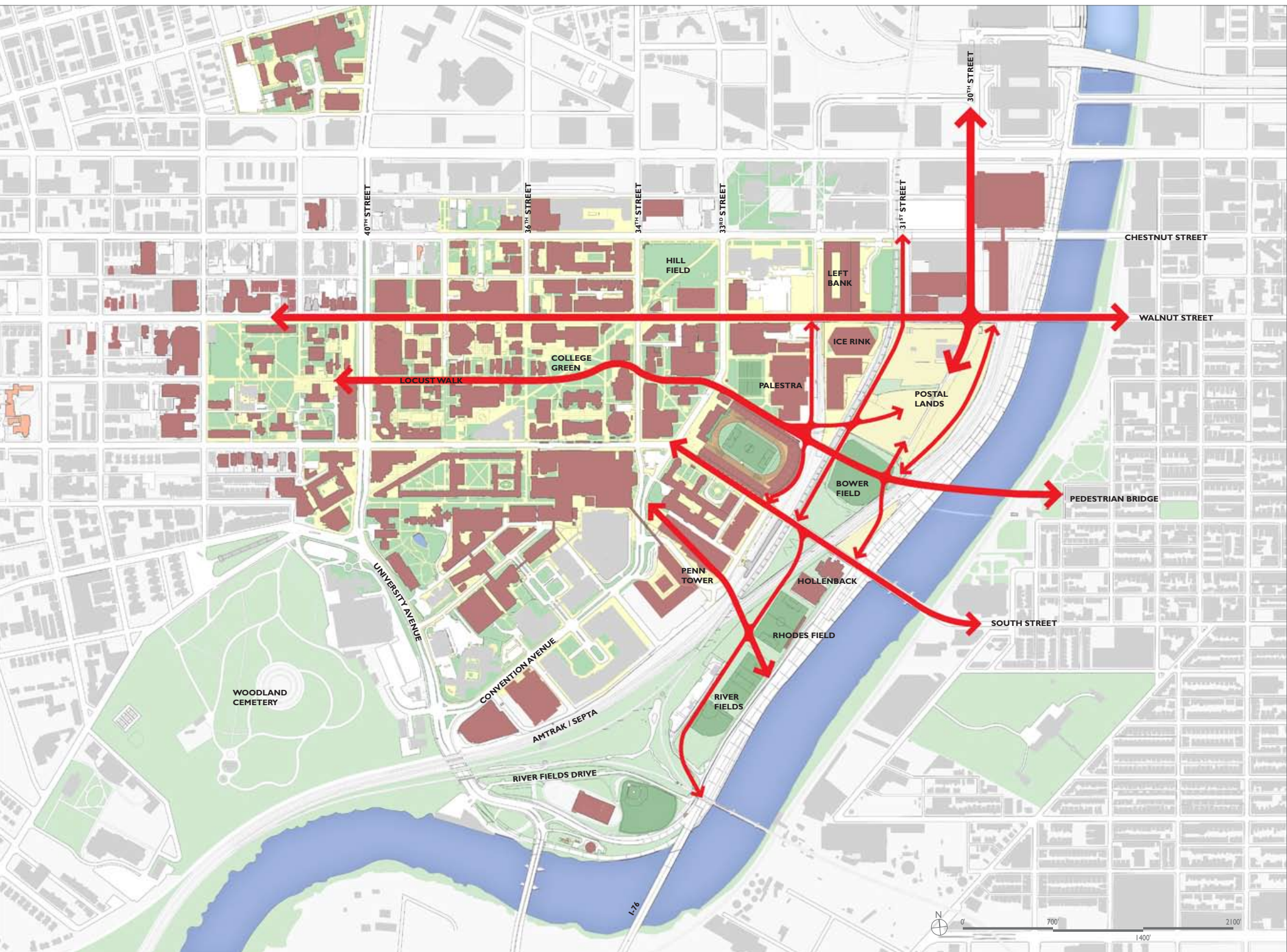
The east campus area is served by major transit connections at 30th Street Station, and SEPTA regional rail connections to the airport via the University City Station at South Street.

Vehicular Access

The topography and floodplain conditions have influenced the historic development of the circulation pattern in the east campus area. As a result, both Walnut Street and South Street pass through the area on bridges resulting in an upper and lower road system.

The upper level road system consists of Walnut Street, a one-way street in the westbound direction; Chestnut Street, an upper level one-way street in the eastbound direction towards Center City; and South Street, a two-way street providing access into the campus from I-76 and from the Fidler Square neighborhood east of the Schuylkill River. Access to Franklin Field and the Palestra is provided on the east side of the stadium via an arcaded walkway which runs alongside the SEPTA line. The SEPTA line is at a lower level.

At-grade vehicular access in the east campus area does not allow for a continuous north/south connection. Lower Walnut Street provides access beneath the Walnut Street Bridge. Lower 31st Street provides access to the postal lands and Bower Field area from the north. The Lower 30th Street right-of-way extends into the postal lands area as a remnant of the street pattern prior to the construction of I-76 in the 1960s.



Pedestrian connection opportunities in the east campus area



Redevelopment / Revitalization Opportunity

Access to the athletic fields south of South Street is provided via River Fields Road, which connects with University Avenue and the I-76 southbound off-ramps. No vehicular connections are possible between the north and south roadway system. No direct access is possible into the site from I-76.

Circulation routes of concern include the intersection of River Fields Road with University Avenue. Access into the River Fields area is limited to right-in / right-out movements. Revisions to Convention Avenue, which links South Street with Civic Center

Boulevard around the perimeter of the Museum of Archaeology and Anthropology, are also under consideration.

Redevelopment / Revitalization Opportunities

Analysis of the east campus area and the broader campus context reveals a number of redevelopment / regeneration opportunities identified in the illustration above.



Photo of the east campus area as viewed from the east side of the river. The photo illustrates both the complexity of the infrastructure and the iconic quality of Franklin Field and the Palestra.

Infrastructure Constraints

The transportation routes traversing the site present considerable constraints for future development. A 60-foot setback is required on both sides of the Highline structure, and Amtrak has strict dimensional criteria for construction adjacent to or over its routes. A minimum setback of 22 feet is required on either side of the rail centerline and 17 feet above the top electrified catenary lines. To construct an overpass, deck or a bridge, the University will need to work directly with Amtrak's operation and engineering division for approval. To minimize the cost and Amtrak involvement, the University should consider constructing pre-cast and/or pre-fabricated overpass spans for any structures that cross the rail lines. If construction needs to occur while the high voltage line is active, the construction process will be greatly complicated, as Amtrak will require development of very specific protocol and safety measures, which would increase the cost of the project significantly.

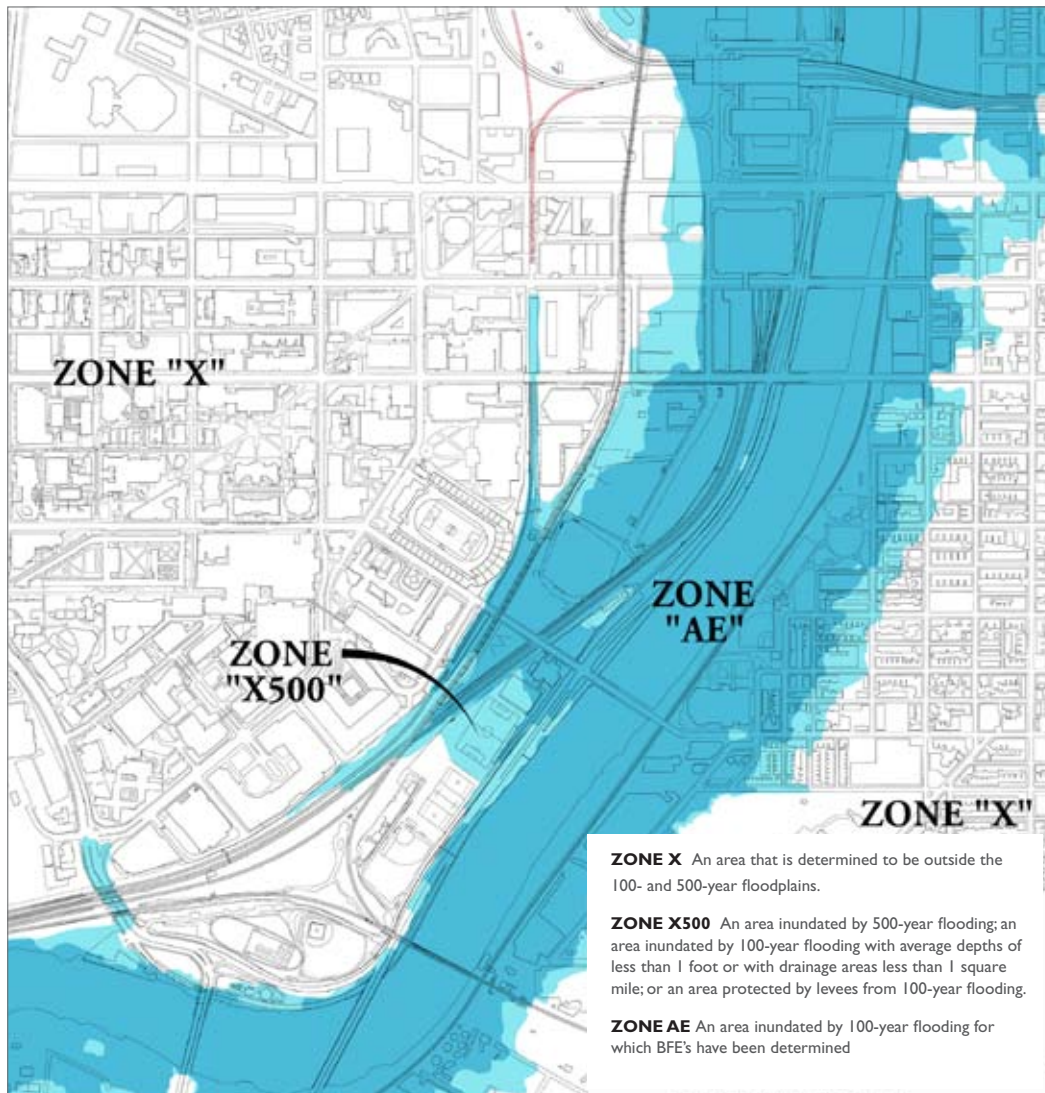
Topography and Floodplain Issues

The postal lands and Bower Field areas of the east campus lie within the 100-year floodplain of the Schuylkill River that extends southward from the Walnut Street Bridge to south of the South Street Bridge. Portions of the site are subject to the floodplain land use controls specified in section 14-1606 of the City of Philadelphia Zoning Code. The floodplain consists of all lands waterward of the elevation of the 100-year flood fringe (i.e., the base flood level) as defined in the Federal Emergency Management Agency (FEMA) Flood Insurance Study dated August 2, 1996. The base flood level is specified as 15 feet at South 34th Street, 18 feet at South Street, and 19 feet at Market Street to the north of the project site (note all elevations are National Geodetic Vertical Datum of 1929). The following uses are prohibited within the 100-year floodplain, unless granted a special permit by the Department of Licenses and Inspections following approval by the Department of Community Affairs:

- medical and surgical hospitals
- medical centers
- rest, old age, nursing or convalescent homes



View of existing conditions in the east campus area illustrating the South Street Bridge, Highline, University City SEPTA Station, and the Amtrak corridor.



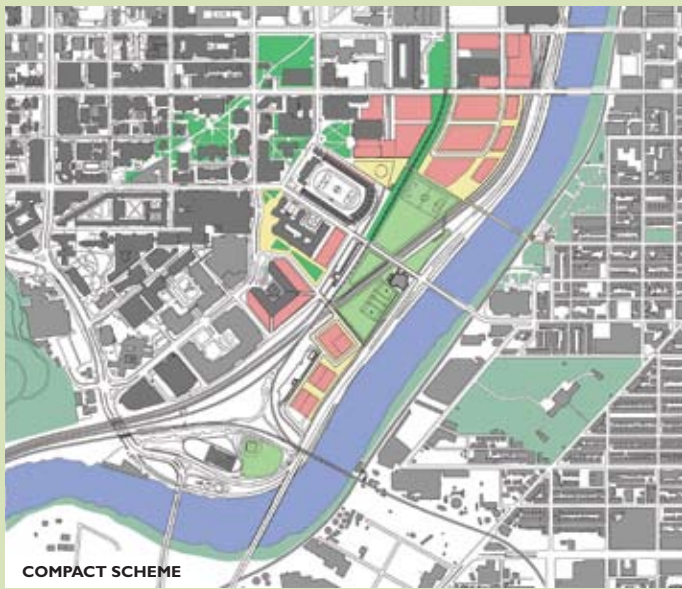
FEMA Flood Map

All uses permitted in the 100-year floodplain are subject to the following restrictions:

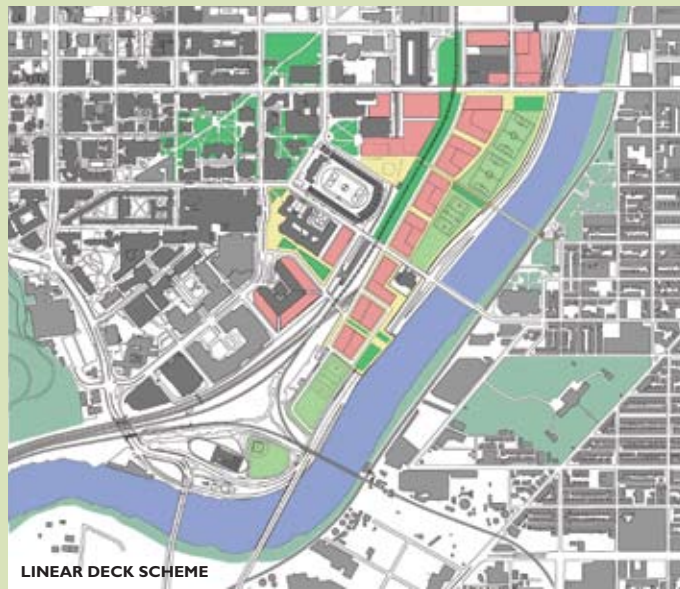
- For residential structures, the lowest floor elevation (including basements and cellars) is to be at least one foot above the base flood level.
- All non-residential structures are to be flood-proofed to at least one foot above the base flood level.
- If certain specified materials (e.g., acetone, benzene, petroleum products, pesticides, etc.) are stored within the floodplain, the storage area is to be flood-proofed to at least one and one-half feet above the base flood level.

It is noted that no portion of the east campus area is located within the regulated floodway of the Schuylkill River. The regulated floodway at the project site is restricted to the banks of the river.

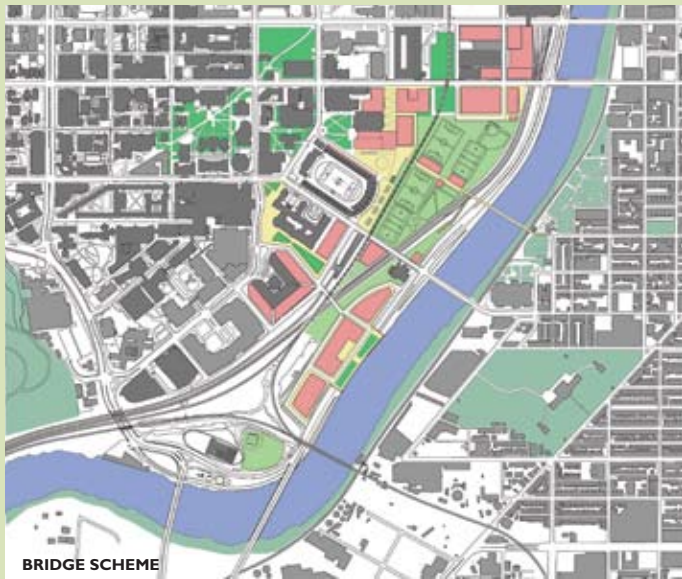
In conclusion, the development proposals in the east campus area will need to be constructed above the base flood level. Conceptually, all occupied building development will need to occur at the bridge levels, with the potential of providing parking and recreation fields at the lower levels.



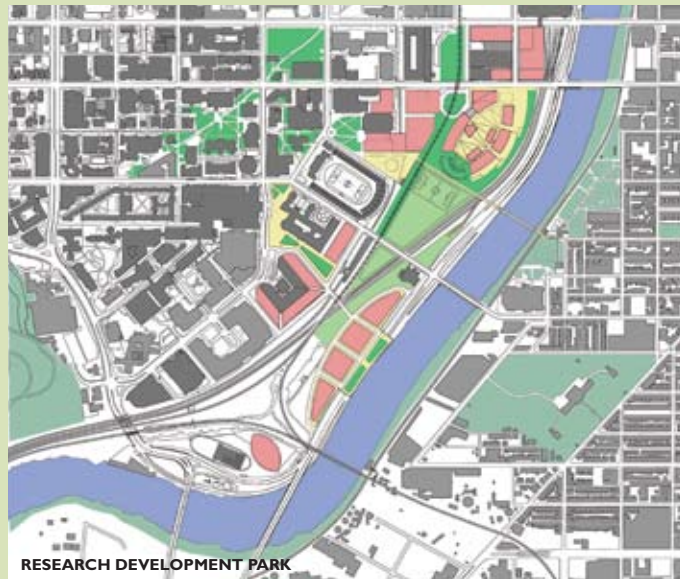
COMPACT SCHEME



LINEAR DECK SCHEME



BRIDGE SCHEME



RESEARCH DEVELOPMENT PARK



CLUSTER SCHEME



ECO-FOREST PARK SCHEME

Six options were considered for the east campus area

3

Development Alternatives

OPTIONS FOR THE EAST CAMPUS

A series of development options were developed during the second phase of the planning process to examine a range of concepts and ideas for utilizing the east campus land for the highest and best purposes. This section summarizes the options process and the three primary options selected for further development.

Development Options

In the initial phases of the project, six options were reviewed with the Campus Planning and Development Committee (CDPC) and other stakeholders at the University. Based on the comments received, three options were selected for further exploration in the alternatives process.

The three selected options respond to the significant constraints of the site, which include topography / height differentials, the Highline, the SEPTA line, the northeast corridor of Amtrak, and I-76. In all three options, important views of the University's historic structures, including the iconic Franklin Field, are maintained and the historic Highline railway is incorporated as an armature for organizing the open space structure. Revitalization of the Palestra and the surrounding context is also explored in the options.

Three major development areas are identified in the options: 1) land along Walnut Street to the south of the Postal Annex; 2) land to the north and south of the Palestra and on the Ice Rink site; and 3) land to the south of South Street. Each option places athletics and recreation facilities at the center of the east campus lands as part of a larger open space system, to provide a direct linkage to the existing sport venues at Franklin Field and the Palestra.

The options respond to the 100-year floodplain by placing future habitable space at a higher elevation on decks constructed at the Walnut and South Street Bridge levels. Uninhabitable space beneath the decks is utilized for parking and other support facilities.

The three options selected for further development and analysis were assigned the following titles:

- The Compact Scheme
- The Cluster Scheme
- The Bridge Scheme

Features Common to All Options

Prior to describing the three options, it is important to note the features common to each of them.

Urban Design

- The south side of Walnut Street is developed as a well-defined street edge with active ground floor uses.
- 31st Street is extended south of Walnut to engage the new development opportunities and provide a strong north/south link to existing transit services.
- A new pedestrian bridge extends Locust Walk eastward across the Schuylkill River at the most reasonable point (fewest ramps/ roadway constraints) between Walnut and South Street. (This will directly connect the Fittler Square neighborhood with Penn and vice versa.)
- The linear nature of the Highline is utilized as an armature for organizing the open space structure of the land.
- A pedestrian plaza is proposed between the Franklin Field and the renovated Palestra complex to improve pedestrian connections over the SEPTA lines and to create a major gathering space for associated sports and recreation along an extension of Locust Walk.
- The Penn Tower is demolished to make way for a new urban open space providing visual and physical connections between the Medical District, the medical expansion area and beyond to the river corridor.
- A redevelopment opportunity is identified to the east of the museum for a future cultural facility on the site of an existing garage.
- The Lott Tennis Courts are removed west of the Palestra to create a new open space.

Land Use

Each option includes five land use zones:

1. A research and mixed-use development zone is located along Walnut Street to concentrate academic and research facilities, and to create a new gateway to the campus.
2. A sports and recreation zone is located at the center of the east campus in association with the stadium and the Palestra. The intent is to consolidate the sports and recreation facilities in one location and to maintain views of the iconic stadium from the river.
3. The Palestra is preserved and enhanced in each option to concentrate investment in athletics and recreation facilities in and around this important historic structure.
4. A cultural zone is designated along South Street directly east of the Museum.
5. A medical expansion zone is located to the east of the medical district on the site of the existing sports and recreation fields to accommodate future growth.

Decks are utilized in the two major development zones (Walnut and medical expansion) to elevate habitable space above the floodplain and to provide parking beneath. Each option includes decking over the SEPTA line at various points to provide convenient connections to and from the east campus. (The connection at the medical area crosses both SEPTA and Amtrak).

Parking / Access

Vehicular access and parking in each option for the north and south development zones (Walnut Street and medical expansion) could be provided as follows:

- **Walnut Street** - vehicular access and access to the parking areas beneath could be provided from the upper level of the deck and/or via the lower level street systems along 30th and 31st Streets.
- **Medical Expansion** - pedestrian access from the existing medical district could be provided from the south via River Fields Road. Use of this route is limited by the lack of a southbound left turn on University Avenue.



Primary Options

Compact Scheme - The compact scheme concentrates future research and mixed-use development in the two land use zones constructed on decks at the north and south ends of the east campus. Primary vehicular and pedestrian access to the development zones is provided at the upper levels of the proposed decks. Secondary access to parking is provided via the lower level road network.

Additional decking in this scheme includes an area over the SEPTA line north of the stadium as part of the Palestra revitalization/ expansion and pedestrian plaza. This provides access to Franklin Field and the Palestra from Walnut Street.

Cluster Scheme - The cluster scheme is a variation on the Compact Scheme. Specifically, the proposed deck south of Walnut provides access on upper 30th Street to the proposed development sites. Ramps connecting upper 30th Street to Lower 31st Street are proposed in two locations in an east / west direction. At the Lower 31st Street level, the Highline Park corridor incorporates 31st Street

Initial analysis of the site suggested a pattern of land use placing a lively edge along Walnut and a mix of uses across the site.

Proposed crossing point of the Research Bridge over the rail lines and under the Highline in the area of University City Station



and creates secondary addresses for the proposed facilities. The Lower 31st Street “addresses” of the buildings provide ground level connection opportunities for development proposed on the existing Ice Rink site.

Bridge Scheme - The bridge scheme utilizes the existing bridges and proposed Schuylkill River Pedestrian Bridge as the armatures for new development in the east campus area. Development sites are identified along each of the bridge corridors to enliven the pedestrian experience and create vibrant gateways to the campus. This option also extends the medical expansion zone to the entire area south of the South Street bridge.

Reviewing these physical connection opportunities in the context of land use and other desirable conceptual and programmatic connections suggest the following themes:

- **Living / Learning Bridge** - Walnut Street is envisioned as the Living / Learning Bridge connecting Center City with the core of the Penn campus. This connection suggests that future uses and activities along the Walnut Street Bridge in the postal lands area should complement the academic and research mission of the University. The uses should also include a mix of other uses that would contribute to the academic and research environment, including retail, food services, and potentially a hotel and residential uses.
- **The Sports and Recreation Bridge** - the Schuylkill River Pedestrian Bridge would connect the Fitler Square neighbor-

hood east of the river with the existing sports and recreation uses in the east campus area, including Bower Field, the Palestra complex and Franklin Field.

- **The Cultural Bridge** - the South Street Bridge is envisioned as the cultural bridge in recognition of the Museum of Archaeology and Anthropology. Future uses along the south side of the bridge west of I-76 could include social and cultural activities.
- **The Research Bridge** - the research (pedestrian) bridge would connect the medical district with the River Fields area, potentially opening this area up for future research space in the long term. Physical constraints of the Highline prohibit a vehicular bridge.

The Bridge Scheme also includes a continuous deck over the SEPTA line extending from Walnut Street to South Street. This deck provides for the following:

- A major new entry to the Palestra and development from Walnut Street.
- A pedestrian plaza / gathering space north of the stadium
- A pedestrian concourse east of the stadium.

The result is a continuous pedestrian link between Walnut and South Streets. The deck also links to the proposed Schuylkill pedestrian bridge and a river corridor promenade along upper 30th Street. An optional deck also is proposed over I-76 in the medical expansion zone to provide waterfront open space.

Sport and recreation fields are concentrated to the north of South Street where the configuration and size of the land parcels are more suitable for sports field dimensions. Sports and recreation fields form the heart of the open space structure of the Bridge Scheme. In a departure from the previous schemes, the Lower 31st Street alignment continues into the site in a due south direction rather than following the Highline alignment. The result is a more generous and stronger spatial / visual connection between Highline Park and the proposed sports and recreation fields.

Ultimately the Bridge Scheme was selected and served as the concept basis for the Vision Plan.



4

Penn Connects: The Vision Plan

CAMPUS VISION

Connecting the University to the City and the City to the University is central to the Penn Connects vision for the campus. The vision emerges from a broader goal of establishing stronger connections, not only within the campus, but to the surrounding urban context as well.

The Vision Plan adopts the pedestrian circulation framework set out in the 2001 Campus Development Plan, including extending of Locust Walk to the east, and reinforcing Woodland Walk and 36th Street Walk as important pedestrian corridors. It coordinates these key recommendations with several major new open space, circulation and development concepts that will collectively improve conditions within the existing campus context and help establish the east campus area as a vibrant new district.

Key Features of The Penn Connects Vision Plan

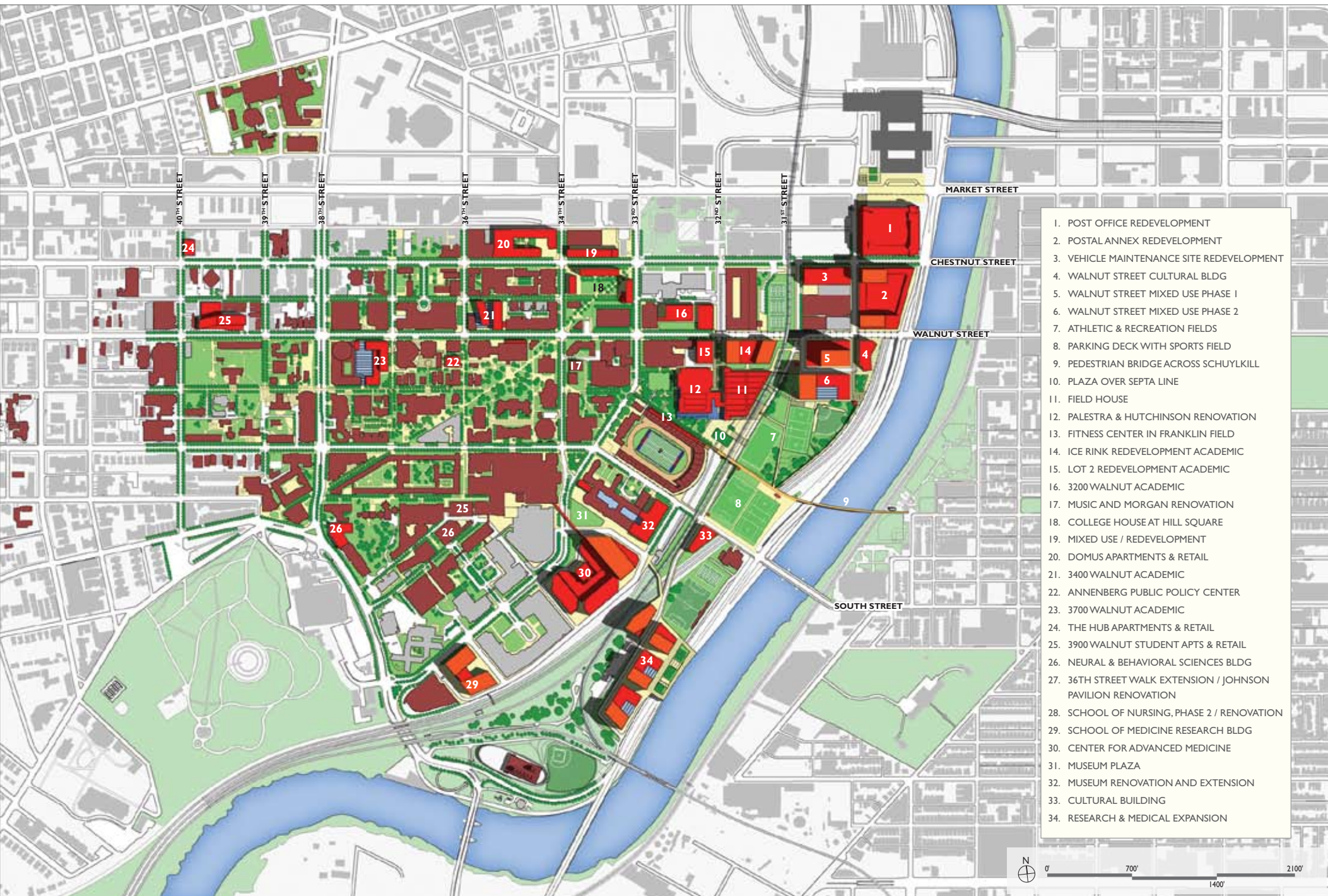
The Plan:

- Establishes a University presence along the Schuylkill River corridor.
- Establishes new connections and gateways between the campus, Center City and surrounding areas in West Philadelphia at the Walnut Street and South Street Bridges;
- Creates a new signature sports and recreation park east of Franklin Field on the site of the existing Bower Field and the surface parking areas of the postal lands;
- Provides for a series of new public gathering and circulation spaces in the Palestra and Franklin Field area that serve to link the postal lands to the campus;
- Accommodates significant development potential for future academic, research and supporting program elements; and
- Creates connections and future expansion potential between the River Fields area and the medical district;

The Penn Connects Vision Plan is described in the following sections in terms of civic and open space structure, circulation linkages, land use and development zones.



View of the east campus area with the surface parking area of the postal lands in the foreground.



1. POST OFFICE REDEVELOPMENT
2. POSTAL ANNEX REDEVELOPMENT
3. VEHICLE MAINTENANCE SITE REDEVELOPMENT
4. WALNUT STREET CULTURAL BLDG
5. WALNUT STREET MIXED USE PHASE 1
6. WALNUT STREET MIXED USE PHASE 2
7. ATHLETIC & RECREATION FIELDS
8. PARKING DECK WITH SPORTS FIELD
9. PEDESTRIAN BRIDGE ACROSS SCHUYLKILL
10. PLAZA OVER SEPTA LINE
11. FIELD HOUSE
12. PALESTRA & HUTCHINSON RENOVATION
13. FITNESS CENTER IN FRANKLIN FIELD
14. ICE RINK REDEVELOPMENT ACADEMIC
15. LOT 2 REDEVELOPMENT ACADEMIC
16. 3200 WALNUT ACADEMIC
17. MUSIC AND MORGAN RENOVATION
18. COLLEGE HOUSE AT HILL SQUARE
19. MIXED USE / REDEVELOPMENT
20. DOMUS APARTMENTS & RETAIL
21. 3400 WALNUT ACADEMIC
22. ANNENBERG PUBLIC POLICY CENTER
23. 3700 WALNUT ACADEMIC
24. THE HUB APARTMENTS & RETAIL
25. 3900 WALNUT STUDENT APTS & RETAIL
26. NEURAL & BEHAVIORAL SCIENCES BLDG
27. 36TH STREET WALK EXTENSION / JOHNSON PAVILION RENOVATION
28. SCHOOL OF NURSING, PHASE 2 / RENOVATION
29. SCHOOL OF MEDICINE RESEARCH BLDG
30. CENTER FOR ADVANCED MEDICINE
31. MUSEUM PLAZA
32. MUSEUM RENOVATION AND EXTENSION
33. CULTURAL BUILDING
34. RESEARCH & MEDICAL EXPANSION

The Vision Plan

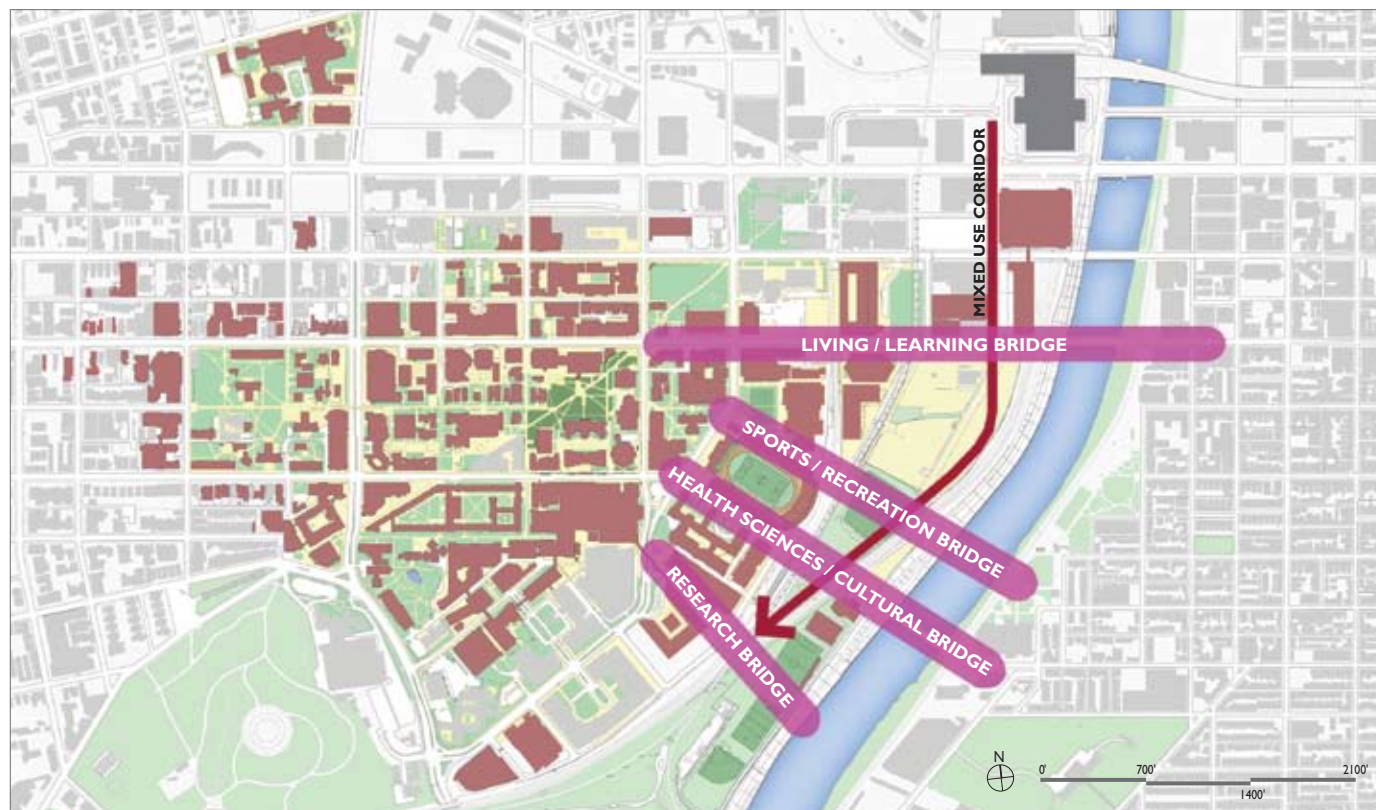
■ PENN BUILDINGS

■ PROPOSED BUILDINGS



View of the east campus area illustrating dense mixed-use development at the north and south with expanded recreation activity in the center.

The Conceptual Bridges of Connectivity link the campus with the City.

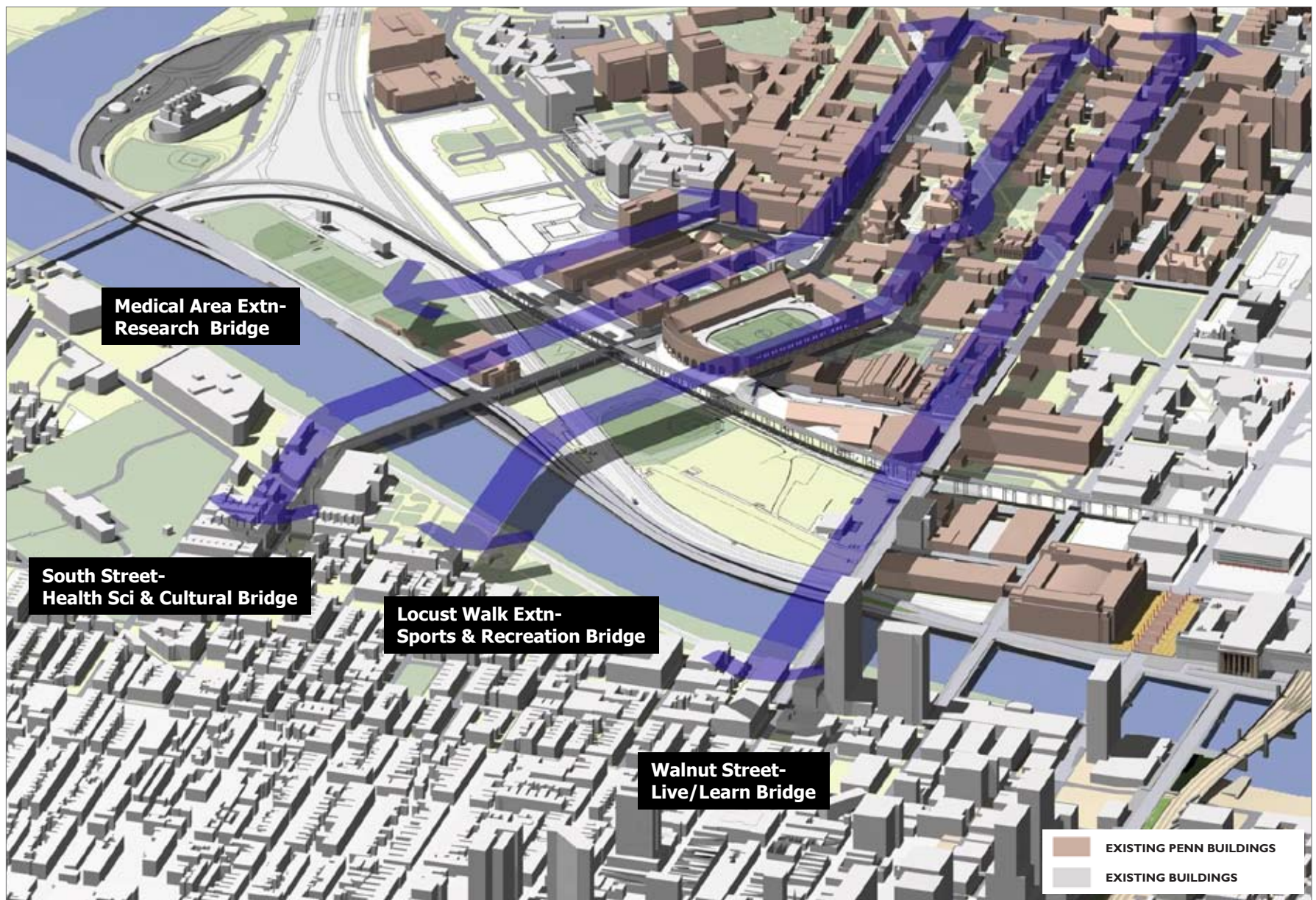


BRIDGES OF CONNECTIVITY

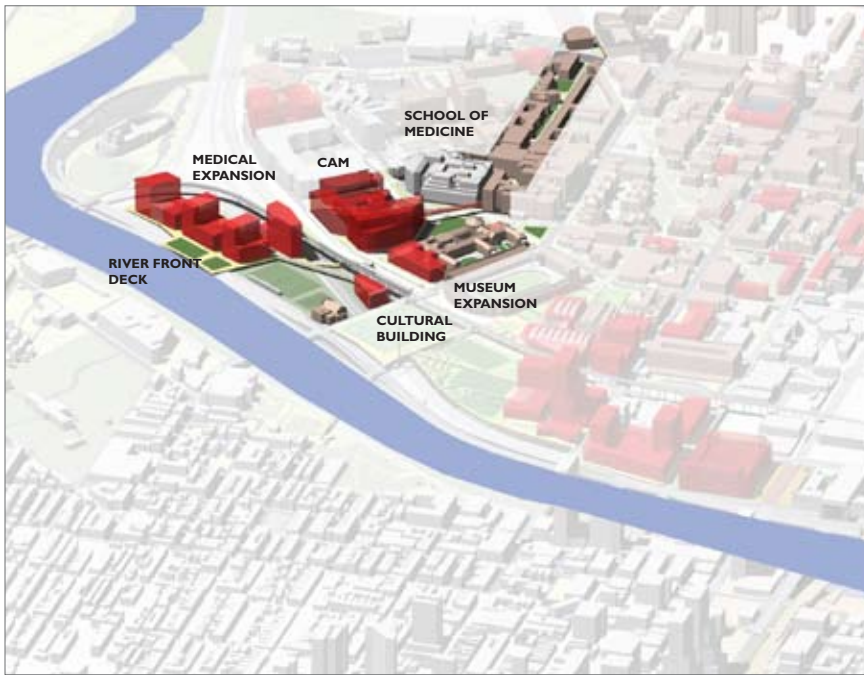
The circulation, landscape framework and development opportunities of the campus vision are organized by the “Bridges of Connectivity,” a series of existing and proposed bridges that link the east campus area to the campus and to Center City. Conceptually, the bridges are viewed as armatures for physical improvements. Development sites are identified along each of the bridge corridors to enliven the pedestrian experience and create vibrant gateways to the campus.

Reviewing these physical connection opportunities in the context of land use and other desirable design and programmatic considerations suggests the following themes:

- **Living / Learning Bridge** – Walnut Street is envisioned as the gateway connecting Center City with the core of the Penn campus. The proposed mix of uses is intended to contribute to the academic and research environment, and includes retail, food services and, potentially, hotel, office, entertainment and residential uses. It will form a new gateway linking redevelopment with several infill redevelopment initiatives along Walnut Street. Ultimately, it will extend a vibrant commercial corridor from Rittenhouse Square to 40th Street..



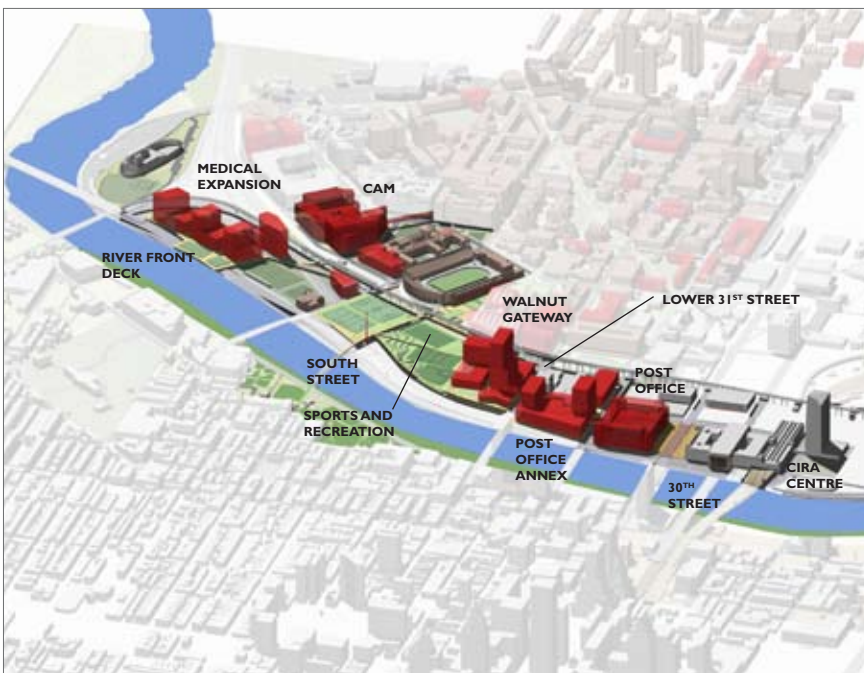
Bridges of Connectivity link the major infill development and mixed-use nodes of the campus.



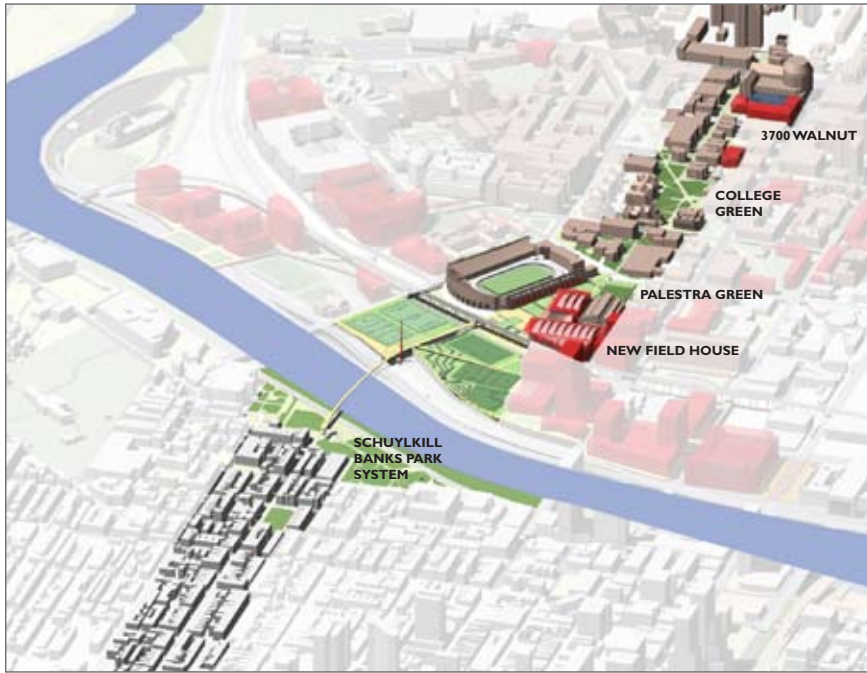
The Research Bridge will connect the medical district, including the Center for Advanced Medicine (CAM), with the long-term expansion potential identified in the River Fields area.



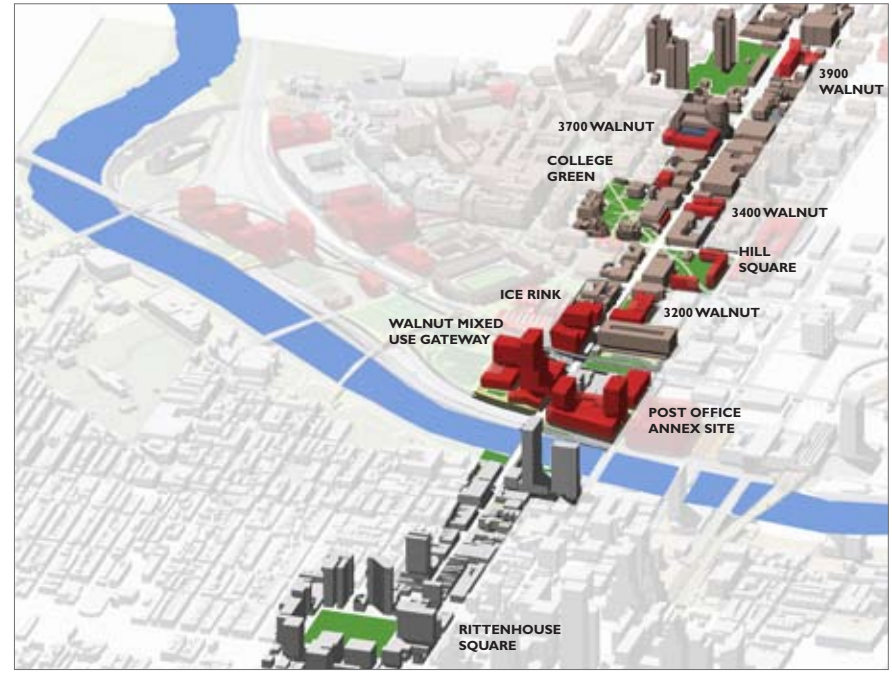
The reconstructed South Street Bridge will become the Health Science and Cultural Bridge.



Schuylkill River Corridor. The landscape structure of the east campus is intended to link with the Schuylkill Banks Park system east of the river.



The Sports and Recreation Bridge serves as the extension of Locust Walk, connecting College Green with new open spaces at the Palestra and Franklin Field. It extends eastward, providing access to the sports and recreation fields and across the Schuylkill River to connect with the Schuylkill Banks Park system.



The Living / Learning Bridge along walnut street will connect Rittenhouse Square to College Green, Hill Square and points west.

- **The Sports and Recreation Bridge** – extends Locust Walk through the revitalized athletics complex, continuing onto new fields and culminating in a new pedestrian bridge over the Schuylkill River. It links with Franklin Field and the Palestra area, which are regenerated, and provides connection to a major garage proposed at South Street.
- **The Health Sciences and Cultural Bridge** - the South Street Bridge is envisioned as the cultural gateway to the campus, in recognition of the Museum of Archaeology and Anthropology. Future uses along the bridge could include social and cultural activities.
- **The Research Bridge** - a pedestrian bridge is planned connecting the medical district with the River Fields, opening this area up for medical expansion and research space in the long term.
- **Lower 31st Street Corridor** - the corridor along 31st Street is envisioned as a link connecting the 30th Street Station area and new development such as the Cira Centre with the postal lands and fields to the south. The corridor follows the Highline alignment, which is used as an armature connecting Highline Park with the sports and recreation fields of the River Park.





Civic and Open Space Structure

The proposed civic and open space structure of the east campus is based on a new framework of parkland, public gathering spaces and circulation routes that collectively link the east campus area to the core campus and the surrounding urban context. The key spaces of the civic structure include:

- Palestra Green
- Franklin Plaza and Promenade
- The Sports and Recreation Fields
- Museum Plaza

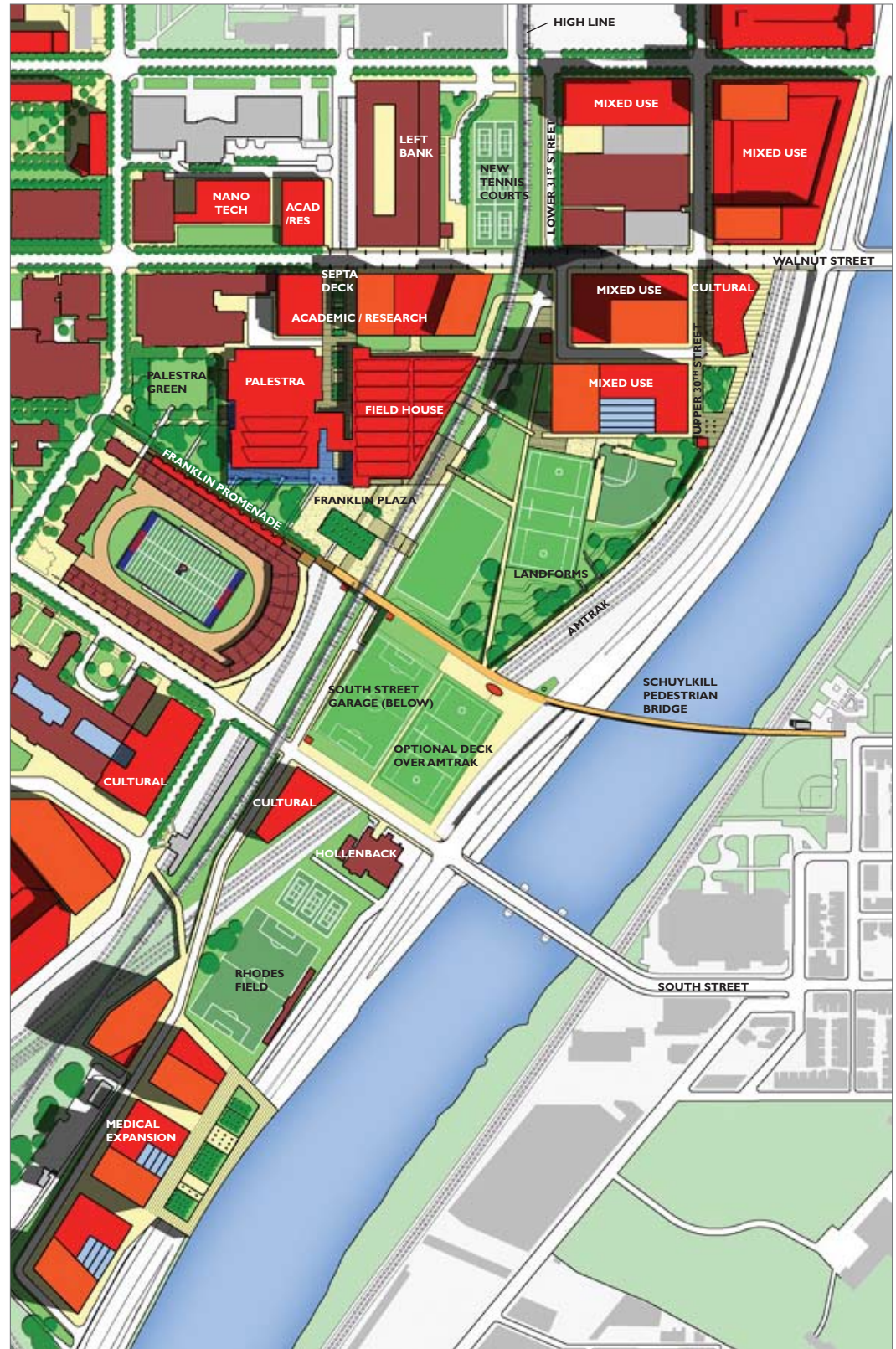
Perspective illustrating the design proposals and improvements extending from College Green eastward toward the river.



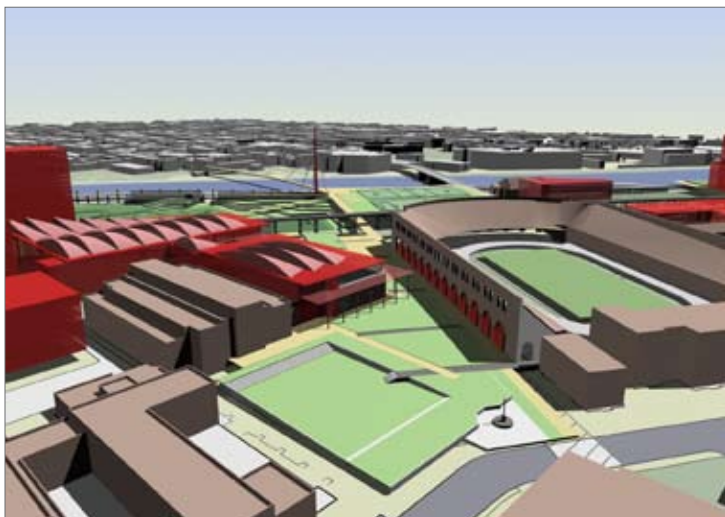
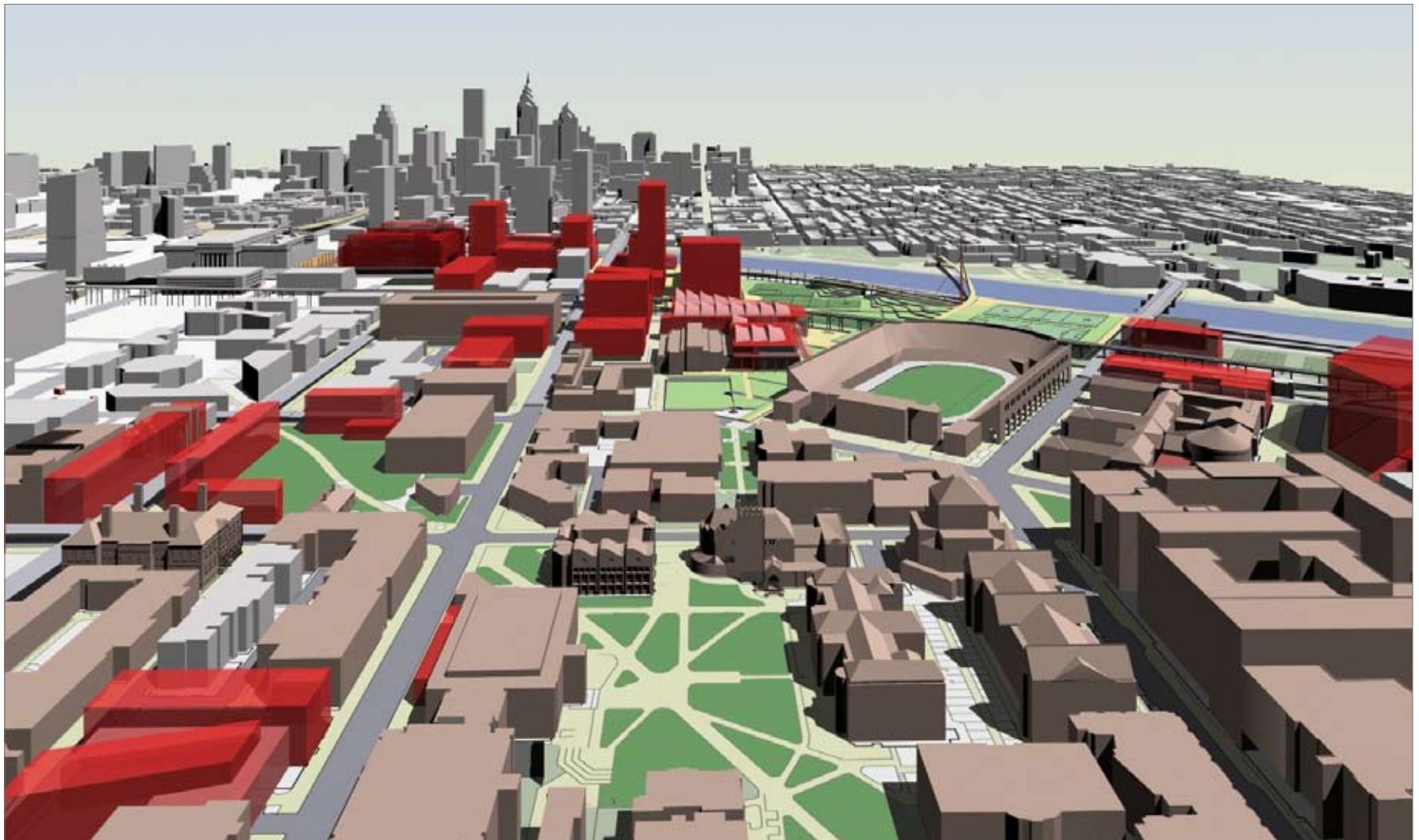
East campus area existing conditions

Palestra Green

Palestra Green, located to the west of the Palestra on the site of the existing Lott Tennis Courts (the courts will be relocated to Highline Park adjacent to the Left Bank), will serve as the gateway to a rejuvenated athletic district and to the broader context of the east campus area. It is envisioned as a new open space providing passive recreation opportunities, a gathering space for use during major events, and a foreground landscape for the iconic west façade of the Palestra. It will consist of a sunken lawn defined by shade trees and seating areas.



East Campus Area Proposed Conditions



View from College Green looking east along the proposed extension of Locust Walk through the east campus area and across the Schuylkill River via a new pedestrian bridge.

Palestra Green and Franklin Promenade



Existing view

Proposed view of Franklin Plaza and the Promenade, illustrating the renovated Hutchinson Gymnasium and infill of the Franklin Field arcade for fitness and other uses.

Franklin Field Plaza and Promenade

Franklin Promenade serves as the link between Palestra Green and the east campus area. It runs parallel to the Franklin Field arcade and is designed as a shaded circulation route, which will be enlivened by new fitness and recreation activities incorporated into the existing arcade of Franklin Field. It connects to Franklin Plaza.

Franklin Plaza, a new public gathering space, is located between Franklin Field and Hutchinson Gymnasium. The Plaza incorporates a series of ramps and stairs descending from the Plaza to the park and fields. The Plaza will bridge over the SEPTA line, which currently separates the Palestra and Franklin Field areas from the sports fields. It is designed to include both softscape and hardscape areas, and is envisioned as a linkage space, a space for daily recreational use, and a gathering space for major sporting events. Franklin Plaza also serves as the launching point for a new pedestrian bridge that replaces the Paley Bridge and that will link to the South Street Parking Garage and, ultimately, over the Schuylkill River.

Franklin Promenade and Plaza both connect to Walnut Street to the north via a deck over the SEPTA line. The deck is defined by a renovated Palestra / Hutchinson Gymnasium and the new Field House proposed on the site of the existing Levy Tennis Pavilion. The deck will provide a north / south pedestrian route linking Walnut Street and South Street.

Construction of Franklin Plaza will require the demolition of the Ringe Squash Courts, which will be replaced in the proposed Field House.



Civic spaces proposed in the Franklin Field / Palestra area include Palestra Green, Franklin Promenade and Franklin Plaza.

Franklin Plaza bridges over the existing SEPTA line, and will include a series of ramps and steps connecting the higher ground plane of the Franklin Field area with the lower ground of the sports fields. The proposed Schuylkill River Bridge will extend eastward from the Franklin Plaza level over Lower 31st Street to connect with the South Street Garage, and then over the river to Schuylkill Banks.

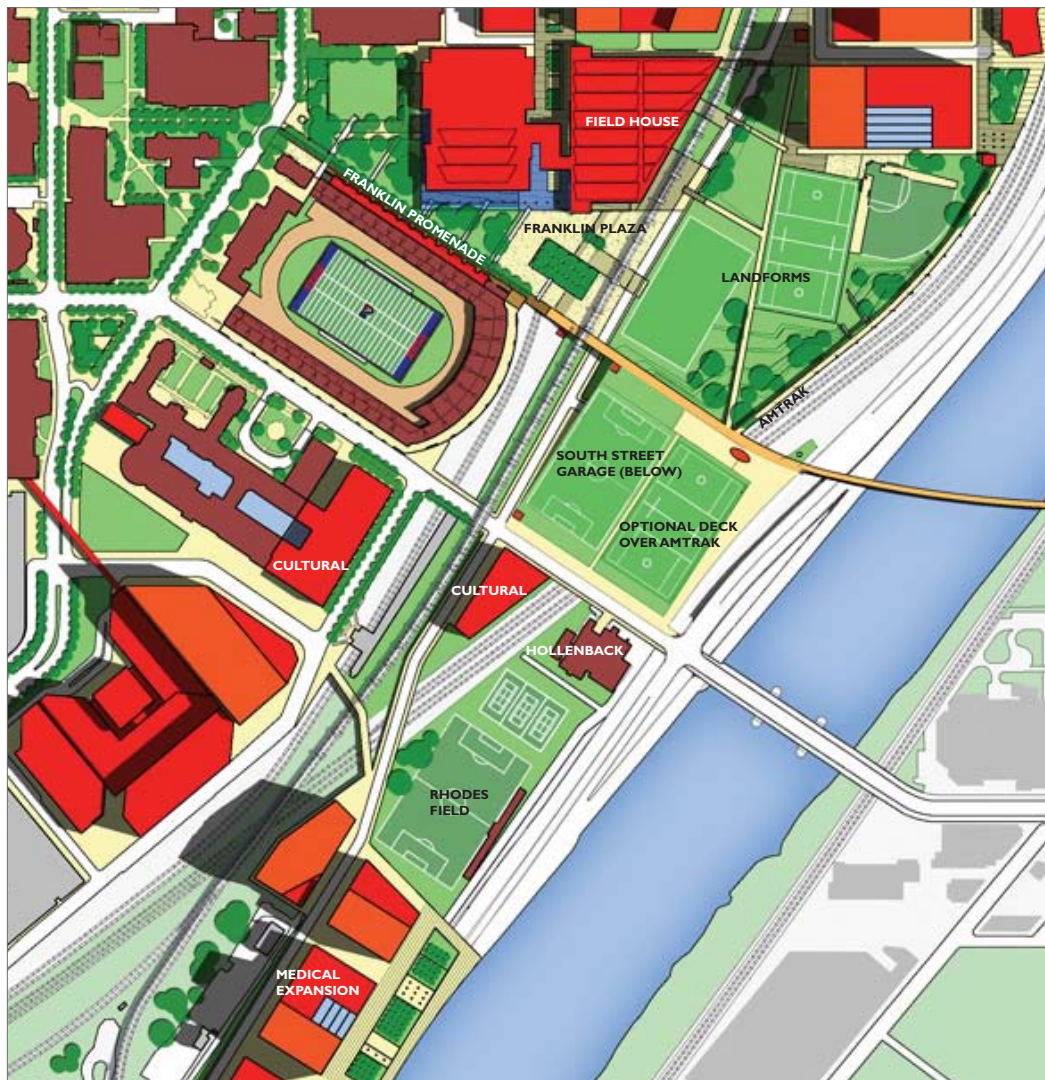
Combined, Palestra Green, Franklin Promenade and Franklin Plaza are intended to serve as the symbolic extension of Locust Walk toward the River.



Franklin Plaza and Promenade, illustrating a renovated Hutchinson Gym and access point to the proposed Field House.



Existing View



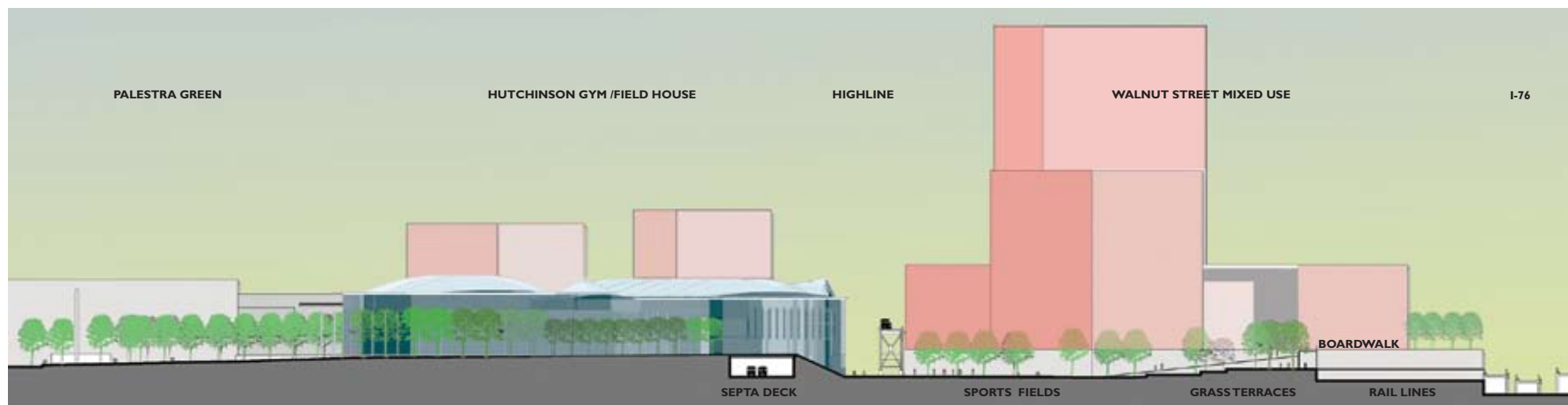
The Sports and Recreation Fields at full build-out.

The Sports and Recreation Fields

The sports and recreation fields are central to the civic and landscape framework of the east campus area. They are located in a park-like environment complementing and connected to the emerging regional park system along the east bank of the Schuylkill River. Although physically separated from the River by I-76 and the Amtrak Northeast Corridor railline, the park is designed to offer views of the river and Center City. It incorporates a series of sculptural landforms and berms that provide visual and acoustical separation from the railline and highway. The landforms rise to the height of the bridges where a boardwalk is proposed to provide a pedestrian connection between Walnut and South Streets and to facilitate views of the river and Center City.

The landforms are conceived as grass terraces and are designed to work with the ebb and flow of the river, which may periodically flood the low-lying lands of the east campus. They incorporate two major openings to allow water from the river to enter the site during storm surges. The sports and recreation fields are constructed in the floodplain and include softball, soccer and multipurpose recreation.

The Highline rail structure is utilized as the armature for a north/south circulation route which extends Lower 31st Street from Lower Walnut Street, ramping up to the South Street Bridge level. This corridor provides a landscape linkage between Highline Park and the sports and recreation fields. The route also provides vehicular access to the proposed South Street Garage and emergency / service access to the sports fields.



Section Looking North



Existing View

Proposed view of the recreation fields and the Schuylkill River Pedestrian Bridge. The ramps and stairs descending from Franklin Plaza are shown on the left.



The Highline rail structure is an important reminder of the industrial and rail history of the east campus area. Lighting is proposed to highlight the unique features of the structure at night.



Existing conditions-looking north

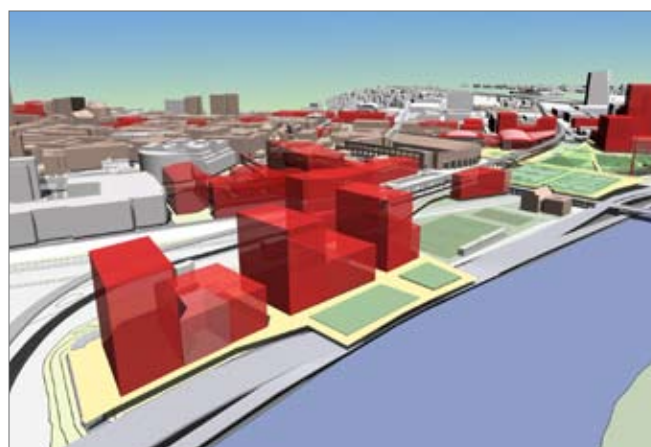
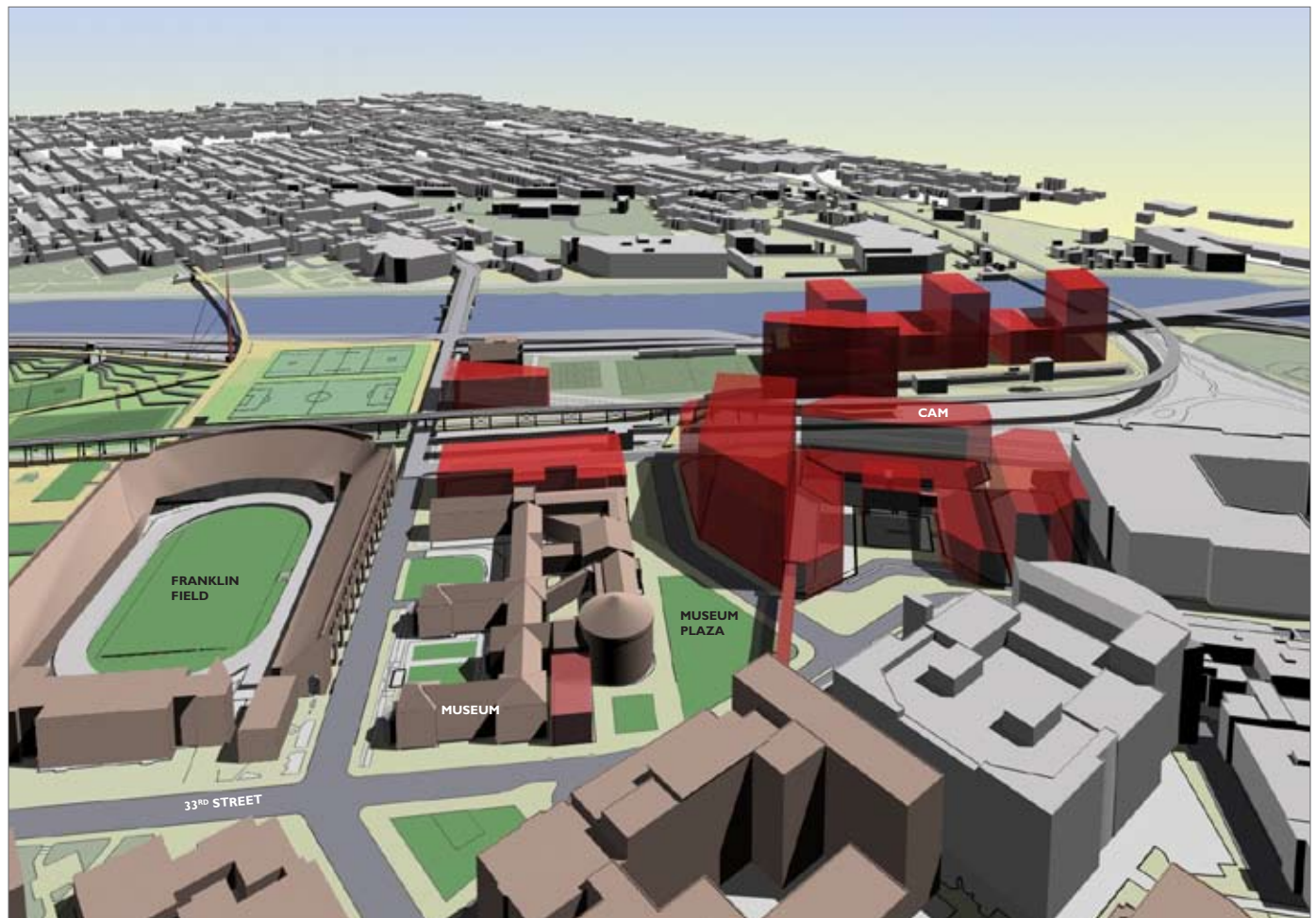
Proposed view of the recreation fields and boardwalk along the rail lines looking north. The circulation route on the left runs diagonally across the sports park to link with Lower 31st Street and beyond to Highline Park.



Museum Plaza will provide open space between the museum and the Center for Advanced Medicine.



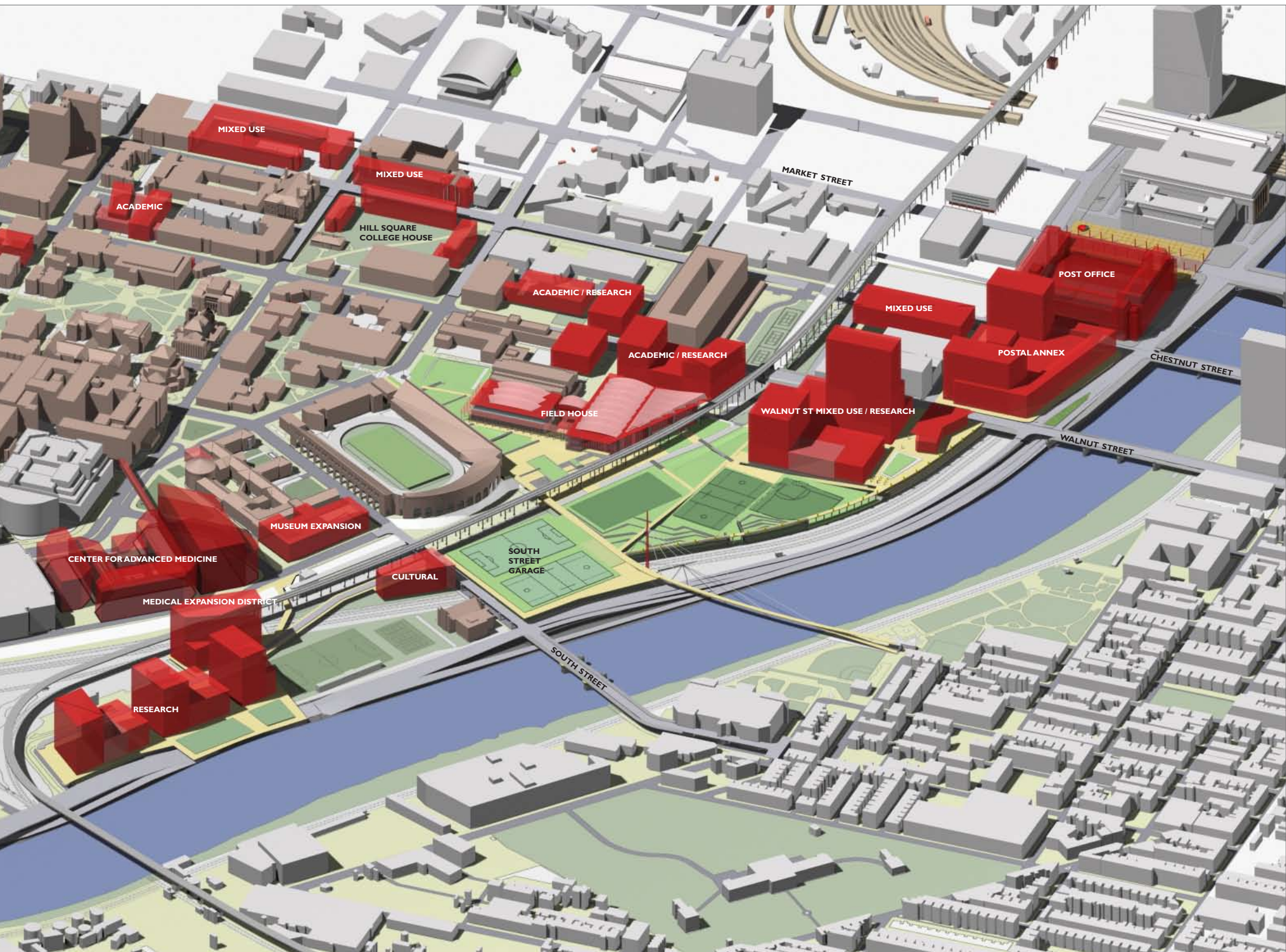
Existing conditions



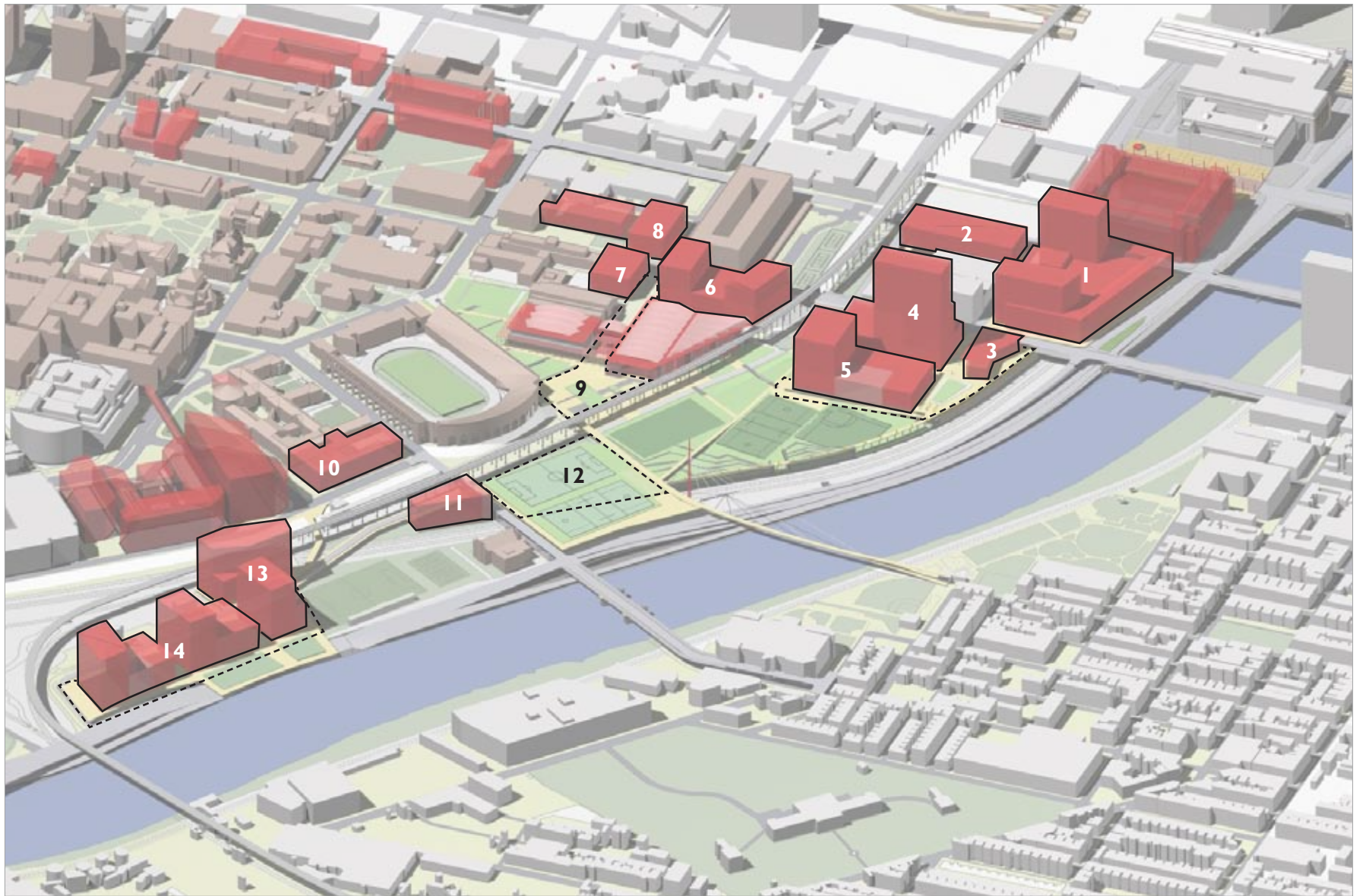
Proposed riverfront deck over I-76 in the medical expansion district.

Museum Plaza

Museum Plaza, located to the south of the museum on the existing Penn Tower site, will provide a much needed public open space in the densely developed medical district. It is intended to offer glimpses of the river beyond the Highline, provide more convenient and visible access to the University City Station (SEPTA line), and provide a pedestrian link to future development east of the Highline. Museum Plaza will link to the existing River Fields area via a pedestrian bridge constructed over SEPTA and under the Highline. The bridge will connect with a parking garage that will serve ultimately as a podium for future medical facility expansion. A deck is proposed over I-76 to provide a riverfront overlook.



Vision for the east campus area illustrating the two major land use development zones along the Schuylkill River corridor: Post Office Annex / Walnut Street gateway, and the medical expansion area to the south. A zone of recreation and athletic fields is located in the center.



Development capacity of the east campus area.

- | | | | | |
|--|---|--|--|---|
| <p>1. POSTAL ANNEX SITE
 PODIUM: 8 FLOORS
 TOWERS: 20 FLOORS, 18 FLOORS
 1,260,000 SF
 1,200 CARS ON 7 LEVELS</p> | <p>4. WALNUT STREET: PHASE 1
 PODIUM: 5 FLOORS
 TOWER: 30 FLOORS
 920,000 SF</p> | <p>6. ICE RINK SITE
 PODIUM: 5 FLOORS
 TOWER: 8-12 FLOORS
 575,000 SF
 300 CARS ON 2 LEVELS</p> | <p>9. SEPTA DECK
 100,000 SF</p> | <p>13. MEDICAL EXPANSION: PHSE 1
 PODIUM: 5 FLOORS
 TOWER: 15 FLOORS
 1,260,000 SF
 1,200 CARS ON 7 LEVELS</p> |
| <p>2. VEHICLE MAINTENANCE FACILITY SITE
 303,000 SF, 5 FLOORS</p> | <p>5. WALNUT STREET: PHASE 2
 PODIUM: 5 FLOORS
 TOWER: 15 FLOORS
 735,000 SF</p> | <p>7. LOT 2 SITE
 5 FLOORS
 117,500 SF</p> | <p>10. MUSEUM SITE
 5 FLOORS
 230,000 SF</p> | <p>14. MEDICAL EXPANSION: PHSE 2
 PODIUM: 5 FLOORS
 TOWER: 15 FLOORS
 790,000 SF</p> |
| <p>3. WALNUT STREET CULTURAL BUILDING
 45,000 SF, 2-3 FLOORS</p> | <p>4+5:
 1,700,000 SF
 1,700 CARS ON 3 LEVELS</p> | <p>8. NANO SITE
 5 FLOORS
 257,500 SF</p> | <p>11. SOUTH STREET BRIDGE BUILDING
 5 FLOORS
 102,500 SF</p> | <p>13+14:
 1,550,000 SF
 1,800 CARS ON 3 LEVELS</p> |
| | | | <p>12. GARAGE
 800 CARS ON 2 LEVELS</p> | |



Photo illustrating the height differentials of the road and rail network in the east campus area.

Walnut Street Bridge

LAND USE AND DEVELOPMENT ZONES

The civic and landscape structure of the plan defines several major land use and development zones:

Walnut Street-Academic

A combination of infill and new development is proposed for University-owned parcels extending from the river westward to 33rd Street. As with all development proposed along Walnut, the aim is to create a new gateway to the campus focused on learning, research and support amenities. The proposed infill includes the 3200 block of Walnut, where a new nanotechnology facility and future academic uses are proposed, and the Lot 2 area to the north of the Palestra, where future redevelopment could accommodate academic or research related facilities. Another development opportunity exists at the Class of 1923 Ice Rink site. A total of 616,000 gsf could be provided on the Ice Rink site. Given the Walnut Street Bridge height at this location, 300 cars can be accommodated in three levels of parking below the bridge level.

Walnut Street Mixed-Use

East of the Highline, a major new mixed-use node is proposed on the postal lands. This area is envisioned as a new gateway to the campus and could include research, office, hotel, residential and retail / commercial uses. An estimated 1.7 million gsf of space can be accommodated in the proposed development, which would be constructed at the level of the Walnut Street Bridge, with parking provided below in a deck. Development must be located at the bridge level and above due to the floodplain conditions in the area. Up to three levels of parking are possible below the bridge level. Development of the site is proposed in two phases. Phase 1 includes the parking deck with the potential of providing a cultural gateway building on the eastern end of the deck. Subsequent phases include a 30-story mixed-use, and a 15-story mixed-use buildings constructed over the parking deck.

The 30-story tower is located closest to Walnut Street and would include bridge level uses that activate the street and enhance the gateway to the campus.



Existing conditions section at the Walnut Street Bridge

Proposed section at Walnut Street looking west, with the Post Office Annex redevelopment shown on the right and the mixed-use development shown on the left. The Highline rail structure is shown in the distance with new Penn Gateway signage.



ARTS

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Existing view looking west on Walnut Street

Proposed view of the Walnut Street gateway illustrating the vibrant streetscape and dense mix of uses. The proposed cultural building is a key feature of the gateway.

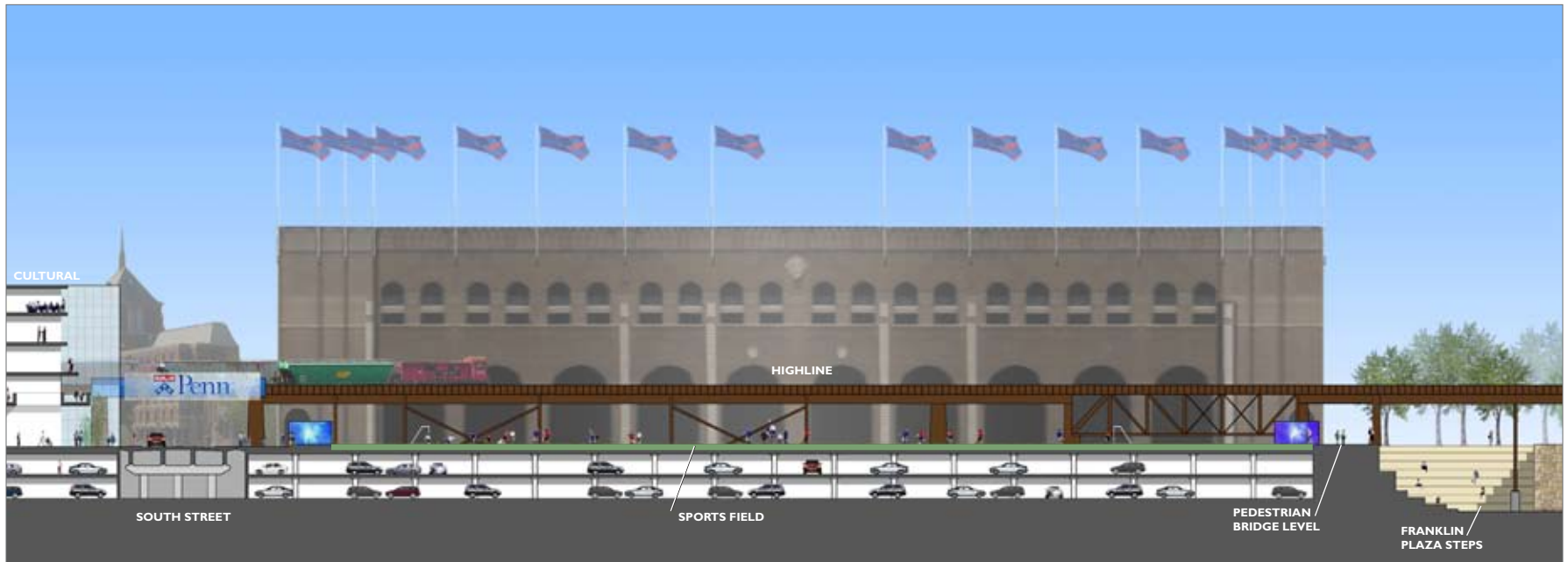


South Street Bridge area illustrating the proposed garage with sports fields on top level. The option of extending the sports deck over the Amtrak Rail Line is also shown

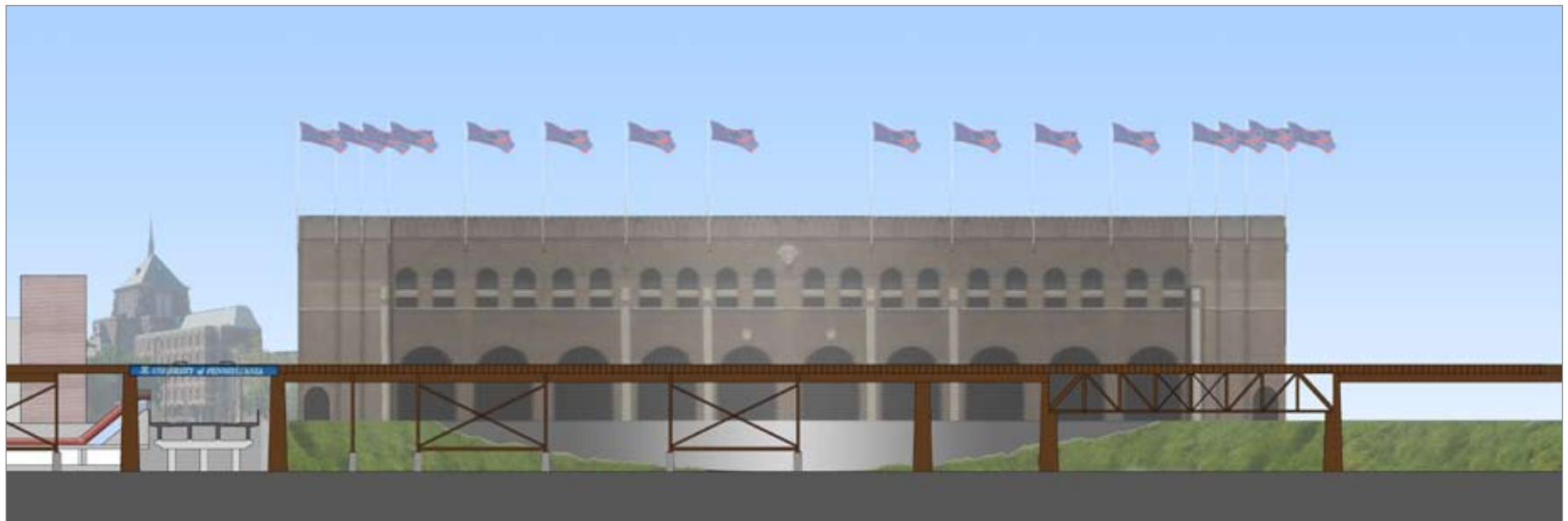
South Street Garage

The central portion of the east campus area is designated for sports and recreation fields in a park-like setting. Directly adjacent to the new South Street Bridge (reconstruction to begin in 2007), an 800-car parking garage is proposed below the bridge level. The garage will be accessible from Lower 31st Street and via a ramp leading from South Street to Lower 31st. A multi-purpose field is proposed for the top level of the parking deck. The intent is to increase the total number of fields, to provide an attractive foreground to the iconic Franklin Field façade as viewed from the east, and to create a green gateway to the

campus along South Street. Over the long term, a sports deck extending over the Amtrak line is identified as an opportunity. Other development in the central area includes a new cultural building (102,500 sf - 5 floors) to the west of Hollenback on the triangular parcel between the Amtrak lines and the Highline. Still further west of the Highline, the existing parking garage will be demolished to make way for a potential addition to the museum (230,000 sf - 5 floors). Combined, all of the development along the South Street Bridge is intended to contribute to the proposed cultural corridor and gateway to the campus.



Proposed parking deck adjacent to the new South Street Bridge. Two levels of parking are possible below the level of the bridge, with a sports field on the upper level of the deck. The proposed cultural building is shown on the left.



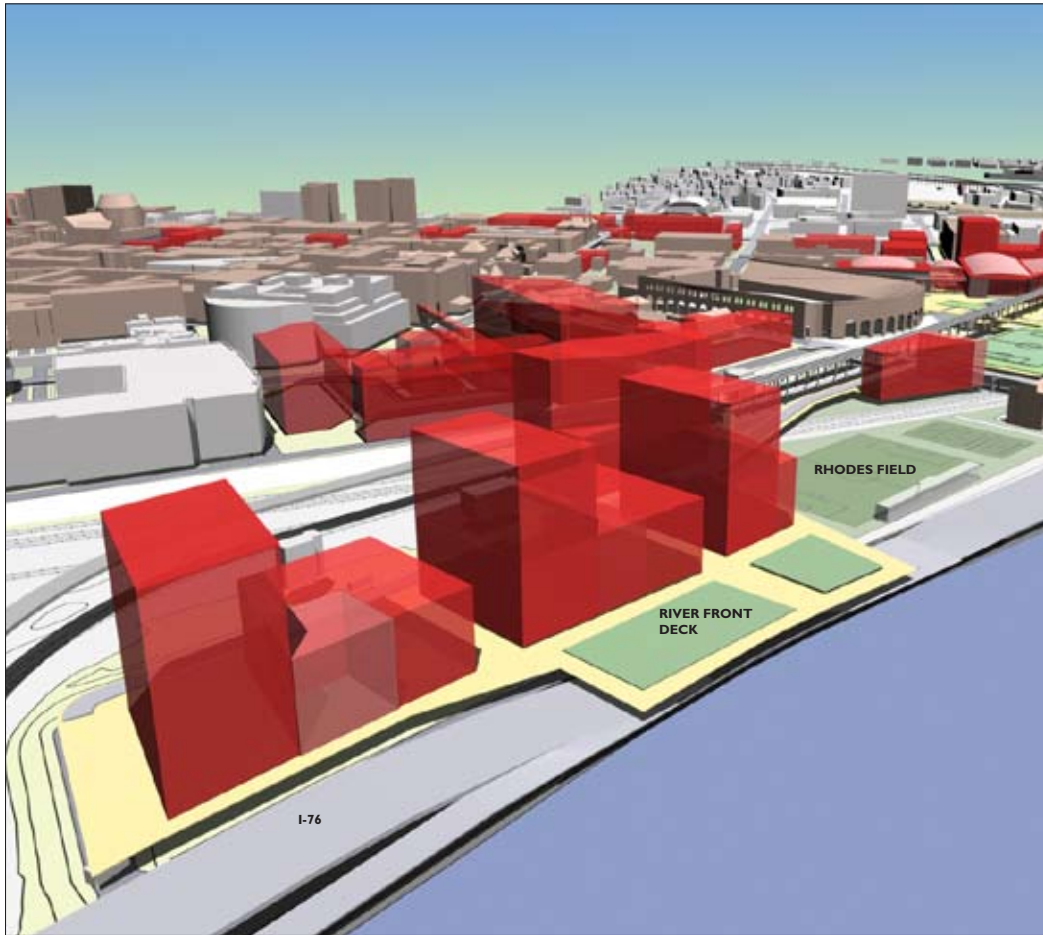
Existing conditions at the South Street Bridge. The Highline and iconic Franklin Field façade are shown in the distance.



View of the South Street Bridge following reconstruction, illustrating the sports fields proposed on the top level of the South Street parking garage. The garage includes two floors of parking below the bridge level.



Existing Condition-looking west



The long term build-out in the medical expansion area includes four towers constructed over podium parking.

Medical Expansion

The medical expansion district provides the long-term opportunity to accommodate approximately 1.55 million square feet of research and medical facilities east of the Highline in the River Fields areas. Pedestrian connectivity is provided between the CAM and University City Station area via a new pedestrian bridge over the SEPTA line, under the Highline and over Amtrak lines which run through the area. The design concept includes the long-term options of constructing a riverfront plaza over I-76.

As with the development on Walnut Street, the site includes a podium deck. Four 15-story towers are proposed over the deck with 1,800 parking spaces beneath. Rhodes Field and the



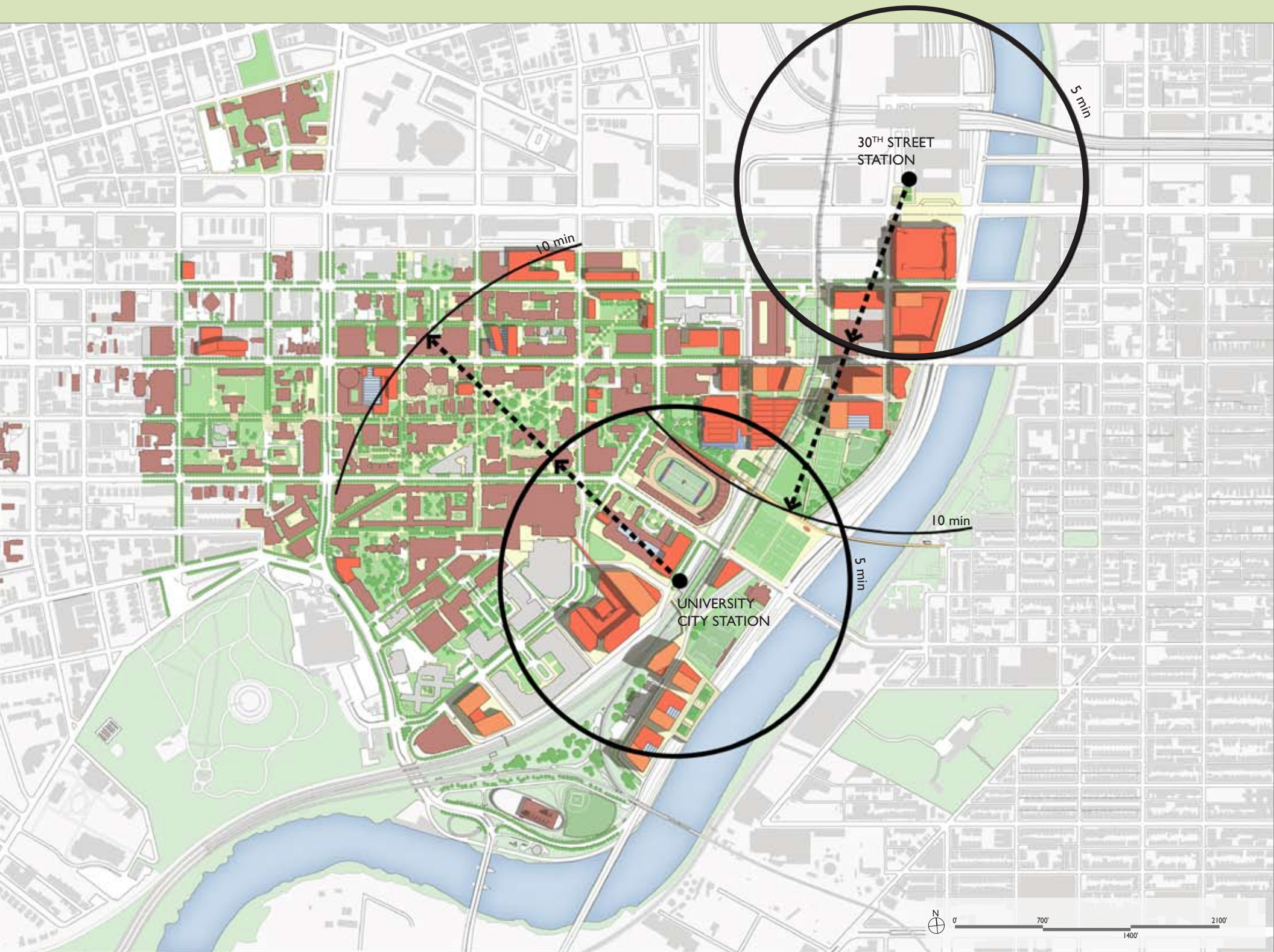
Long-term plan



In the near-term, medical expansion is planned in the CAM facility and on the site of Pennsylvania Hall.

recently completed gateway support facilities are maintained in the plan.

The area is linked with South Street and Walnut Street via a road at the bridge/parking podium level. The road crosses Amtrak on a new bridge and follows the west perimeter of the deck ramping down to the existing River Fields Road on the south end of the deck. Connections to University Avenue are provided along the existing River Fields Road alignment located north of the MOD 7 Chiller and Micklejohn Stadium. The intersection at University Ave would be reconfigured to improve access and egress from the site.



The east campus area is within a ten minute walk of 30th street station and University City Station

5

Circulation

The Vision Plan provides an integrated approach to transportation, coordinating improvements to the pedestrian, bicycle, transit and vehicular circulation routes on the Penn campus with those in the surrounding University City context. The goal is to provide a full range of transportation options to the campus community by considering each transportation mode as part of an integrated and coordinated system. Within the coordinated system, emphasis is placed on the pedestrian, bicycle and transit networks in order to provide a more sustainable approach to campus circulation. The plan acknowledges, however, that private auto use will continue to be a primary means of access to the campus and, thus, includes several recommendations for improving vehicular circulation and providing significant new parking areas. A key goal of the Vision Plan is to reduce the number of daily vehicle trips to the campus through land use and transportation demand strategies.

The Vision Plan focuses on the creation of a safe, convenient pedestrian network linking with the major bus, SEPTA and rail stations in the University City area. The aim is to improve the pedestrian experience and facilitate the use of the existing transit services. To that end, the plan extends the three major pedestrian armatures of the campus, Locust Walk, Woodland Walk and 36th Street Walk to link with the surrounding context. It also links with the east campus lands and improves existing pedestrian conditions along Walnut and South Streets.

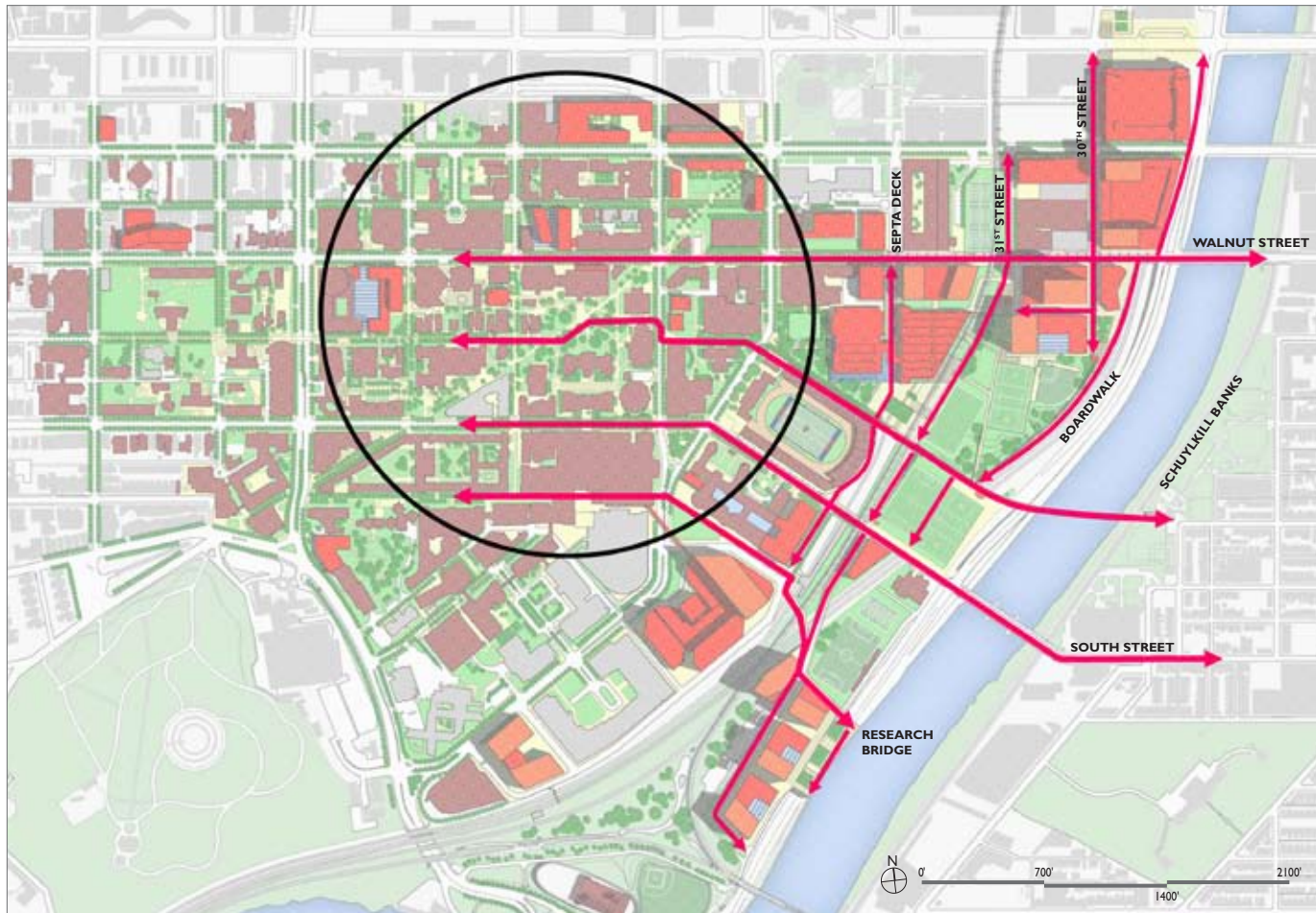
The Plan extends the bicycle network of the campus to link with existing and proposed routes in the University City context and along the Schuylkill River corridor. As with the pedestrian network, these routes are coordinated with the transit services and major stations that serve the campus. Major extensions of the network are proposed in the east campus area with new routes along South Street, on the proposed Schuylkill River pedestrian bridge, and a north / south route along the Lower 31st Street extension.

The Penn campus is well served by a number of University and SEPTA bus routes and regional and national rail services. Several bus routes run through the campus and several transit stations are located on the campus and in the surrounding context. Analysis of the stations reveals that a majority of the entire campus area is within a five to 10 minute walk of a transit station. University City Station, in particular, provides a major opportunity for improved service to the east campus area and medical district of the campus.

Vehicular circulation recommendations focus on intersection improvements at University Avenue and River Fields Road, along South Street, at 33rd and Spruce and in the 30th Street Station area.

This section summarizes the circulation and parking recommendations of the Vision Plan.

Proposed pedestrian routes



PEDESTRIAN CIRCULATION

The Vision Plan provides for a pedestrian network of east/west and north/south linkages. Key routes include:

East / West Routes

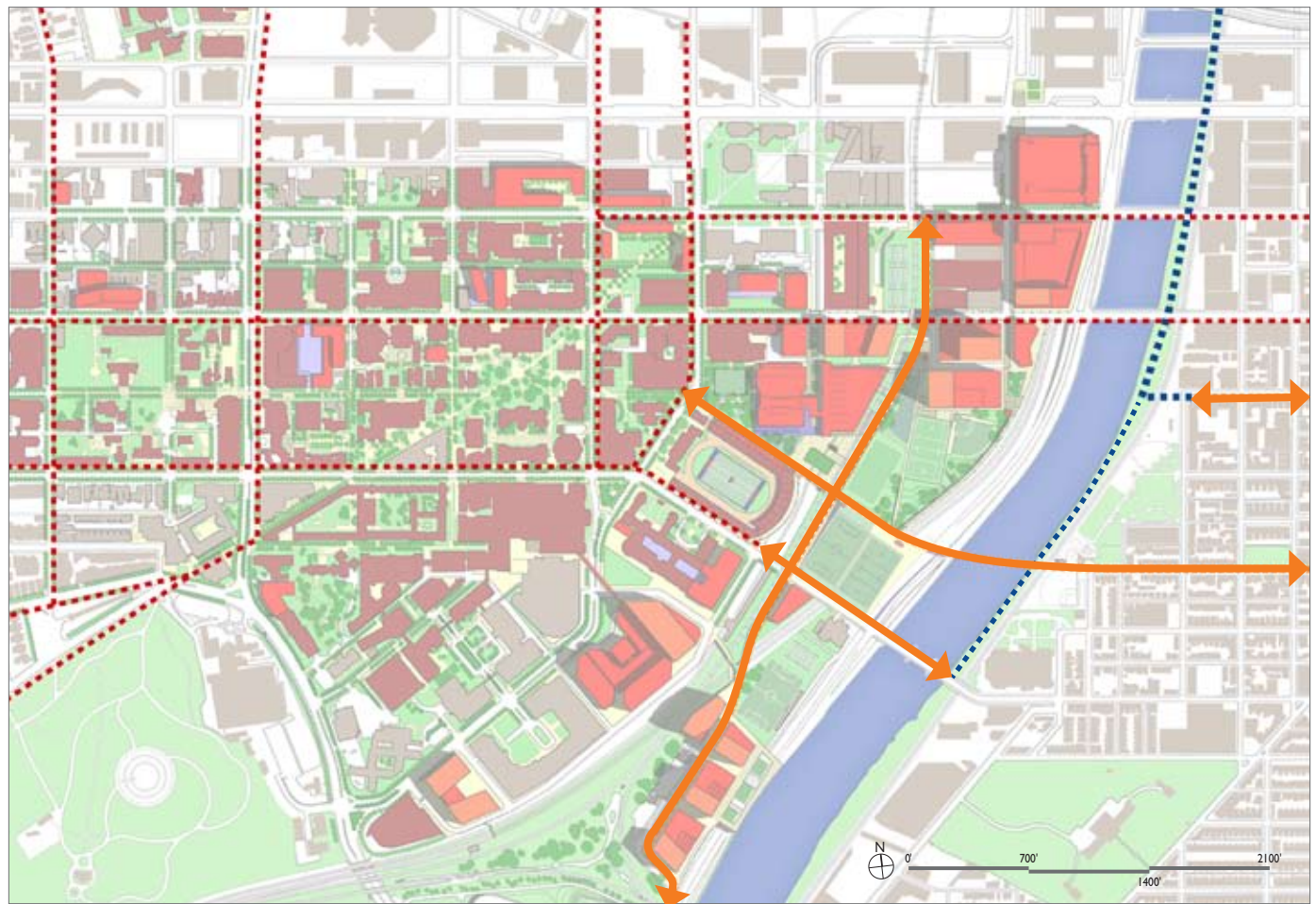
- Walnut Street - the streetscape of Walnut serves as a major connector between new development in the east campus and infill development proposed at 3200, 3400 and 3700 Walnut, among other areas.
- The Sports and Recreation Bridge extends Locust Walk to the east campus and across the river to link with the Schuylkill Banks park land to the east.
- South Street connects the core campus with new cultural and sports facilities in the east campus
- The Research Bridge links the school of medicine, HUP and CAM with the medical expansion area.

North / South Routes

- 30th Street is extended south into the Walnut Street gateway buildings, providing a mixed-use connection between 30th Street Station and the east campus.
- Lower 31st is extended along the Highline linking the sports and recreation fields with the South Street Bridge level.
- The river corridor boardwalk links Walnut to South Street at the bridge levels.
- 31st Street south of South Street links with the medical expansion area.
- A deck over the SEPTA line east of the Palestra links Walnut to South Street.

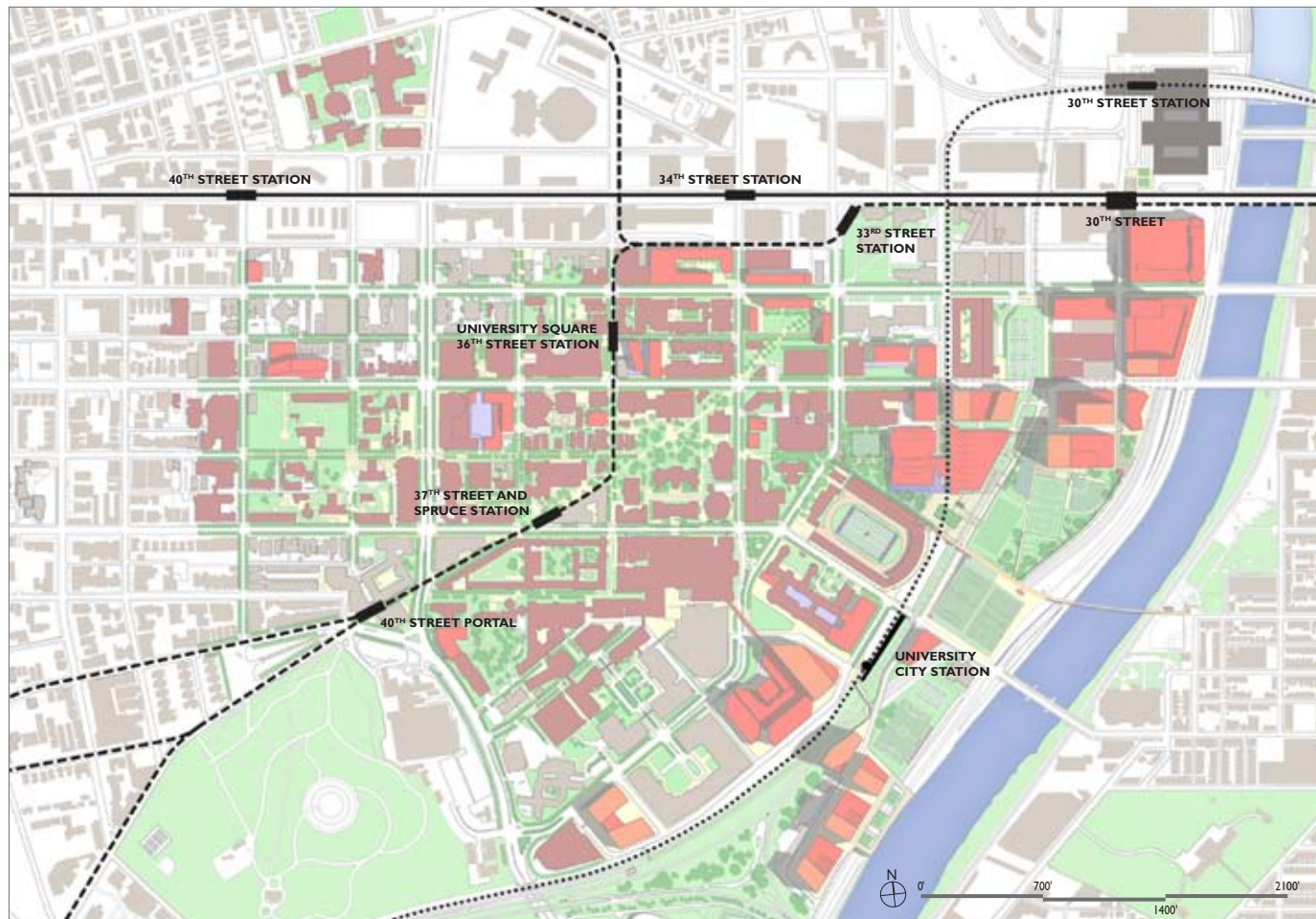
The bicycle routes proposed in the east campus link with those in the surrounding grid

-  PROPOSED LANES
-  BIKE LANES
-  MULTI-USE TRAIL



BICYCLE CONNECTIONS

Bicycles are an important alternative transportation mode and key routes have been extended through the east campus area. Proposed routes, in general, follow the major streets surrounding the campus core, including Walnut, Spruce, 33rd, 34th and 40th Streets. In the east campus, new routes are proposed along Lower 31st Street and its proposed continuation to the south. An east/west connection is proposed along Franklin Promenade from 33rd across the Schuylkill River Bridge to link with the Schuylkill Banks parks on the east side of the river.



The campus is served by a number of transit stations. The Vision Plan coordinates development with the stations.

- TRANSIT STOPS
- REGIONAL RAIL (R1, R2, R3)
- - - SUBWAY-SURFACE TROLLEYS
- MARKET-FRANKFORD EL/SUBWAY

TRANSIT CONNECTIONS

University City is served by a number of transit lines and regional rail services. In planning for the east campus, the proximity and pedestrian connections to the University City and 30th Street stations informed the layout of the pedestrian network and development. 30th Street Station is within a five-minute walk of the Walnut Street gateway and provides a number of subway, regional rail and Amtrak connections. University City Station connects 30th Street Station with the western suburbs and the airport.

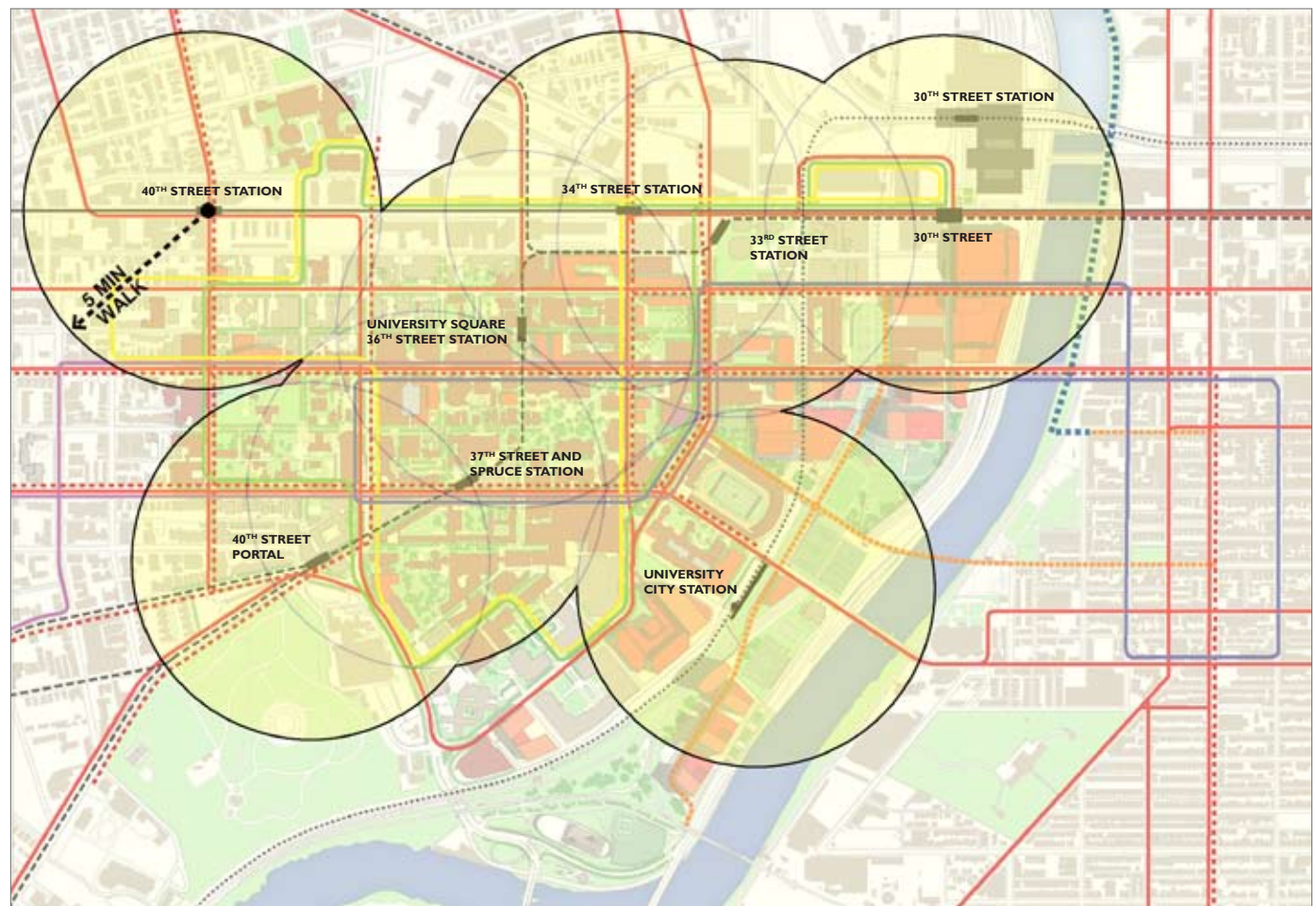
Several SEPTA bus routes serve the campus. Planning for the east campus took into consideration the routes that provide service to the area on Walnut Street, South Street, 33rd Street and Convention Avenue. University transit serves the east campus area on Walnut Street, at Palestra Green and in the Medical Plaza.

TRAFFIC ASSESSMENT AND FINDINGS

A traffic study was conducted by Gannett Fleming, as sub-consultant to Sasaki. The purpose of the traffic study was to provide background information regarding recommendations for traffic improvements associated with the implementation of the Vision Plan. The traffic assessment reviewed existing regional and local roadway conditions; traffic characteristics of the proposed developments, including mode share, site-generated traffic, trip distribution; future roadway and intersection operations; and recommended improvements and mitigation measures.

The Penn campus is well served by major transportation routes, with most areas within a 5-minute walk of a transit station.

- UPENN SHUTTLE ROUTE 1
- UPENN SHUTTLE ROUTE 2
- SEPTA GREEN LUCY LOOP
- SEPTA GOLD LUCY GROUP
- SEPTA BUS ROUTES
- TRANSIT STOPS
- - - - - REGIONAL RAIL (R1, R2, R3)
- - - - - SUBWAY-SURFACE TROLLEYS
- MARKET-FRANKFORD EL/SUBWAY



Existing Roadway Conditions

Regional Roadway Network - The primary vehicular means of regional access to the University of Pennsylvania is I-76 (Schuylkill Expressway). Three I-76 interchanges provide access from areas east and west. The first I-76 interchange is located just north of the 30th Street Station, and provides an off-ramp from eastbound I-76 to Arch Street and an on-ramp from Arch Street to westbound I-76. The second I-76 interchange provides full access between I-76 and South Street. The third I-76 interchange provides an off-ramp from eastbound I-76 to University Avenue and an on-ramp from University Avenue to westbound I-76. From observations, the I-76 corridor in the vicinity of the study site currently experiences severe congestion during weekday morning and evening peak periods.

Local Roadway Network - The local roadway network includes the streets bounded by Market Street to the north, University Avenue to the south, the Schuylkill River to the east, and 40th Street to the west. Local traffic circulation in this general vicinity is currently constrained by a number of factors. North-south circulation is constrained because 30th, 31st and 32nd Streets are all discontinuous. East of 33rd Street, there is no direct connection between South Street and Market Street. In addition, east-west vehicular circulation is constrained by a number of physical barriers, such as the SEPTA and Amtrak electrified rail lines, the CSX Highline and the Schuylkill Expressway. These facilities completely separate the University campus from the river's edge.

Traffic Characteristics of the Proposed Development

The Vision Plan for the University proposes over six million square feet of new development, which will generate a substantial increase in traffic, even though this location is well served by a variety of different public transportation modes.

Mode Share - The proposed developments are located in an urban area where many modes of transportation are available to access the site. These modes of travel include automobile, bus, rail, bicycle, and walking. The anticipated mode share distribution is shown below.

Mode Share Distribution

Automobile	57%
Rail	19%
Bus	16%
Bike/Walk	8%

Source: Civic Center Development Phase I, prepared by VHB, Inc., Progress Draft dated November 4, 2005. Table 12 "Mode Share Distribution" 2000 Census Transportation Package data.

Future Traffic Conditions

Future traffic is a combination of existing traffic, expected growth in general background traffic, and traffic generated by the proposed development.

Regional Roadway Network - The Vision Plan, along with other development in West Philadelphia and Center City, is expected to generate significant additional trips on the regional highway network such as the Schuylkill Expressway (I-76), and Vine Street (I-676); however, analysis of these facilities is beyond the scope of this study.

Local Roadway Network - Under existing conditions, the roadways and intersections within the study area generally experience congestion during the morning and evening peak periods and have limited excess capacity. Under future build conditions, already congested conditions along the study roadway network will be exacerbated with the increase in vehicular volume associated with the proposed developments in the Vision Plan. Intersections in the study area will experience heavy traffic volumes, excessive queuing, longer travel time delays, frequent cycle breakdowns, and overall poor operations.

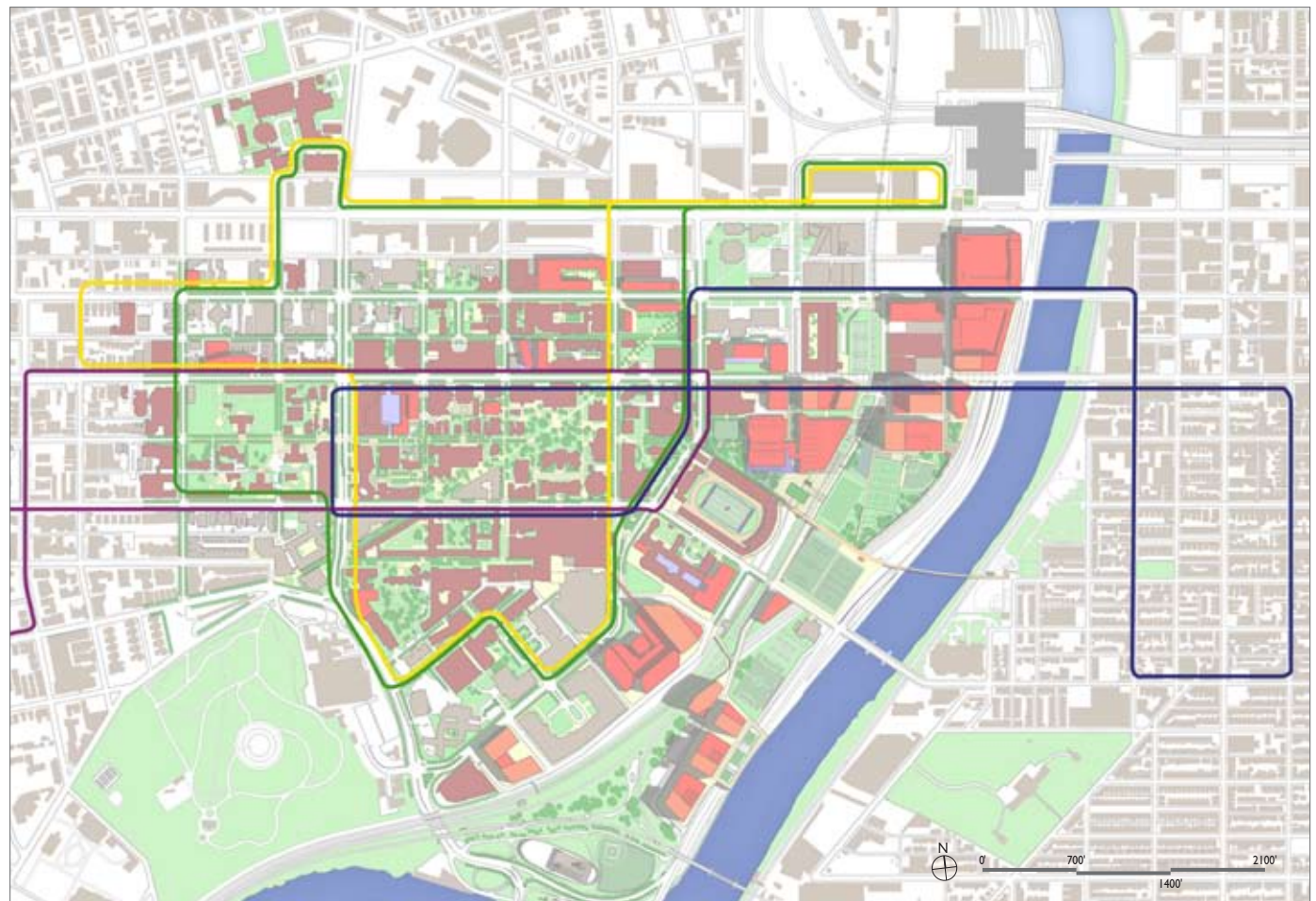
To mitigate the increase in site generated traffic and provide direct access to the proposed University developments from the local roadway network, a new north-south roadway is proposed.

Proposed Improvements

New North-South Roadway - A new local street is proposed that would provide a new connection between University Avenue to the south and Market Street to the north, (see page 67). In general, this street would run parallel to the Highline, and would intersect with South Street and Chestnut Street. Because of anticipated traffic volumes, the connection of this street to University Avenue would be grade separated, but the street itself is anticipated to be a local two-way, two lane street, with parallel parking on either side as required, and a signalized intersection at both South Street and Market Street. The street would provide direct access to the new buildings and parking garages proposed in the Vision Plan. A more detailed traffic study will be required to determine the exact cross section and intersection configurations prior to engineering design.

Existing campus transit services

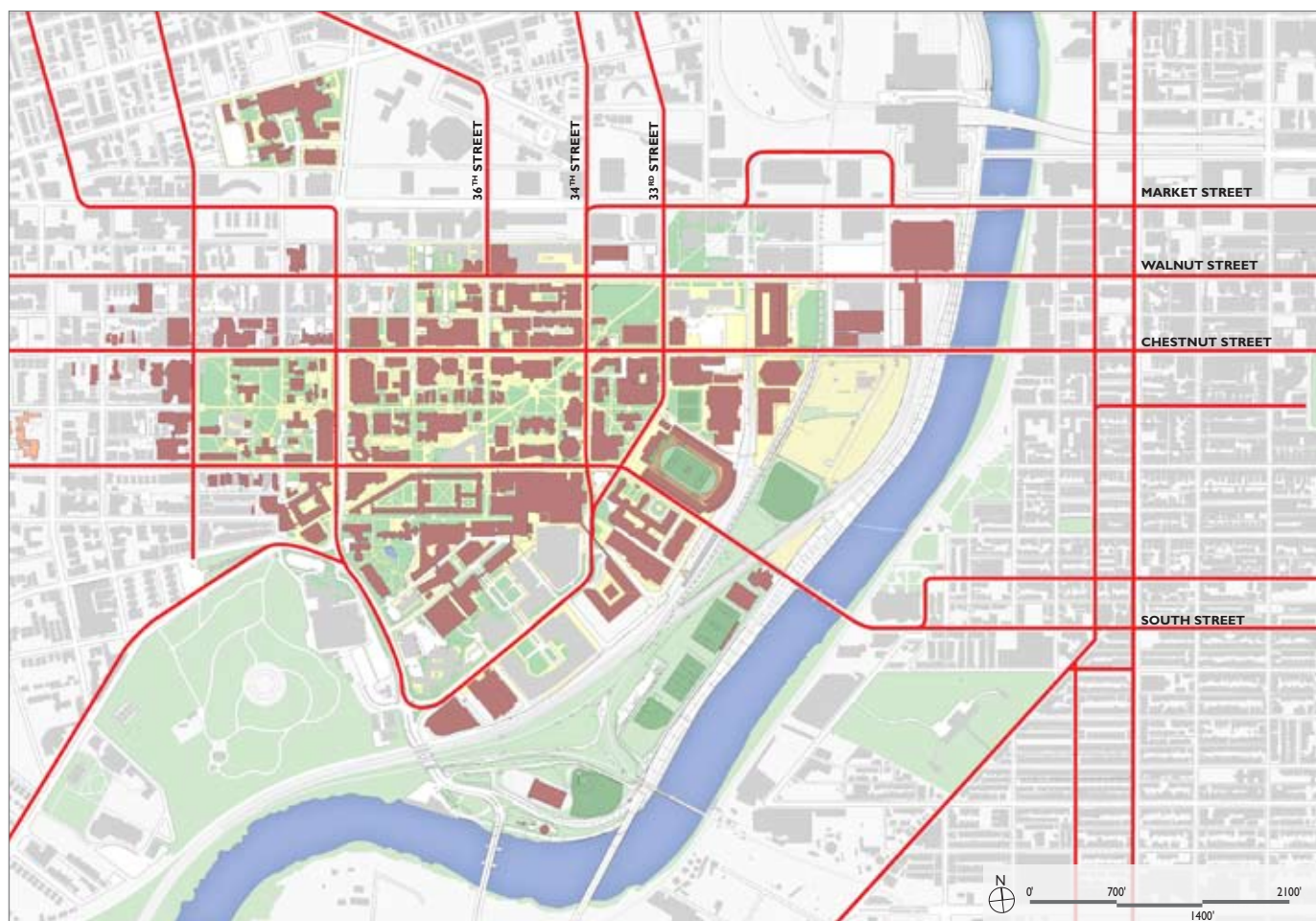
- UPENN SHUTTLE ROUTE 1
- UPENN SHUTTLE ROUTE 2
- SEPTA GREEN LUCY LOOP
- SEPTA GOLD LUCY GROUP



Conclusion

The area of West Philadelphia between 30th Street Station and University Avenue and between the Schuylkill River and 34th Street is generally congested today with poor local connectivity both east-west and north-south. The Vision Plan proposes over six million square feet of new development, which adds significantly to the traffic generated in this area. This study proposes major improvements to the circulation network such as the new local north-south road (Lower 31st Street), grade separation at University Avenue, and signal upgrades throughout the area. However, even with these improvements, there will still be congestion and delay on the local roadway network and increased problems on the regional highway network.

In response, emphasis will need to be placed on encouraging and enhancing alternative modes of transportation



Since adding further capacity to the roadway network, whether locally or to I-76, is not feasible, other solutions need to be considered as the Vision Plan moves forward into implementation

Other solutions, which could be considered alone or in combination, may include measures such as:

- Construction of additional parking at rail stations. (Today parking at virtually every station on the commuter rail system is at, or close to, capacity which is a disincentive for people who would otherwise utilize commuter rail service).
- Other remote parking with shuttle bus circulation.
- Subsidies or other financial incentives for employees to utilize public transportation. These incentives/disincentives could include enhanced Transit Check subsidies and higher costs for parking onsite.
- Mixed-use with incentives to live and work onsite.
- Flex-time or staggered work hours.
- Well-designed pedestrian and bicycle facilities with changing facilities and bicycle lockers at the work site
- Add “Lucy” shuttle bus service between 30th Street Station, University City Station and other University locations.
- On-site amenities such as daycare, eateries, grocery stores, etc. within walking distance for employees and residents.

As the Vision Plan is implemented, the following roadway and intersection mitigation recommendations are proposed at the locations indicated on the map on page 67:

Roadway/Intersection(s)	Mitigation/Recommendation	Remarks
New North-South Roadway (Lower 31 st Street Alignment)	<ul style="list-style-type: none"> New roadway extends from University Avenue (near I-76 off-ramp) to Market Street Alignment is east of and parallel to the highline railroad tracks <p><i>Other:</i></p> <ul style="list-style-type: none"> Redesign of University Avenue – I-76 westbound on-ramp interchange to allow full access between the new roadway and University Avenue. New signalized intersections with the north-south roadway are introduced at South Street, Walnut Street, and Market Street. 	<ul style="list-style-type: none"> Introduces a new north-south connector roadway within the study area. Provides direct access to the proposed development areas.
Market Street, Walnut Street, Chestnut Street	<p><i>Mitigation:</i></p> <ul style="list-style-type: none"> Upgrade and coordinate signals between 38th Street and Schuylkill Avenue. 	<ul style="list-style-type: none"> Improves east-west traffic flow in the study area.
South Street At/Near I-76 Ramps <ul style="list-style-type: none"> South Street – I-76 On/Off-Ramps South Street – New Roadway South Street – Convention Avenue 	<p><i>Mitigation:</i></p> <p>Signal Modifications:</p> <ul style="list-style-type: none"> Timing and phasing adjustments. Signal coordination along South Street. <p><i>Other:</i></p> <ul style="list-style-type: none"> Close I-76 eastbound and westbound on-ramps from South Street to reduce traffic volumes traveling along South Street. 	<ul style="list-style-type: none"> South Street intersection operations improved considerably during the evening peak hour. During the morning peak hour, heavy volumes continue to exit from I-76 and congested conditions will continue.
South Street - 33rd & 34th Street <ul style="list-style-type: none"> South Street – 33rd Street South Street – 34th Street 	<p><i>Mitigation:</i></p> <p>Signal Modifications:</p> <ul style="list-style-type: none"> Timing and phasing adjustments. Coordinate the intersections under a single controller. 	<ul style="list-style-type: none"> Improved intersection operations. Left-turn vehicle queues along South Street contained within the storage bays provided.
30th Street Station Area Intersections <ul style="list-style-type: none"> Arch Street – I-76 Eastbound Off-Ramp Schuylkill Avenue – JFK Boulevard/I-76 Westbound On-Ramp Schuylkill Avenue – Market Street 	<p><i>Recommendation:</i></p> <ul style="list-style-type: none"> Currently a study is underway evaluating the 30th Street Station area. It is recommended that any improvements proposed in the 30th Street Station study be coordinated with the proposal of the Vision Plan. 	–
University Avenue - I-76 eastbound Off-Ramp Signalized Intersection	<p><i>Mitigation:</i></p> <p>Signal Modifications:</p> <ul style="list-style-type: none"> Timing adjustments. 	<ul style="list-style-type: none"> Mitigation reduces overall delay, however during the morning peak hour notable congestion levels and extended wait times are anticipated due to the heavy volume exiting I-76. Additional capacity is recommended at this intersection.

VEHICULAR CIRCULATION AND PARKING

Vehicular access in the east campus occurs at the upper and lower levels of the existing street network. Vehicular access is divided into the north zone (north of South Street) and the south zone (south of South Street).

In the north zone, access is provided to the Walnut Street Garage, central sports fields, Palestra complex, Ice Rink site and the South Street Garage via Lower 31st Street, which will ramp upward to the level of South Street in the area east of Franklin Field. Upper 30th Street will be extended south of Walnut and loop through the proposed mixed-use node in this location. The potential exists to provide access to parking on the lower levels.

In the south zone, access will be provided to the proposed parking structure and medical / research district via the existing River Fields Road. This access route will need to be the subject of further traffic and feasibility analysis to determine if the intersection of River Fields Road and University Avenue can be reconfigured to provide better turning movements and to determine if the road network has the capacity to accommodate the proposed parking. The connection between South Street and University Avenue occurs at the bridge level extending south from South Street on a bridge over the Amtrak line. The road is located on the top level of the proposed parking podium. At the south end, the road ramps down to the existing River Fields alignment.

The extension of 31st Street will provide a north / south connection between Chestnut Street, possibly Market Street and University Avenue.

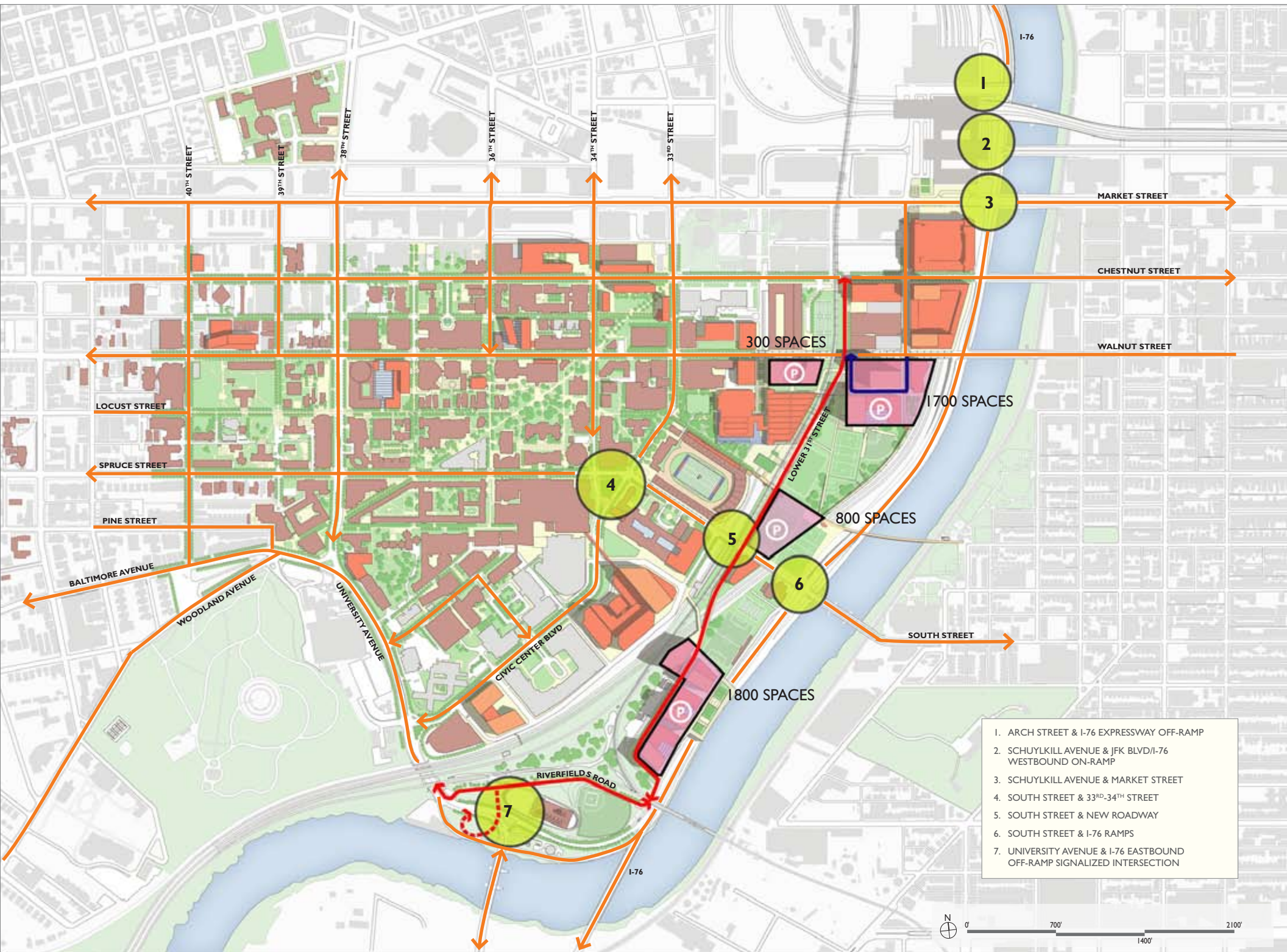
Parking

At ultimate build-out, four major parking garages are proposed in the east campus area for a potential total of 4,600 parking spaces. The proposed garage locations and capacities are as follows:

- Walnut Street Gateway – 1,700 spaces
- South Street Garage – 800 spaces
- Medical Expansion – 1,800 spaces
- Walnut Street (Class of 1923 Ice Rink site) – 300 spaces

The proposed garages provide the potential to increase the overall parking supply on the campus should additional capacity be required over the long term. However, the addition of parking will need to be carefully considered relative to the impact on the road network and will need to be considered as part of a comprehensive transportation demand management strategy.

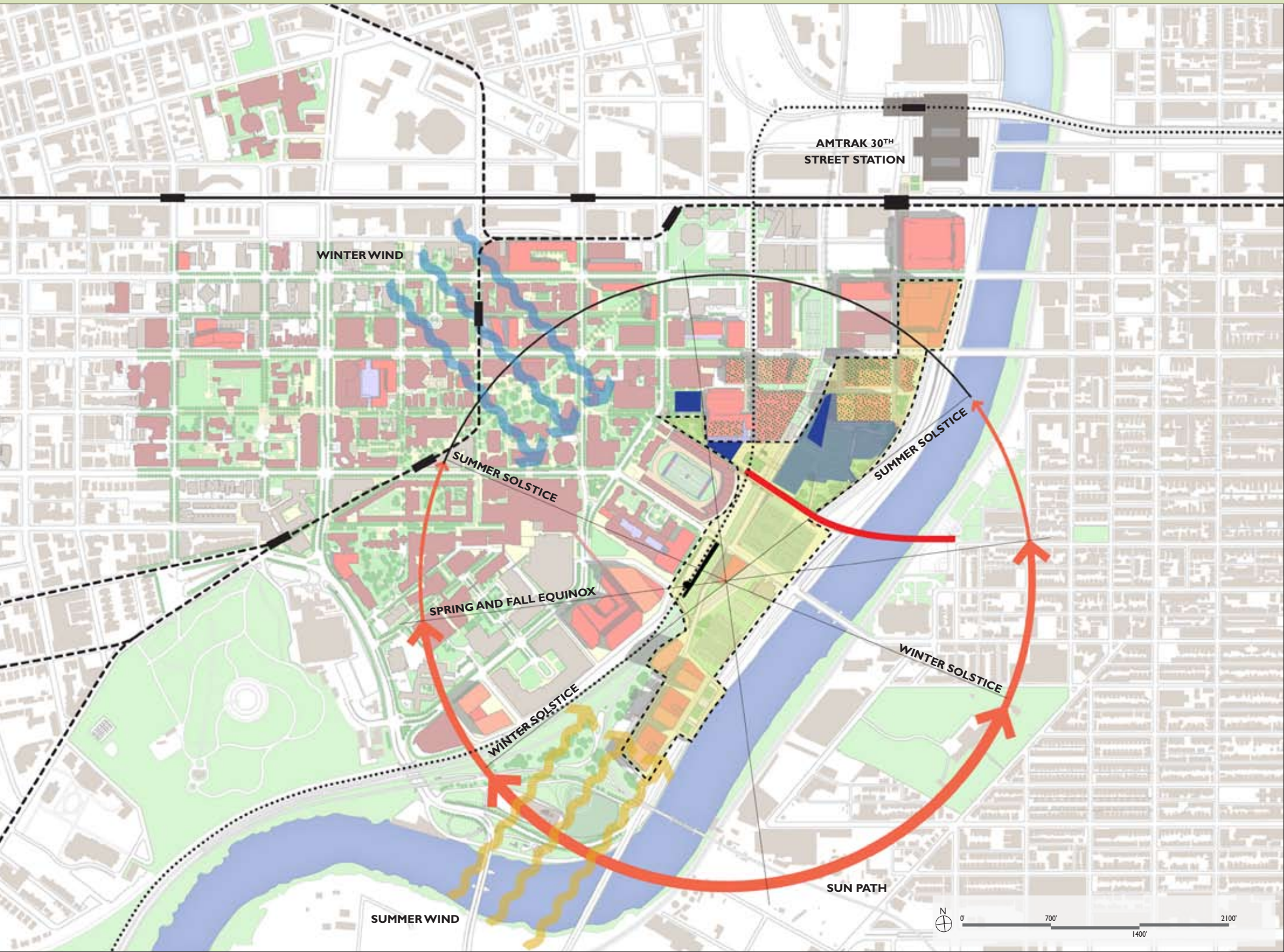
Each of the garages is constructed below the levels of the upper road network at Walnut Street, South Street and in the Medical expansion district. The decks serve as podiums, lifting the habitable spaces of the development out of the ground level floodplain conditions in the Walnut Street and South Street areas.



1. ARCH STREET & I-76 EXPRESSWAY OFF-RAMP
2. SCHUYLKILL AVENUE & JFK BLVD/I-76 WESTBOUND ON-RAMP
3. SCHUYLKILL AVENUE & MARKET STREET
4. SOUTH STREET & 33RD-34TH STREET
5. SOUTH STREET & NEW ROADWAY
6. SOUTH STREET & I-76 RAMPS
7. UNIVERSITY AVENUE & I-76 EASTBOUND OFF-RAMP SIGNALIZED INTERSECTION

Proposed intersection improvements

— PROPOSED VEHICULAR CIRCULATION — EXISTING VEHICULAR CIRCULATION



AMTRAK 30TH
STREET STATION

WINTER WIND

SUMMER SOLSTICE

SPRING AND FALL EQUINOX

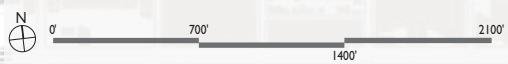
WINTER SOLSTICE

SUMMER SOLSTICE

WINTER SOLSTICE

SUN PATH

SUMMER WIND



- TRANSIT STOPS
- REGIONAL RAIL (R1, R2, R3)
- SUBWAY-SURFACE TROLLEYS
- MARKET-FRANKFORD EL/SUBWAY
- TRANSFORMATION AND RECLAMATION OF IMPERVIOUS SURFACE INTO GREEN ATHLETIC AND RECREATIONAL FIELDS
- INFILL BUILDING AND NEW CONSTRUCTION
- BUILDINGS WITH GREEN ROOFS
- SUBSURFACE/STORMWATER RETENTION AREAS
- 100 YEAR FLOOD BOUNDARY ZONE
- PEDESTRIAN BRIDGE PROMOTES ACCESS ACROSS THE RIVER BY WALKING AND CYCLING

6

Sustainability

The Vision Plan addresses several design recommendations that are intended to assist the University in moving toward a more sustainable approach to development, especially in the east campus expansion area.

The specific physical design recommendations of the plan, in part, will assist the University in developing stronger community ties, reducing energy consumption, providing alternative transportation options, and addressing stormwater management issues on the Penn campus and in the surrounding context. The recommendations fall under the following headings:

1. Community
2. Energy and Atmosphere
3. Integrated Transportation
4. Water Resources

The recommendations under these categories provide the preliminary basis for a more in-depth exploration of sustainable design issues that the University will need to address during the implementation of the Vision Plan. The University will need to undertake a concerted effort to develop a campus-wide approach and understanding of the dimensions (environmental, economic, and social) of sustainability and coordinate these dimensions with the academic and research missions of the institution as well as develop an approach to sustainability with regard to administrative and operational practices. Much more consideration will need to be given to articulating sustainable development practices and to identifying specific goals for the aspects of sustainability related to physical design.

This section of the report summarizes the planning level recommendations of the Vision Plan, acknowledging that more specific strategies should be the focus of each implementation project throughout the campus.

Community

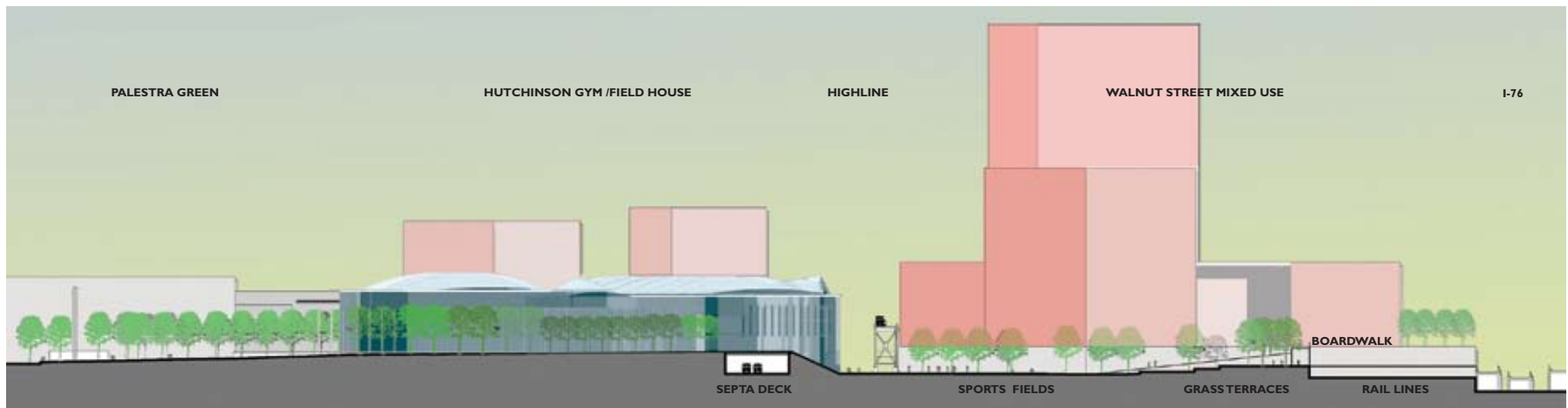
A key goal of the Vision Plan is to continue the development of strong community links within the Penn campus and beyond to University City and Center City. This aim furthers the principles of President Gutmann's Penn Compact:

1. Increased access to education;
2. Integration of knowledge from different disciplines and professional perspectives in research and teaching; and,
3. Engagement at the local and global level to advance the central values of democracy: life, liberty, opportunity and mutual respect.

Strong community ties will assist the University with efforts to act locally, continue the successes of the West Philadelphia Initiative and improve the quality of life for the campus and broader community. Community is one of the dimensions of sustainability which goes beyond the physical design realm to include human health, social justice and equity, economic opportunity and ecological integrity and diversity. Penn has successfully addressed a very broad range of economic and social issues of sustainability through the West Philadelphia Initiatives. The Vision Plan builds upon and continues previous successes by responding to economic development and social issues in the east campus area.

Features of the Vision Plan which support community development objectives include:

- The cultural gateway buildings on Walnut and South Street, which will serve as the interface between the University and the local community.
- Improvements to the physical and civic structure of West Philadelphia, by creating a compact new urban district and improving the public realm streetscapes and open spaces.
- Creating a mixed-use 24 hour urban district
- Utilizing key historic and cultural resources of West Philadelphia such as the U.S. Post Office Building.



Section Looking North

Energy and Atmosphere

In addition to the community, social and economic dimensions of sustainability, the Vision Plan responds to resource consumption patterns with the aim of using energy responsibly and reducing the impact of University activity on the environment – impacts such as emissions which contribute to global warming.

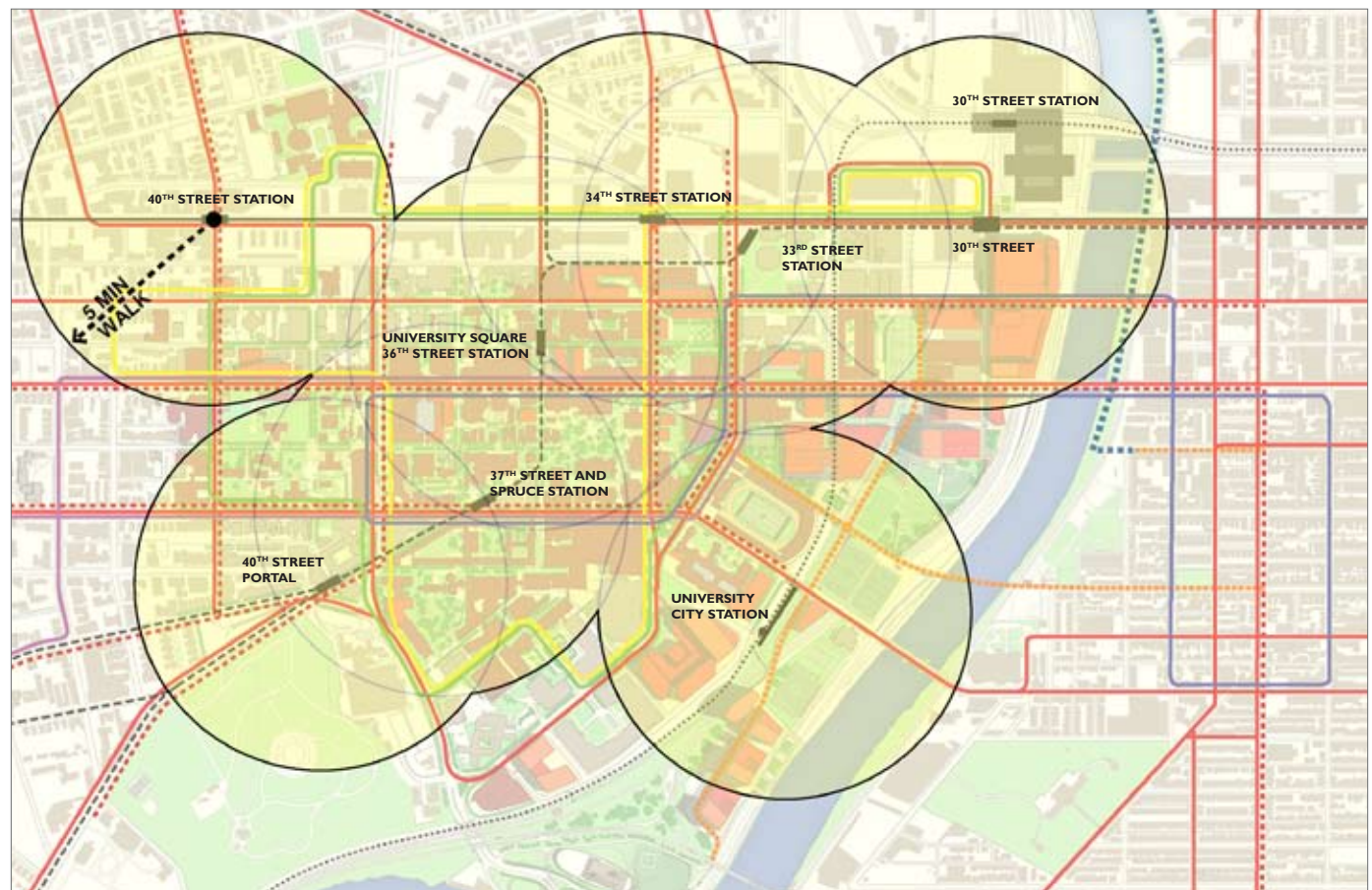
To that end, the Vision Plan includes a number of features which are intended to reduce the non-renewable energy requirements for future development of the east campus:

1. Compact Development – the Vision Plan sets out a land use pattern that, if implemented, will result in a pedestrian and transit-oriented environment, encouraging reduced auto dependence and the reliance on fossil fuels to move about the campus and University City area.
2. Compact development patterns and redeveloping the east campus area in particular results in the reuse of formerly developed lands, some of which may be classified as brown-field sites, if contaminants are present.
3. Mixed-use development – the Vision Plan includes a number of development sites for mixed-use buildings combining office, academic, research, retail and housing sites. This further supports the creation of a pedestrian oriented environment, enabling the campus population to walk to a variety of activities and services required on a daily basis. Again, this supports efforts to reduce vehicular emissions.
4. Development pattern – while there are many factors which affect energy consumption in buildings, the Vision Plan seeks to reduce consumption by orienting new buildings in response to solar and natural ventilation considerations. Specifically, a majority of the towers proposed in the east campus area, in particular, are elongated along the east / west axis, the preferred orientation. This orientation will minimize heat gain and respond to prevailing breezes.

Beyond these basic planning and site design features, the University may also wish to consider the positive outcomes of constructing new facilities in accordance with the criteria and guidance for new construction outlined in the US Green Building Council's Leadership in Energy and Environmental Design Reference Guide for New Construction (Version 2.2)

The Penn campus is well served by major transportation routes, with most areas within a 5-minute walk of a transit station. This is an important consideration as the University moves toward encouraging alternative modes of transportation as part of a broader strategy to reduce daily vehicular trips to the campus.

- UPENN SHUTTLE ROUTE 1
- UPENN SHUTTLE ROUTE 2
- SEPTA GREEN LUCY LOOP
- SEPTA GOLD LUCY GROUP
- SEPTA BUS ROUTES
- TRANSIT STOPS
- - - - - REGIONAL RAIL (R1, R2, R3)
- - - - - SUBWAY-SURFACE TROLLEYS
- MARKET-FRANKFORD EL/SUBWAY



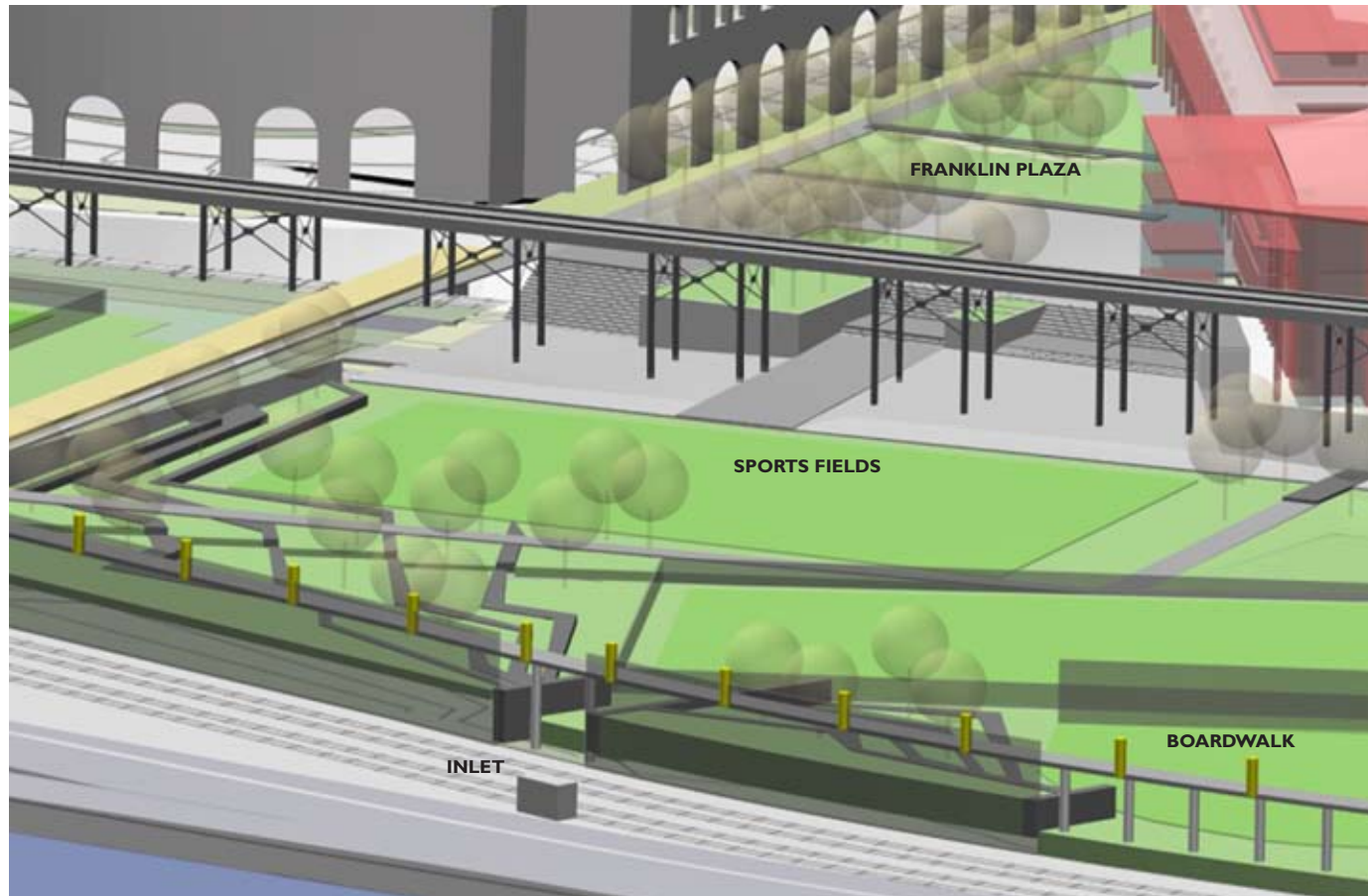
Integrated Transportation

The Vision Plan focuses on providing a comprehensive and integrated transportation network. The intent is to extend and improve the existing pedestrian routes of the campus and coordinate the pedestrian network improvements with the bicycle routes, and existing bus, subway and rail services in the University City district. As noted in the circulation section of this report (chapter 5), a majority of the campus land area is within a five minute walk of a transit station or a bus route. The aim is to focus on pedestrian, bike and transit, the transportation modes which have the least environmental impacts.

Water Resources

Stormwater management in the east campus area is a focus of the Vision Plan. Given that much of the east campus lies within the 100-Year floodplain of the Schuylkill River and that no traditional stormwater conveyance systems are in place, the east campus area provides a major opportunity for innovative low-impact approaches to stormwater management. To that end, the Vision Plan responds by addressing the following stormwater management objectives in the east campus area:

- Improving water quality
- Reducing runoff
- Facilitating infiltration



Conceptual view of the sports and recreation fields illustrating the proposed grass terraces along the rail lines, the boardwalk, and the inlets to allow water to flow in and out of the site



The sports fields and other areas will be sunken to allow flooding during major storm events



Proposed character of the grass terraces located along the rail lines

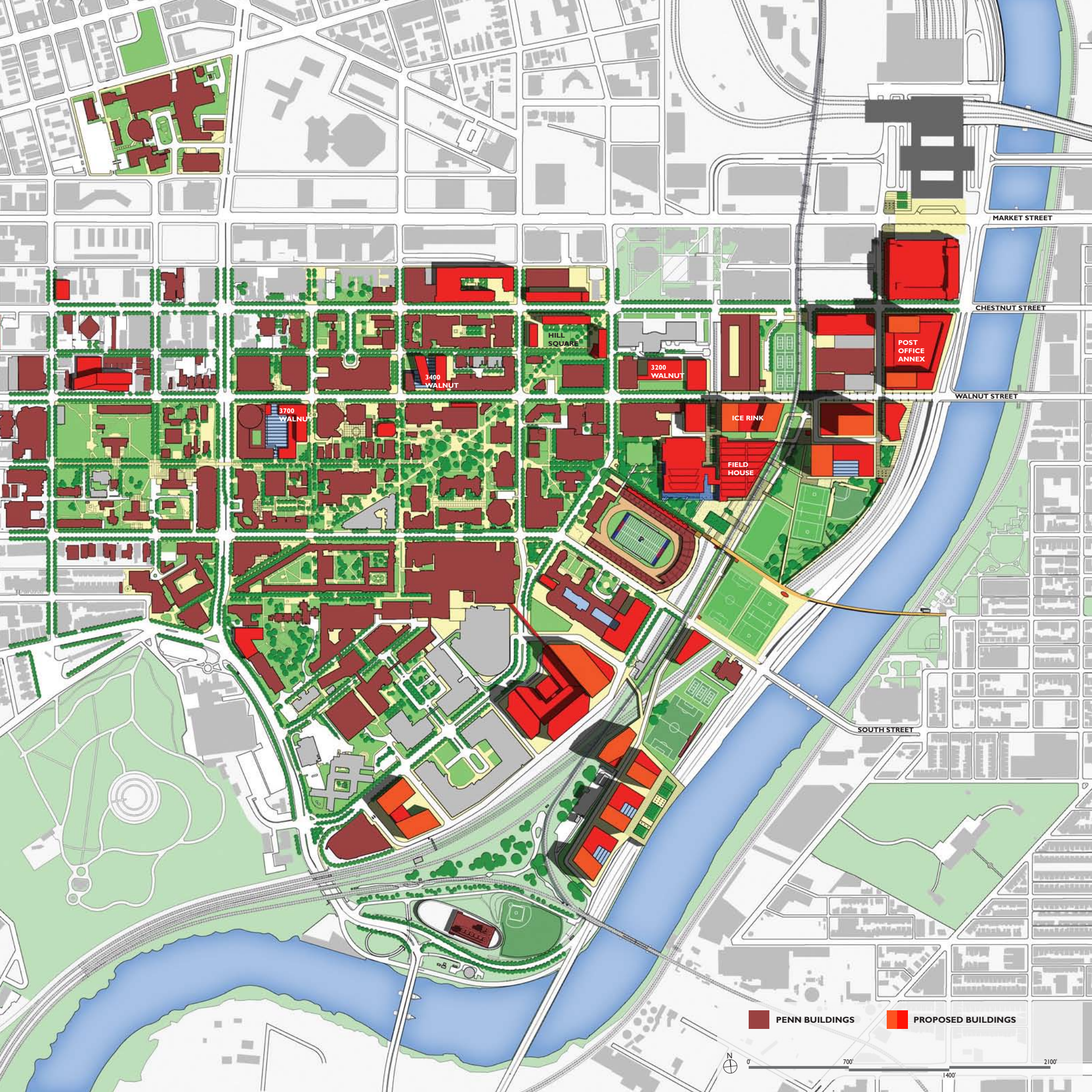


These objectives are addressed by reducing the amount of existing surface parking area; integrating stormwater management into the landscape design; and proposing green roofs on 70 percent of the proposed buildings. Further, the plan reduces the total impervious area of high pollutant runoff, primarily from parking areas.

The key recommendations of the stormwater management strategy in the east campus area include:

- Green roofs
- Shallow lawn areas where overflow runoff from green roofs and surface runoff can be directed for short-term retention and infiltration.
- Collection of the water from the short-term retention areas in sub-surface storage chambers which will be partly constructed as cisterns to retain water for irrigation.

Finally, the sports and recreation fields are designed to accommodate the periodic flooding that may occur on Schuylkill River. Major inlet/outlets are incorporated into the landscape design to ensure that the floodwaters from the river can enter and exit the sports and recreation fields area as necessary.



MARKET STREET

CHESTNUT STREET

WALNUT STREET

SOUTH STREET

HILL SQUARE

3400 WALNUT

3200 WALNUT

ICE RINK

FIELD HOUSE

POST OFFICE ANNEX

3700 WALNUT

PENN BUILDINGS

PROPOSED BUILDINGS



0 700 1400 2100

7

Architectural Feasibility & Sub-Area Studies

This chapter describes and summarizes the sub-area studies, which are structured and organized by the civic structure, open space and circulation concepts described in the previous chapters. The studies include:

Hill Square - This study explores the potential for providing a new College House, at Hill Square, while maintaining its valued open space qualities and the Jenny Holzer sculpture, 125 Years of Women at Penn.

Revitalization of the Palestra, Hutchinson Gym and New Field House- This study explores opportunities for regenerating the historic Palestra and Hutchinson Gymnasium and creating a new field house with state of the art intercollegiate athletic facilities.

Post Office Annex - This study explores development opportunities for the Postal Annex site.

Redevelopment potential for the 3200 block of Walnut - This focuses on the redevelopment potential for the 3200 block of Walnut to accommodate a new Nanotechnology facility and other future development.

Revitalization potential of the 3400 block of Walnut - Site of the Franklin Building and Franklin Building Annex, this block is evaluated in terms of its redevelopment potential to serve academic uses in the core campus area.

Revitalization potential of the 3700 block of Walnut - Site of the current Social Sciences units, this block is considered for its academic redevelopment potential.

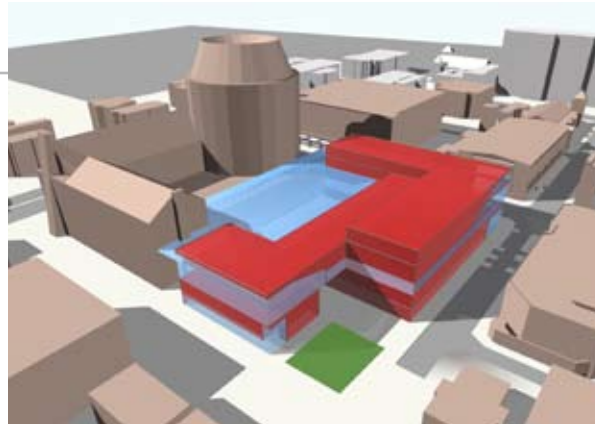
Walnut Street has been a focus of Penn's redevelopment efforts over the past several years. This focus remains a key part of the Vision Plan. Walnut Street is envisioned as the living / learning corridor of the campus. In the plan, several sites are identified along the Walnut corridor for infill redevelopment. The aim is to enhance the street and integrate academic and University uses into the surrounding urban context. Further, the aim is to concentrate academic and key University uses on sites within immediate proximity of College Green. Support and administrative uses that are not central to student and academic uses will be relocated to the new mixed-use facilities proposed at several locations in the plan. As a result many staff are likely to be relocated to areas that have good transit services and better access to parking.

The remainder of this chapter describes, in more detail, the nature of the proposed infill development in each of these sub areas.

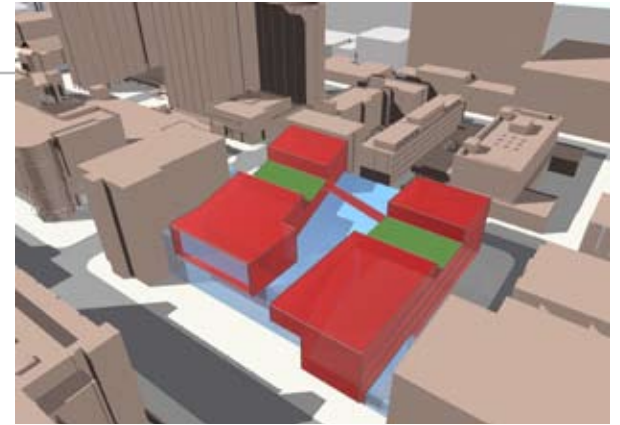
WALNUT STREET CORRIDOR



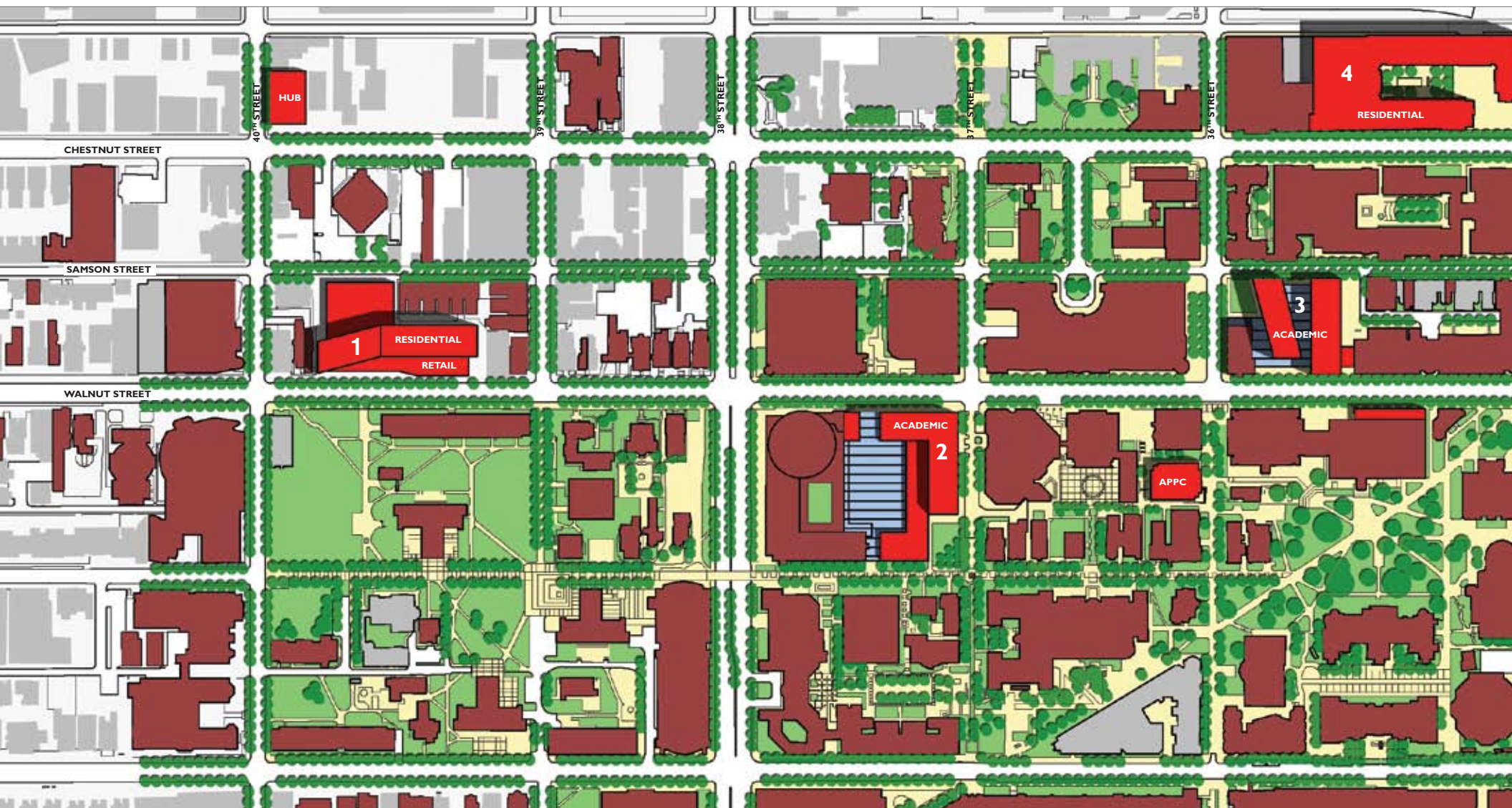
1. Residential and Retail



2. Academic



3. Academic

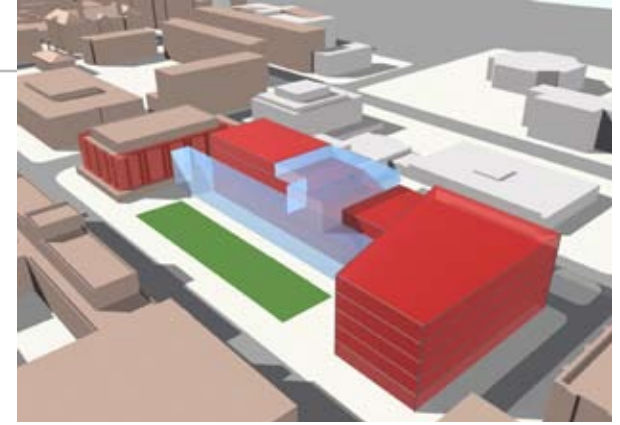




4. Residential and Retail (under construction)



5. Hill Square College House



6. Nanotech

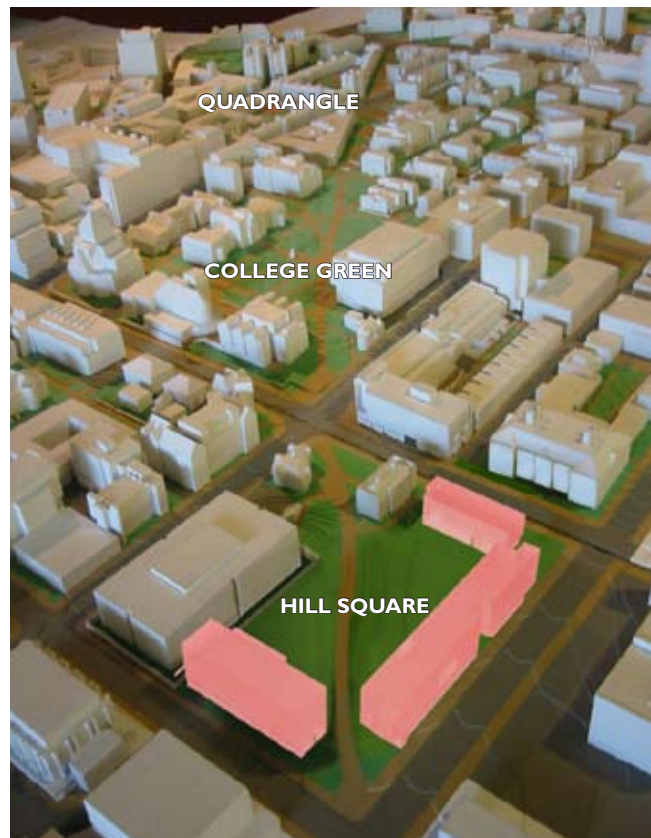


HILL SQUARE

The existing Hill Square, defined by Chestnut, Walnut, 33rd and 34th Streets, is an important site in the campus framework, given its connectivity to College Green via Woodland Walk, and proximity to the academic core of the campus. It also serves as an important gateway to the campus from the northeast. As one of the largest remaining open spaces on campus, future proposals for the site require careful consideration in the context of the campus at large. The current Vision Plan focused on the capacity of this site to accommodate future development, while maintaining a substantial campus open space and the recently completed (2003) text-based sculpture, *125 Years* by Jenny Holzer. The sculpture commemorates 125 Years of Women at Penn and consists of a brick pathway, custom light standards and granite benches and curbs, inscribed with quotations representing views and opinions of Penn women.

Hill Square was created with the closure of Woodland Avenue in the late 1950s. Today, its uses include Hill College House, the McNeil Center for Early American Studies, (MCEAS) and a fraternity house. The open space is currently utilized for informal and passive recreation. In 2003, Woodland Walk was extended through the site as the above noted sculptural pathway, reinforcing this important diagonal pedestrian route through the campus. The pathway provides a primary link to 30th Street Station. Surrounding uses along 34th Street include 3401 Walnut, a mixed-use building developed by the University, and Silverman Hall, home to the Law School. Uses to the north along Chestnut include an undeveloped parcel adjacent to the University-owned Parking Garage #34. Uses to the east along 33rd Street include the Drexel University Student Union and Penn's Laboratory for Research on the Structure of Matter.

Programmatic uses identified by the University and explored during the planning process include a new College House and the potential for accommodating future academic buildings. Through consultation with the Campus Redevelopment Planning Committee (CDPC) and other stakeholders, the decision was made to develop a future College House on the site. The program for the proposed facilities on the site include 342 beds



Proposed College House at Hill Square illustrating connectivity of the site with College Green via Woodland Walk.

in suite style units, 21 resident assistant units, one house master apartment and two faculty apartments. Common facilities include a dining hall, servery and kitchen, a café, lounges, computer rooms, and music rooms. The total program proposed for the site is 198,000 gross square feet.

The proposed layout for Hill Square maintains the sculptural walk and a central open space defined by the new residential structures, which would bound the site along 34th, Chestnut and 33rd Streets. The layout also defines the edge conditions along these streets. The central lawn is intended to provide an informal, passive recreation space for residents and other members of the



Plans of Hill Square College House illustrating the proposed ground floor uses and landscape intent.



Proposed view of Hill Square illustrating the future College House.

The Cira Centre is seen in the distance on the axis of Woodland Walk.



Existing conditions looking northeast.



125 years by Jenny Holzer is a text-based sculpture / pathway featuring brick paving, granite curbs and benches, and custom lighting fixtures. The granite curbs and benches feature text inscriptions recording the views and opinions of Penn women over the past 125 years.



Jenny Holzer Sculpture - 125 Years

campus community. The lawn is framed by an extensive terrace or platform which forms the base for the buildings. The terrace features seating steps and outdoor gathering areas, including dining. The dining facility may be linked with existing dining services provided in the adjacent Hill College House.

Sansom Street is extended into the site as a walkway from the west, terminating at the dining hall. This is intended to link the new open space with the dining and retail area on Sansom Street to the west. Parallel to the walkway, a linear water feature is proposed.

The proposed structures vary in height. Six-story structures are proposed along Chestnut and 33rd Streets. A four-story structure is proposed along 34th Street, in keeping with scale of the Law School (Silverman Hall) on the opposite side of the street. The uses within the buildings have been arranged to provide activity at the ground level, including a dining hall in the 33rd Street structure facing the central open space; lounges along Chestnut and 34th Streets; and retail concentrated at the intersection of 34th and Chestnut. At the ground level, the structures allow for movement between the surrounding streets into the central open space via portals and openings. Each building is connected by a covered walkway at the ground floor level. Service access to the buildings is concentrated on 33rd Street, in conjunction with the dining facilities and the existing loading dock at Hill College House.



Walnut Street looking east (aerial 1961)



Walnut Street looking west (aerial 1962)



Concept view of Hill Square as seen from the proposed College House dining hall.



Hill Square- east west section



View of Hill Square College House looking east from Samson Street.



Hill Square- north south section

PALESTRA AND HUTCHINSON GYMNASIUM

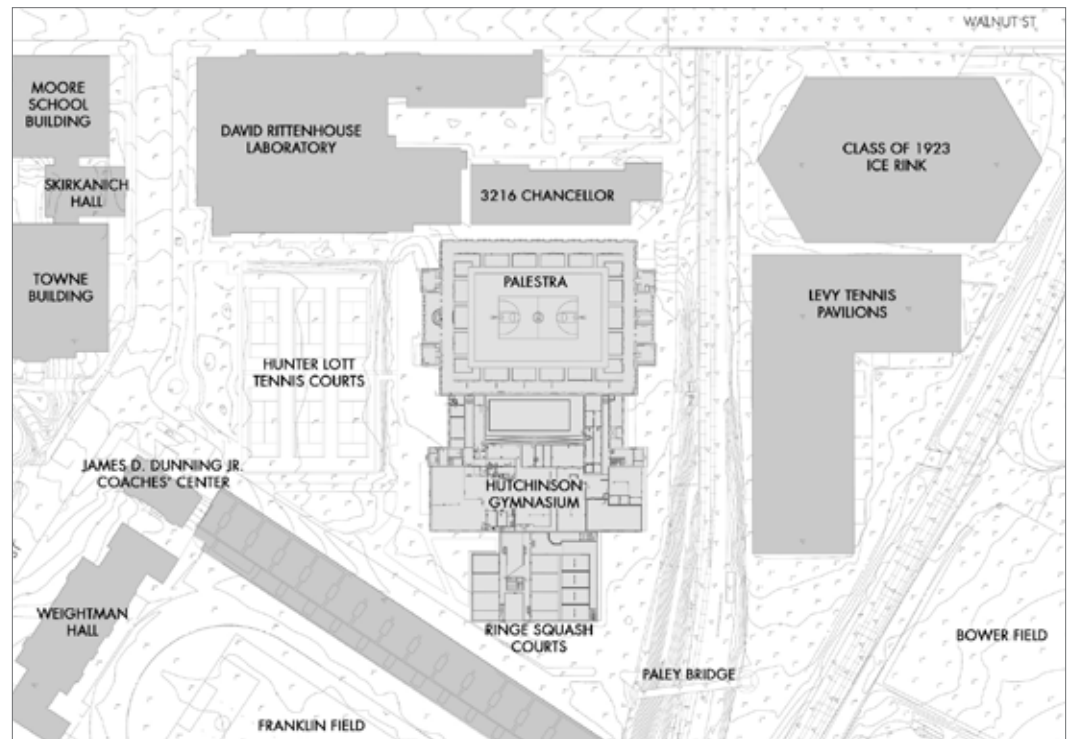
The importance of Franklin Field, the Palestra and Hutchinson Gym in the sporting history of the University cannot be underestimated. Nor can the iconic nature and image of Franklin Field and the Palestra. Franklin Field, in particular, serves as a major campus landmark as viewed from within the campus as well as from Center City and the Schuylkill Expressway to the east. The plan provides a vision for maintaining these important structures and regenerating this area of the campus in conjunction with the proposals for new recreation fields on the postal lands.

Currently, the athletics district defined here as the Palestra / Hutchinson Gymnasium, Franklin Field, the Levy Tennis Pavilion and the Class of 1923 Ice Rink is not a unified zone in terms of design expression or appearance, nor at the functional level. The design proposals of the plan are intended to address this situation and create a unified district to serve daily users of the athletics and recreation facilities, as well as visitors to the campus during major events.

At the district level, the plan includes several improvements to link the existing facilities into the existing pedestrian network of the campus as well as those proposed in the east campus area, notably, the sports fields on the former postal lands and the pedestrian bridge links across the SEPTA lines.

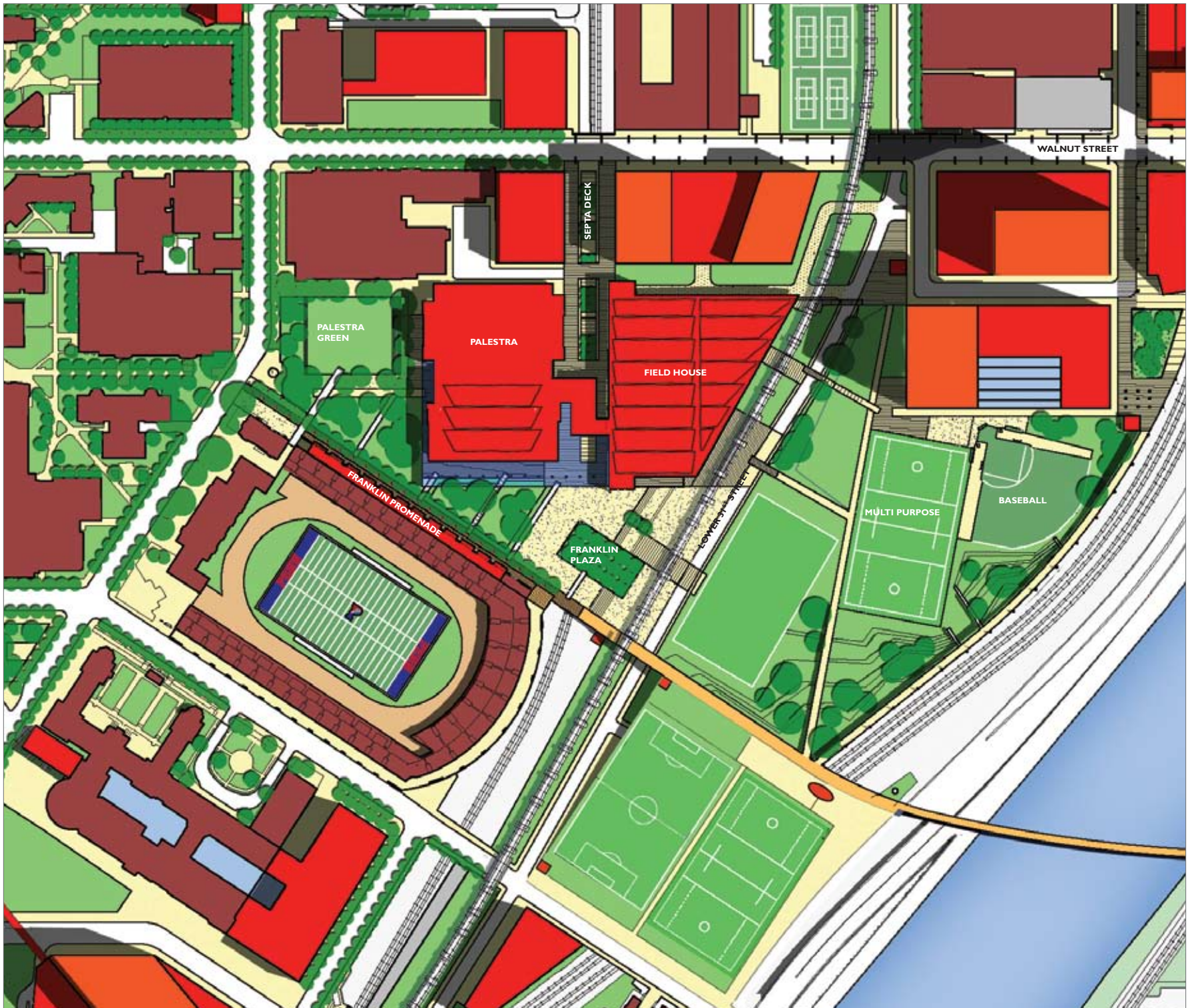
In urban design terms, the district is located at a pivotal point in the campus plan and campus pedestrian network. It is through this district that access to the symbolic extension of Locust Walk over the Schuylkill River will occur. It is also an important point in the campus plan in that it will serve as a gateway to the postal lands.

The aim is to create a unified district which provides a more memorable context for the existing iconic structures, and provides for more attractive, convenient and memorable linkages to the postal lands, Walnut Street, the campus and to South Street.



View of Franklin Field, the Palestra and Hutchinson Gym in the 1920s.

Existing conditions in the Palestra / Franklin Field area.



Proposed plan for the Palestra / Franklin Field area.

Palestra Green

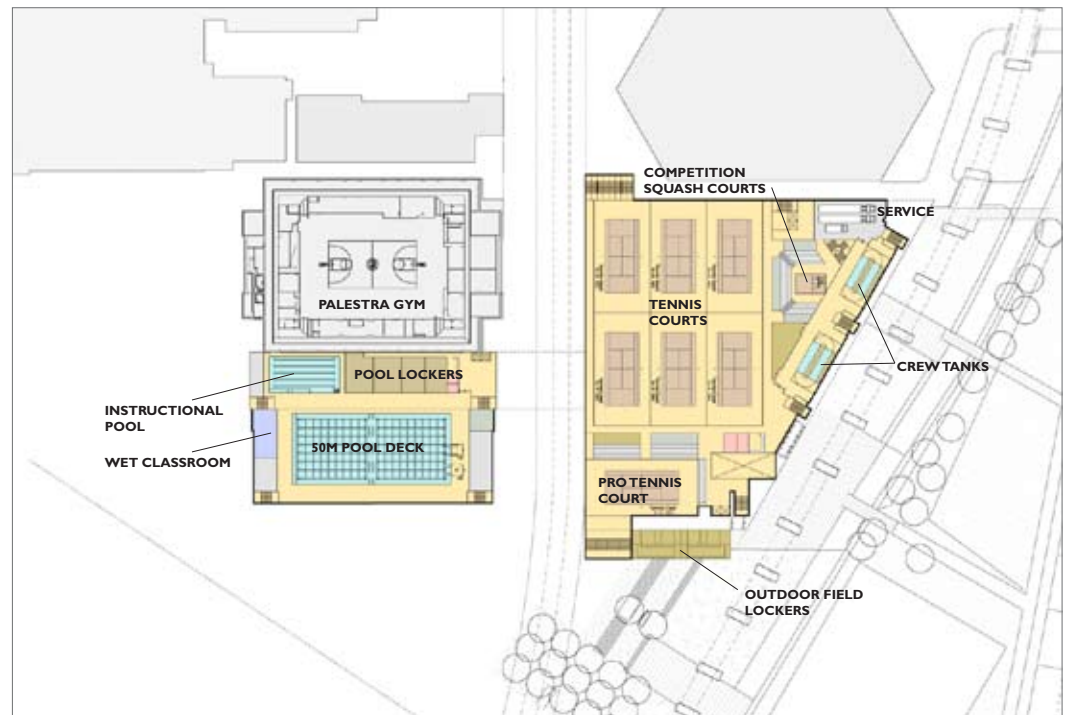
The plan includes a major green space to the west of the Palestra/Hutchinson Gymnasium, the intent of which is to create Palestra Green, a new gathering space, and attractive foreground for these iconic structures. Palestra Green is conceived as a sunken lawn framed by shade trees that will provide gathering space prior to major events and provide a passive recreation area on a daily basis.

Franklin Field Plaza

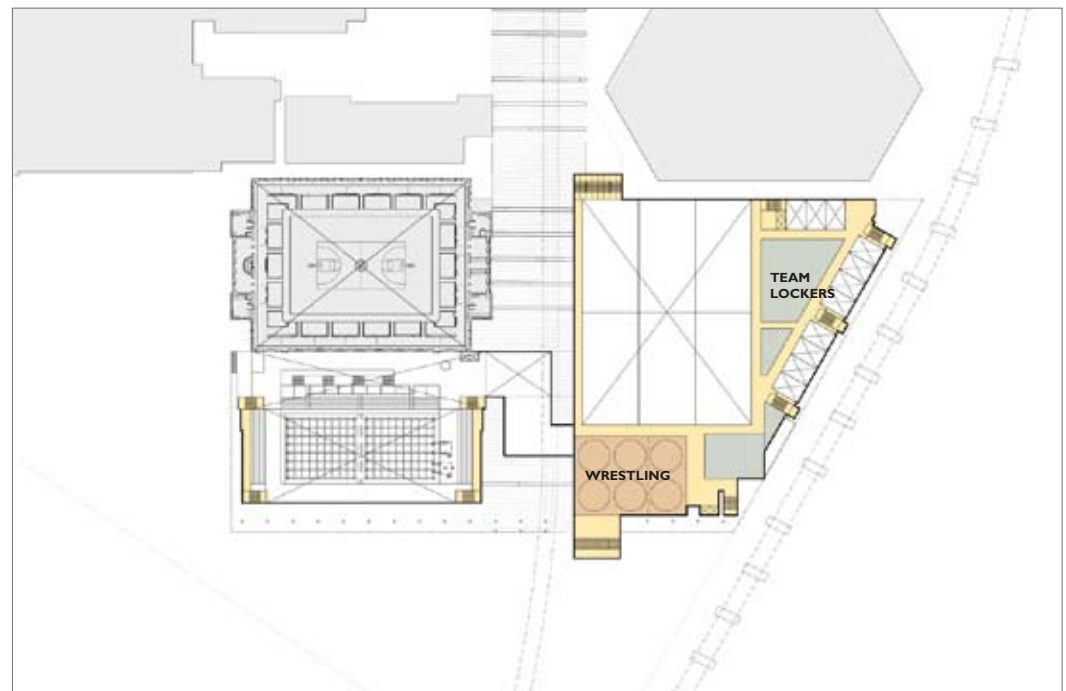
The open space extends eastward toward the proposed sports fields via Franklin Field Plaza. The Plaza is proposed in the area between Hutchinson Gymnasium and the Franklin Field arcade which would result from the removal of the Ringe Squash Courts. The plaza is also envisioned as a shaded gathering space, combining hardscape and softscape elements to create a new entrance plaza to the revitalized Palestra and Franklin Field. The hardscape portion of the plaza extends over the SEPTA lines to facilitate access to the fields to the east, and replaces the Paley Bridge. Steps and ramps descending from the plaza level will provide a dramatic means of access to the park-like environment proposed around the sports fields.

SEPTA Deck

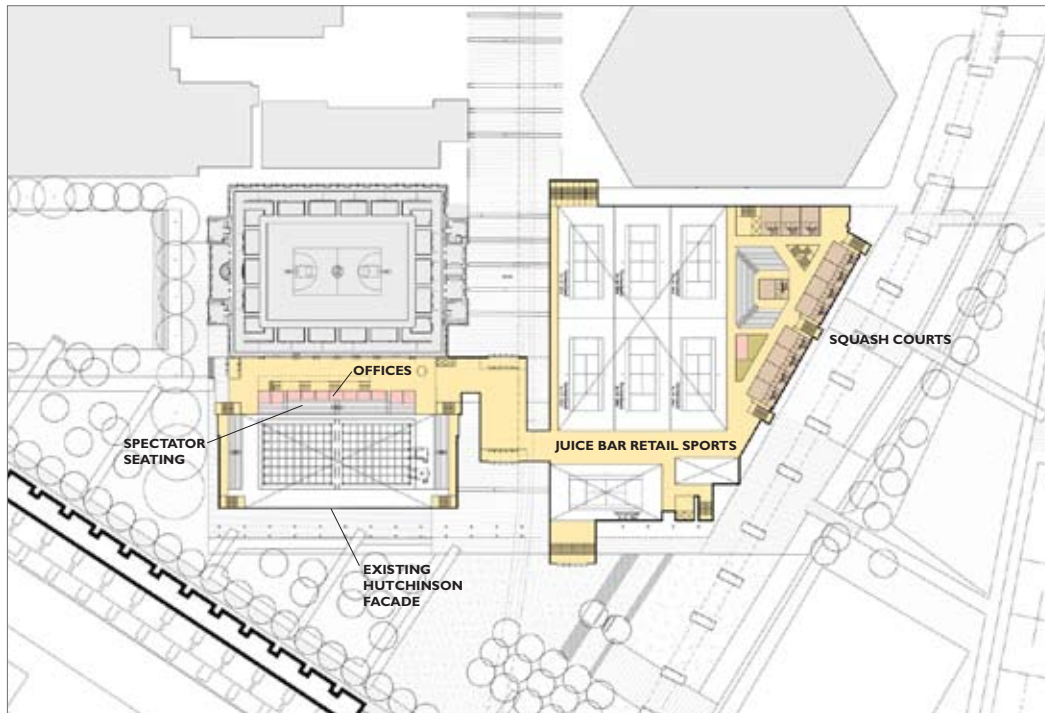
Franklin Field Plaza extends northward to connect with Walnut Street via a deck over the SEPTA lines, which currently separate the Palestra from the Class of 1923 Ice Rink site. The proposed deck will provide convenient and direct pedestrian access to the Palestra, Franklin Field and the new field house from Walnut Street (Currently, access is only possible from the north via 32nd Street and Lower 31st Street). It will also extend to the south, incorporating the arcade of the stadium to connect with South Street, thereby providing a direct and convenient link from Walnut to South Street from the upper road network level. The proposed pedestrian bridge over the Schuylkill will connect directly to this plaza level.



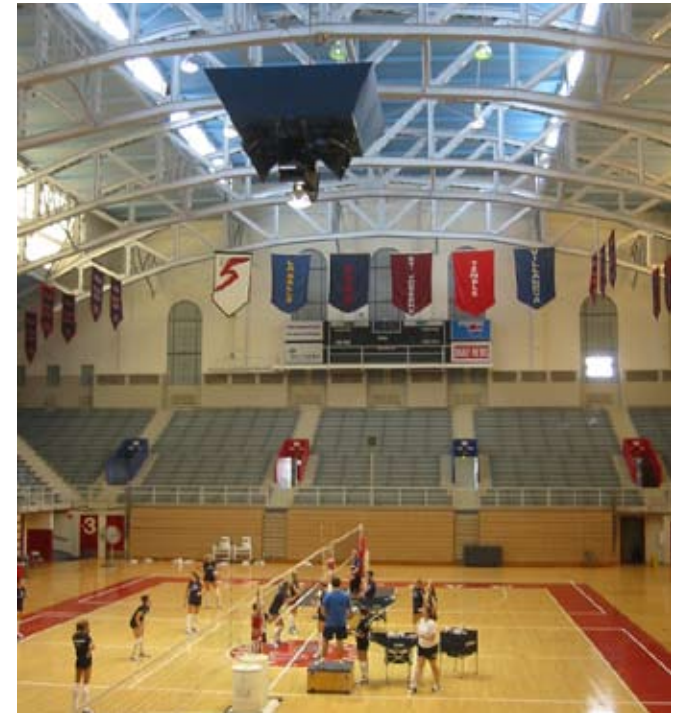
Lower Level Plan (+21'-0")



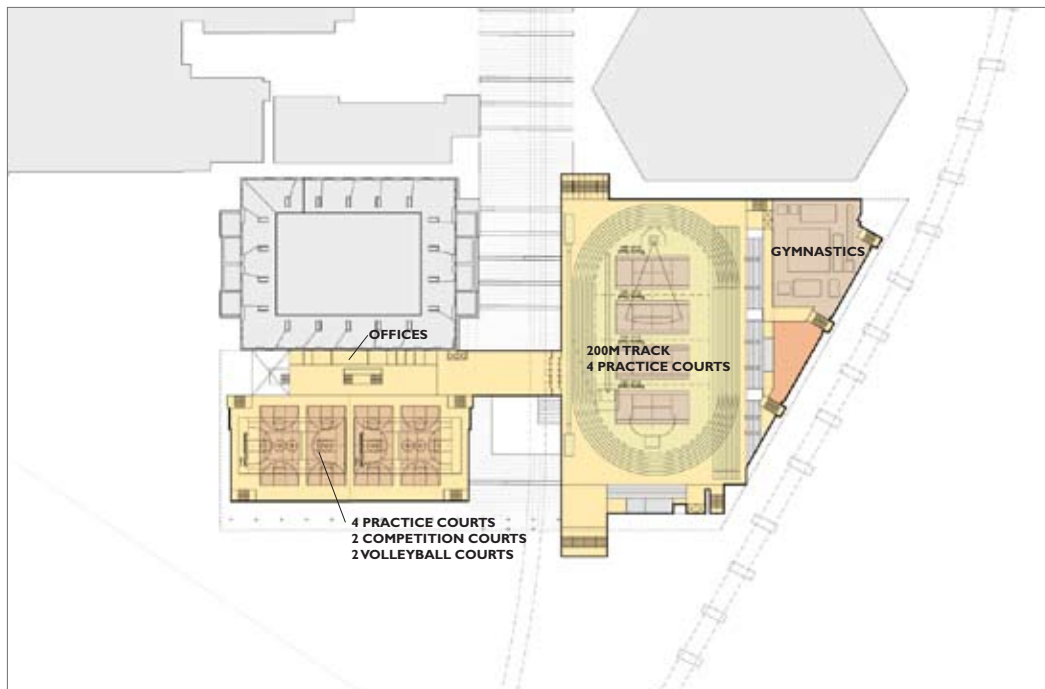
Team Locker Mezzanine Plan (+50'-0")



First Floor Plan (+36'-0")



View of the Palestra



Second Floor Plan (+64'-6")

The open space and pedestrian circulation system establishes a framework for redevelopment and revitalization of the district with several new facilities. Programmatically, the most immediate plan is to renovate Hutchinson Gymnasium, and to construct a new Field House on the site of the existing Levy Tennis Pavilion. The Field House could include a 50-meter pool, 200-meter track, gymnastics area, tennis courts, squash courts, crew tanks, wrestling area, fencing, basketball and volleyball courts, and supporting locker and office space.



Existing view looking east

Proposed view of the Franklin Plaza and Promenade, illustrating the renovated Hutchinson Gymnasium and infill of the Franklin Field arcade for fitness and other uses.



Proposed view of Franklin Plaza and Promenade



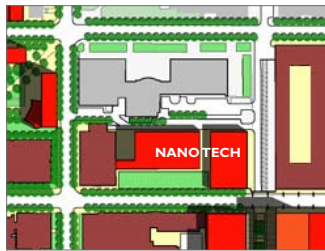
Existing view looking west from Paley Bridge.



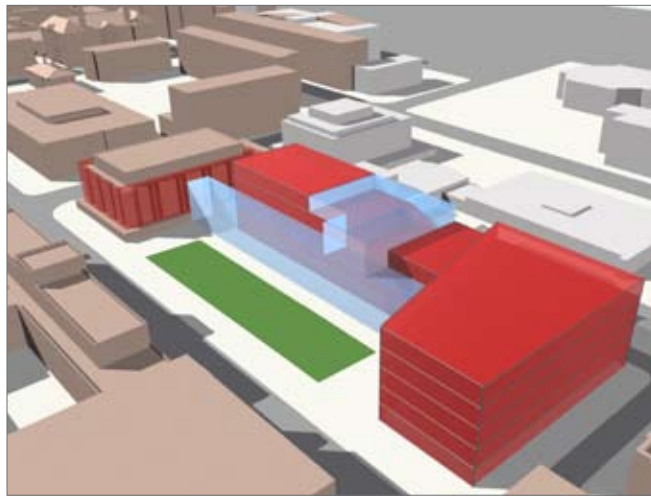
Existing Conditions at 3200 Walnut



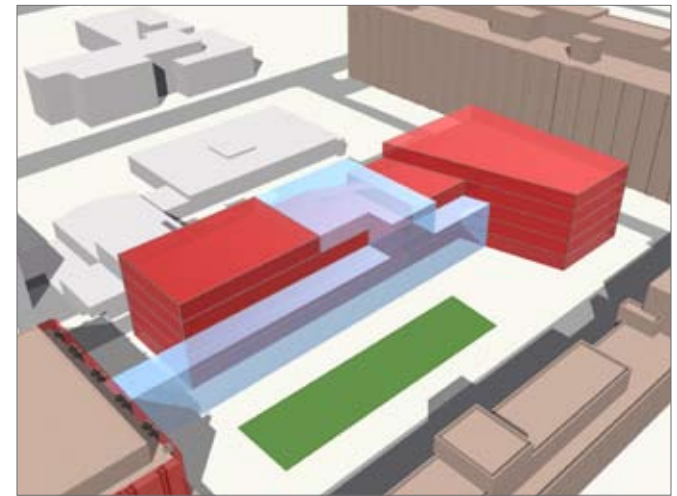
Conceptual view of the Nanotech facility featuring an atrium and plaza along Walnut Street.



Existing Conditions, Analysis, and Proposed Plan for 3200 Walnut



Proposed View of Nanotech looking towards Hill Square



Proposed View of Nanotech and future development site looking east toward the Left Bank

3200 WALNUT STREET – NANOTECH SITE

The north side of the 3200 block of Walnut is currently the site of the Laboratory for Research on the Structure of Matter (1964), the Edison Building (1965), and Parking Garage 26 which was designed by the firm of Mitchell and Giurgola in 1963. The block occupies an important point along Walnut Street, given its proximity to the academic core and location along the major east/west pedestrian and vehicular connections of Walnut Street. Currently, the lack of major activity and development on the block results in a gap between the Left Bank and the major academic and retail uses further to the west.

Consistent with the broader planning concept of creating a “learning” corridor along Walnut Street, redevelopment of this pivotal block is proposed to accommodate a Nanotechnology facility in the range of 100,000 gsf. At the urban design level, the intent is to line this “gap” in Walnut Street with active uses that will enliven the street and improve the pedestrian experience, thereby extending the pedestrian character and vitality of Walnut further to the east. To that end, the proposed 100,000 gsf Nanotech facility is sited in the center of the block with active program elements placed along the street, including a public plaza. The site has been examined in terms of building height, mass and urban design relationships. The resulting diagrams illustrate the development potential and capacity of the site.



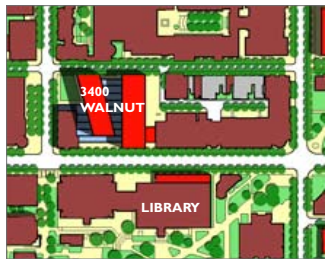
Over the long-term, the aim will be to redevelop the Parking Garage 26 site for academic or research uses. This site could accommodate a building in the range of 150,000 gsf.



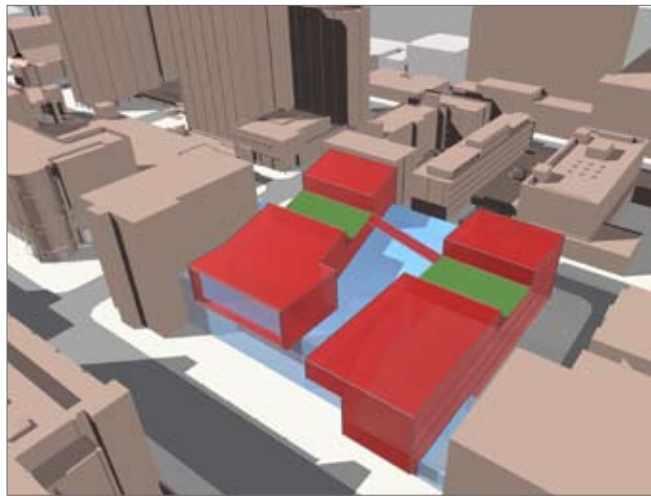
Existing Conditions at 3400 Walnut



Conceptual view of 3400 Walnut Street.



Existing Conditions, Analysis, and Proposed Plan for 3400 Walnut

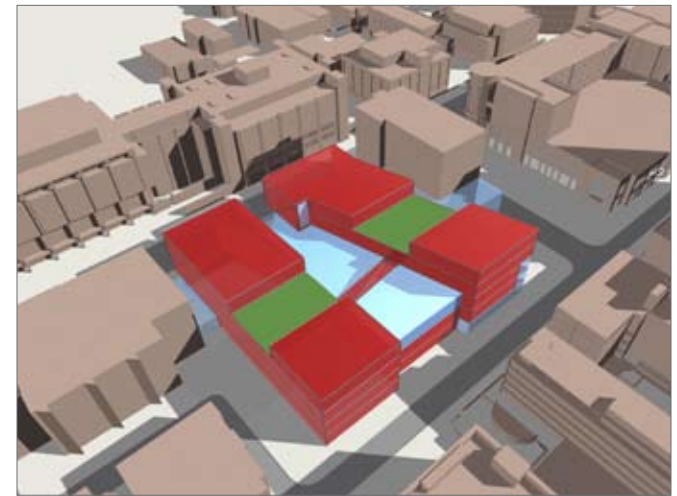


View looking north

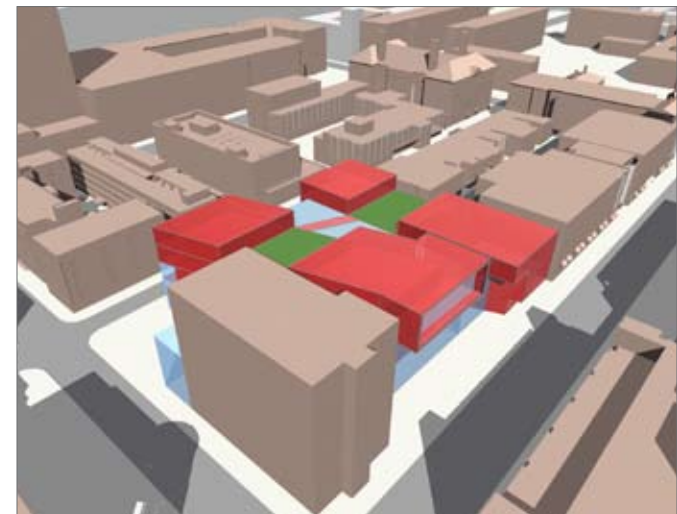
3400 WALNUT

The north side of Walnut Street in the 3400 block occupies an important location relative to Walnut Street and Samson Street. Located directly across from the Van Pelt and Dietrich Library Center, the block provides close proximity to the core academic functions surrounding College Green.

The block currently contains the historically significant West Philadelphia Title and Trust Company Building, a six-story art deco building constructed in 1926, the 100,000 gsf Franklin Building (1967), the 39,000 gsf Franklin Annex (1945/63) and the 3401 Walnut building developed by the University in 1987. The West Philadelphia Title and Trust Company Building is currently utilized for office space and ground floor retail. The Franklin Building and Franklin Annex are utilized by the University for support and administrative functions. Given the location of this block close to the academic core, the University's long-term goal is to relocate support and administrative functions that do not need to be in the core to other areas of the campus. To that end, the plan illustrates how the Franklin Building and Annex site could be redeveloped to accommodate future academic facilities. The West Philadelphia Title and Trust Company Building is maintained in this scenario.



View looking south



View looking east

The proposed redevelopment of the site illustrates new development in the range of 150,000 gsf accommodated in a four-story building. The proposed redevelopment is designed to be compatible with the scale of the adjacent 3401 Walnut building, and to incorporate retail or public/academic uses on the ground floor to enliven the street edge.

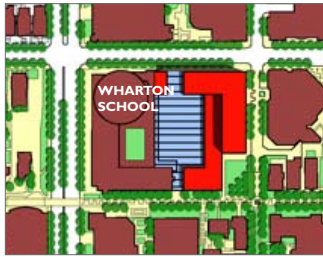
The massing and site organization concept illustrated here includes an atrium-like public square connecting existing facilities and two academic “wings”.



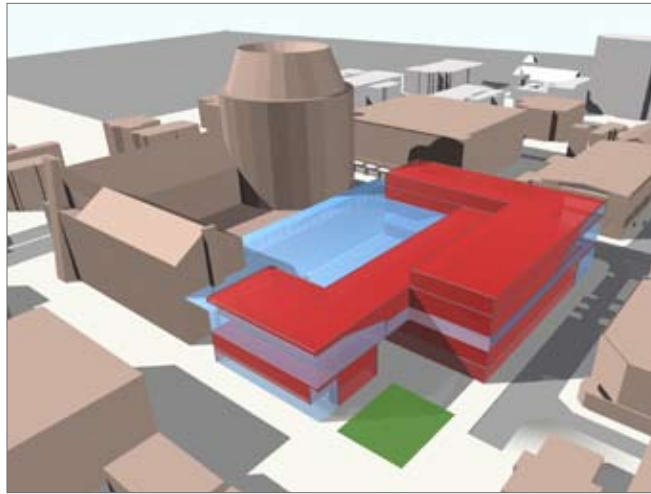
Existing Conditions at 3700 Walnut



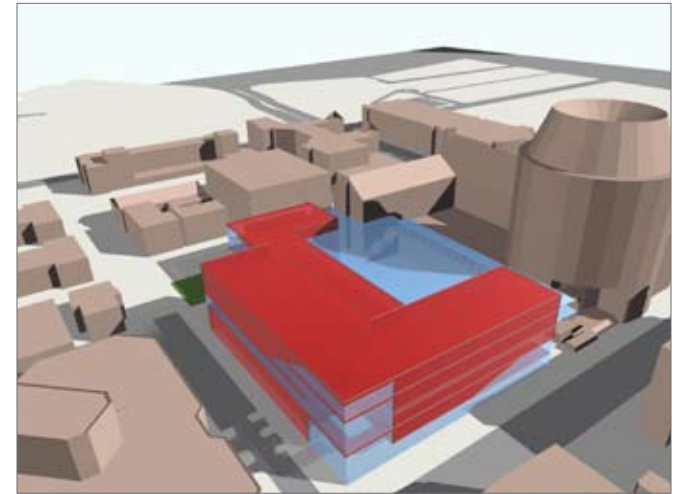
Conceptual view of 3700 Walnut Street



Existing Conditions, Analysis, and Proposed Plan for 3700 Walnut



View looking to the northwest



View looking to the southwest

3700 BLOCK OF WALNUT

The 3700 block of Walnut occupies an important place along Locust Walk, 37th Street Walk, and Walnut Street. It currently includes a series of facilities constructed during the 1960s for the Schools of Education, Arts and Sciences and Social Policy. The facilities include the 25,000 gsf Caster Building (1966), the 39,600 gsf Stiteler Hall (1966/80), the 58,000 gsf Solomon Laboratories of Experimental Psychology (1966), and the 46,000 gsf Graduate Education Building (1962 / renovated 2001). Given the low density of the existing buildings, the site is currently underutilized in terms of the total amount of core academic space that could be provided if taller buildings were located on the site. The plan provides a design direction for redeveloping this site to accommodate core academic functions. Specifically, the plan illustrates how the site could be redeveloped to accommodate 200,000 gsf of space for the Wharton School, which is currently located in Steinberg/Dietrich Hall. The goal is to consolidate all Wharton School functions adjacent to their recently completed facility. The 180,000 gsf Steinberg / Dietrich Hall will, in turn, be renovated to accommodate programs relocated from the 3700 block.

The proposed design framework for redeveloping the block is to provide 200,000 gsf over 5 to 6 floors surrounding an atrium space. The atrium space is envisioned as a major gathering and lounge space that will serve as a pedestrian connector and node with linkages to Walnut Street to the north and Locust Walk to the south.





Proposed view of the Walnut Street gateway and Postal Annex



THE POSTAL ANNEX SITE

The Postal Annex site defines the northern side of the Walnut Street gateway. The Vision Plan calls for the redevelopment of the site to accommodate mixed-use development that could include retail, office, residential and parking. An estimated 1.3 million square feet could be provided on the site in a combination of podium and tower development. Two towers are proposed. The 20-story north tower and the 18-story south tower are to be constructed over an 8-story podium. The podium is designed to potentially extend over the Amtrak air rights. The result is a complex of buildings defining the Chestnut, Walnut and Schuylkill Avenue street edges with active uses and strong architectural expression.



Existing view of the Postal Annex and U.S. Post Office Building.



ICE RINK SITE

To the north of the Palestra and Field House, two infill / redevelopment sites are identified on Walnut Street: the Class of 1923 Ice Rink site and the surface parking Lot # 2, directly north of the Palestra. Combined, the sites could accommodate a total of over 690,000 square feet. The ice rink site would be redeveloped to include a five-story podium with 300 parking spaces beneath the Walnut Street level. Two towers are proposed on the podium: an 8-story east tower adjacent to the Highline and a 12-story west tower. The site directly north of the Palestra could accommodate a 117,500 square foot building on five floors.

At the urban design level, these buildings will serve to fill a gap in the Walnut Street corridor and will create a new gateway to the Palestra and Franklin Field area from Walnut Street. Currently, the two sites are divided by SEPTA. The proposal is to create a new pedestrian deck over the SEPTA line that will link the two sites and provide access to the interior of the site at the proposed Franklin Plaza.



Windows on Penn - Option 1 featuring poplar trees and lighting

8

Early Actions

Achieving the Penn Connects Vision will involve several steps and phases over the coming years. This chapter summarizes some of the key interim steps needed to implement the plan.

To provide options for implementation and clarity of the intent, key proposals of the plan are considered in greater detail. These include the Walnut Street Gateway and the sports and recreation fields.

WALNUT STREET GATEWAY

One of the most important tenets of the Vision Plan is a strategy to provide for incremental development of the Walnut Street gateway. A key issue is that the proposed mixed-use development may take several years before it is feasible. However, the University would like to create a new gateway and provide better linkages to Center City in the near term. To that end, a concept titled as “Windows on Penn” is proposed. Windows on Penn is an art installation proposed for the south side of the Walnut Street Bridge that would create a gateway element until such time that the mixed-use development is feasible. Four options are provided for consideration.



Existing view



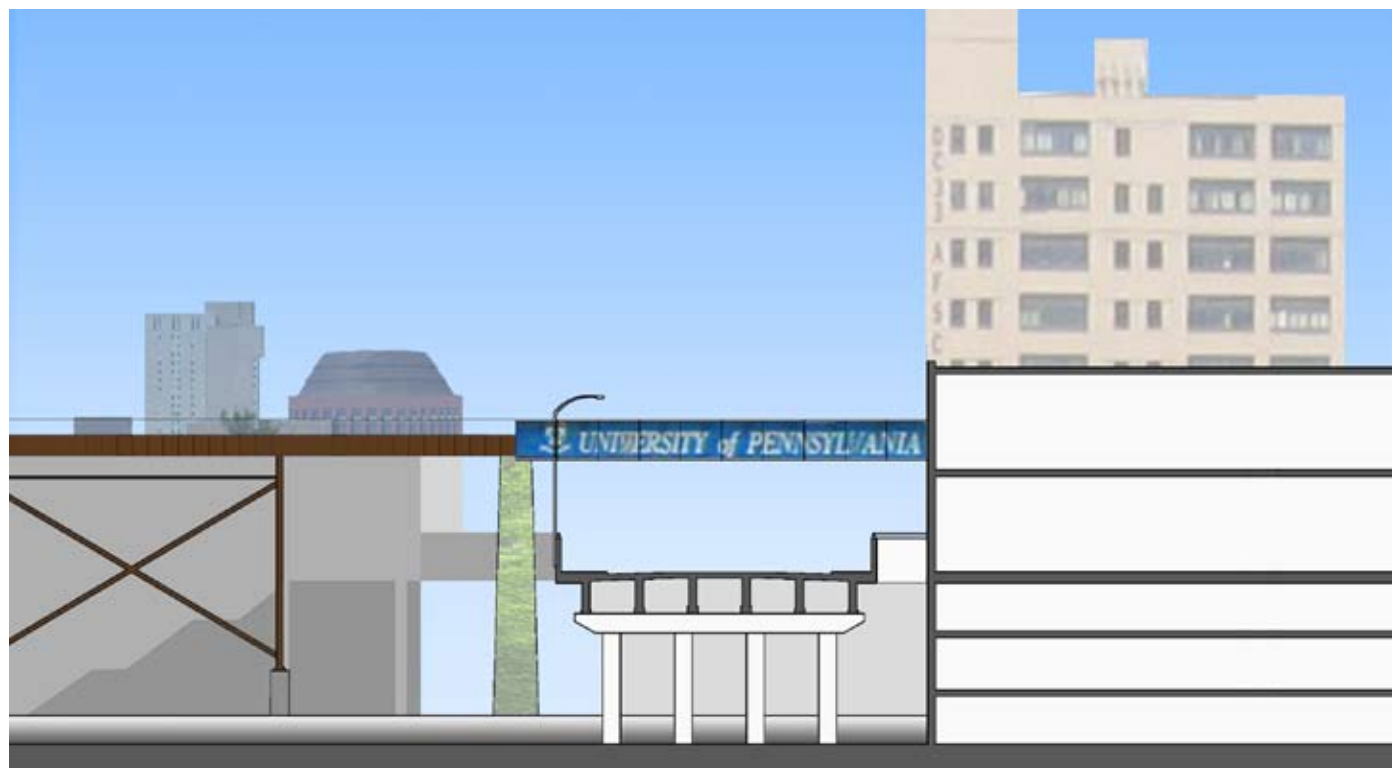
Option 1 calls for the creation of a landscape edge to the street. Shipping containers are stacked adjacent to and up to the height of the bridge where the top container will be filled with soil to support poplar trees. The shipping containers are intended to recall the industrial and transportation history of the east campus area and provide an affordable temporary structure for the proposed planting.



Section of proposed Windows on Penn option featuring snipping containers with poplar trees.



Existing conditions section at Walnut Street.





Option 2 - Daytime view



Option 2 - Night time view



Options 2 – utilize wire mesh fencing along the Walnut Street edge combined with lighting elements. Option 2 includes a series of horizontal lighting elements to animate the bridge at night.



Option 3 - includes a blue neon wave extending the full length of the bridge leading into the campus.

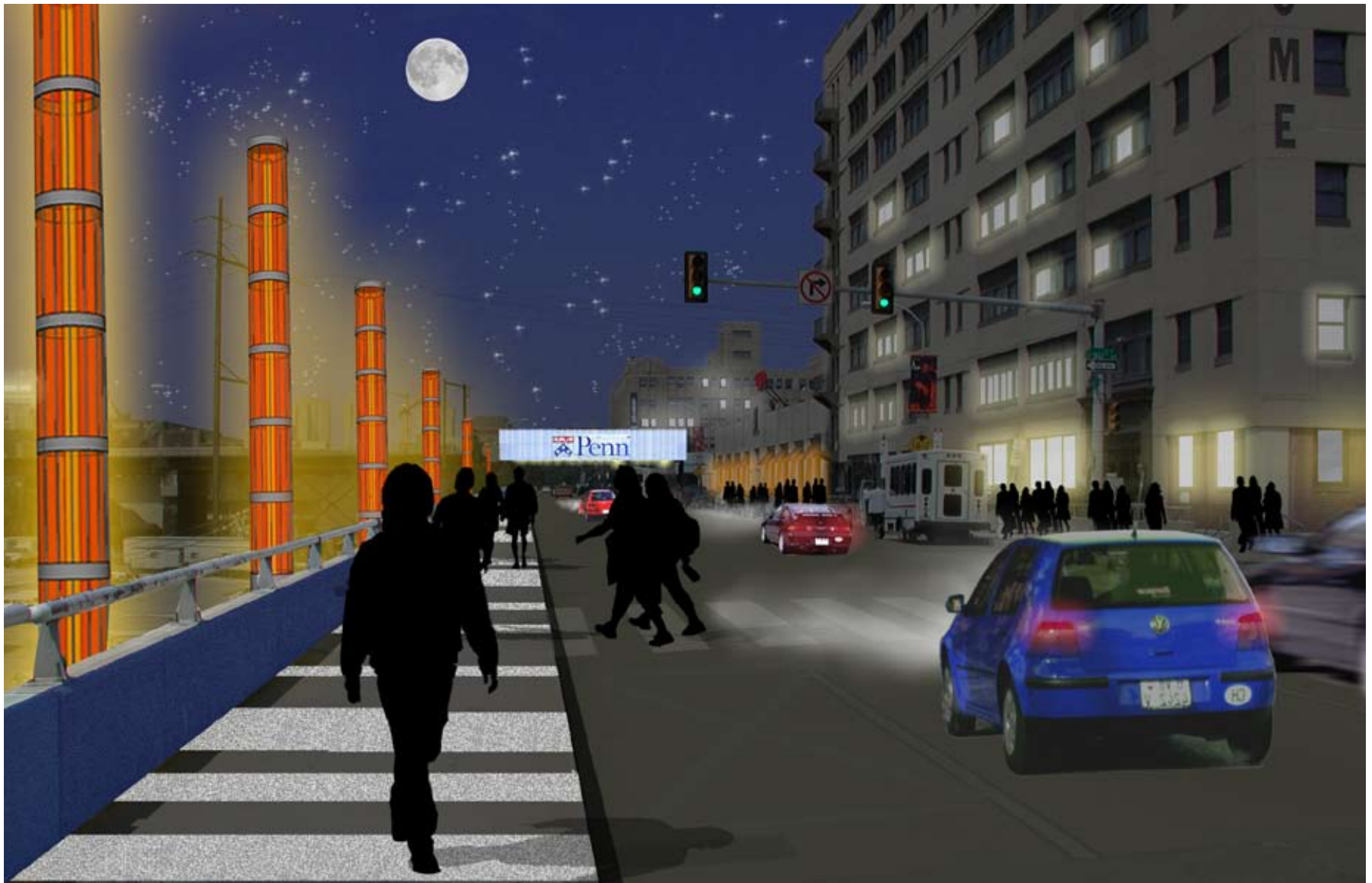


Option 3 - Day time view

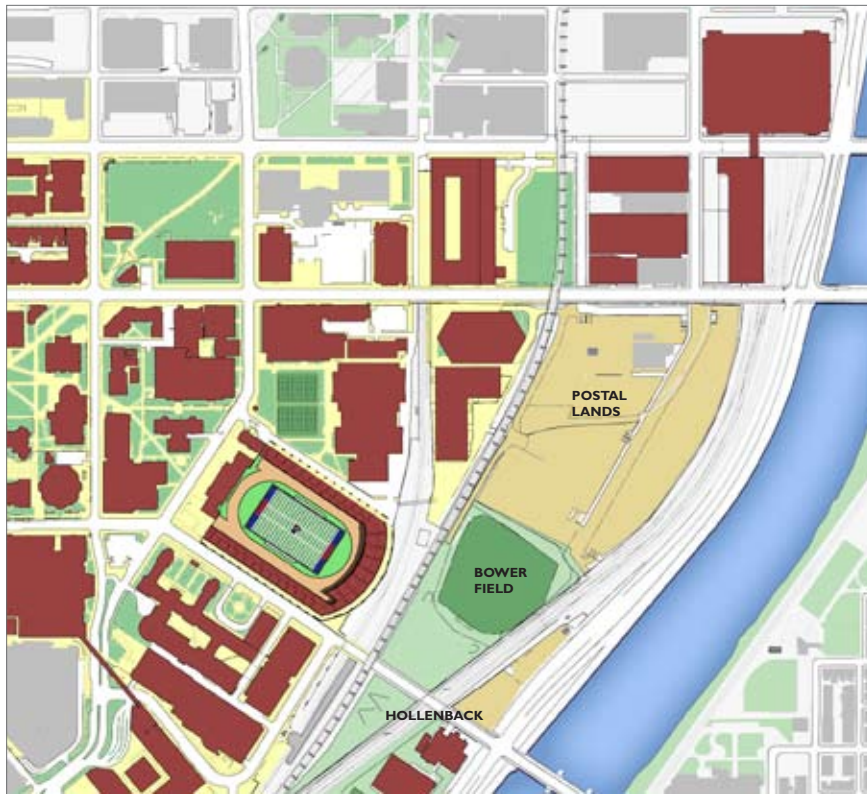


Option 4 - Daytime view

Option 4 includes a series of regularly spaced columns along the bridge. The columns provide a rhythm as pedestrians and motorists travel across the bridge. The columns would be lit at night to provide a more dramatic gateway experience.



Option 4 - Night time view

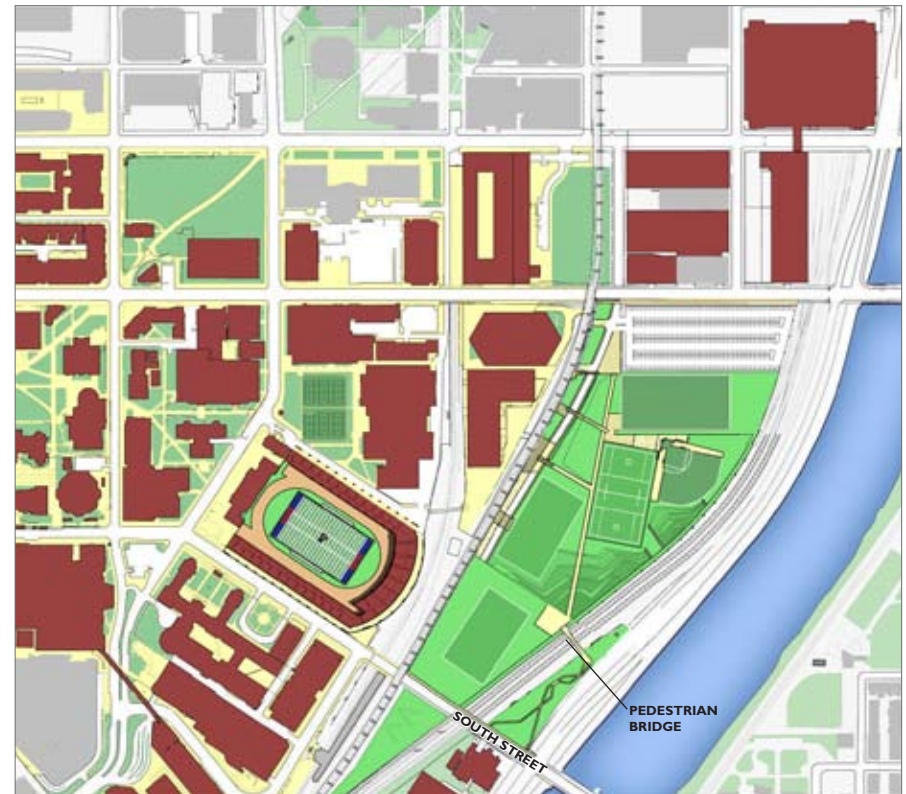


Existing Conditions

SPORTS AND RECREATION FIELDS

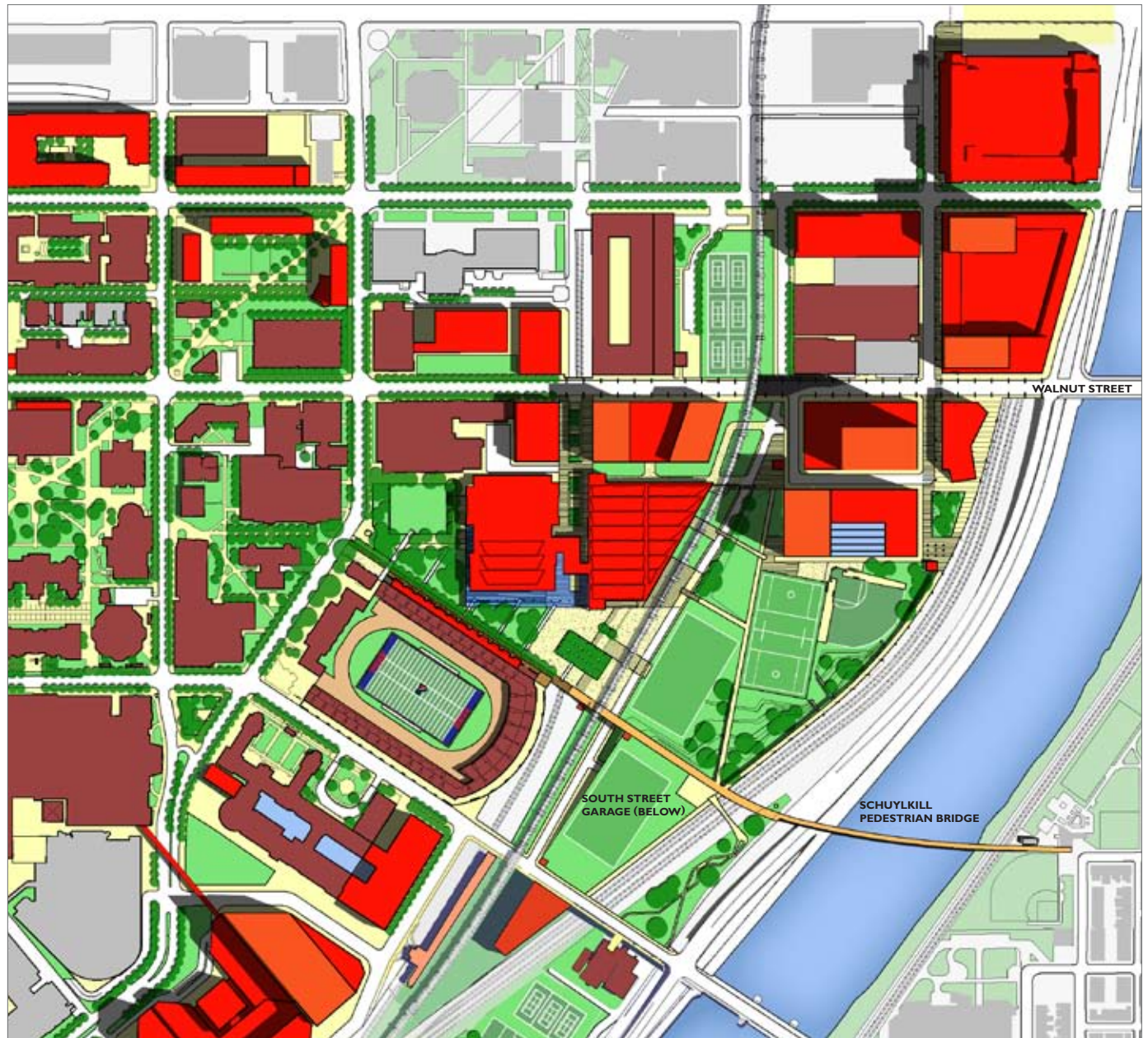
The sports and recreation fields will be one of the first projects implemented. The reconstruction of the South Street Bridge in 2007 is the catalyst for the quick implementation. The bridge reconstruction requires a rethinking of pedestrian circulation, given that South Street is the only means of access to Hollenback Center and the River Fields. To maintain access during the construction, the University plans to build a bridge over Amtrak extending from the existing Bower Field, eastward to the triangle of land just north of the South Street Bridge.

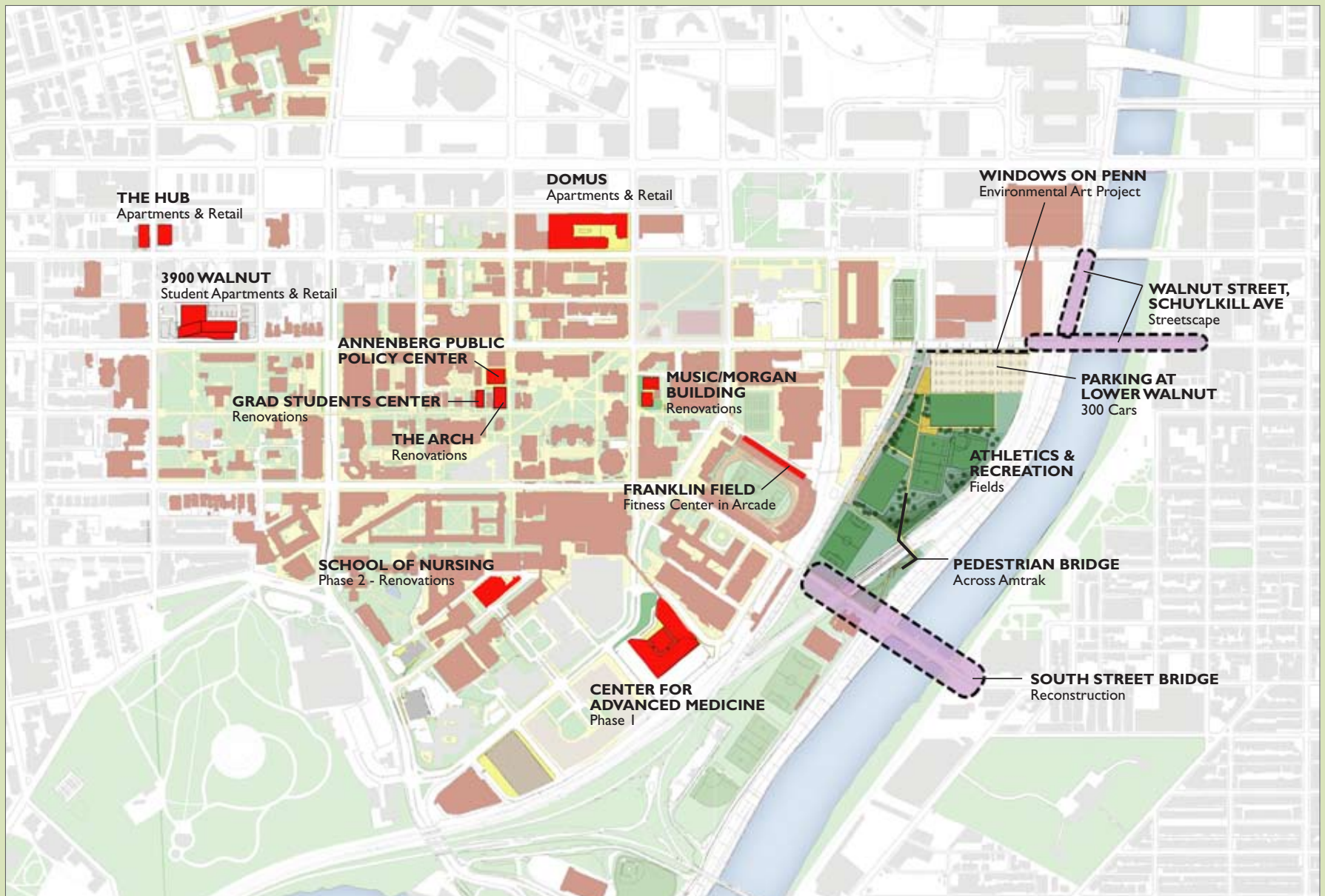
In 2007, the University plans to start construction on the sports and recreation fields. The intent is to construct the fields as ultimately intended in the Vision Plan. The fields will be constructed as proposed with surface parking on the site of the future Walnut Street Gateway buildings. A temporary sports field will be provided at the site of the proposed South Street Garage.



Step 1 features the sports and recreation fields, extension of Lower 31st Street into the site and a pedestrian bridge over Amtrak. The bridge will provide access to the Hollenback Center during the reconstruction of the South Street Bridge.

Step 2 features the South Street Garage, the Schuylkill Pedestrian Bridge and the mixed-use development along Walnut Street.





PHASE I (2006-2010)

9

Phasing

PHASING

The Vision Plan provides a phased framework for implementing the development proposed across the campus. It offers a flexible, pragmatic approach towards realizing the Vision. It also offers a tool to study and program future campus-wide development.

The previous sections describe the vision and components of the plan for the campus, which will be developed over a period of 30 years or more. While it is difficult to set out a detailed phasing and implementation strategy for a development of this nature given the uncertainties of programmatic needs, a potential phasing plan is provided to illustrate the probable course of development and to illustrate the logistics associated with implementing key projects.

Four phases are illustrated in the plan:

Phase 1: 2006 – 2010

Phase 2: 2010 – 2015

Phase 3: 2015 – 2025

Phase 4: 2025 and beyond

A brief description, an illustration of the proposed projects and logistical sequence of each phase follow.

Phase 1: 2006- 2010

Phase 1 outlines some of the immediate measures to be undertaken when the postal properties become available in early 2007. The reconstruction of the South Street Bridge by the City of Philadelphia is an important factor guiding the first phase of implementation. It will necessitate the installation of a new pedestrian bridge over the Amtrak lines to provide access from the Bower Field area to Hollenback Center and the River Fields.

The availability of the postal lands also enables the University to address the need for athletic and recreation fields closer to campus, and begin construction of the sports and recreation fields. During this initial phase, the Walnut Street gateway to Penn will also be initiated, with streetscape improvements along Walnut Street and Schuylkill Avenue, including the “Windows on Penn” project. The “Windows on Penn” is an environmental art project that is intended to engage the vibrant artist community of Philadelphia. The art project will be a temporary installation along the west side of the Walnut Street Bridge to screen the surface parking that will remain directly adjacent to the bridge during this phase.

Major improvements include:

East Campus

1. Windows on Penn, Environment Art Installation at Walnut Street.
2. Temporary surface parking on Lower Walnut, 300 cars (site of future mixed-use development parking deck)
3. Athletic and recreation fields
4. Pedestrian bridge over Amtrak
5. Franklin Field: fitness center in the arcade

Campus-wide developments:

Domus Apartments and Retail. This 295-apartment / 413,000 gsf development, includes 16,000 gsf of ground floor retail and restaurant space along Chestnut and 34th Streets, concierge, meeting rooms, lounges, a small gym for residents, a landscaped interior pool, courtyard, and off-street parking for 320 cars. Completion is anticipated for the fall of 2007.

The HUB, 40th and Chestnut Apartments and Retail. This \$23 million, 10-story mixed-use apartment and retail project will include market-rate studios, one- and two-bedroom apartments that are targeted to young adults, students, and couples. The developer is Teres Holdings, LLC, in partnership with the University.

3900 Walnut Apartments and Retail A \$70 million redevelopment on the 3900 block of Walnut will provide nine stories of apartments over a two-story retail base includes approximately 478 beds configured in one-, two- and four-bedroom units conducive to student living, 30,000 sf of two-story retail spaces along Walnut and Sansom Streets (with outdoor dining options), and resident amenities. The building will incorporate such “green” features as a vegetated roof, daylighting strategies, and high efficiency building systems. Construction is slated to begin in the spring of 2007.

Annenberg Public Policy Center Groundbreaking for the new \$29 million Center on 36th Street Walk is set for the fall of 2006. The Center will include a new public forum venue, research space and offices. The dramatic glass and wood design by Fumihiko Maki, due to be completed by the fall semester in 2008.

Music/Morgan Building Renovation A design study is underway to examine an addition to the historic Music Building, including new classrooms, an accessible entryway, and a new home for the College of General Studies.

School of Nursing Renovations A two-phase renovation project is currently underway. The first phase opened in the fall of 2005, provides a new entrance, gardens, and ground floor café. Renovations totaling \$15 million are scheduled for the building's third and fourth floors, which house faculty, research, and administrative spaces.

Graduate Student Center Renovations Recently completed accessibility renovations include a new elevator to every floor of the building, accessible toilets, and a new ramped entry to the rear patio.

The Arch Renovations This \$1 million exterior renovation project will restore the structural integrity and building envelop to its historic appearance. Work began early in 2006 and will be completed on all sides of the building by spring semester of 2007.

Other Developments

South Street Bridge reconstruction

Center for Advanced Medicine (CAM) Phase 1 The Raymond and Ruth Perelman Center for Advanced Medicine will be a 360,000gsf outpatient facility, providing state-of-the-art technology and the most advanced patient treatment options available. Phase 1 of the new Center, opening in early 2008, will include the Abramson Cancer Center, a new cardiology center, and an outpatient surgical pavilion – all in a physical environment where the patient's comfort and convenience are paramount.

Walnut Street/Schuylkill Avenue Streetscape A comprehensive streetscape plan of Walnut, from the east side of the Schuylkill at 22nd Street to 40th Street at the west end of campus has been designed to a schematic level. It includes new sidewalk paving, street and pedestrian lighting, traffic calming, and street furniture.

Phase 2: 2010–2015

Phase 2 includes major upgrades to the athletic and recreation district around the Palestra. This includes construction of major new public spaces such as Palestra Green, Franklin Plaza and Promenade, renovation of the Palestra and Hutchinson gym, and the construction of a new field house.

The 800-space South Street Parking Garage and sports field is proposed during this phase.

With the Post Office Development, Phase 2 also begins to address the character of Walnut Street with the completion of a mixed-use project including housing, retail, and offices (820,000 gsf).

The Museum Plaza is proposed on the site of Penn Tower to connect with the University City SEPTA station. This outdoor space will anchor the ongoing building development at the Center for Advanced Medicine, and the expansion plan for the University Museum.

East Campus

1. Station Square: Market, 30th Street and Chestnut Street improvements
2. Post Office Building Development
3. Post Office Annex Development, Phase 1: hotel and parking with mixed-use
4. Walnut Street: Phase 1, mixed use project
5. Palestra Green, Palestra & Hutchinson Gym renovation
6. New Field House
7. Museum addition, renovation and Museum Plaza
8. South Street sports deck with parking for 800 cars

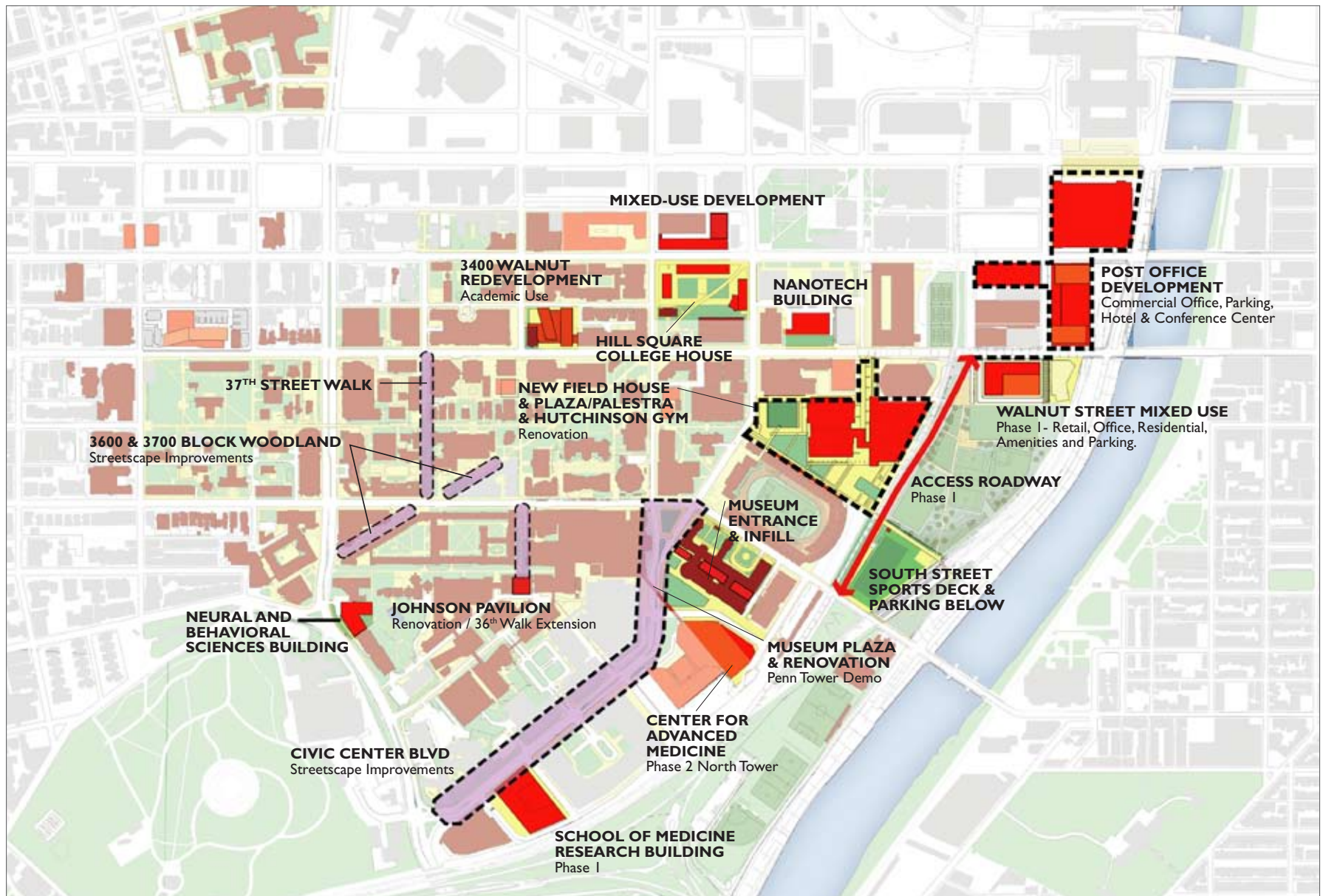
Campus-Wide Development

Post Office Redevelopment The ongoing development of Penn's eastern edge is a critically important to meeting the University's long term goal of connecting the campus to Center City. Central to this strategy is the redevelopment of the main post office building and the attached annex as office space and a parking structure. This development between Walnut and Market Streets is distinct from the campus planning effort, which focuses on the acreage of surface lots between Walnut and South Streets, the Expressway and 32nd Street. The redevelopment of the Main Post office building, its annex and its Vehicle Maintenance Facility are separate real estate development strategies.

Museum Entrance and Infill An ongoing study is underway to expand and renovate the University Museum, including exhibit and research space, and a new public entry. Noted architect, David Chipperfield, is carrying out this work, expected to be complete, by the spring of 2007.

3600 block of Woodland A new ADA compliant design has been completed, to re-establish Woodland Walk as a primary axis from the northeast campus entry from downtown to the southwest portal to the West community. This phase of the work, with new shade trees, lighting, paving, and street furniture would unite the campus in plan and palette and would open a vista from the center of the campus to the Quad's Memorial Towers.

3700 block of Woodland The opening of the new Veterinary School at University Avenue, the Office for Students with Disabilities in Stouffer, and the upcoming opening of the Student Performance Center in Stouffer have accentuated the need to update this section of a primary campus axis. Flanking the historic Quad, this piece of Woodland Walk completes the plan to unify the campus from northeast to southwest.



PHASE 2 (2010–2015)

37th Walk improvements The Penn Class of '62 has dedicated funding to complete the improvement of 37th Street Walk from Locust Walk to Walnut Street. Elements from a successful student design competition are being implemented, including dramatic lighting, new paving, trees, benches, and landscape plantings.

36th Walk extension to Johnson Pavilion The continuation of 36th Street Walk through the Johnson Pavilion will unite the main campus with the medical precinct along one of three campus axes. New shade trees, paving, and street furniture will complete the project.

Civic Center Boulevard Streetscape improvements Already underway as part of recent Children's Hospital of Philadelphia improvements, new street trees, pedestrian and street lighting, and street furniture will make the pedestrian environments around the new Center for Advanced Medicine and future research buildings more pleasant.

3300 Chestnut Street Mixed Use Development Potential development options for the surface parking lot on the northeast corner of 34th and Chestnut Streets. Options include student health offices or graduate student apartments with ground floor retail.

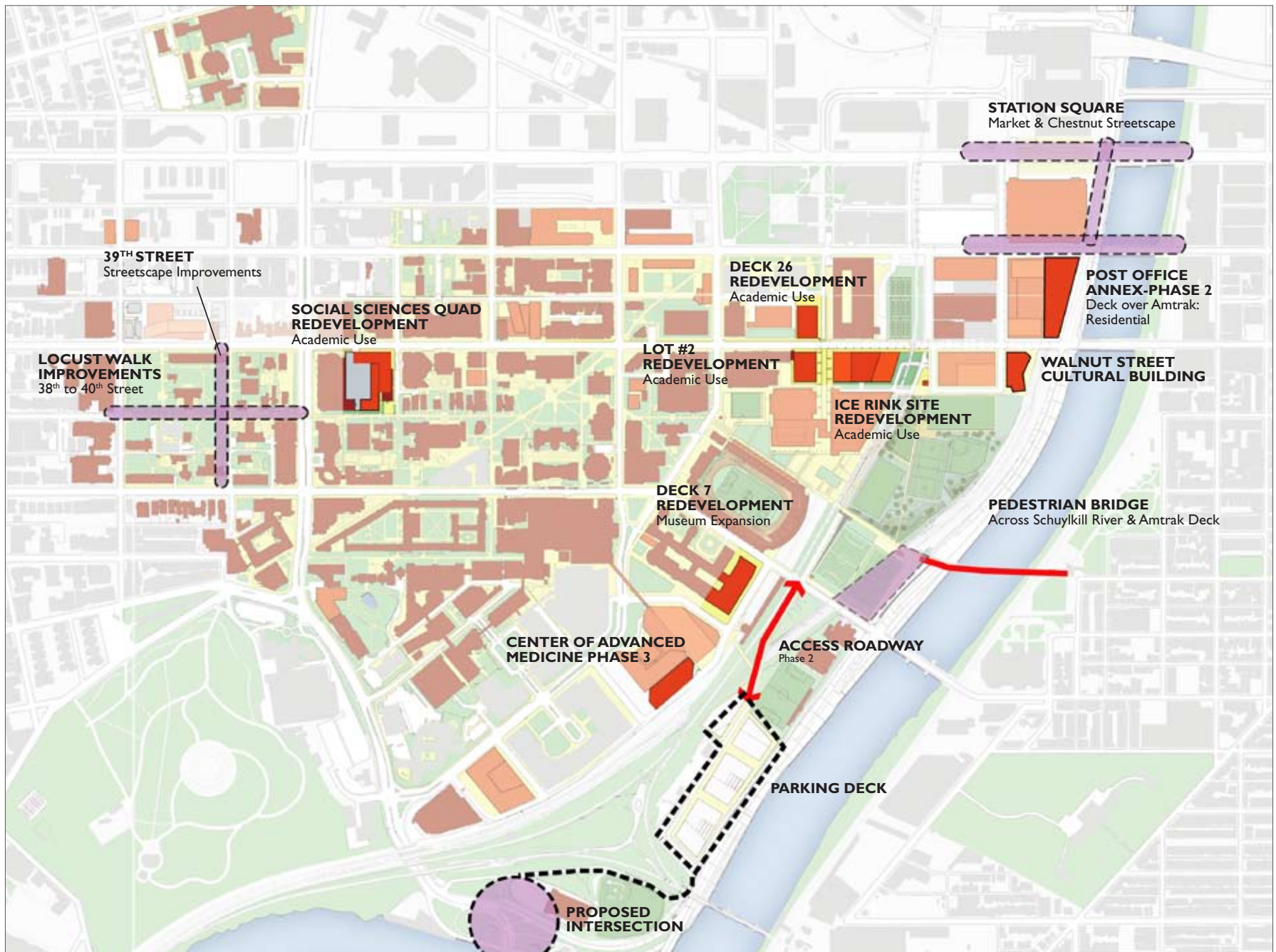
Johnson Pavilion Renovation at 36th Walk An initial planning study was completed which contemplates a \$50M renovation of the ground and 1st floor levels of Stemmler and Johnson Pavilion. Work includes renovations to the BioMedical Library, student study spaces, and main entrance for School of Medicine, all integrated into a new public passage extending 36th Street Walkway through a two-story portal in the Johnson Pavilion. This new passage would open on the south to Guardian Drive, connecting the main campus to the medical precincts.

Neural and Behavioral Sciences Building With 180 faculty from 32 departments at Penn, the Mahoney Institute of Neurological Sciences is looking forward to completion of the University Avenue Life Sciences Complex, which will provide 100,000+ gsf of space for neural and behavioral sciences, a new life sciences library, and a large lecture room for the School of Arts and Sciences Department of Biology.

School of Medicine Research Building (Phase 1) The School of Medicine is considering a new research building on the Pennsylvania Hall site. The ultimate phased build-out could accommodate over 900,000 GSF: the current feasibility study focused on the initial 490,000 GSF. This study will provide estimated costs to accommodate long range needs for growth in research programs, replace outmoded facilities, and provide research animal vivarium space.

Other Developments

Center for Advanced Medicine-Phase 2, North Tower,



PHASE 3 2015–2025

Phase 3: 2015-2025

Phase 3 focuses on advancing the vision for Walnut Street as the gateway to the campus. A Penn Cultural Gateway Building is proposed to create a landmark site on the Schuylkill River and set the precedent for development south of Walnut. The redevelopment of the Ice Rink site and the Lot 2 site will create a portal to the sports complex and SEPTA Deck, ensuring pedestrian connectivity from Walnut Street to South Street. Redevelopment of Lot 26 (3200 Block of Walnut) would continue to transform the nature of Walnut Street to a pedestrian friendly, retail lined street.

The proposed pedestrian bridge across the Schuylkill River will connect the east campus to the Schuylkill Banks Park and Center City. The bridge will be an iconic addition to the emerging waterfront skyline and act as a beacon, announcing a revitalized east campus.

The Social Sciences Quad goes through restructuring to address the needs of a consolidated Wharton School precinct. The Social Sciences program will then move to a renovated Steinberg-Dietrich Hall.

The Center of Advanced Medicine, Phase 3 and museum expansion are also proposed during this phase.

East Campus

1. Walnut Street – Cultural Building
2. Ice Rink redevelopment (300,00 gsf)
3. Pedestrian bridge across Schuylkill River
4. Deck 7 redevelopment (Museum) (210,000 gsf)
5. Deck 26 redevelopment (Walnut St) (200,000 gsf)
6. Parking deck for 1,800 cars on the fields south of Hollenback Center along with proposed intersection improvements for University Avenue.
7. South Street sports deck: Phase 2 – Deck over Amtrak

Campus Wide Development

Steinberg-Dietrich Hall renovations Recently completed accessibility upgrades have cleared the way for a strategic evaluation of this central campus building. Steinberg-Dietrich Hall is under consideration for re-use as a new home for other Schools and Centers within the University, following the relocation of key functions of the Wharton School to Huntsman Hall.

39th Street improvements The north/south corridor through Hamilton Village – one of the largest concentrations of undergraduate housing in five College Houses – will be improved to the campus standard. Work includes new paving, street furniture, sculpture, and planting.

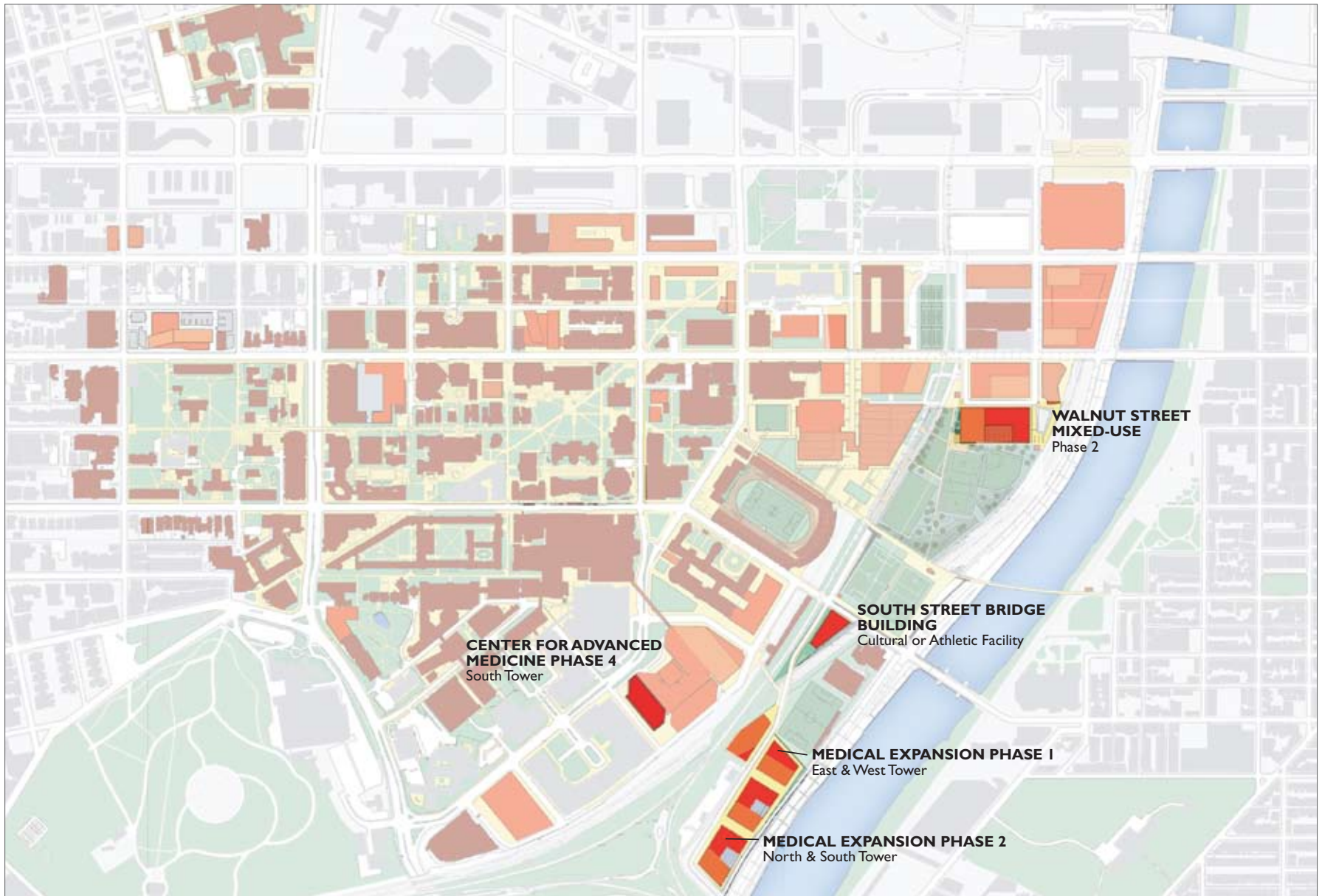
Locust Walk improvements (38th to 40th Street) Installed by the Class of '46 in 1962, this section of Locust Walk is the continuation of the campus spine through the most heavily populated student residential block. With the recent renovation of adjacent landscapes, the improvement of this walk has become imperative, and is scheduled for the summer of 2007 or 2008.

Station Square – Market and Chestnut Streets As the entry gateway to West Philadelphia, and the front door of the region's major rail transportation hub, Station Square represents an opportunity to welcome visitors and commuters to Penn's neighborhood. Long-term improvements to the open space between the 30th Street Station and the historic Post Office Building redevelopment include reorganizing vehicular patterns, reducing surface parking, improving the pedestrian environment, and providing new streetscape furnishings and planting.

University Avenue/River Fields Road intersection improvements The River Fields Roads provide both service and delivery access to the east campus and an important pedestrian and vehicular spine for the Penn community. Improvements will include new surfacing, parking, lighting, and pedestrian enhancements.

Other Developments

Center for Advanced Medicine-Phase 3, East Tower



PHASE 4 2025 AND BEYOND

Phase 4: 2025 and Beyond

In Phase 4, the proposed Walnut Street mixed use development will add 1 million gsf of office, research space to this thriving address and will complete the development proposed in the Vision Plan. During this phase the center of development shifts south with the addition of another 300,000 gsf building west of Hollenback Center. The final phase of CAM will also be completed. The Medical district is poised for expansion on the River Fields.

East Campus

1. Walnut Street – Phase 2 (1 million gsf)
2. South Street Bridge Building (150,000 gsf)
3. Medical Area Expansion – Phase 1 (760,000 gsf)
4. Medical Area Expansion – Phase 2 (870,000 gsf)
5. Center of Advanced Medicine, Phase 4, South Tower

Campus Wide Development

Center for Advanced Medicine (Phase 3) east tower

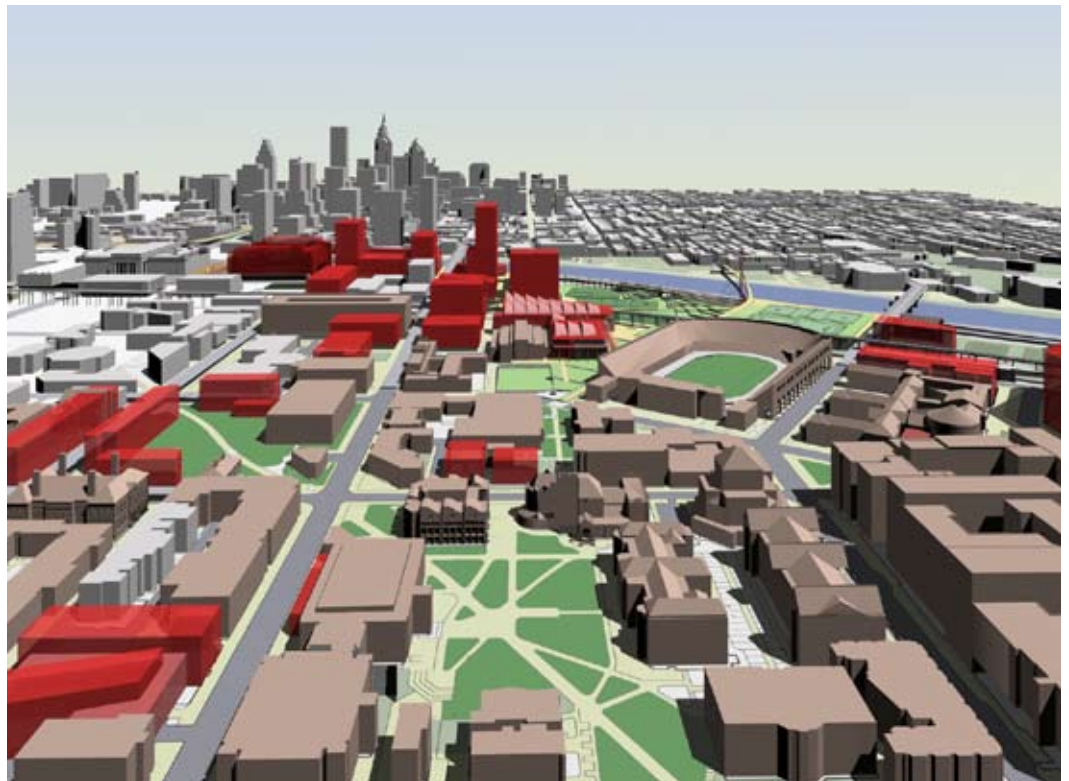
Closing

The Vision Plan sets out a phased development strategy for the next 25-30 years. It offers a flexible approach for implementing the key proposals of the plan.

During all phases of the implementation process, the University will continue to consult with the Penn and local communities concerning the development proposals.

The University encourages the participation and involvement of the entire Penn community in helping implement this exciting vision for the future.

Please send ideas, comments, suggestions, and feedback to: pennplan@pobox.upenn.edu



Acknowledgements

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GROUPS CONSULTED

Deans, senior administrators, students, faculty, and staff were consulted and given periodic updates on the Committee's progress through the following groups:

Council of Deans

Faculty Senate

Academic Planning and Budget

Penn Alumni Society

University Council

University Council Committee on Facilities

Undergraduate Assembly

Graduate and Professional Student Assembly

Penn Professional Staff Assembly

Weekly Paid Professional Staff Assembly

Senior Planning Group

University Health System

Provost's direct reports (including Museum and Library), and

University-wide Faculty Advisory Group.

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