



Project Area Master Plan

# UPMC SHADYSIDE HOSPITAL

5230 Centre Avenue, Pittsburgh, PA 15232

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# I. MASTER PLAN

## Introduction

UPMC Shadyside is a 520 bed tertiary care hospital that has been serving the residents of Pittsburgh and the tri-state area since 1866. UPMC Shadyside offers primary medical care, physician and nursing education, and a broad range of specialties that include cardiology, oncology, orthopedics, geriatrics, gynecology, vascular medicine, endocrinology, and more.

UPMC Shadyside's medical staff includes nearly 1,000 primary care physicians and specialists, many of whom have offices at the hospital and throughout the community.

## Services & Specialties

UPMC Shadyside provides a full range of health care services, including inpatient, outpatient, and emergency care, as well as highly specialized diagnostic and treatment procedures. The combination of high-tech medicine and compassionate care touches every one of the thousands of patients who enter UPMC Shadyside each year.

### Services include:

- Cardiology & Cardiac Surgery
- Center for Integrative Medicine
- Digestive Disorders
- Emergency Medicine
- Family Health Center
- Lung Disease
- Neurosurgery
- Occupational Therapy
- Oncology
- Orthopedics
- Physical Therapy
- Radiology/Imaging Services
- Rehabilitative Services
- Senior Services
- Surgical Services
- Urological Comprehensive Care Program (UCCP)
- Vascular Surgery



# I. MASTER PLAN

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## Research at UPMC Shadyside

UPMC Shadyside participates in a number of research studies, including:

### Cancer Research

Across from UPMC Shadyside, connected by the Shea Pedestrian Bridge, is Hillman Cancer Center, headquarters for the research facilities of the University of Pittsburgh Cancer Institute (UPCI), which works in tandem with the clinical services of UPMC Cancer Centers. UPCI's research programs occupy a 152,300 square foot, three level research pavilion at Hillman Cancer Center. The rest of the building is devoted to clinical care for cancer patients. Thus Hillman Cancer Center is designed to maximize collaboration among investigators, to streamline the application of laboratory findings to patient care, and to facilitate the flow of information about clinical experiences back to researchers for further development. With cutting edge research in basic science as well as clinical trials, UPCI ranks among the nation's leaders in funding from the National Cancer Institute (NCI). UPCI-initiated clinical research has garnered national and international recognition for the advanced treatment of melanoma, as well as brain, prostate, lung, head and neck, ovarian, and breast cancers.

### Nursing Research

UPMC Shadyside supports research in an effort to deliver the highest quality patient care. Nursing care delivery impacts patient outcomes in multiple ways. Our research efforts are focused on increasing efficiency while at the same time maintaining or improving high-quality outcomes. Recent nursing research projects at UPMC Shadyside have studied the use of patient-administered oral pain medication for hip replacement patients, the relative merits of automatic and manual blood pressure cuffs, and improvements in ventilator weaning protocols.

Transforming Care at the Bedside (TCAB) initiatives have been a part of the culture at UPMC Shadyside for more than 10 years. UPMC Shadyside was one of three hospitals in the United States to pilot this approach. Today, all inpatient nursing units participate in the TCAB philosophy in order to improve work-flow processes.



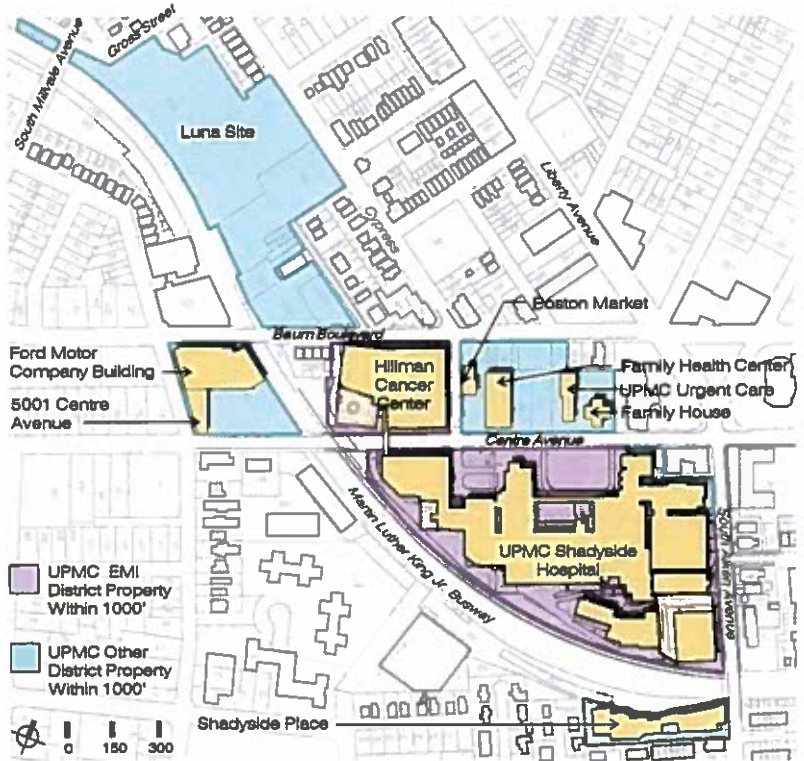
## II. PLANNING AREA

The existing EMI district of the Project Area Master Plan is bounded by Baum Boulevard to the north, Martin Luther King Jr. Busway to the southwest, and South Aiken Avenue to the east. UPMC Shadyside Hospital and the Hillman Cancer Center are included in this EMI district.

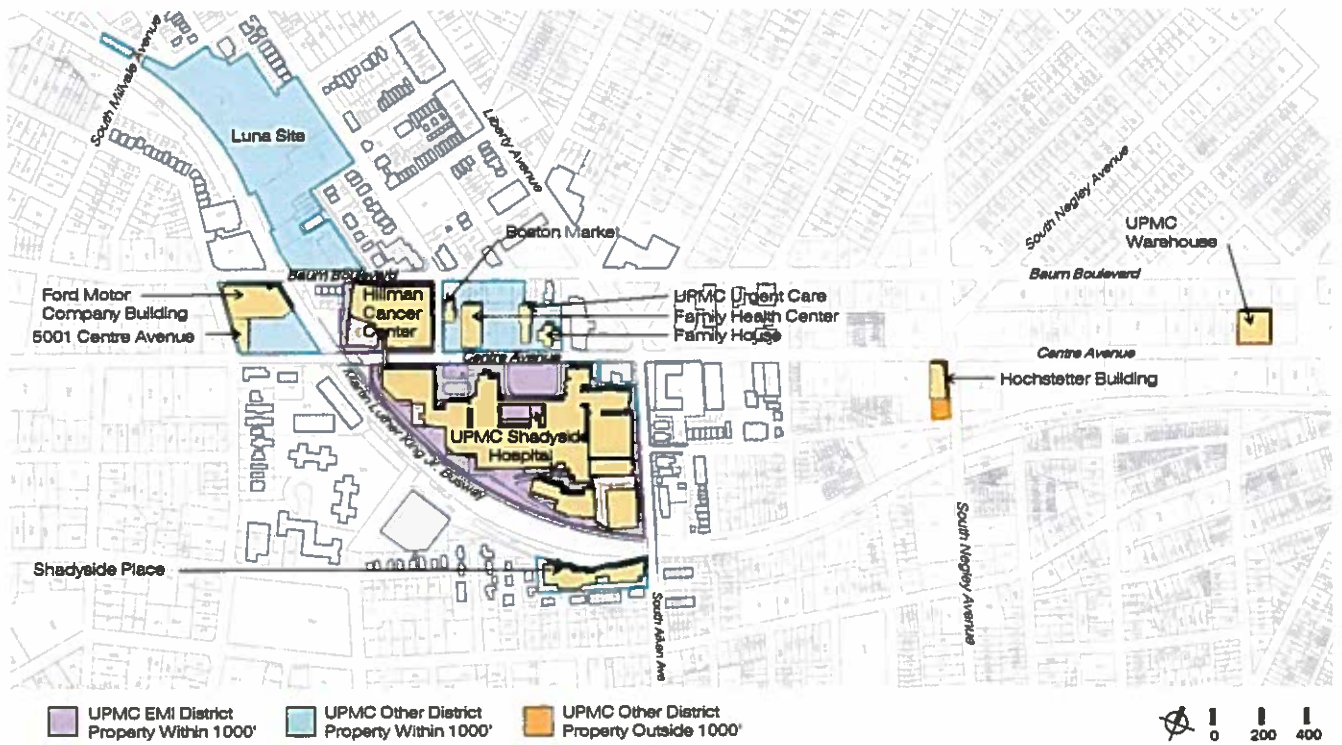
The planning area for the Institutional Master Plan includes the EMI district described and the contiguous properties owned by UPMC within one thousand (1,000) feet of the EMI district, including the Luna Site, Ford Motor Company property, Boston Market, Family Health Center, UPMC Urgent Care, Family House and Shadyside Place.

The adjacent plan shows the institutional ownership within 1000 feet of the EMI district. The block/lot numbers, as indicated on the city of Pittsburgh zoning map, are as follows: 106, 106-0-1, 51-R-150, 51-R-150-0-1, 208-A, 208-A-1, 51-P-208, 51-P-208-0-1, 66, 13, 45, 38, 34, 286, 281, 283, 279, 278, 277, 276, 275, 270, 268, 306, 109, 108, 104, 100, 95, 115, 315, 310, 309, 210, 51-J-238, 238-1, 180, 247, 248, 249, 250, 240, 238, 238-1 and 229.

The plan on the next page indicates all institutional ownership in Shadyside, and the following page indicates zoning for these properties and the surrounding parcels.





## II. PLANNING AREA - SHADYSIDE PROPERTY OWNERSHIP

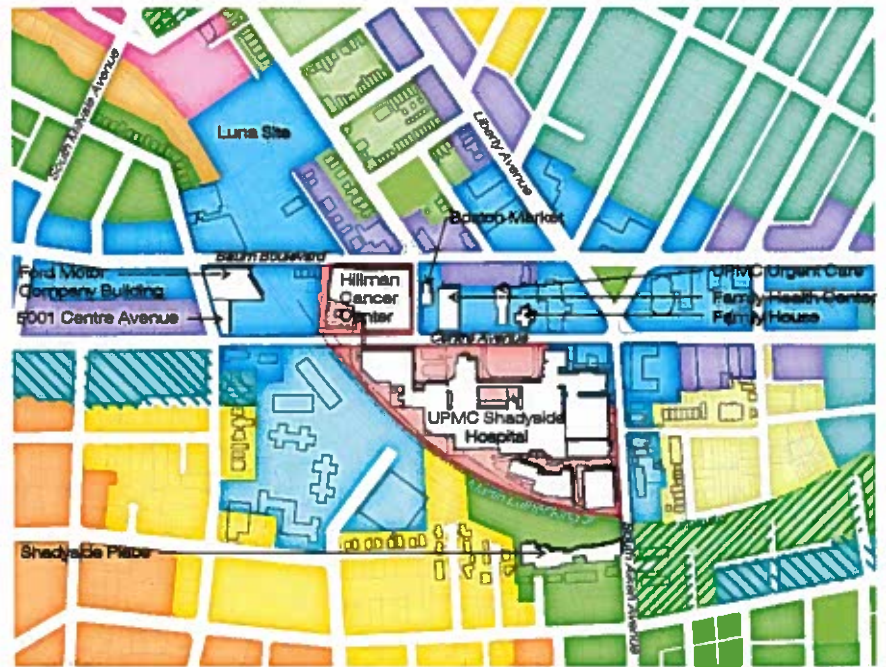




## II. PLANNING AREA - EXISTING ZONING MAP

### Legend

-  AP Residential/Commercial Planned Unit Development
-  EMI Educational/Medical Institution
-  H Hillside
-  LNC Local Neighborhood Commercial
-  P Parks & open Space
-  R1A -H Single Unit Attached Residential High Density
-  R1A -VH Single Unit Attached Residential Very High Density
-  R1D -VL Single Unit Detached Residential Very Low Density
-  R1D -L Single Unit Detached Residential Low Density
-  R2-M Two Unit Residential Moderate Density
-  R2-H Two Unit Residential High Density
-  R3-M Three Unit Residential Moderate Density
-  RM-M Multi Unit Residential Moderate Density
-  RM-H Multi Unit Residential High Density
-  UI Urban Industrial
-  UNC Urban Neighborhood Commercial



## III. MISSION & OBJECTIVES

### Mission, Vision, Values & Objectives

UPMC Shadyside is dedicated to improving the quality of life and state of health of the residents of Pittsburgh and the tri-state area. By providing a continuum of high-quality primary and specialized medical care, UPMC Shadyside works closely with physicians and other health care organizations to continue its tradition of innovation, caring, and respect for the dignity and unique needs of the individual.

### Mission

UPMC Shadyside supports excellence in its patient care and teaching programs, state-of-the-art medical technology, and research. UPMC Shadyside offers affordable, cost-effective, convenient, and accessible care regardless of ability to pay.

### Vision

The vision for Shadyside is to build on a tradition of innovation and caring by developing a broad continuum of high-quality, cost-effective health services for the community.

### Values

The shared values of UPMC Shadyside serve as the foundation for continuing efforts to achieve the UPMC Shadyside vision. Our values guide and direct our behaviors so that we maintain internal consistency in our decision making, achieve clarity in our daily work, and fulfill our mission.

The values we have identified as important to our overall success are:

- **Compassion** — We have the ability to place ourselves in the position of others to better recognize their needs and care for them as we would wish to receive care.
- **Integrity** — We can function best if we have earned the respect of our co-workers, patients, and their families.
- **Courage** — We have the confidence to express ourselves honestly when others disagree and proceed to overcome challenges.

- **Initiative** — We are individually responsible for our collective success.
- **Teamwork** — We succeed because of the contributions of many people.
- **Partnership** — Working with physicians, health care organizations, and community agencies, we seek to improve the health of our community.

We continuously strive to do things better, comparing ourselves against providers locally and nationally to establish high quality. We value innovation.

### Objectives

The following objectives have been identified for the Project Area Master Plan:

- Provide facilities to accommodate projected growth. UPMC Shadyside is projected to experience low growth over the next ten (10) years.
- Utilize the Luna site to accommodate UPMC Shadyside parking needs and future research growth.
- Utilize the Family Health Center, Urgent Care and Boston Market sites for Outpatient expansion and retail.
- Provide adaptive reuse with expansion for research in the Ford Motor Company building.
- Utilize location of current School of Nursing Building for future first of two inpatient expansions to provide all private nursing units.
- Conversion to 100% private patient rooms over the course of the next 25 years.
- Expansion of Critical Care bed capacity.
- Utilize location of Preservation Hall for future Powerhouse expansion and hospital uses.
- Build out of mechanical and support services to adequately provide the necessary infrastructure support for additional bed capacity and service line expansion.



# IX. EXISTING PROPERTIES & USES

## Building Coverage

The Existing property and uses are fully described on the Existing Land Use Chart and the Existing Land Use Plan on the following page.



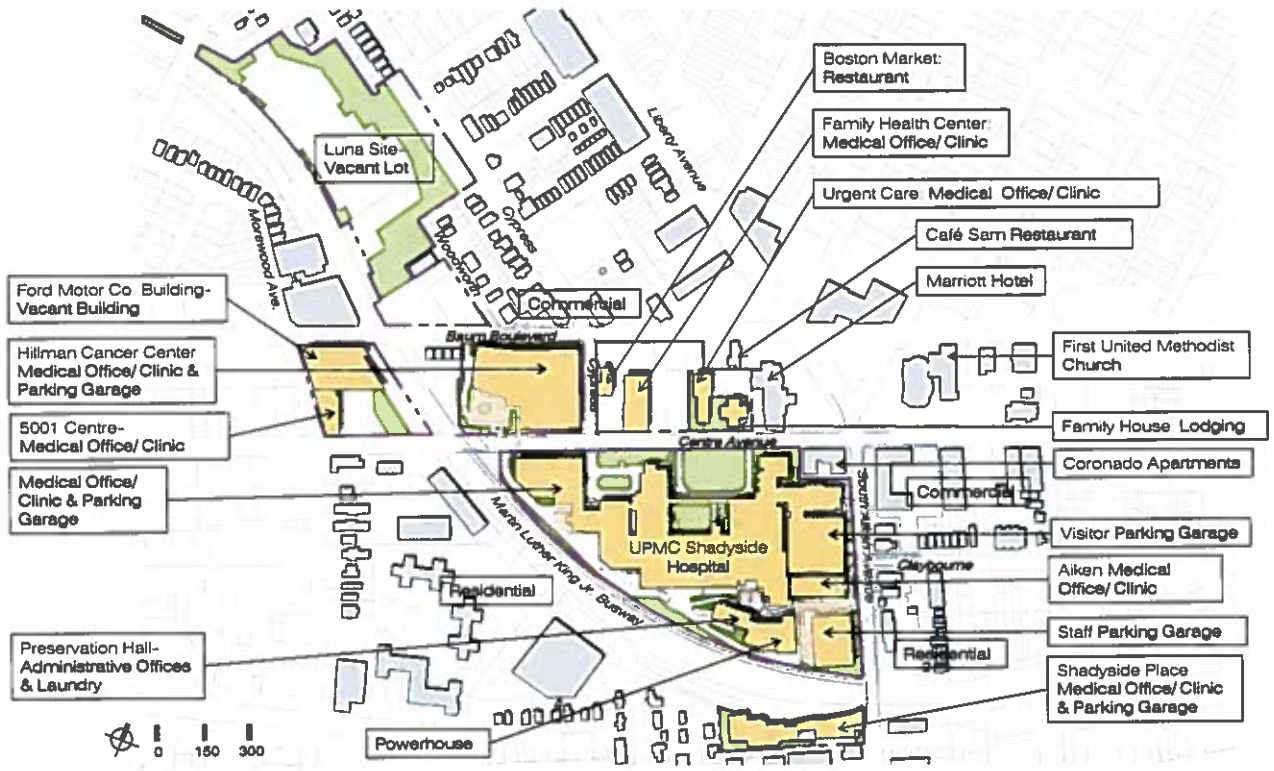
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Existing Land Use Chart							
Building/Use	Primary Land Use	Gross Square Feet of Floor Area	Gross Square Feet of Parking Structure	Parking Spaces	Number of Stories (excluding lower levels)	Height in Feet	Acres
Hospital	Hospital	760,160		see below	8 (1 is below)	136.6 (Publicly)	13.0
Visitor Garage	Parking Garage		224,000	994	7	84	Included
Employee Garage	Parking Garage		260,000	780	7	84	Included
POB 1 & 2	Medical Office/ Clinic	312,300		see below	10 (2 are below)	104	Included
Medical Center Garage	Parking Garage		314,000	931	see above	see above	Included
Herman Cancer Center	Medical Office/ Clinic	264,899		see below	8 (1 is below)	66	2.7
Herman Garage	Parking Garage		83,000	180	see above	see above	Included
Adm. Bldg.	Medical Office/ Clinic	90,000		see above	6	48	Included
School of Nursing	Admin. Offices	78,000		see above	8 (1 is below)	88	Included
Preoperative Hall	Admin. Offices & Hospital Laundry	32,800		see above	3 (1 is below)	27	Included
Power Plant	Hospital Utility	83,000		see above	2	47	Included
Family Health Center & lot	Medical Office/ Clinic & Parking Lot	28,000		22	2	26	0.8
Family House & lot	Residence for Hospital Patients & Families	42,500		34	6	84	0.8
Urgent Care Center & lot	Medical Office/ Clinic & Parking Lot	11,000		77	1	16	1
Shadyside Power	Medical Office/ Clinic	80,000		see below	6	26.72	1.1
Shadyside Power Garage & lot	Parking Garage		84,000	160	see above	see above	Included
Land Site	Vacant						8.8
8001 Centre Avenue	Medical Office/ Clinic	18,930		see below	3	26	0.2
8001 Centre Avenue Garage	Parking Garage		8,180	20	see above	see above	Included
Park Motor Dr. Building	Vacant	200,000			5	70	1.8
Bascom Market & lot	Retail & Parking Lot	3,000		26	1	16	0.8
Park Drive lot (offsite)	Parking			186			
School of Nursing (offsite)	Parking			58			
Towerview (offsite)	Parking			309			
Subtotal Medical/ Institutional		1,882,989		3,381			39.4
Subtotal Retail		3,000		26			0.8
Subtotal Parking Structure			828,180				
<b>Total</b>		<b>1,886,989</b>	<b>828,180</b>	<b>3,407</b>			<b>31</b>

# IX. EXISTING PROPERTIES & USES - EXISTING LAND USE PLAN

**Legend**

- UPMC Buildings
- Non-UPMC Buildings



## IX. EXISTING PROPERTIES & USES - EXISTING PARKING AND LOADING

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### Existing Parking

UPMC Shadyside provides over 2,800 parking spaces divided amongst five (5) parking garages (the Medical Center garage, the Visitor/Patient garage, the Employee garage, the Hillman Cancer Center Garage, and the Shadyside Place Garage), and on-campus surface parking lots. The on-campus parking facilities are supplemented by the use of over 550 off-campus shuttle parking facilities, including the Penn Circle lot, Towerview Garage, and the School of Nursing lot (Motor Square Garden).

### Existing Loading

The present loading dock locations will be maintained on the south side of the hospital.

# IX. EXISTING PROPERTIES & USES - EXISTING PARKING CAPACITY



## X. INSTITUTIONAL NEEDS

### Patient Needs

UPMC Shadyside Hospital is an academic/tertiary hospital, supporting 520 licensed beds. The hospital campus includes the Hillman Cancer Center and 4 professional buildings.

The current facilities at Shadyside pose opportunities and challenges to future growth. Through a variety of service increases, floor space is less than adequate. Many elevators are small by today's standards. A dense facility cluster is coupled with restrictive site elements. Floor to ceiling heights differ between various buildings, specifically the East Wing and the School of Nursing. In the School of Nursing, only the first floor connects to the hospital.

Most patient bed towers date prior to the 1970's. These units are non-conforming to current best practices, some have as few as 10 beds per unit, can lack visitor, family waiting rooms, and do not well accommodate modern computer charting systems. Many patient bed units are remote from diagnostic and treatment areas, creating long walking distances. Ventilation and general airflow are concerns on some floors.

Patient experience includes many first floor public areas in the hospital that have been recently built and/or renovated. Other floors have not been visibly renovated. Much of the hospital does not provide access to natural light. Many windows are adjacent to other wings and hospital structures, fenestration meets only minimum requirements.

A renovated Emergency Department has been factored into existing conditions. At the conclusion of this phase of the master plan, closure of West Penn was considered by corporate planning, however, Highmark (regional insurance provider) had purchased West Penn with the intention of re-opening for hospital services.

Over the next 10 years, The Advisory Board Company projects a decrease of 10% in inpatient admissions for the Allegheny County and Southwestern PA alike. Although this decrease will be an overall representation of the region, volume shifts from the West Penn hospital consolidation and increased market share due to limited choices will continue to drive volume to UPMC.

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Contrary to inpatient projections, The Advisory Board Company projects an increase of 9% in outpatient services for both Allegheny County and the region. The shift of traditional inpatient services to an outpatient setting is a trend that is already being experienced throughout the country. With the opening of UPMC East expectations are that most if not all inpatient and outpatient changes associated with the Shadyside Hospital will be minimal.

### Personalized Medicine, Cancer and Aging Research

UPMC plans to expand research at Shadyside with a long-delayed \$300 million research facility on the site of the former Ford Motor Co. building on Centre Avenue in Bloomfield.

The Center for Innovative Science (CIS) is planned to be completed in 2014, and is a part of the Project Area Master Plan. It will focus on personalized medicine and the biology of cancer and aging.

The project, which has been in the planning stages for several years, is expected to generate 375 new scientific and administrative jobs, bringing together leading scientists willing to develop bold, new approaches to understanding complex diseases, such as cancer. Scientists will identify genetic and environmental factors that determine the susceptibility of some people to cancer and develop better tools to diagnose illnesses.

### Parking Needs

Parking goals for the UPMC Shadyside master plan include maximizing convenience for patients and visitors, and providing staff parking at a level sufficient to minimize or eliminate the use of off-site parking. Addition of the Luna Garage, CIS Garage and the Outpatient Garage are designed to enable UPMC Shadyside to attain these two goals. The hospital will continue to provide shuttle service for employees who travel between the UPMC campuses.



## XI. TEN YEAR DEVELOPMENT ENVELOPE

The ten year development envelope is the same as the planning area for the Project Area Master Plan. Within this envelope, there is the following development proposal:

### Luna Parking Garage

**Location:** Luna site, bordering on Gross Street to the north, Cypress to the east, Baum Boulevard to the south and Martin Luther King Jr. Busway to the west.

**Description:** Proposed 1,000 space parking garage

**Maximum Floor Area:** 400,000 gsf

**Zoning:** A change of zoning from Urban Industrial and Urban Neighborhood Commercial to Educational/Medical Institution will be proposed for this development.

**Maximum Height (Stories):** 6 stories (5 stories below adjacent property elevations)

**Maximum Height:** 16 above grade at Cypress Street.

**Setbacks:** The front setback at Baum Boulevard is 315', south side setback (at neighbors) is 40', side setback at Cypress Street is 95', the west side setback is 78', the Gross Street setback is 385' and the north residents ROW setback is 45' for the Luna Parking Garage. This will meet or exceed the setbacks for existing structures on the respective streets.





# LUNA SITE & PARKING DECK

Conceptual Rendering: Entry to Deck Along Baum Boulevard



Cars shown at maximum AM peak entering and PM peak exiting

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# XI. TEN YEAR DEVELOPMENT ENVELOPE

## Center for Innovative Science & Parking Garage

**Location:** Ford Motor Company building and site, bordering Baum Boulevard to the north, Centre Avenue to the south, Morewood Avenue to the west and Martin Luther King Jr. Busway to the east.

**Description:** Proposed research building and 306 space parking garage

**Zoning:** A change of zoning from Urban Neighborhood Commercial to Educational/Medical Institution will be proposed for this development.

**Maximum Floor Area:** 150,000 gsf addition to existing 200,000 gsf Ford Motor Company building + mechanical penthouses and underground parking garage.

**Maximum Height (Stories):** 5 stories plus stair tower and mechanical penthouse

**Maximum Height:** 115'

**Setbacks:** Front, both sides and rear setbacks are all 0'



**IN THE WORST CASE SCENARIO THE FIFTH FLOOR SHADOWS SHADES FOR FIFTYTHREE MINUTES MORE THAN THE FOUR FLOOR OPTION**



**IN THE BEST CASE SCENARIO THE FIFTH FLOOR SHADOWS SHADES FOR FIFTYTHREE MINUTES MORE THAN THE FOUR FLOOR OPTION**

## Shadow Studies



**TIMES WHEN NEW BUILDING COULD SHADE EXISTING STRUCTURES ACROSS MOREWOOD**

## XI. TEN YEAR DEVELOPMENT ENVELOPE

### Inpatient Expansion (Tower A)

**Location:** Replaces existing School of Nursing building

**Description:** A vertical expansion for a 120 bed tower and acute care/critical care areas.

**Zoning:** No change of zoning is proposed for this expansion.

**Maximum Floor Area:** 240,000 gsf

**Maximum Height (Stories):** 8 stories (1 is below grade) plus mechanical penthouse

**Maximum Height:** Will not exceed existing hospital elevation

**Setback:** The inpatient expansion will meet the existing setbacks along Centre Avenue.

### Powerhouse Expansion

**Location:** West of existing powerhouse on south side of hospital site adjacent to Martin Luther King Jr. Busway.

**Description:** Expansion of the existing powerhouse to provide mechanical equipment needs to the hospital.

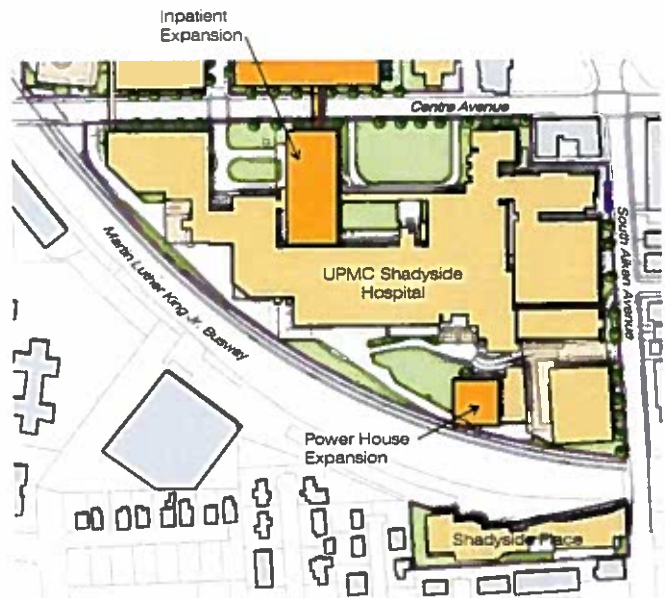
**Zoning:** No change of zoning is proposed for this expansion.

**Maximum Floor Area:** 40,000 gsf

**Maximum Height (Stories):** 2 stories

**Maximum Height:** Will not exceed existing powerhouse elevation

**Setback:** A 0' setback is planned for the Powerhouse expansion.



## XI. TEN YEAR DEVELOPMENT ENVELOPE

### Outpatient Expansion and Pedestrian Bridges

**Location:** North of Centre Avenue, south of Baum Boulevard and east of Cypress. Site of existing Boston Market, Urgent Care and Family Health Center.

**Description:** Proposed outpatient facility with medical offices, urgent care, first floor retail (relocated Boston Market) and 440 space parking garage. All of the parking is planned below grade for this facility. Bridges proposed from outpatient facility to inpatient expansion and Hillman Cancer Center.

**Zoning:** No change of zoning Local Neighborhood Commercial and Urban Neighborhood Commercial is proposed for this development.

**Maximum Floor Area:** 162,000 gsf (outpatient and bridges) + mechanical penthouses + 160,000 gsf (parking garage). Parking 2 levels below grade.

**Maximum Height (Stories):** 4 stories (+ mechanical penthouse) along Centre Avenue, 1 story retail along Baum Boulevard, with 2 levels of parking below grade.

**Maximum Height:** 70 ft. (along Centre Avenue) + mechanical penthouse on roof. The enclosure for mechanical equipment: (i) will not occupy more than 60% of the rooftop area; (ii) will be no closer than 25' from the building edges along the northerly and easterly building facades, and (iii) the height of penthouse will be no higher than 15 feet above the rooftop nor more than 85 feet above the Centre Avenue elevation.

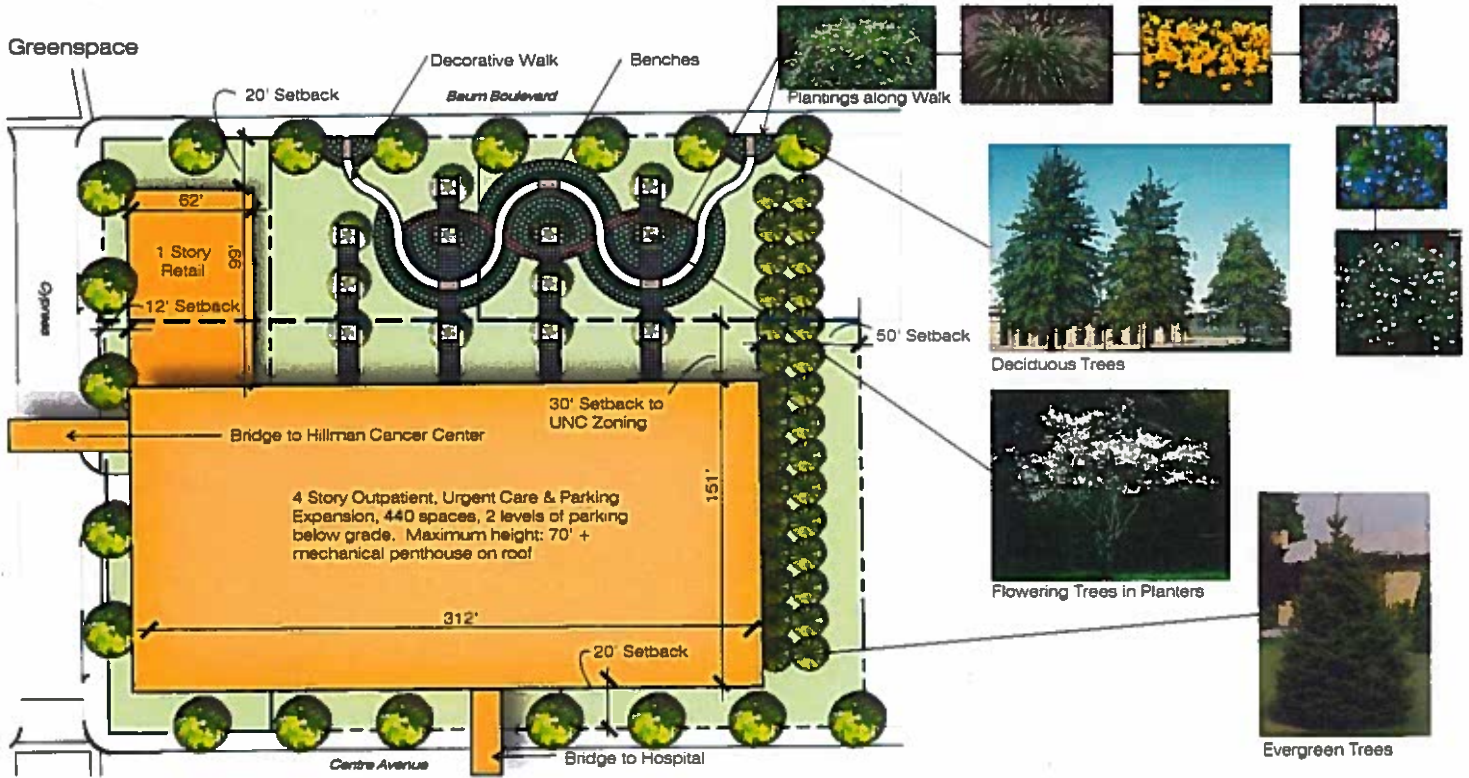
**Setback:** The setback at Baum Boulevard is 20', the setback at Centre Avenue is 12', the side setback at Cypress is 12', and the east side setback is 50'. The Outpatient portion of the building is setback 30' from the LNC District zoning line. The bridges will require 0' setbacks at Cypress and Centre.



Outpatient, Urgent Care, 1<sup>st</sup> Floor Retail & Parking Expansion, 440 spaces, 4 story building along Centre, 1 story retail along Baum (bump to north), 2 levels of parking below grade



# SITE & OUTPATIENT CENTER ALONG BAUM



# XI. TEN YEAR DEVELOPMENT ENVELOPE - MASTER PLAN

## Legend

- UPMC Facilities Expansion
- UPMC Buildings
- Non-UPMC Buildings

Luna Parking Garage (1000 spaces)

Hillman Cancer Center  
4 stories

Center for Innovative  
Science & Parking  
(306 spaces)

Inpatient Expansion

Outpatient, Urgent  
Care, 1<sup>st</sup> Floor Retail &  
Parking Expansion. 440  
spaces. 4 story building  
along Centre. 1 story  
retail along Baum  
(bump to north). 2 levels  
of parking below grade  
Family House. 6 stories

Power House Expansion

Shadyside Place

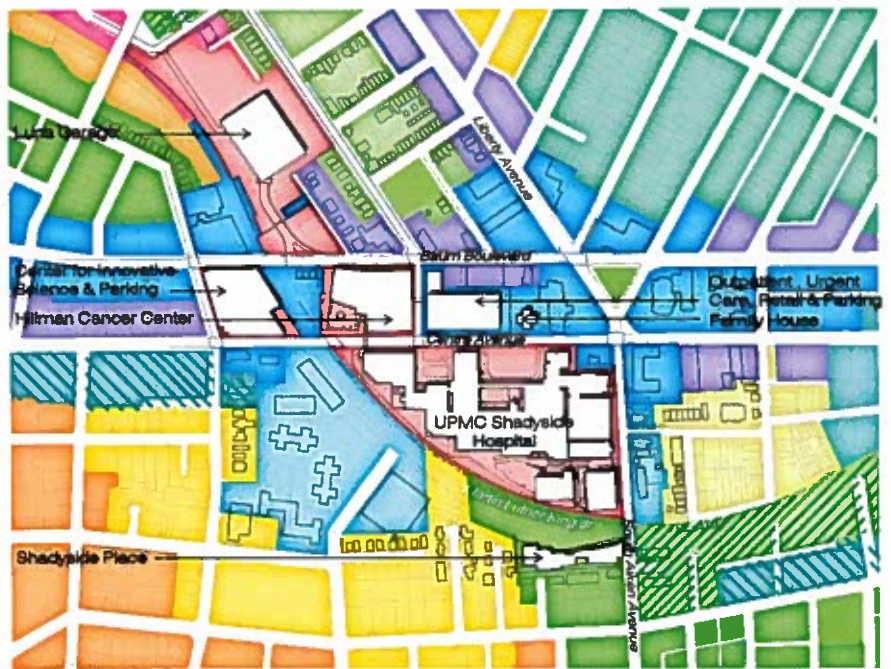




# XI. TEN YEAR DEVELOPMENT ENVELOPE - ZONING MAP

## Legend

- AP Residential/Commercial Planned Unit Development
- EMI Educational/Medical Institution
- H Hillside
- LNC Local Neighborhood Commercial
- P Parks & open Space
- R1A -H Single Unit Attached Residential High Density
- R1A -VH Single Unit Attached Residential Very High Density
- R1D -VL Single Unit Detached Residential Very Low Density
- R1D -L Single Unit Detached Residential Low Density
- R2-M Two Unit Residential Moderate Density
- R2-H Two Unit Residential High Density
- R3-M Three Unit Residential Moderate Density
- RM-M Multi Unit Residential Moderate Density
- RM-H Multi Unit Residential High Density
- UI Urban Industrial
- UNC Urban Neighborhood Commercial



# XI. TEN YEAR DEVELOPMENT ENVELOPE - CAMPUS PARKING



## XII. TWENTY-FIVE YEAR REDEVELOPMENT ENVELOPE - MASTER PLAN

The twenty-five year development envelope is on the same property as the ten-year development envelope. A parking garage addition is planned to the north of the Luna Parking Garage and a lab addition is planned above it. Also, inpatient expansion is planned south of the existing hospital. It should be noted, however, that any expansion beyond the parameters of the ten-year plan will need to be reconsidered through the Master Plan process.



## XIII. TRANSPORTATION MANAGEMENT PLAN

### Transportation & Parking Management Plan

For details of the analysis, please reference the attached Traffic, Parking, and Pedestrian Study.

### Traffic Mitigation Measures

Under projected 2021 conditions with the proposed 10 year master plan components in place, the following transportation mitigation measures are recommended to minimize impacts on the surrounding roadway network.

#### Baum Boulevard and Morewood Avenue

- Restripe northbound Morewood Avenue approach to provide a 120 foot left turn lane and a shared through/right turn lane. In order to accommodate the reconfiguration of Morewood Avenue, five (5) existing metered parking spaces and one (1) 30-minute loading space will be removed from the east side of Morewood Avenue between Baum Boulevard and Centre Avenue.

#### Baum Boulevard and Proposed Luna Garage Driveway

- Construct full-access signalized site driveway.
- Install audible, push-button, pedestrian countdown crossing equipment.
- Construct westbound Centre Avenue right turn lane into Luna Garage Driveway, which extends back to Woodworth Street.

#### Centre Avenue (between Morewood Avenue and South Alken Avenue)

- Prohibit on-street parking to allow for two travel lanes in each direction.
- Remove a total of 67 on-street metered parking spaces along Centre Avenue.

#### Centre Avenue and Morewood Avenue

- Restripe southbound Morewood Avenue approach to provide a 100

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foot left turn lane and a shared through/right turn lane. In order to accommodate the reconfiguration of Morewood Avenue, five (5) existing metered parking spaces and one (1) 30-minute loading space would need to be removed from the eastern side of Morewood Avenue, between Baum Boulevard and Centre Avenue.

- Restripe westbound Centre Avenue outside lane as an exclusive right turn lane which drops onto Morewood Avenue.

#### Centre Avenue and Cypress Street

- Restripe eastbound Centre Avenue approach to provide one shared left turn/through lane and one shared through/right turn lane.
- Restripe westbound Centre Avenue approach to provide one shared left turn/through lane and one shared through/right turn lane.

#### Centre Avenue and South Alken Avenue/Liberty Avenue

- Update traffic signal equipment to provide protected/permitted northbound/southbound left turn phases.
- Restripe eastbound Centre Avenue approach to provide one shared left turn/through lane and one exclusive right turn lane.

#### Morewood Avenue and Proposed CIS Driveway

- Construct full-access site driveway.
- Install stop sign control on site driveway approach.

#### Gross Street and Proposed Luna Garage Driveway

- Construct full-access site driveway.
- Install stop sign control on site driveway approach.
- Perform street repairs on Gross Street to accommodate site traffic including repaving and curb/shoulder repair, as required by DPW.



## XIII. TRANSPORTATION MANAGEMENT PLAN

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### All Intersections

- Optimize intersection signal timings and offsets.

### Baum Boulevard and Centre Avenue Corridor

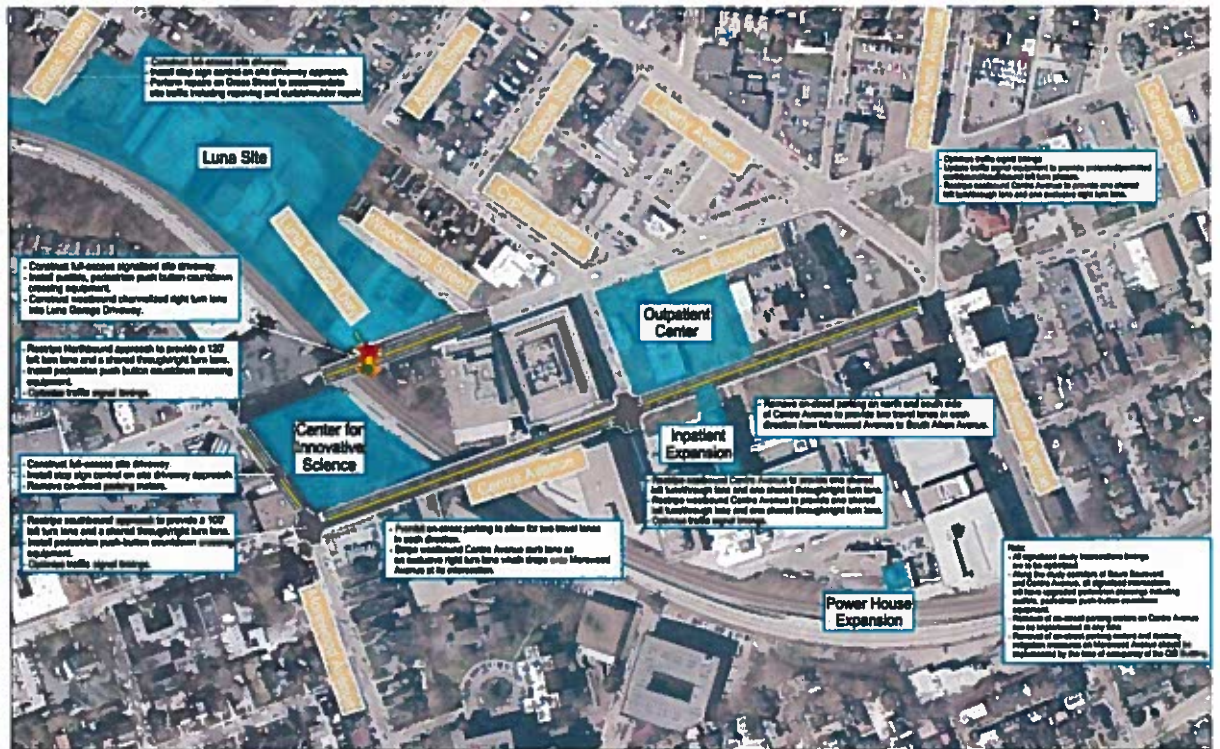
- Provide pedestrian crossing upgrades including:
  - + repainting of crosswalks.
  - + installation of new audible, push-button, and pedestrian countdown crossing equipment.

### Bicycle Racks

- Provide, at a minimum, new bicycle racks in the new Luna Parking Garage (at least 100 bicycle parking spaces), new CIS Garage (at least 35 bicycle parking spaces), and new Outpatient Center Garage (at least 14 bicycle parking spaces).

# XIII. TRANSPORTATION MANAGEMENT PLAN

## RECOMMENDED IMPROVEMENTS





## IX. ENVIRONMENTAL PROTECTION PLAN

### Environmental Overlay Districts

The master plan is located in a developed, urban site. The following environmental overlay districts will be minimally affected by the development, as noted below:

#### Landslide-Prone Overlay District

Steep slopes are located on the south and west sides of the hospital site, bordering on the Martin Luther King Jr. Busway. The location of these steep slopes has been identified on the Environmental Overlay District Plan on the next page.

#### View Protection Overlay District

The site has limited views due to its proximity to the local retail district and its distance from the riverfront. There are limited views from the upper floors of the existing structures that will be impacted by the proposed development, however, the vertical expansion planned will provide new opportunities for expanded view corridors.

#### Stormwater Management Overlay District

The site is currently approximately 77% impervious surfaces, including roadways, parking lots and buildings which are serviced by an existing stormwater management conveyance system. The Project Master Plan is expected to reduce the impact on this system by a net decrease of approximately 17% in impervious surfaces in the project area.

The Project Master Plan will not affect other Environmental Overlay Districts in the City of Pittsburgh not mentioned above.

### Environmental Performance Standards

The following is a breakdown of the planned Environmental Performance Standards of the projects within the ten year development envelope:

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### Luna Parking Garage

Steep slopes border the site to the west, adjacent to the Martin Luther King Jr. Busway. These slopes will be protected during the construction of the planned development as needed, with no grading in this area anticipated. Views into the site will be enhanced because the site will be cleaned up and landscaped. The proposed building will only have one story above grade, visible to neighbors due to the grade drop in this area. The views into the site will be screened by the planned landscape buffer. The existing building foundation remains are to be demolished and replaced with a parking garage, drives to the garage and a landscape buffer at the Luna site. The green space is expected to increase by approximately 59% as a result of the design of this project.

### Center for Innovative Science & Parking Garage

There are no steep slopes on this site. There are views from the upper floors of existing buildings that will be limited due to the planned building addition, however, the expansion that is planned will provide new opportunities for expanded view corridors. The proposed building expansion, replacing existing paved and landscaped areas, will minimally provide approximately 4% additional impervious surface on this site.

### Inpatient Expansion (Tower A)

There are no steep slopes near the proposed expansion. The views to and from the proposed building will be roughly the same as the views from the existing School of Nursing building. The proposed building expansion, replacing an existing structure, will maintain approximately the same amount of impervious surface on this site.

### Powerhouse Expansion

There are steep slopes near the proposed expansion, on the south side of the Powerhouse, adjacent to the Martin Luther King Jr. Busway. Retaining walls of the proposed Powerhouse and vegetated slopes are planned to maintain or

## IX. ENVIRONMENTAL PROTECTION PLAN

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reduce the existing slopes. Views to the Powerhouse will be partially screened by existing vegetation in the area. The impact will be similar to the existing Powerhouse because it is also planned as a two story structure. The proposed expansion and demolition of Preservation Hall is expected to increase the green space by approximately 33% as a result of this project.

### Outpatient Expansion and Pedestrian Bridges

There are no steep slopes near the proposed expansion. There are views from the upper floors of existing buildings that will be limited due to the planned building addition, however, the expansion that is planned will provide new opportunities for expanded view corridors. The proposed building expansion, replacing existing buildings, paved and landscaped areas, will minimally provide approximately 24% additional impervious surface on this site.

### Environmental Initiatives

UPMC is a leader in creating a new model for "green" health care through:

- A rounded program of environmentally responsible construction.
- Improvements in its own operations.
- Support for research and community programs to improve community health and quality of life through cleaner, more environmentally friendly practices.

# IX. ENVIRONMENTAL PROTECTION PLAN

## EXISTING ENVIRONMENTAL OVERLAY DISTRICT PLAN








### Legend

-  Landslide Prone Areas
-  Views
-  UPMC Pervious Areas
-  UPMC Impervious Areas
-  UPMC Impervious Buildings
-  Non-UPMC Buildings



# IX. ENVIRONMENTAL PROTECTION PLAN PROPOSED ENVIRONMENTAL OVERLAY DISTRICT PLAN

## Legend

-  Landslide Prone Areas
-  Views
-  UPMC Pervious Areas
-  UPMC Impervious Pavement
-  UPMC Proposed Impervious Buildings
-  UPMC Existing Impervious Buildings
-  Non-UPMC Existing Buildings



## X. OPEN SPACE & PEDESTRIAN CIRCULATION PLAN

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The central existing green space on the campus has been preserved with this Project Master Plan. Situated at the main entrance to the hospital, the space serves as an area of respite and welcoming entry image to visitors and patients visiting the hospital. A gateway entrance that connects all of the primary buildings on the campus provides a simple way to orient patients and visitors as they arrive at the 1.5 million-square-foot facility. Covered drop-off areas protect patients as they arrive and depart at the main lobby entrance. Also, covered walkways connect major patient service areas and physicians' offices on the campus. An enclosed bridge over Centre Avenue links the Medical Center with Hillman Cancer Center and protects pedestrians from the elements while providing convenient access around the campus. This same convenience is planned to connect the new Outpatient building to the Hillman Cancer Center over Cypress, and to the planned Inpatient hospital expansion (Tower A) over Centre Avenue.

The Japanese healing garden at the main entrance to Shadyside Hospital provides a soothing environment when a family member needs some quiet time to restore the spirit and contemplate. The landscape provides a wonderful mix of rock features, plant life, a walking path, and benches to make a private and healing place work in a vibrant urban environment.

The Master Plan has also been designed to incorporate new opportunities for green space in the proposed developments. Street trees are planned for the new development areas at the Luna Garage and Outpatient Building along Baum Boulevard, Centre Avenue, Woodworth, Cypress and Gross Streets. An evergreen landscape buffer is planned east of the proposed Outpatient Building to buffer the Local Neighborhood Commercial. The existing wooded area east of the Luna Parking Garage will be preserved and landscaping will be enhanced to buffer the residential neighborhoods. Also, the existing building foundations on the Luna site will be removed and replaced with green space on Baum Boulevard.



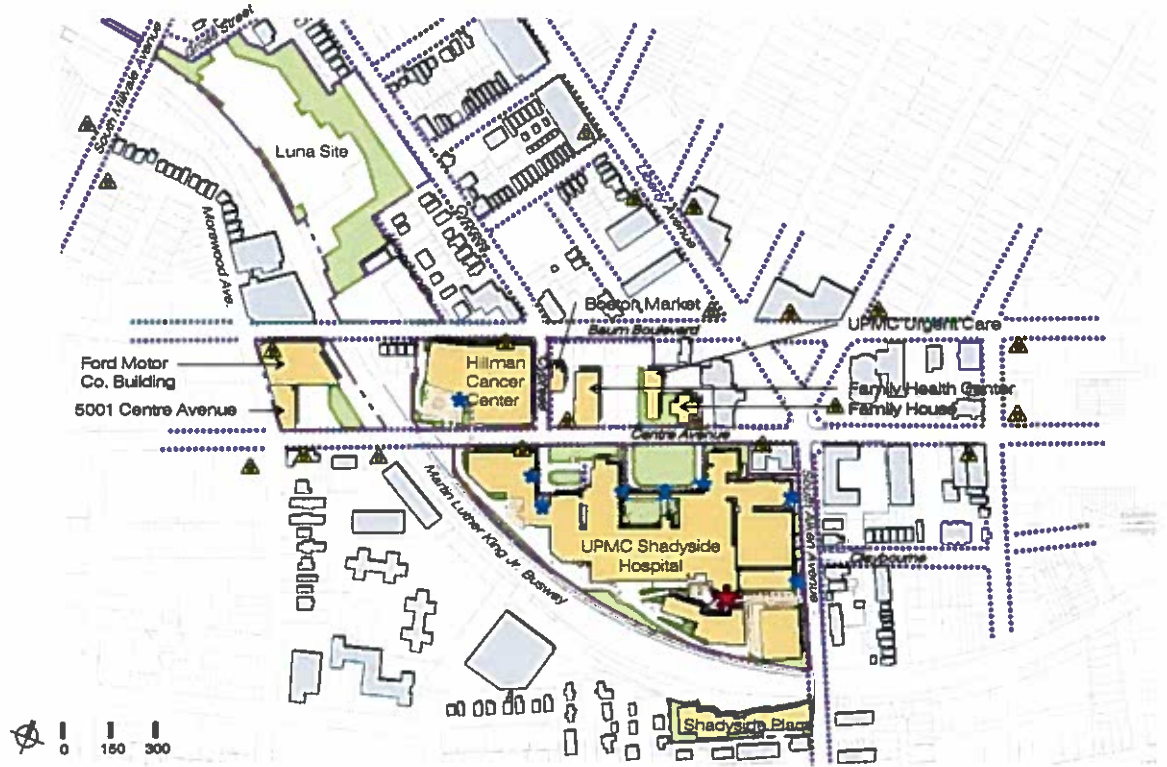


# X. OPEN SPACE & PEDESTRIAN CIRCULATION PLAN

## EXISTING PEDESTRIAN CIRCULATION

### Legend

- ..... Pedestrian Circulation
- ✳ Emergency Point of Entry
- ✳ General Point of Entry
- ▲ Bus Stop





# X. OPEN SPACE & PEDESTRIAN CIRCULATION PLAN PROPOSED PEDESTRIAN CIRCULATION

## Legend

- ..... Existing Pedestrian Circulation
- Enhanced Pedestrian Circulation
- ✱ Emergency Point of Entry
- ✱ General Point of Entry
- ▲ Bus Stop



## XI. URBAN DESIGN GUIDELINES

### Materials, Colors, Transparency & Design Elements

The existing campus is reasonably compact, defined and architecturally cohesive. New additions to buildings will be architecturally compatible with the existing buildings. Materials and colors for new construction will be selected for high quality and durability, particularly on highly-visible facades, and with an effort to create continuity and clarity within the project area.

The impact of new buildings in the public realm will be given special consideration, particularly at the street level. This level will be designed to add interest and activity, with storefronts for retail, building features and streetscape features in the public realm. Wall sconces, sun shades, stone and brick detail may be incorporated into the building, where appropriate, to enhance the pedestrian experience. The building may also be recessed at the ground level to enhance pedestrian plaza space and add visual interest to the building facade. Benches, bollards, bike racks, sculpture, pedestrian signage, banners, decorative exterior lighting, special paving and planters may also be considered to enhance the pedestrian experience at the streetscape level.

Unless there are extenuating circumstances, 60 percent of the first floor building facades, between three and eight feet height, will be transparent. The Center for Innovative Science, for example, will meet this requirement, with the exception of the loading dock overhead door and the parking garage entrance. These elements will be integrated into the building with brickwork or other architectural features. The Outpatient, Urgent Care and Retail Building facade will be treated similarly. The bridges will be designed to keep the view corridor open at the street level, with clear glass walls at a height above grade that is contextually appropriate. The restoration of the existing Ford Motor Building will include cleaning and repair of masonry work and the replacement of all windows along Centre Avenue and Baum Boulevard.

Buildings will receive special treatment at important locations, including entrances and view termini. Such treatment shall be appropriate to its unique situation and shall help to enhance aesthetics and overall project intelligibility.

The architectural design of parking structures will be sensitive to the context in which they are located, with significant landscape buffering provided where possible along adjacent streets and properties. For example, it is the intent of UPMC, through the guidance of their architect for the Luna Parking Garage, to establish a creative, high quality design for the garage. This includes giving consideration to a future research building on top (see 25 year Development Envelope). More specifically, creative design feature(s) will be included during this initial project phase to adequately diminish the impact of the top level parking deck, especially as seen from Baum Boulevard. Further, there will likewise be specified sustainable, high quality material(s) and/or dense vegetation on other sides of the Parking Garage that are visible from a public right-of-way.

HARLEY ELLIS DEVEREAUX/Trans Associates

### Setbacks

The setbacks along Cypress Street, Martin Luther King Jr. Busway and Gross Street for the Luna Parking Garage will meet or exceed existing structures on the respective streets. The setback along Baum Boulevard will equal the existing Ford Motor Company building for the proposed Research Building. The Outpatient Building will meet or exceed the Hillman Cancer Center setbacks with 20' at Baum Boulevard and Centre Avenue, and 12' on Cypress. In addition, the Outpatient Building will be setback 30' from the LNC district zoning line. A 0' setback is proposed on all sides for the Center for Innovative Science. It is anticipated that the adjacent sidewalk is wide enough to accommodate anticipated pedestrian volumes. A 0' setback is also proposed along the Martin Luther King Jr. Busway for the Powerhouse expansion. The inpatient expansion will meet the existing setbacks along Centre Avenue. The proposed bridges at Cypress Street and Centre Avenue will require 0' setbacks.

### Height

The maximum height of any building on the hospital portion of the campus will not exceed the existing hospital building height. The other planned expansions will be kept to lower heights, as noted in Section VI, to minimize the visual impact on the neighborhood.

### Bulk and Massing

Buildings shall be arranged and massed to allow for light, air, and circulation while optimizing overall site development. Typically, the massing of the buildings will be scaled to fit in with the existing campus and the surrounding neighborhood, with a decrease in density and height of buildings moving away from the center of the campus.

### Landscaping & Screening

The master plan has been designed to preserve existing green spaces currently on campus and incorporate new opportunities for green space in the proposed developments. Street trees are planned for the new development areas at the Luna Garage and Outpatient Building along Baum Boulevard, Centre Avenue, Woodworth, Cypress and Gross Streets, with an evergreen landscape buffer planned east of the proposed Outpatient Building to buffer the Local Neighborhood Commercial. The existing wooded area east of the Luna Parking Garage will be preserved and landscaping enhanced to buffer the residential neighborhoods. In addition, mechanical equipment, loading, parking and waste facilities will be properly screened, if visible from a public right-of-way.

## XII. NEIGHBORHOOD PROTECTION STRATEGY

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The Project Master Plan describes the development of this area while maintaining or minimizing the impact of the existing and new facilities on the quality of the surrounding neighborhoods. Specific impacts that are addressed in the Master Plan include:

### Vehicular Circulation

Congestion in traffic will be addressed by removing the parking on the south side of Centre Avenue from Morewood Avenue to South Aiken Avenue to allow for a dedicated lane for eastbound traffic turning right onto South Aiken Avenue. A traffic signal will be installed at the new intersection and drive to the Luna Parking Garage. Another new drive from the Luna Parking Garage to Gross Street will be built. No drive entrances or exits to the Garage will be built to Cypress or Woodworth to protect the residential neighborhood to the east. All of the existing access points into the campus will be maintained.

### Pedestrian Circulation

A signalized pedestrian crossing will be installed at the new drive to the Luna Parking Garage. ADA approved ramps will be installed at the new crossing. Crossing striping will be repainted, as needed, to enhance all crosswalks in the area.

### Loading Docks

The present loading dock locations will be maintained on the south side of the hospital. The Research building and the Outpatient building will add loading docks internally to accommodate their needs.

### Emergency Entrances

Emergency traffic routes are not affected by the changes in the plan.

### Lighting

The present site lighting standards will be maintained. Lighting proposed for the Project Master Plan will be lit with cut-off style fixtures, limiting the light spill onto neighboring properties.

### Residential Compatibility Standards

The residential compatibility standards are applicable to the existing site boundaries only on the east side of the site, with residentially zoned property across the street from South Aiken Avenue and the Luna site. The Project Master Plan does not propose development across the street from South Aiken Avenue.

