Master Plan Objectives

The following objectives have been identified for the Institutional Master Plan:

• Address the growing need to provide lower-cost health care services for patients with non-emergent or non-acute conditions.

• Decrease parking impact on neighborhood streets, to preserve parking for local residents.

• Modernize the mechanical and electrical utility equipment. Energy efficiency and noise reduction are primary goals.

• Create a more clearly defined, open, welcoming “front door” to the site.

• Meet modern standards in operational efficiency.
Organizational Profile - Current

West Penn Hospital Currently Has Approximately:
350 Licensed Beds
1,000 Physicians
2,000 Staff Members

Patient Profile (on an annual basis):
13,300 Admissions
73,000 Outpatient Visits
23,000 Emergency Department Registrations
12,000 Surgical Procedures
Organizational Profile – Future Volumes & Needs

Next 10-Year Period:
600 Licensed Inpatient Beds
5% Increase in Number of Physicians
12% Increase in Number of Staff Members

Outpatient Growth:
Increase in same day procedures
Increased volume of primary services:
• Obstetrics & Gynecology
• Primary Care
• Oncology
• Neurosurgery
• Esophageal/Lung
• Auto-Immunity
• Diabetes.
Existing Property & Uses

1. West Penn Hospital - 4800 Friendship Avenue
2. Hospital Parking Structure - 4901 Liberty Avenue
3. Service Building - 341 S. Millvale Street
4. Employee Surface Parking Lot - 317-325 S. Millvale Street
5. School of Nursing - 4900 Friendship Avenue
6. Vacant Lots - 316-336 Gross Street
7. Vacant Lot - 342 Gross Street
8. Vacant Lot - 348 Gross Street
9. Vacant Lot & Employee Surface Lot - 366 Gross Street
10. Office/Commercial - 4816-4818 Liberty Avenue
11. Vacant Lot - 4920 Liberty Avenue
12. Surface Parking Lot - 5000 Liberty Avenue
13. Parking Structure - 5120 Liberty Avenue
14. Offices - 4747 Liberty Avenue
15. Clinic/Offices - 4727 Friendship Avenue
16. Clinic/Offices - 5124 Liberty Avenue
17. Clinic/Offices - 5140 Liberty Avenue
18. Clinic/Offices - 5145 Liberty Avenue
19. Vacant Research Building - 720 Gross Street

Legend:
- **BLUE** = WPH Owned Property
- **GREEN** = WPH Leased Property
Ten Year Proposed Development Envelope

Legend:
- Medical Office/Clinic
- Expanded Utility Plant
- Parking Structure
- Hospital - Inpatient Care
Site Location: Gross Street, North of Liberty Avenue; vacate Corday Way to connect to existing garage

Use: Parking Structure

Maximum GSF: 200,000 gross square feet

Max. # of Parking Spaces: 700

Setbacks:
- Gross Street: 35 feet
- North sideyard: 15 feet
- Corday Way: 0 Feet

Maximum Height: 120 feet

Stepback:
- Gross Street @ 45 feet above street level, min. stepback is 10 feet
- North sideyard @ 45 feet above street level, min. stepback is 5 feet

Legend:
- Medical Office/Clinic
- Expanded Utility Plant
- Parking Structure
- Hospital - Inpatient Care
Site Location
Mend Way; Gross Street to S. Millvale Avenue

Use
Medical Office/Clinic

Maximum GSF
350,000 gross square feet

Max. # of Parking Spaces
0

Setbacks
Gross Street: 35 feet
South sideyard (running from Gross Street to Corday Way): 10 feet
Corday Way: 0 feet
Mend Way: 0 feet
Millvale Avenue: 0 feet

Maximum Height
130 Feet

Stepback
Gross Street @ 45 feet above street level; min. stepback is 12 feet
S. Millvale @ 60 feet above street level; min. stepback is 12 feet
South sideyard along Gross @ 45 feet above street level; min. stepback is 5 feet

Legend:
- Medical Office/Clinic
- Expanded Utility Plant
- Parking Structure
- Hospital - Inpatient Care
### Site Location
Liberty Avenue between S. Mathilda Street and S. Millvale Avenue

### Use
Hospital

### Maximum GSF
450,000 gross square feet

### Max. # of Parking Spaces
0

### Setbacks
- Liberty Avenue: 0 feet
- S. Mathilda Street: 0 feet
- S. Millvale Street: 0 feet

### Maximum Height
160 feet

### Stepback
- Liberty Avenue @ 65 feet above Street Level, min. stepback is 10 feet
- S. Mathilda St. @ 65 feet above Street Level, min. stepback is 10 feet

---

#### Legend:
- Medical Office/Clinic
- Expanded Utility Plant
- Parking Structure
- Parking Structure
- Hospital - Inpatient Care
### Site Location
Mid-block between S. Mathilda Street, Liberty Avenue, Friendship Avenue, S. Millvale Avenue

### Use
Hospital

### Maximum GSF
100,000 gross square feet

### Max. # of Parking Spaces
0

### Setbacks
Not Applicable

### Maximum Height
- Additional: 90 feet
- Total: 160 feet

### Stepback
Not Applicable

---

**Legend:**
- Medical Office/Clinic
- Expanded Utility Plant
- Parking Structure
- Hospital Infill - Inpatient Care
Ten Year Proposed Development Envelope

**Site Location**
2 story addition to the existing power plant on S. Millvale Avenue

**Use**
Utility

**Maximum GSF**
6,000 gross square feet

**Max. # of Parking Spaces**
0

**Setbacks**
Not Applicable

**Maximum Height**
Additional: 25 feet
Total: 55 feet

**Stepback**
None

---

**Legend:**
- Medical Office/Clinic
- Expanded Utility Plant
- Parking Structure
- Hospital - Inpatient Care

---

**Expanded Utility Plant**
Ten Year Plan

Inpatient Care
- 4 additional stories
- 9 total stories
- Approx. 60,000 GSF added
- Height of Addition -130’ max.

Education
- 4 additional stories
- 5 total stories
- Approx. 60,000 GSF added
- Approx. 165,000 GSF total
- Height of Addition - 75’ max.
Approvals Process

Groups Engaged

- Bloomfield Business Network
- Bloomfield Citizens Council
- Bloomfield Development Corporation
- Bloomfield Garfield Corporation
- Bloomfield Livable Streets
- Bloomfield United
- The Center that Cares
- Friendship Community Group
- Garfield Jubilee Association
- Bloomfield’s Neighborhood Planner
- Councilwoman Deb Gross

2018

- JUNE
  - Bloomfield Development Corporation – Christine Howell
  - Bloomfield Garfield Corporation – Rick Swartz
  - Councilwoman Deb Gross

- JULY
  - Bloomfield Citizens Council – Janet Scullion Cercone
  - Garfield Jubilee Association, Inc. – Joann Monroe

- AUGUST
  - Bloomfield Citizens Council – Group meeting at St. Maria Goretti
  - The Center that Cares
  - All Leaders Group Meeting

- SEPT
  - WPH IMP Presentation to Community
  - WPH IMP Presentation to Community

- OCT
  - WPH Master Plan Community Open House

- NOV

- DEC

2019

- JANUARY
  - Developing Draft Development Document

- SEPT
  - Submitted Draft Document to City Planning (DCP)

- SEPT
  - Received Initial Review Comments from DCP

- SEPT
  - Department of City Planning Hosts Final Community Meeting
Development Concerns Raised During Meeting and Addressed in IMP

- Pedestrian safety along Liberty Avenue
- Street lighting for safety, but no light pollution
- Improved pedestrian circulation through the site
- Noise levels from the power plant
- Controlling traffic flow out of new garage along Gross Street
- Transportation demand management strategies
- Landscaping at street level, vegetation on roofs
- Decrease employees parking on streets
- Increased interaction of ground floor space along Liberty Avenue
- Consideration of the helipad relocation
Goals for New Development

• Architecturally complement the character of the surrounding neighborhood.

• Advance sustainable design by building healthy, high performing buildings.

• Use high quality materials compatible with the style and color in the neighborhood. Consider the environmental impact of material selection.

• Engage the public realm at street level.

• Enhance the public realm by incorporating principles of Universal Design.

• Connect the public realm to historic elements of the hospital and surrounding neighborhood.
Liberty Avenue Development

Architectural Elements

Acceptable primary materials include:
• Brick
• Architectural concrete
• Glass
• Terra Cotta

Acceptable accent/secondary materials include:
• Metal: aluminum, copper, etc.
• Stone
• Wood
• Pre-cast concrete
• Ceramic tile
• Any primary material

Materials to avoid include:
• Oversized metal panels
• Fiber cement panels
• Synthetic STUCCO/EIFS
• Vinyl or aluminum siding
• Concrete block
• Mirrored or highly reflective glass
Liberty Avenue Development

Streetscape Character

• Street Trees in bio-retention planters
• Street level spaces programmed to allow for retail type development with community presence
• Contextually appropriate lighting that provides safe passage along the façade and across the intersections
• Architectural elements and massing that reflect the historic commercial scale of Liberty Avenue
• Architectural elements and massing that provide a human scale
• Incorporation of inviting amenities like benches, canopies, awnings creating places to pause
Gross Street Development – Parking Garage

Architectural Elements

Acceptable primary materials include:
• Architectural concrete
• Brick

Acceptable accent/secondary materials include:
• Perforated metal panel
• Glass
• Stone
• Pre-cast concrete
• Wood
• Concrete masonry units
• Any primary building material

Materials to avoid include:
• Oversized metal panels
• Fiber cement panels
• Synthetic STUCCO/EIFS
• Vinyl or aluminum siding
• Mirrored or highly reflective glass
Gross Street Development – Outpatient Care

**Architectural Elements**

Acceptable primary materials include:
- Architectural concrete
- Brick

Acceptable accent/secondary materials include:
- Perforated metal panel
- Glass
- Stone
- Pre-cast concrete
- Wood
- Concrete masonry units
- Any primary building material

Materials to avoid include:
- Oversized metal panels
- Fiber cement panels
- Synthetic STUCCO/EIFS
- Vinyl or aluminum siding
- Mirrored or highly reflective glass
Individual building design will be submitted for review as part of the PDP approval process.
Gross Street Development

Streetscape Character

- Street Trees in bio-retention planters
- 35-foot buffer between sidewalk and building face for native/adaptive plant species
- Contextually appropriate lighting that provides safe passage but does not cause light pollution on residences across the street
- Screening of the garage to relate to residential building scale across street
- Gross St. garage access closed overnight to prevent car lights from intruding on neighbors
- Ensuring that the street level face of the outpatient building does not look like the rear of a building
Legend:
- PAAC Bus Stop Location
- PAAC Bus Route 54
- PAAC Bus Route 64
- PAAC Bus Route 86
- PAAC Bus Route 87

EXISTING PAAC BUS ROUTES:
- PAAC Bus Route 87
- PAAC Bus Route 86
- PAAC Bus Route 64
- PAAC Bus Route 54

Legend:
- PAAC Bus Stop Location
- PAAC Bus Route 54
- PAAC Bus Route 64
- PAAC Bus Route 86
- PAAC Bus Route 87

Trans Associates
Small Firm Client Experience, Big Firm Capabilities
4955 Steubenville Pike, Twin Towers Suite 400
Pittsburgh, Pennsylvania 15205, 412-490-0630

PROJECT NO.   AH/NET00 - 16128
PROJECT:     WPH 2019 Master Plan Transportation Study
City of Pittsburgh, Allegheny County, Pennsylvania

SCALE: N.T.S.
TILE:
Existing PAAC Bus Routes

FIGURE
6-2
### Existing Parking Inventory

#### West Penn Hospital Parking Facility

<table>
<thead>
<tr>
<th>Number of Parking Spaces</th>
<th>Patient/Visitor</th>
<th>Employee</th>
<th>TOTAL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liberty/Aspen Street Garage</td>
<td>0</td>
<td>384</td>
<td>384</td>
</tr>
<tr>
<td>McKean Lot</td>
<td>0</td>
<td>163</td>
<td>163</td>
</tr>
<tr>
<td>West Penn Millvale Garage</td>
<td>595</td>
<td>182</td>
<td>777</td>
</tr>
<tr>
<td>Leaseholder Lot (Daly)</td>
<td>0</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Ambulance Entrance</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>S. Millvale Leaseholder Lot (Gravel)</td>
<td>0</td>
<td>39</td>
<td>39</td>
</tr>
<tr>
<td>Ambulance Transfer Lot</td>
<td>0</td>
<td>7</td>
<td>7</td>
</tr>
<tr>
<td>Short Term Physician Lot</td>
<td>0</td>
<td>3</td>
<td>3</td>
</tr>
<tr>
<td>MRI/Radiation/Oncology Lot</td>
<td>0</td>
<td>5</td>
<td>5</td>
</tr>
<tr>
<td>Lawrenceville Lot (Off-Site)</td>
<td>0</td>
<td>444</td>
<td>444</td>
</tr>
<tr>
<td><strong>TOTAL WEST PENN HOSPITAL PARKING</strong></td>
<td><strong>595</strong></td>
<td><strong>1,254</strong></td>
<td><strong>1,849</strong></td>
</tr>
</tbody>
</table>

---

**Note:**
- **SCALE:** N.T.S.
- **PROJECT NO.:** AMK00 - 16128
- **PROJECT:** WPH 2019 Master Plan Transportation Study
- **TITLE:** Existing Parking Inventory
- **FILE NAME:** AHNET00 - WPH - West Penn Hospital Master Plan/Survey, Exhibit A
- **Small Firm Client Experience, Big Firm Capabilities**
- **ADDRESS:** 4955 Steubenville Pike, Twin Towers Suite 400, Pittsburgh, Pennsylvania 15205, 412-490-0630
- **D.B. AMK, C.B. CAJ, REV **
10 Year Bicycle Circulation

Bicycle Parking Locations

- Gross Street Garage: 83 spaces
- Covered & Secured
- Millvale Garage: 7 spaces
- Covered
- Liberty Avenue Entrance: 40 spaces
- Exterior, Short-term
- Friendship Avenue Entrance: 10 spaces
- Exterior, Short-term
- Millvale Entrance: 10 spaces

Total Bike Park in EMI: 150 spaces

- Liberty Ave Healthy Ride Station: 6 docks

Legend:

- Bicycle Circulation
- Bicycle Storage
- Healthy Ride Station
- Bus Stop

Allegheny Health Network

West Penn Hospital
### EMPLOYEE TRAVEL SURVEY SUMMARY

<table>
<thead>
<tr>
<th>EMPLOYEE STATUS</th>
<th>Number of Employees</th>
<th>Percentage of Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total Number of Employees Responding</td>
<td>374</td>
<td>--</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>TRANSPORTATION MODE</th>
<th>Number of Employees</th>
<th>Percentage of Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>Private Vehicle</td>
<td>323</td>
<td>86.4%</td>
</tr>
<tr>
<td>Transit (bus or light rail)</td>
<td>12</td>
<td>3.2%</td>
</tr>
<tr>
<td>Walk</td>
<td>25</td>
<td>6.7%</td>
</tr>
<tr>
<td>Biked</td>
<td>0</td>
<td>0.0%</td>
</tr>
<tr>
<td>Other</td>
<td>14</td>
<td>3.7%</td>
</tr>
<tr>
<td>Total</td>
<td>374</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

### PRIVATE VEHICLE AUTO OCCUPANCY

<table>
<thead>
<tr>
<th>Adult Passengers in Cars (Including Driver)</th>
<th>Number of Employees</th>
<th>Percentage of Employees</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 person</td>
<td>312</td>
<td>92.6%</td>
</tr>
<tr>
<td>2 people</td>
<td>22</td>
<td>6.5%</td>
</tr>
<tr>
<td>3 people</td>
<td>3</td>
<td>0.9%</td>
</tr>
<tr>
<td>Total</td>
<td>337</td>
<td>100.0%</td>
</tr>
</tbody>
</table>

Average Auto Occupancy = 1.1 persons per vehicle
Recommended Improvements

Legend:
- Parking Garage
- Parking Lot
- Optimize Signal Timings

- Install new traffic signal.
- Vacate southern portion of Corday Way and build hammerhead.
- Continue the driveway function of the existing Millvale Garage driveway on S. Millvale Avenue.
- Close Millvale Garage driveway on Gross Street.
- Convert Gross Street to two-way operation between Liberty Avenue and the proposed garage driveway.
- Construct new garage driveway with left-in, left-out, right-out operation. Close this driveway from 8pm to 6am on weekdays.
- See Figure S-5 for Gross Street improvements.

Legend:
- Parking Lot
- Parking Garage
- Optimize Signal Timings
Eliminate existing Millvale Garage driveway.

Install 6' wide, 25' long bump-outs

Remove on-street parking on the western side of Gross Street up to the proposed Garage Driveway. Parking loss = approximately 4 spaces.

Install a new traffic signal with stop bars, Thermoplastic high-visibility piano key pedestrian crosswalks, pedestrian push buttons, countdowns, and audible equipment.
Install a mid-block crossing with Rectangular Rapid Flashing Beacon, Thermoplastic high visibility piano key pedestrian crosswalk, and in-pavement lighting.

Restripe roadway with Thermoplastic high visibility piano key pedestrian crosswalks at all crossings.

Signal replacement to be done by the City of Pittsburgh.

Additional pedestrian improvements on Liberty Avenue are shown in Attachment B.

Install a new traffic signal with Thermoplastic high visibility stop bars and piano key pedestrian crosswalks, pedestrian push buttons, countdown, and audible equipment.

Restripe roadway with Thermoplastic high visibility piano key pedestrian crosswalks at all crossings.
Recommended Pedestrian Improvements

LIBERTY AVENUE

LEGEND

= PROPOSED CONCRETE CURB
= PROPOSED CONCRETE SIDEWALK
= PROPOSED CONCRETE ADA RAMP
Potential TDM Initiatives for WPH Staff

- Appoint a TDM Coordinator
- Reduce the percentage of employees that drive alone from 86.4% to 65-70%
- Engaging with the Port Authority of Allegheny County (PAAC) to explore programs
- ‘Guaranteed Ride Home’ program
- Increased use of Healthy Ride bike sharing program
- Promotion of bicycle storage and shower facilities
- Promote Zipcar usage
- Priority carpool/vanpool parking and use SPC Commuter Connects program
- Flexible work hours/telecommute program
- Alternatives to staff usage of private automobiles for transportation between AHN campuses (Uber/Lyft, ridesharing, Zoom meetings)

TDM Strategies for Patients, Visitors and General Public

- Bicycle storage facilities
- Establish easily accessible Uber/Lyft pick-up/drop-off locations
- Include information on public transit, bicycling, pedestrian paths, and car share stations on the WPH website, and provide this information and links to WPH physician offices for use by their patients.
- Deployment of real-time transit and rideshare information screens in the main lobby of WPH to allow both patients/visitors and employees to see their options before they leave the facility.
Environment & Sustainability Goals

- Energy Efficiency
- Water Conservation
- Emissions Control
- Waste Management
- Landscape & Ecology
- Transportation & Mobility
- Procurement
Environment & Sustainability Goals

Objectives

ENERGY EFFICIENCY
- Achieve energy use intensity (EUI) targets
- Identify and recalibrate underperforming systems
- System upgrades shall reduce energy requirements, noise, and emissions
- Produce or procure renewable sources

WATER CONSERVATION
- Reduce water consumption
- Reduce impervious surfaces
- Divert storm water from impervious surfaces using BMP structures

EMISSIONS CONTROL
- Reduce greenhouse gas (GHG) emissions
- Reduce fleet emissions with the expansion of alternative fuel vehicles

WASTE MANAGEMENT
- Reduce landfill waste
- Improve food compost programs
- Reduce regulated medical waste generation
Environment & Sustainability Goals

**LANDSCAPE & ECOLOGY**
- Prioritize preservation of existing street trees and encourage tree canopy growth within landscaped setbacks
- Provide sustainable landscapes with native and adapted plants

**TRANSPORTATION & MOBILITY**
- Secure bicycle parking in structured parking and provide space for short-term bicycle parking on campus (150 total spaces)
- Provide electric vehicle charging stations in structured parking
- Promote ridesharing programs to WPH staff

**PROCUREMENT**
- Advance sustainable purchasing objectives
- Utilize lean stocking and inventory methods
Environmental & Sustainability Goals

Best Management Practices (BMP) of Stormwater Management

**Vegetated Roofs on New Development**
The new outpatient clinic, as part of the ten-year plan, is a candidate for this BMP structure.

**Porous Pavement/Pavers for detention and filtration**
The proposed sidewalk along Mend Way is a candidate for this BMP structure. Future improvements to existing sidewalks may also benefit from this practice.

**Planters/Tree Pits**
Future building entries and the proposed sidewalk are candidates for this BMP structure. Future improvements to existing sidewalks may also benefit from this practice.

**Rain Gardens**
Proposed landscaped setbacks along Gross Street are candidates for this BMP structure.
Urban Stewardship

• **Neighborhood Friendly**
• **Green Spaces**
  • In Public Realm
  • On Rooftops
• **Improved Acoustics**
  • Updated equipment
  • Buffering Sound
• **Enhanced Lighting**
  • At Sidewalk
  • On buildings
  • Reducing glare
• **Accessibility**
  • Universal Site Design
  • Continuous Path through Campus
Urban Stewardship

- **High-Performance Water Control**
  - On-site Stormwater Capture
  - Reduced Water Consumption

- **Alternative Transportation Approaches**
  - Transportation Demand Management Plan
  - Employee Incentives
  - Alternative modes, i.e. Healthy Ride

- **Electric Vehicle (EV) Charging**
  - Multiple Charging Stations in Garage
  - Considering Future EV Expansion

- **Bicycle Parking**
  - Secured and public

- **Vehicle Parking**
  - Sufficient Quantity
  - Adaptive Construction
Thank You