

Reuse Feasibility Study for Allentown State Hospital

PREPARED BY:



September 30, 2020



TABLE OF CONTENTS

Acknowledgments	3	Visioning Process	50
Introduction	4	Analysis and Framework: Workshop Session 1	50
Study Overview	4	Concept Development: Workshop Session 2	52
Project Partners	6	Development Concepts	58
Project Approach	6	Town Square	59
Why Plan?	10	Grand Boulevard	66
Site History	10	Urban Plaza	73
Site Location and Planning Context	11	Connections to Existing Neighborhoods	80
Goals and Benefits of Reuse Feasibility Concepts	16	Development Concepts Matrix and Land Use Comparisons	83
Site Conditions: Strengths and Limitations	17	Fiscal and Economic Impacts	85
Environmental	17	Recommendations	89
Demolition	19	Policy-Related Recommendations	90
Topographic and Geological	20	Conclusion	91
Utility	24	Appendix	
Multimodal Connectivity Analysis	26	Appendix A: Existing Environmental Conditions	
Stakeholder Engagement	33	Appendix B: Real Estate Market Study	
Market Opportunities	36		
Socioeconomic Profile	37		
Employment and Industry Trends	40		
Industrial Reuse Potential	43		
Office Reuse Potential	45		
Retail Reuse Potential	46		
Residential Reuse Potential	48		

Acknowledgments

This study could not be completed without the contribution of project partners and stakeholders providing valuable and essential insight throughout the process.

PROJECT PARTNERS

City of Allentown
City of Bethlehem
Lehigh Valley Economic Development Corporation
Lehigh Valley Land Recycling Initiative

PROJECT STAKEHOLDERS

Allentown Economic Development Corporation
Allentown School District
CBRE, Inc.
Colliers International
Community Services for Children
Delaware & Lehigh National Heritage Corridor
Discover Lehigh Valley
East Side Youth Center
Feinberg Real Estate
Greater Lehigh Valley Chamber of Commerce
Lehigh County
Lehigh and Northampton Transportation Authority
Lehigh Valley Planning Commission
Lehigh Valley Workforce Investment Board, Inc.
Pennsylvania Department of Environmental Protection
Pennsylvania Secretary of General Services Curt Topper
Pennsylvania State Representative Mike Schlossberg
Pennsylvania State Senator Patrick M. Browne
United State Environmental Protection Agency - Region 3
Third Day Worship
Wildlands Conservancy

PLANNING AND DESIGN CONSULTANTS

Michael Baker International, Inc.
Vernon Land Use, LLC

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

This reuse feasibility study is being funded by an USEPA Brownfield Assessment grant and is being conducted independent of the disposition process being conducted by the Commonwealth of Pennsylvania for this property. Michael Baker International Inc. is not acting as an agent of the Commonwealth in any capacity in regard to this feasibility study or the Allentown State Hospital property.

INTRODUCTION

Study Overview

After 100 years of use by the Commonwealth of Pennsylvania and eight years of dormancy, redevelopment of the former Allentown State Hospital site (ASH, the site, or the ASH site) offers a “once-in-a-lifetime” revitalization and economic development opportunity for surrounding communities. This Reuse Feasibility Study builds upon local and regional economic development initiatives to provide a focused and strategic approach for evaluating potential redevelopment scenarios, as well as redevelopment recommendations for the approximately 195-acre property.

This study was initiated and requested by the City of Allentown. As a member of the Lehigh Valley Land Recycling Initiative (LVLRI), the City of Allentown requested funding for this Reuse Feasibility Study in order to guide future redevelopment plans and accelerate development on the ASH site. The City of Allentown intends to utilize this study as a resource when considering development plans, rezoning requests and fielding concerns from community members. This study was funded through a 2016 United States Environmental Protection Agency’s (USEPA) Brownfield Assessment Grant received by the LVLRI and the Lehigh Valley Economic Development Corporation (LVEDC). The utilization of USEPA funding for reuse planning has a strong history of catalyzing redevelopment and leveraging significant implementation investment from both the public and private sectors. Further, the investment in this study creates forward momentum towards job creation, tax revenue generation, and community revitalization.

This Reuse Feasibility Study was conducted independent of the Commonwealth of Pennsylvania’s disposition process for the Allentown State Hospital Campus.



Figure 1: ASH Site



Project Partners

LVEDC and LVLRI selected Michael Baker International, Inc. (Michael Baker) in November 2019 to perform the Allentown State Hospital Reuse Feasibility Study funded through the USEPA's Brownfield Assessment Grant. Michael Baker's professional services were augmented and supported by Vernon Land Use, LLC, creating the planning and design consultant team. This study was a joint effort made possible by the following federal, regional, and local project partners.



Planning and Design Consultants



Project Approach

The project scope of work was divided into three distinctive phases culminating in the production of this Reuse Feasibility Study report. Within each project phase, specific objectives and tasks were identified. Stakeholder engagement was a critical component that spanned multiple phases of the study process. The project phases and associated tasks are presented on the following page. Specific outcomes of each of the tasks are provided in the subsequent sections of this report.



Due Diligence (DECEMBER – MARCH)



Real Estate Market Study (JANUARY – MARCH)

Background Information and Data

- Review relevant studies and reports to understand the community's goals for reinvestment and economic development, as well as current local and regional initiatives.
- Review and incorporate public input collected during the City's comprehensive plan effort.
- Conduct one-on-one interviews with stakeholders.
- Facilitate a focus group session on Economic Development.
- Identify data gaps relative to information necessary to develop viable reuse options.

Existing Conditions Analysis

- Analyze site conditions and explore potential limitations for redevelopment through identification of potential physical barriers or site constraints including:
 - Environmental
 - Utility
 - Geological
 - Multimodal Connectivity

- Conduct a market study to inform the feasibility of the three development concepts based on uses with viable market support; include square-footage by use for each concept.
- Incorporate the following as part of the market study:
 - Socioeconomic and employment trends
 - Economic clusters and target industries
 - Office, light industrial, and other workspace gap analysis
 - Retail gap analysis
 - Housing gap analysis



Development Scenarios (MARCH - JUNE)

Development Scenarios

- Conduct a visioning session with stakeholders to explore plan concepts for three development scenarios.
- Outline three potential development scenarios based on zoning, site due diligence findings, market study findings, and community benefit and public use.
- Ensure development concepts meet four criteria: legal permissibility, physical possibility, financial feasibility, and maximum productivity.
- Present a site rendering for each development concept.

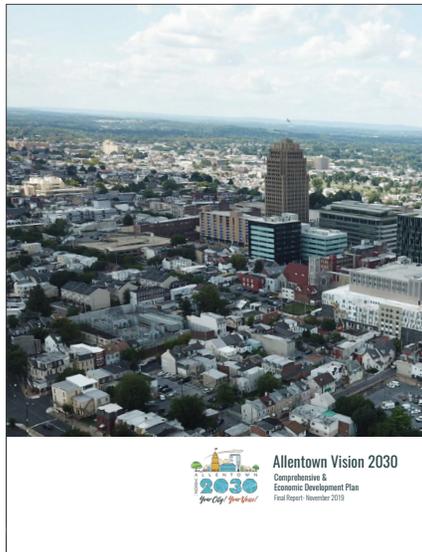


Reuse Feasibility Study Final Report (JULY - SEPTEMBER)

- Summarize stakeholder input, existing conditions analyses, and market study findings.
- Provide description and renderings of three development concepts.
- Conduct a comparative analysis of the development concepts that includes build out cost estimates and recommended site improvements.

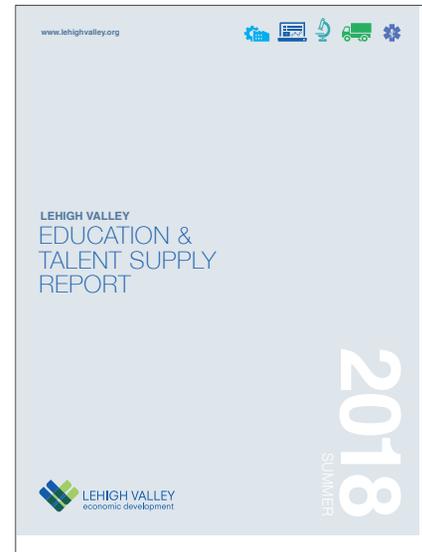
EXISTING PLANNING EFFORTS

A key component of the project approach was the review and incorporation of findings, as well as public and stakeholder input, from recently completed local and regional plans and studies. The following two efforts were specifically influential to the development of this study:



Allentown Vision 2030

The City of Allentown's Comprehensive and Economic Development Plan was adopted in December 2019 and features an extensive and active public engagement process, including input on ASH and potential reuse opportunities for the site. This study incorporates the input collected during the City's comprehensive plan effort, which was critical to understanding the community's goals for reinvestment and economic development.



Lehigh Valley Education & Talent Supply Report

LVEDC in conjunction with Workforce Board Lehigh Valley completed the 2018 Lehigh Valley Education & Talent Supply Report as a strategic effort to identify workforce supply and demand issues and to partner with local stakeholders to align talent with industry needs. The report identified five target industry sectors based on current trends and future growth potential and included outreach with businesses and other regional stakeholders. To ensure consistency with regional strategies, findings from the report are included in this study and each of the five target industry sectors was analyzed for potential reuse compatibility.

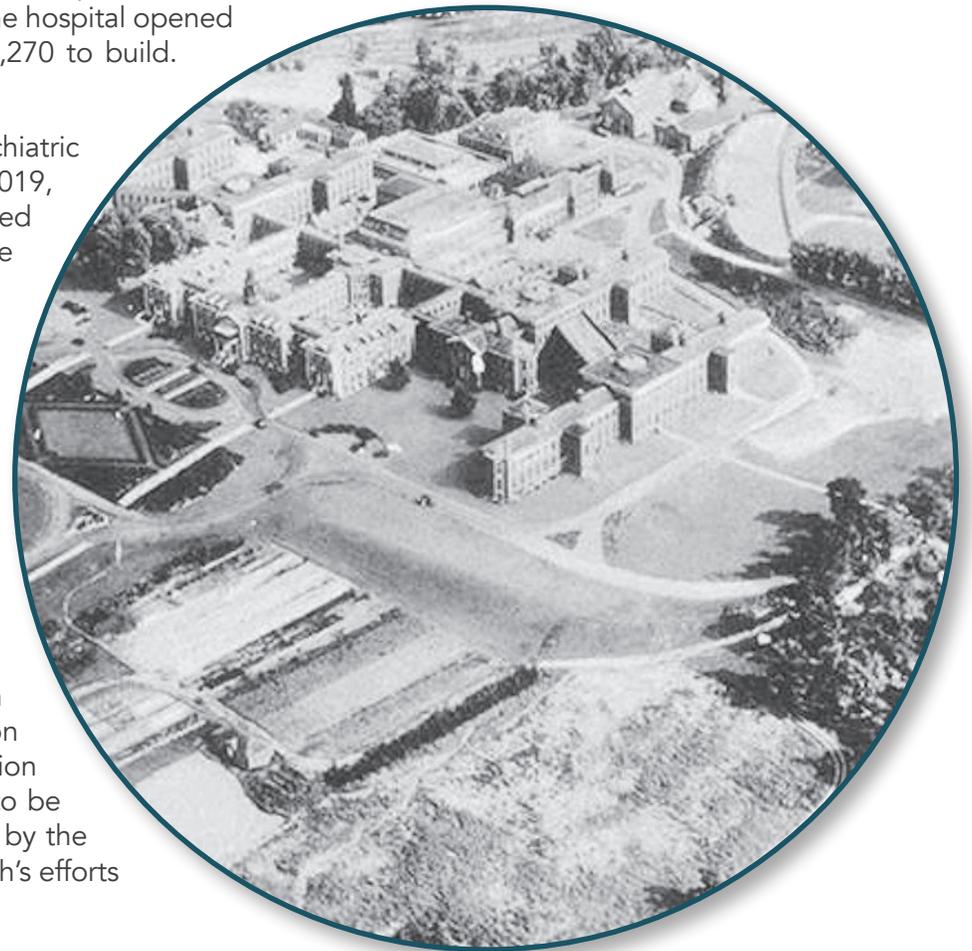
WHY PLAN?

Site History

The Allentown State Hospital was established in July 1901 through an act of the Pennsylvania General Assembly. The mission of the hospital was to provide psychiatric care for patients according to homeopathic treatment. After multiple funding-related delays, the hospital opened to receive patients on October 3, 1913. The hospital cost \$1,931,270 to build. Operations peaked in 1950 with 2,012 patients.

Nearly a century later, due to the sharp decline in the need for psychiatric hospitals, the facility closed on December 17, 2010. On July 2, 2019, Governor Tom Wolf signed Senate Bill 701 (Act 71), which established a process for disposition of the ASH site and a disposition committee to oversee a competitive solicitation for the property. The Act 71 Committee includes State Senator Patrick M. Browne, State Representative Mike Schlossberg, a representative of the City of Allentown, and the Secretary of the Pennsylvania Department of General Services (DGS). A Developer Request for Proposals is being prepared by DGS and is expected to be released in late 2020. This study will provide the Act 71 Committee with potential reuse options for the ASH site ahead of the Committee's review of applications to purchase the property. The Act 71 Committee will review the Developer Proposals and recommend a buyer to DGS.

Act 71 also prescribed that DGS prepare the site for disposition including demolition of all of the buildings on the site and remediation of environmental impairments throughout the property. The demolition and remediation activities began in July 2020 and are estimated to be completed by the end of 2021. This study was not commissioned by the Commonwealth of Pennsylvania, nor is it part of the Commonwealth's efforts to prepare the site for disposition.



Aerial view of Allentown State Hospital, 1938

Site Location and Planning Context

Owned by the Commonwealth and located in East Allentown, equidistant from the downtowns of both the City of Allentown and the City of Bethlehem, ASH spans approximately 195 acres, representing the largest site available for development in the City of Allentown. As shown in Figure 2, the site consists of the following tax parcels in the City of Allentown, with a small portion also located in the City of Bethlehem:

- 641726847797 – 1520-1600 Hanover Avenue - 165.85 acres
- 641746460329 – 1900 East Allen Street (Lot 2) - 29.32 acres

The site is currently improved with 44 buildings that were part of the hospital campus, and which are contracted to be demolished. A Pennsylvania Department of Environmental Protection (PADEP) Air Monitoring Station is located on the site and will remain in the future. The PADEP Air Monitoring Station is shown as a separate interior parcel in the southwestern portion of the property. Property currently owned and occupied by Community Services for Children to the west of the site at 109 North Maxwell Street will remain. Additionally, townhouses built to the north of the Community Services for Children property will also remain. Unique to ASH, as well as some of the surrounding neighborhoods, is its high elevation. The vistas at the apex of the site near Dutch Hill are impressive with views of surrounding mountains and the City of Bethlehem.

ASH is currently zoned for institutional use and is bounded by three residential zoning districts and two commercial districts as shown in Figure 3. While the residential districts vary in density, the area's predominant use is single-family residential. Development along Hanover Avenue at the northern boundary of ASH is a mix of commercial, residential, and institutional uses. The southern boundary of the site abuts an industrial zoning district and freight rail along River Drive.



View of Allentown State Hospital from Hanover Avenue.

Figure 2: ASH Parcels



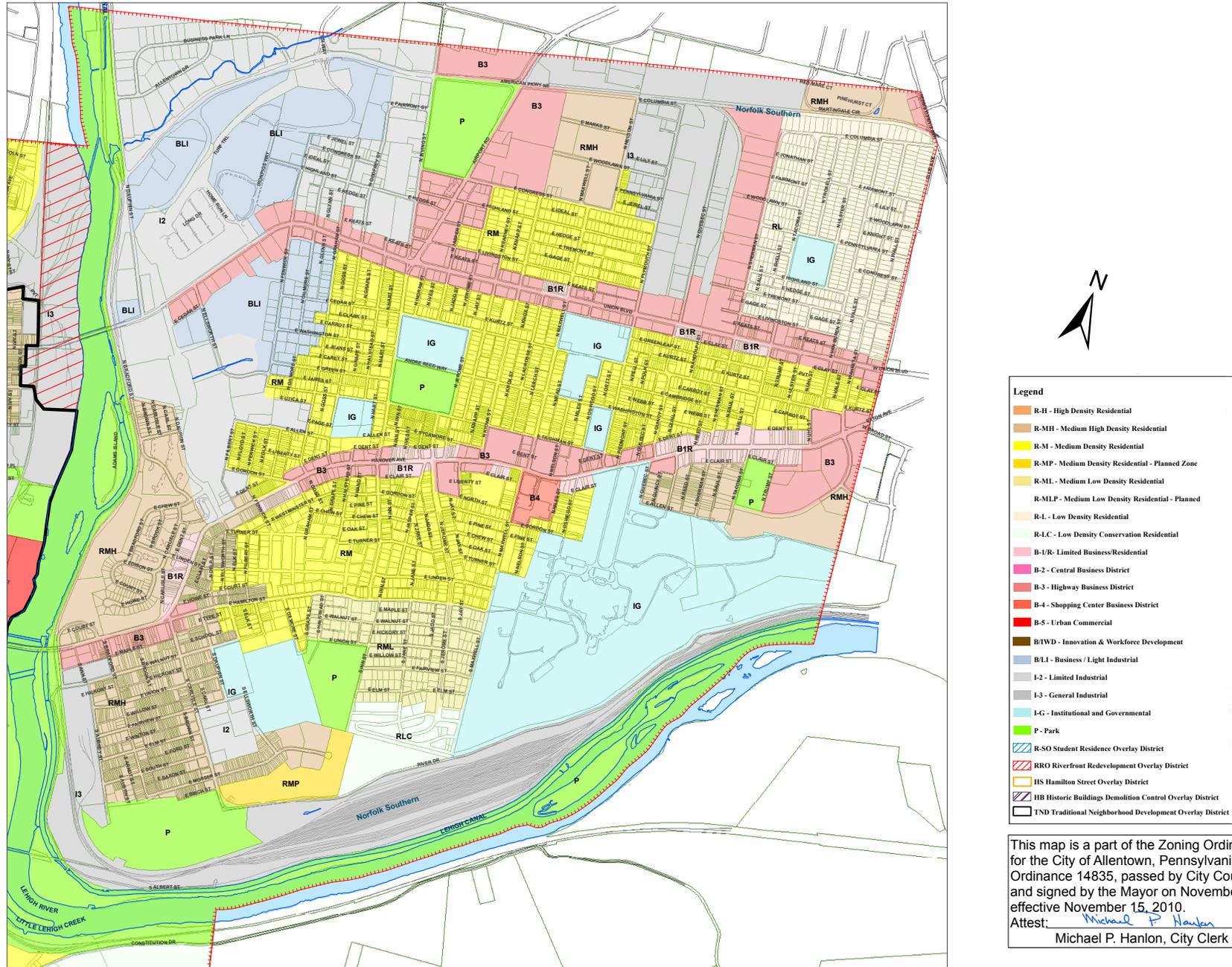
Source: Google, City of Allentown

The future of ASH and the surrounding area was an emphasis of the City's 2019 comprehensive planning process, Allentown Vision 2030. A key action identified in the plan is a comprehensive zoning code update that allows for a more integrated approach to land use. ASH is identified as an area suitable for this approach that could support a mix of land uses and zoning classifications. Additionally, changes in zoning to support industrial uses are already underway in the City. These changes are intended to bolster economic development focused on industrial uses, which was an objective of the City's re-industrialization strategy completed in 2014.



View of the main entrance of the site facing Hanover Avenue.

Figure 3: City of Allentown Existing Zoning Districts Surrounding ASH



Source: City of Allentown. <https://www.allentownpa.gov/>

Allentown Vision 2030 identified ASH as a key project in the East Allentown neighborhood. The plan's vision for this area includes prioritizing transit, destinations improving the neighborhood's sense of place, and redevelopment that includes amenities and adds to the local economy. A high-level, conceptual redevelopment framework was prepared for ASH including establishing a grid network tying into existing neighborhood roads, creating a park and trails, and identifying developable area. It was accompanied by several development principles.

Development Principles



Adopt a mixed-use approach to the site, including commercial and residential uses.

ONE



Commercial, light industrial and manufacturing spaces can support economic opportunity.

TWO



Housing should enable economic, typological, land use, and demographic diversity.

THREE



Connect to and provide parks, recreation and open space.

FOUR



Public space should be both active and passive to meet current and future needs of the community.

FIVE



Develop to increase the tax base.

SIX

Source: City of Allentown, Allentown Vision 2030

FutureLV, the regional comprehensive plan for Lehigh and Northampton Counties developed by the Lehigh Valley Planning Commission, also highlights ASH and the surrounding area as a redevelopment opportunity. The site is located along a corridor identified for future redevelopment, which would include enhanced bus service and accessibility for pedestrians, cyclists, and other means of mobility. Regional priorities also include concentrating future development in mixed-use areas with access to multimodal transportation options to further strengthen accessibility, diversity of housing, amenities, and active lifestyles. Increasing density and infill development is another focus, which limits development of farmlands and open spaces and capitalizes on existing infrastructure.

Goals and Benefits of Reuse Feasibility Concepts

Spanning approximately 195 acres, the ASH site is vast and offers a significant redevelopment opportunity that could support a wide range of land uses and reuse visions. The goal of this study is to develop feasible reuse concepts for the site that leverage existing planning efforts, advance economic development strategies, incorporate community needs and visions, and address local priorities.

A critical component to concept development is community and stakeholder engagement. Working together with the community and project partners helps build a united vision for the site and a better understanding of the magnitude of redevelopment it could support. Concepts are tested by four essential criteria: legal permissibility, physical possibility, financial feasibility, and maximum productivity. Additionally, the assessment of real estate market conditions tests the market receptivity of the various potential reuses so that reuse feasibility concepts are grounded in market realities.

This comprehensive study process affords a careful and strategic approach to redevelopment opportunities. Concepts developed through this effort are influenced by both local community and regional priorities and built with careful consideration of physical site conditions, estimated development costs, and real estate market support. These concepts can be used to both inspire and inform future redevelopment on the site. Preparing for redevelopment in this way helps foster strategic investment and implementation that advances economic development and community revitalization.



SITE CONDITIONS: STRENGTHS AND LIMITATIONS

Environmental

The analysis of existing environmental conditions at ASH was developed through review of multiple publicly available environmental assessment reports. A list of these reports is included in Appendix A. Since it is the current property owner's (DGS) intention to mitigate environmental concerns as part the site demolition/remediation contract, the scope of work for that contract (DGS SOW) was also reviewed to determine if all previously identified Recognized Environmental Conditions (RECs) are being mitigated. The following sections provide a summary of this analysis. Appendix A provides the full, detailed analysis of existing environmental conditions.

RECOGNIZED ENVIRONMENTAL CONDITIONS

There have been multiple Recognized Environmental Conditions (RECs) identified in both the main hospital campus buildings and throughout the property itself. Appendix A includes a matrix of RECs as identified by each previous investigation and several figures which detail the locations of each REC. If left unabated, these RECs would have the potential to significantly impede redevelopment of the property or limit the types of uses that could be supported at the site.

Main Campus RECs

Many of the buildings on the main campus have been identified as having Asbestos Containing Materials (ACM) and/or Lead-Based Paint (LBP). Other RECs identified with or around the buildings include:

- The laundry facility in building 29 may have had dry cleaning operations.
- A Fire Training area east of the onsite wastewater treatment plant (WWTP).

- Use and storage of chemicals, oils, and evidence of vehicle maintenance present in electric shop and maintenance shop.
- Several concerns related to historic operations of the WWTP including disposition of sludge and the presence of leaking drums and containers inside the sludge filter building.
- Evidence of an undocumented underground storage tank (UST) was observed at the former WWTP located at the southeast end of the site. Also identified were two 1,000-gallon fuel oil aboveground storage tanks (ASTs) at the subject site, one located to the south of the electric shop and the other located between buildings 25 and 26. One 500-gallon diesel AST was also observed to the northeast of the maintenance building. A 4,000-gallon gasoline UST was located to the northeast of the maintenance building.

Off-Campus RECs

Additional RECs have been identified in the "off campus" section of the ASH property as well. In the area northeast of the main hospital building campus, several areas of unregulated landfilling-type activities and soil contamination have been identified and investigated. These areas include:

- Coal ash and dioxin soil contamination in area of former incinerator; dioxin contamination of soils in this area have been confirmed.
- Three unregulated landfill areas: south of boiler plant area, southeast of incinerator and pipe building, in wooded area east end of the site.

DGS REMEDIATION SCOPE OF WORK

The DGS SOW generally consists of abatement, remediation, termination of utilities, and demolition of the existing buildings/structures and restoration of ASH. In order to develop the DGS SOW, DGS commissioned two environmental studies:

- Phase 1 Environmental Site Assessment, prepared for DGS by KCI Technologies, Inc., November 8, 2018 - The subject site of this study was the two parcels of land that comprise ASH totaling approximately 195 acres; improved with 30 vacant hospital buildings located near the center of the site and several vacant agricultural and maintenance buildings located on the eastern portion of the site.
- Screening Level Phase 2 Environmental Site Assessment, prepared for DGS by KCI Technologies, Inc., November 20, 2018 - The investigation was both targeted and limited in nature and was conducted to gather additional information concerning the issues referenced below. KCI did not investigate other areas of the site or other issues. The Screening Level Phase II ESA was conducted to further investigate:
 - a. Dioxin-impacted soils located south of the former incinerator; and
 - b. Two diesel ASTs and one decommissioned UST located on the site.

The findings of these two studies confirmed the RECs that had been identified through previous studies and further defined the nature and extent of the landfilled areas. This information was used to develop a remediation scope of work to address all of the confirmed RECs within the ASH property. The DGS SOW includes the following remediation:

- Abatement of ACM, LBP and any hazardous materials prior to demolition of the buildings;
- Removal of above and underground storage tanks;

- Mitigation of any issues related to the WWTP;
- Excavation of dioxin-contaminated soils;
- Excavation of landfilled materials; and
- Backfilling of any excavated areas.

The matrix included in Appendix A provides the remediation effort that is intended to address each of the previously identified RECs. Based on a review of available environmental reports and the DGS SOW, it appears that all previously identified RECs will be addressed during the planned site preparation work.

CONSIDERATIONS FOR REDEVELOPMENT

While the DGS SOW appears to address the previously identified RECs, some potential uncertainty remains in terms of potential impacts to redevelopment. Future property owners and potential developers will need to confirm whether the resulting environmental conditions will support the proposed end uses in their redevelopment plan.

For example, one issue not addressed by the DGS SOW is whether or not the remediated areas will be taken through the PADEP Land Recycling Program (LRP) to receive a Relief of Environmental Liability. Any potential purchaser of the ASH property will, of course, conduct their own environmental due diligence, however, in the absence of completing the PADEP LRP process, there may be no protection from environmental liability for future property owners or end users.

Also not identified in the DGS SOW is the level of cleanup standard to be achieved. PADEP's Relief of Environmental Liability is secured based on the type of cleanup standard that has been attained by the remediator. The appropriate cleanup standard is based on the intended end use of the site and can be different for each part of the site if multiple types of end uses are proposed across the property. The PADEP LRP allows for achievement of less stringent "non-residential" standards for end uses such as industrial or commercial facilities. Parcels that are proposed for recreational or residential end uses (as defined by PADEP) must achieve a higher "residential"

standard for remediation. While the DGS SOW addresses the previously identified RECs, it does not indicate whether the remediation will attain a residential standard or a non-residential standard. Potential developers will still need to confirm whether the resulting environmental conditions will support the proposed end uses in their redevelopment plan.

Finally, the DGS SOW includes excavation and backfilling of contaminated soil and previously landfilled areas. Compaction testing may be necessary in the backfilled areas to confirm buildability.

Demolition

It is the intent of the current property owner to conduct site preparation work, which will result in a “pad ready” site for redevelopment. Part of the site preparation work includes extensive demolition of existing structures and buildings. The following section discusses the expected resulting site conditions and any remaining issues related to site redevelopment.

DGS DEMOLITION SCOPE OF WORK

DGS has contracted with a Design Build Contractor (DBC) to complete the DGS SOW described in the Request for Proposal [Pennsylvania Department of General Services, Request for Proposal for a Design Build Contractor, Project No. DGS-C-0501-0022, Project Manual, Appendix Q, Statement of Work, August 29, 2019 (DGS SOW)]. The construction duration of the demolition project is 546 days. This includes an estimated four months for design and 14 months for abatement, utility termination, demolition, removal, fill, and seeding. Activities were expected to begin in the summer of 2020.

Demolition included in the DGS SOW generally consists of termination of utilities and demolition of the vast majority of existing buildings/structures. There are 44 existing buildings, including ancillary structures such as sheds, gazebos, dumpsters, etc., located throughout the approximately 195-acre site. There is also a system of utility tunnels throughout the main grouping of buildings along with one inactive and two active water reservoirs that currently hold approximately 1.5 million gallons of water.

There are several structures and a building on the main hospital campus that are not included in the DGS SOW. The structures and buildings to remain include the existing sidewalks and parking lots (not integral to the top of the utility tunnels), the PADEP weather station (nor its power service), the Community Services for Children buildings, and townhouses.

The DGS SOW describes the demolition activities as follows:

“... buildings will be removed down to their foundation walls. Once the buildings/tunnels are removed any remaining foundation walls will be demolished to below four (4) feet from finished grade. Along with the limited foundation wall demolition any basement slab will be cracked full depth in several locations. This is to allow water infiltration to drain out of the remaining foundation/slabs. Throughout the site there is a system of utility tunnels that will also need to have selective demolition completed. Once the tunnels are abated and piping and appurtenances disposed of, they will have the top portion demolished and the bottom slab cracked full depth.”

The DGS SOW also provides details as to the final condition of the site and supporting infrastructure once the work has been completed:

“ ... the DBC shall only grub to the extent required to perform the demolition of the buildings, structures and abatement of environmental hazards. All trees located along the main ingress/ egress roads shall not be removed. Demolished buildings, sub grade voids i.e. basements, tunnels, areas of contaminated soil and UST shall be filled with approved fill. These areas shall be filled in two (2) foot lifts and compacted to ninety-five (95) percent compaction. Any portion of existing sidewalk that was removed to abate and demolish the tunnels shall be replaced to match existing. If any portion of tunnel runs under the roadway, the roadway shall be repaired in accordance with Penn DOT standards. The disturbed areas of the project site shall be seeded in accordance with NPDES permit requirements.”

CONSIDERATIONS FOR REDEVELOPMENT

The current main ingress and egress roads will remain as will all mature trees along these roads. It is likely that a new site plan will require new roadways and may not include all the mature trees. Additional site preparation work is expected to support the new end uses.

All onsite utilities will be terminated and supporting utility tunnels demolished. Significant utility infrastructure – including water and sewer – will be needed to support a new redevelopment.

Some foundations and basement slabs will be demolished and left in place. This may require additional excavation and removal of construction debris during new construction. Also, given that building debris will be backfilled into basement areas of buildings during demolition, buildability of former building footprints should be confirmed prior to new construction.

Topographic and Geological

SITE TOPOGRAPHY

Despite the 195-acre parcel size of the ASH site, topography limits the use of a substantial portion of the property. Figure 4 presents a topographical map of the site.

Steep slopes along the southern border and throughout the eastern portion of the site are prohibitive to redevelopment. It is estimated that topography eliminates approximately 97 acres, or nearly half the site acreage, from development. The remainder of the site is rolling topography with elevation generally building north to south until the southern border slopes. This rolling topography should allow for development with varying sightlines.



View of sloping topography on the ASH site.

Figure 4: Site Topology



Source: Final Minor Subdivision Plan of Allentown State Hospital. City of Allentown, Bureau of Engineering, Department of Public Works. 2007.

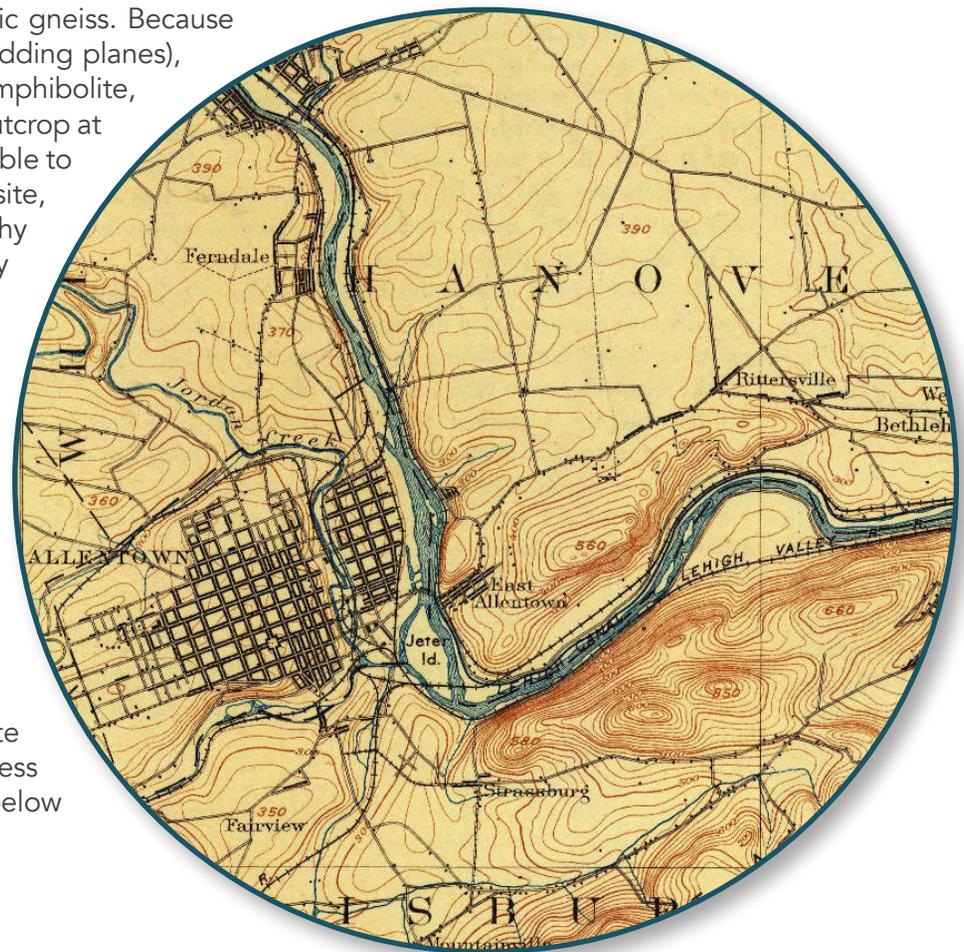
GEOLOGICAL

Based on previous subsurface investigations completed at the site, the overburden material (soil) exists from nine to 14 feet below ground surface (bgs) before weathered bedrock is encountered. At various locations spread across the site, test pits have been completed where weathered bedrock was not encountered. Weathered bedrock is the top 10 to 50 feet of usually solid rock below a site, the term weathered indicates that the bedrock formation has been eroded either physically or chemically and does not maintain the same parameters as competent bedrock. Weathered bedrock is often more fractured and less competent.

The bedrock geology underlying the site is comprised of a granitic gneiss. Because the topography and strike and dip (or direction of the bedrock bedding planes), multiple formations outcrop at the site. Microperthite alaskite, Amphibolite, and the Hardyston Formation are the three major formations that outcrop at the site. These formations are relatively competent and not susceptible to extreme weathering. The evidence of such geology is visible at the site, where rolling upland topography is prevalent. The step topography is due to the continued erosional efforts of the Lehigh River slowly eroding the bedrock, and the bend in the Lehigh River is directly related to a thrust fault.

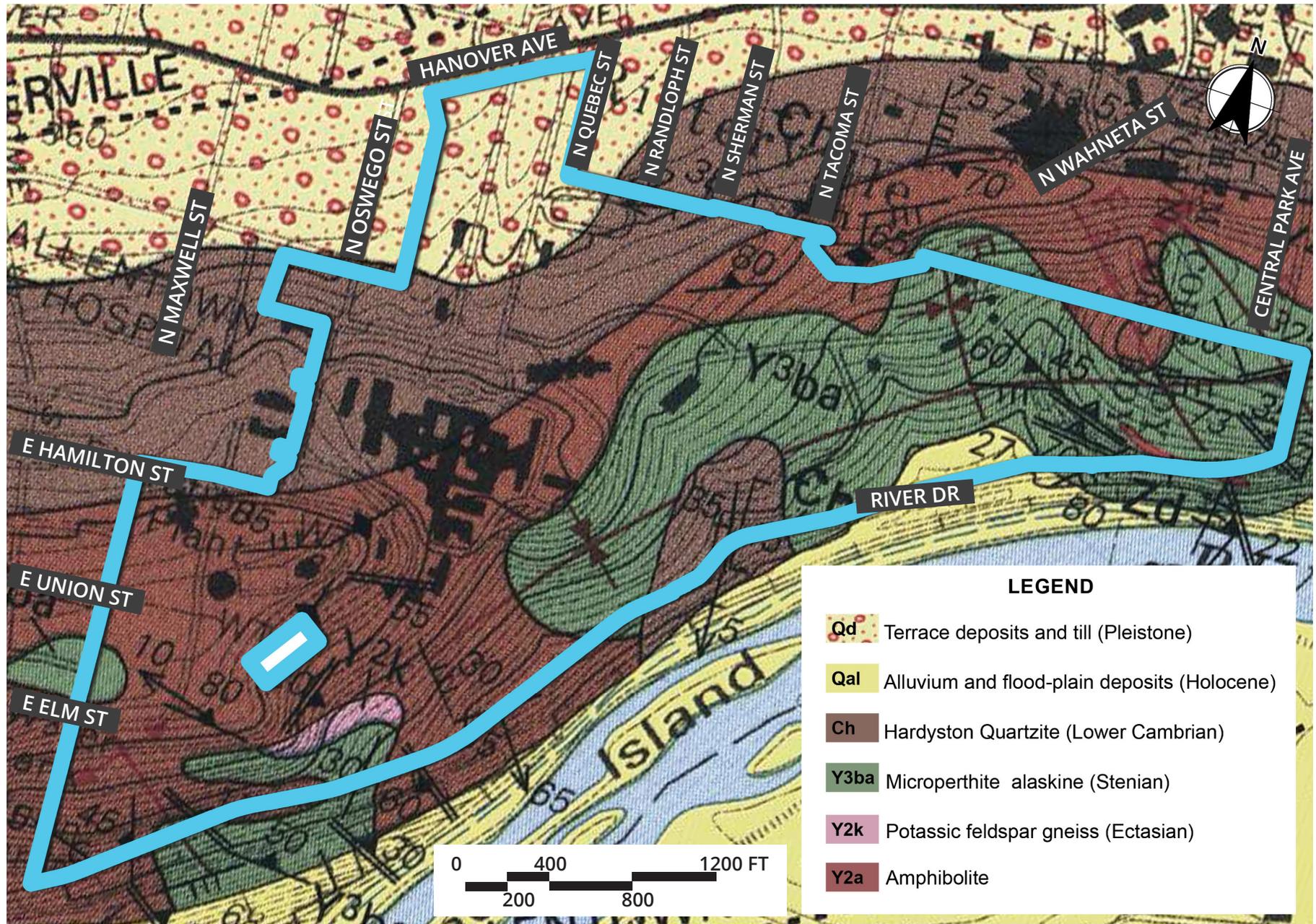
During a 2010 Targeted Brownfields Assessment, five borings were completed onsite in the eastern portion of the site. This part of the site was used primarily for agricultural purposes serving the hospital until the 1960s. The area was being operated as a landfill in the late 1970s and 1980s. The five borings surrounded the landfill area and were completed in bedrock. Borings were completed to 49, 62, 55, 37 and 39 feet bgs. Very weathered bedrock was encountered between 16 and 20 feet bgs. Bedrock was described as weathered for the extent of all borings.

Based on the limited geotechnical investigation completed at the site and the existing topography, future development will have to address weathered bedrock and pinnacles of competent bedrock that exist below the surface at the site.



Historical topographic map of the City of Allentown and the ASH site as surveyed in 1893.
Source: USGS, 1919

Figure 5: Bedrock Geology



Source: Geological Map of Allentown East Quadrangle, Lehigh, Northampton, and Bucks Counties. Pennsylvania. USGS

Utility

While ASH is serviced by local utilities at specific points of connection, the utilities throughout the site that serve each building are “private,” owned by DGS. Table 1 outlines each utility that services ASH, as well as how each utility will be impacted per the demolition contract.

STORMWATER MANAGEMENT

The ASH site currently has no stormwater management facilities and only conveys stormwater with no management of rate, infiltration, or quality of runoff. As the site is developed, the designers must consider the new impervious area created and manage the stormwater runoff in accordance with the City ordinances. It is recommended that stormwater be managed as close to the source of the runoff as possible. For example, use infiltration swales, underground detention/retention, and pervious paving to manage parking lot runoff rather than conveying to a large basin to manage runoff.

In addition to constructing to appropriate infrastructure to manage the stormwater quantity and quality the development will need to pay annual fees to the City of Allentown under their MS4 program. The current rate is \$20.00 per billing unit where the billing unit is equal to 500 square feet of impervious coverage. There are opportunities in redevelopment to provide credits to reduce this annual fee.

Figure 6: ASH Utilities



Sources: PPL Electric Utilities, LCA

Table 1: Summary of Existing Utility Conditions

Utility Type	Provider	Existing Conditions
Electrical	PPL Electric Utilities 827 Hausman Road Allentown, PA 18101 888-220-9991	The existing power to the site from PPL is via a 12.47 kV distribution line, which would provide a maximum of 10-11 MVA. If more the 10-11 MVA are required to service redevelopment at the ASH site, a second distribution circuit would be required. The substation and on-site distribution lines will be removed as a part of the demolition contract.
Sanitary Sewer	Lehigh County Authority (LCA) 1053 Spruce Road Allentown, PA 18106 610-398-2503	<p>There are two existing connection points to the LCA sewer system. One is at East Allen Street and North Quebec Street, and the second is at East Allen Street and North Saul Street. In addition, there is an abandoned WWTP on-site. The existing on-site collection system and WWTP will be removed as a part of the demolition contract.</p> <p>The sanitary sewer from this site flows to the Kline Island Sewer System (KISS), which recently submitted an interim Act 537 plan to PADEP for approval due to the hydraulic overloads for three consecutive months in 2019. The hydraulic overloads have been related to excessive storm events causing rain derived inflow and infiltration to increase flows to the wastewater treatment plant. The interim plan does account for a flow rate of 95,200 GPD or 400 EDUs from this site. Any flows above that will require additional sewerage planning.</p>
Domestic Water	Lehigh County Authority (LCA) 1053 Spruce Road Allentown, PA 18106 610-398-2503	The ASH site is currently serviced by one connection via an 8" meter. This service provides both domestic water and fire protection for the site. Current site improvements provide for water storage, which will be removed during demolition. Further study will be required to determine if a new water storage tank or tower will be required to meet water demands for redevelopment on the site.
Natural Gas	UGI Utilities, Inc. (UGI) 2121 City Line Road, Unit 1 Bethlehem, PA 18017 800-276-2722	<p>The ASH site is not currently serviced by natural gas, but natural gas is available on the surrounding streets. UGI has natural gas mains at the following locations:</p> <ul style="list-style-type: none"> • Hanover Street – 4-inch medium pressure line • Osewago Street – 2-inch medium pressure line • North Quebec Street – 2-inch medium pressure line • North Randolph Street – 2-inch medium pressure line <p>UGI would most likely have capacity to service a mixed-use development at the ASH site to provide heating, hot water, and kitchen type facilities. However, any development requiring a load more than 2,000,000 BTUs would require review by UGI to determine if any offsite upgrades would be required and to determine any shared costs related to those upgrades.</p>

Sources: PPL Electric Utilities, LCA, UGI

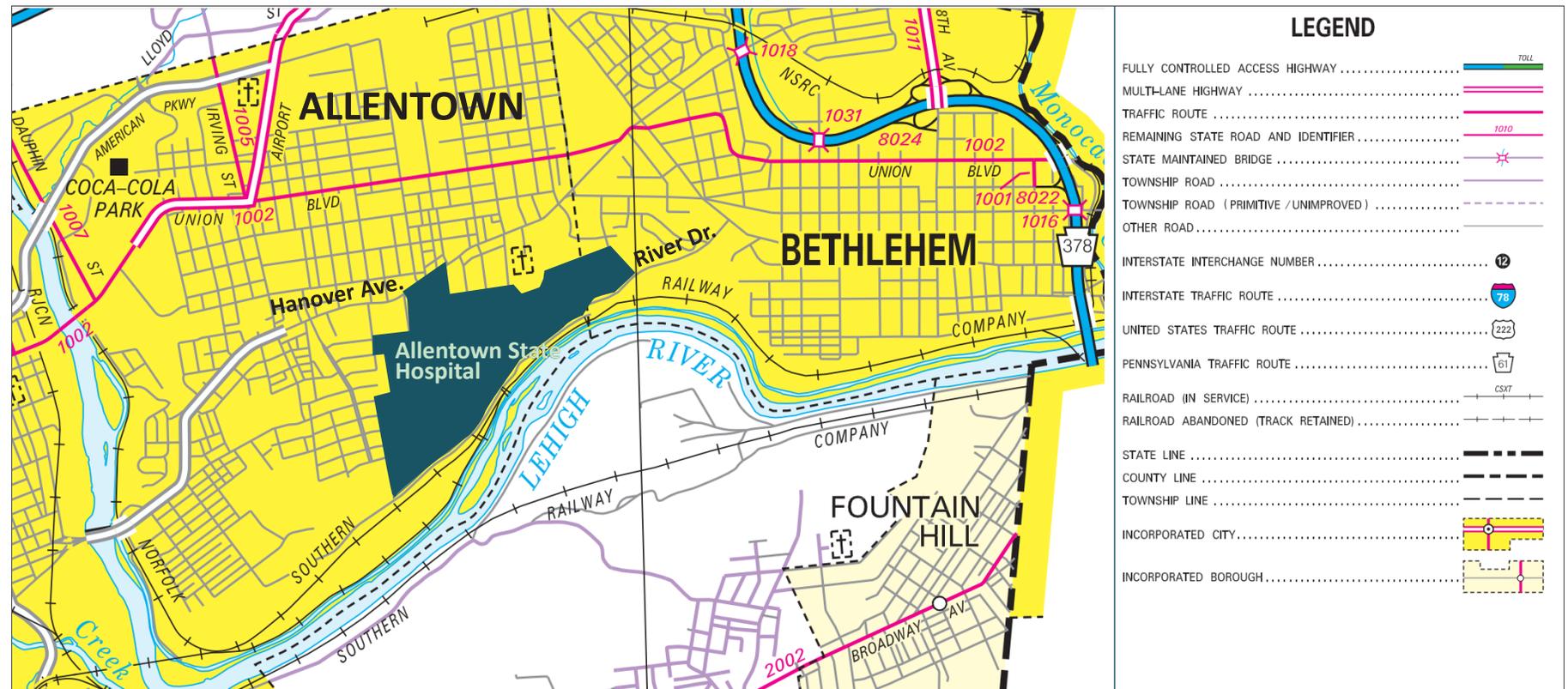
Multimodal Connectivity Analysis

ROADWAY CONDITIONS

All roadways surrounding ASH, including Hanover Avenue and River Drive, are locally owned as indicated by PennDOT County Type 10 map provided in Figure 7. As shown on the map, Hanover Avenue is the northern boundary of ASH, while River Drive is the southern boundary that travels adjacent to the freight rail line. Additionally, ASH contains an extensive, interior pavement network with multiple parking areas and driveway off-shoots. The site demolition work does not include the existing pavement and curbing.

A review of Lehigh Valley Planning Commission’s 2021 to 2024 Transportation Improvement Program (TIP) revealed that there are no projects under construction or in development in this area.

Figure 7: PennDOT Lehigh County Type 10 Map

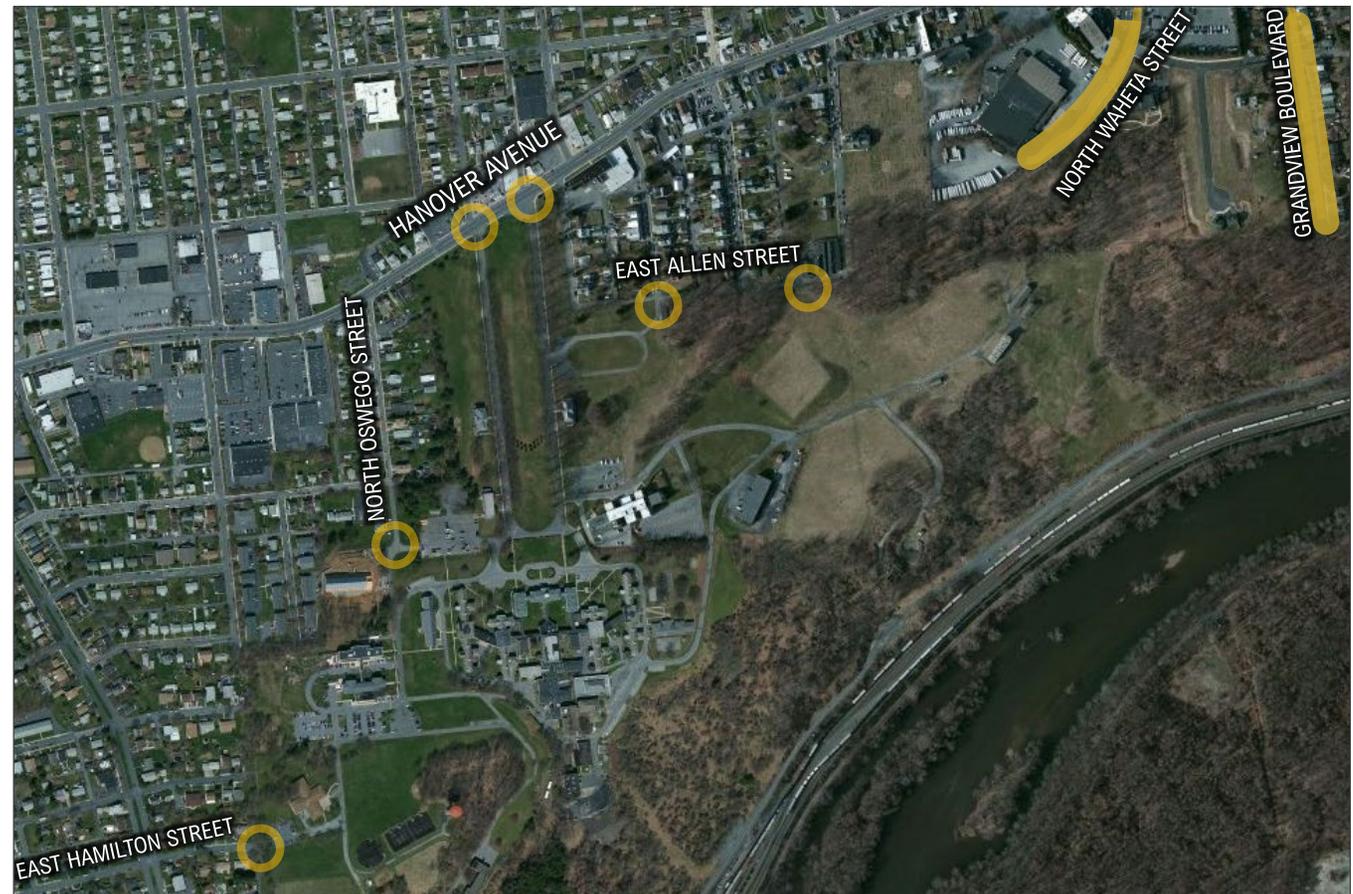


Sources: PPL Electric Utilities, LCA

Site Driveways and Street Connections

There are multiple existing paved access points to ASH, two of which are currently active. The main access point is a median-separated driveway on Hanover Avenue. Oswego Street is an additional access point to the western portion of the site servicing the Community Services for Children property. There are two access points along the eastern portion of the site along East Allen Street and another on the western part of the site at East Hamilton Street that are currently fenced-off. With a new proposed residential development to the northeast of ASH, there is a potential extension of North Wahnetta Street that could provide a new connection to the site. In the easternmost portion of the site in the City of Bethlehem, Grandview Boulevard also presents an opportunity for an additional connection to ASH.

Figure 8: ASH Site Driveways and Street Connections



Source: Bing.com

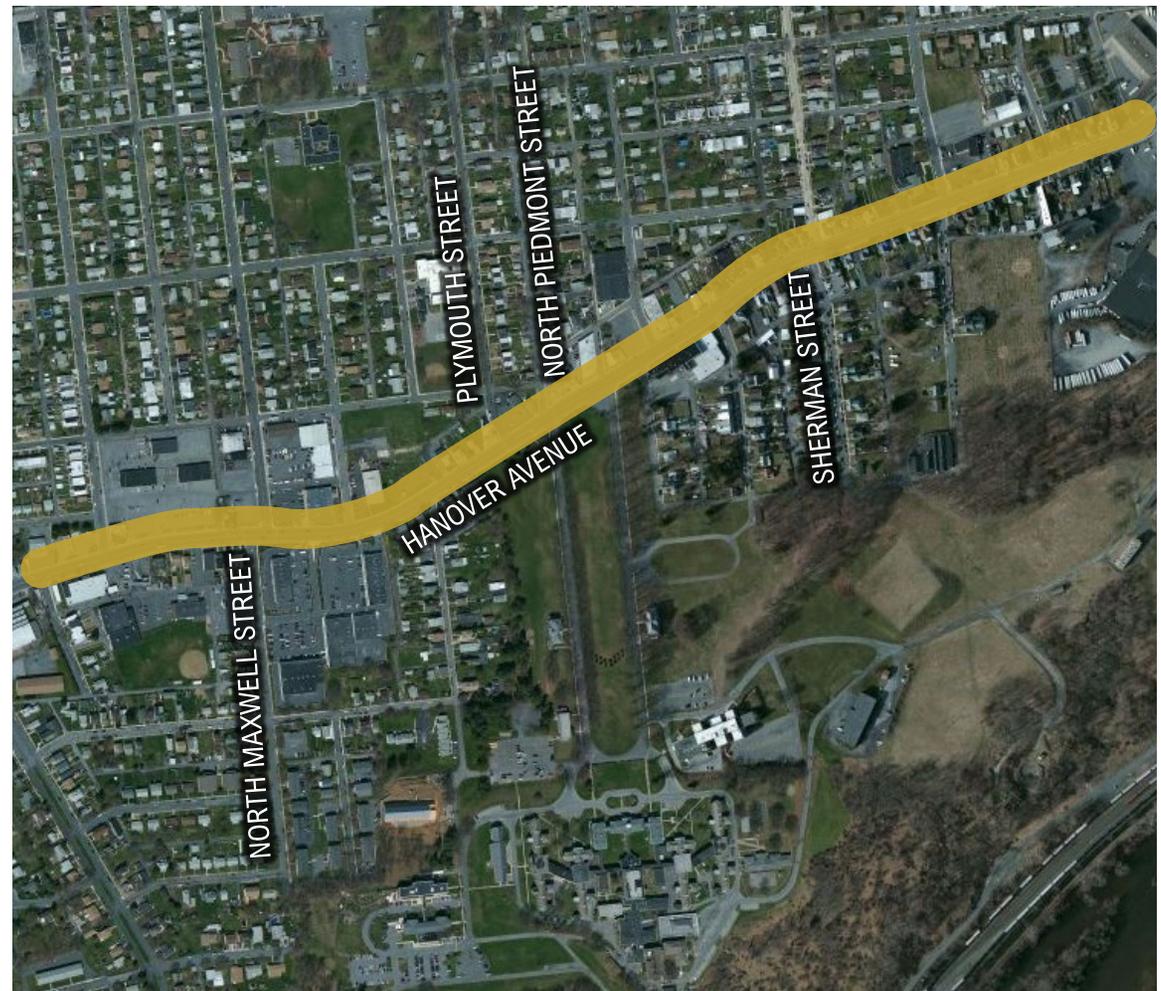
Hanover Avenue

Hanover Avenue is an east-west, two-direction local roadway with a posted speed limit of 35 miles per hour (MPH) at ASH. According to PennDOT's federal functional classification map, Hanover Avenue, a roadway owned by the City of Allentown, is classified as a principal arterial highway. The average road width along the site is 51-feet. Along ASH's frontage, Hanover Avenue's general roadway cross section consists of two 11-foot travel lanes, one in each direction, a 13-foot two-way center left-turn lane, and two 8-foot parking lanes. Portions of the parking lanes are utilized as bus pullover locations where bus stops are present. The average annual daily traffic (AADT) is approximately 14,200 vehicles per day. The predominate land use along Hanover Street, in the area of ASH, is commercial but there is some residential frontage.

There are two signalized intersections located at either end of the site along Hanover Avenue at Maxwell Street to the west and Sherman Street to the east. Both intersections are part of a time-based coordination signal system that runs from the intersection of Hamilton and Second Streets and Hanover Avenue and Wahneta Street.

Hourly traffic counts were conducted along Hanover Avenue between Plymouth Street and Piedmont Street on July 30, 2019. During the 24-hour count, there were 16,356 vehicles observed, 2.9% of which were heavy vehicles. The peak hours were observed to be from 8:00 A.M. to 9:00 A.M. (971 total vehicles) and 5:00 P.M. to 6:00 P.M. (1,383 total vehicles). The directional movement is 51/49% split, with slightly more westbound vehicles than eastbound vehicles.

Figure 9: Hanover Avenue

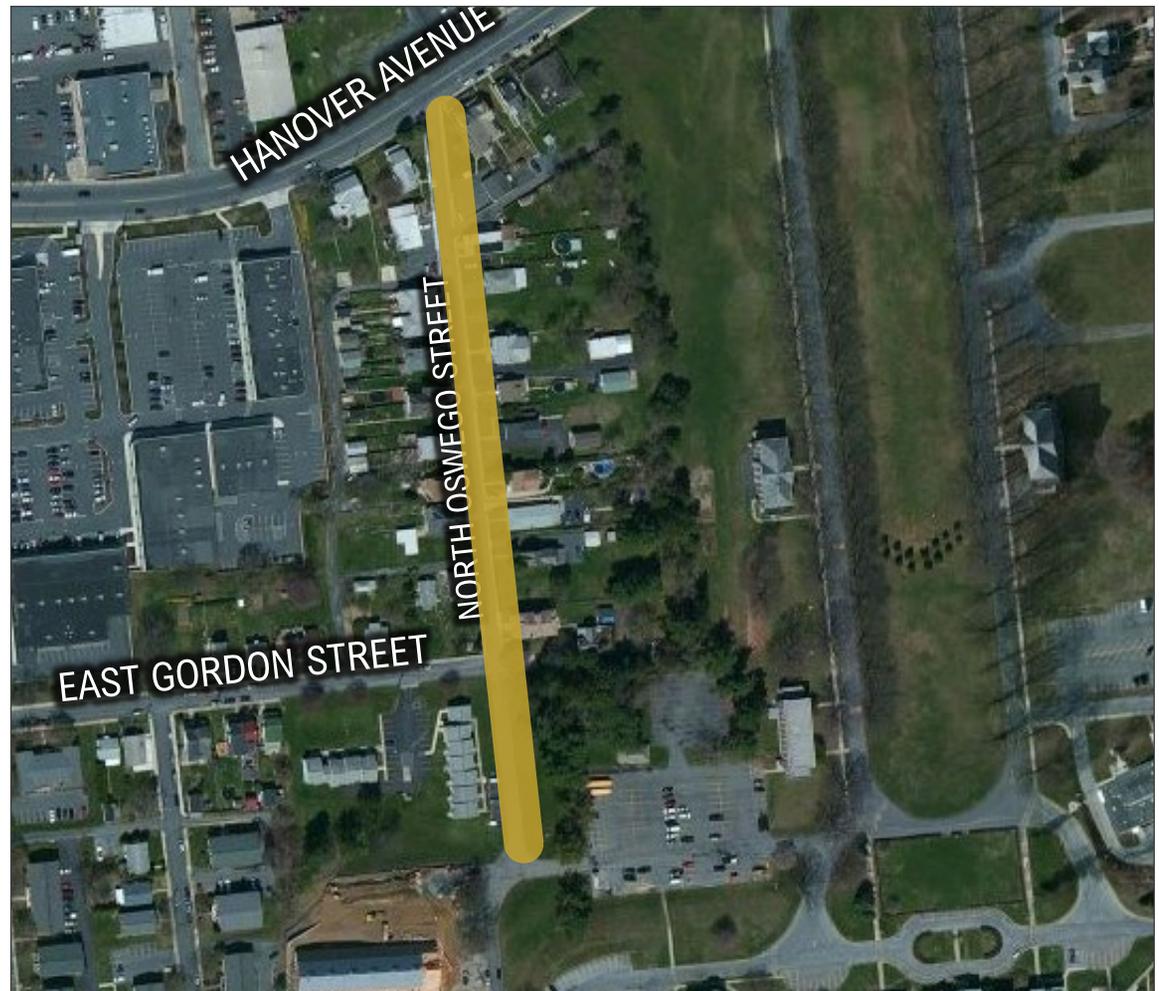


Source: Bing.com

Oswego Street

Oswego Street is a north-south local roadway that connects Hanover Avenue to ASH. Between Hanover Avenue and Gordon Street, the road is approximately 18 feet wide and parking is allowed on the western side of the road. The speed limit is 25 MPH within this road segment and the area is primarily residential. Between Gordon Street and ASH, the speed limit is 15 MPH and signage dictates that northbound-traveling vehicles must turn left at the intersection of Oswego and Gordon Streets. The road is approximately 20 feet wide along this segment.

Figure 10: Oswego Street



Source: Bing.com

River Drive

River Drive is an east-west, two-lane local roadway with a posted speed limit of 35 MPH along the southern boundary of ASH. River Drive is a narrow road that contains no shoulder. The roadway connects Market Street in Bethlehem to Carlisle Street and Hamilton Street in Allentown and serves as an alternate route to Hanover Avenue. The road runs parallel to a Norfolk Southern rail line and there are no existing access points to ASH. While connections to River Drive from the site are possible, there are challenges with respect to existing conditions including roadway geometry, sight distance, and speed limits.

Figure 11: River Drive



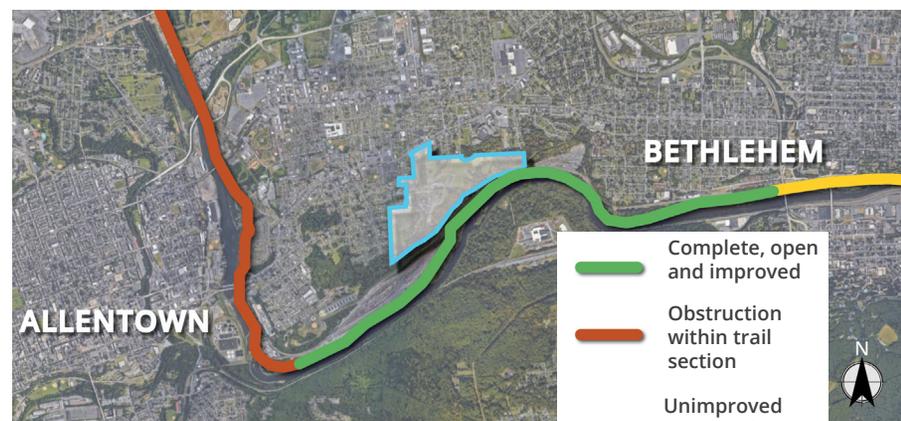
Source: Bing.com

PEDESTRIAN AND BICYCLE NETWORK CONDITIONS

Sidewalk is present along the site driveway entrance and exit, but it has not been maintained. It connects to the sidewalk network along Hanover Avenue. Sidewalk is present along all adjacent roadways and pedestrian crossings are present at the signalized intersections. A pedestrian crossing is also present at Plymouth Street and connects the roadway to the site. The Pennsylvania Bike Route network is not located adjacent to ASH. There are no facilities or signage for bicycles and pedestrians and no paved shoulders along River Drive.

The Delaware & Lehigh National Heritage Corridor (D&L) trail runs parallel to River Drive along the southern boundary of the site, located on the other side of the Norfolk Southern railroad tracks. This segment of the D&L trail is designated as complete, open, and improved. It stretches 3.9 miles and connects the Cities of Allentown and Bethlehem along the Lehigh River.

Figure 12: D&L Trail Traveling Parallel to ASH



Source: Delaware & Lehigh National Heritage Corridor

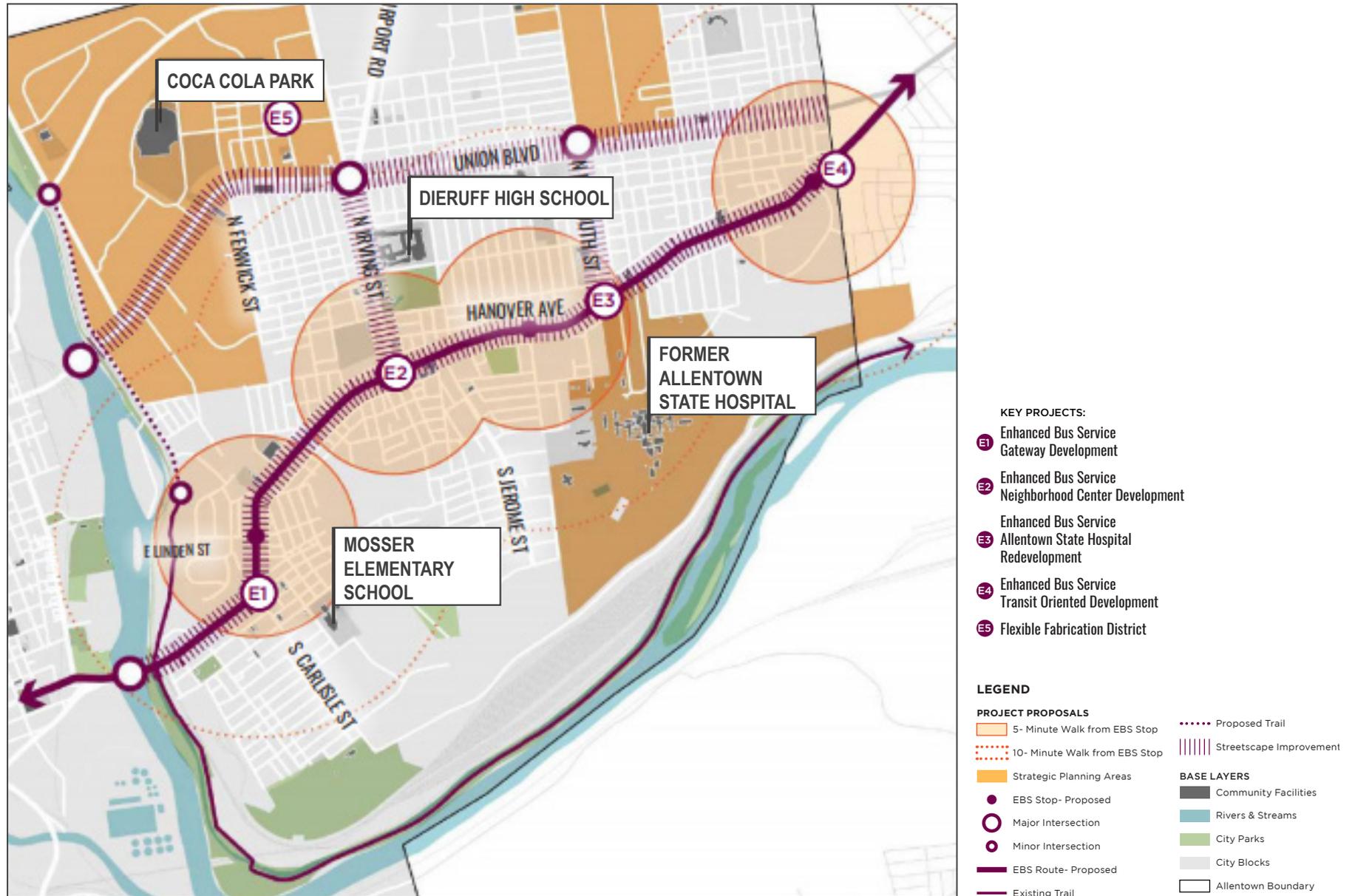
TRANSIT CONDITIONS

Lehigh and Northampton Transportation Authority (LANTA) Bus Route #107 and Bus Route #220 both travel along Hanover Avenue. Both bus routes stop adjacent to ASH at the intersections of Hanover Avenue and Plymouth Street and Hanover Avenue and Quebec Street. LANTA Bus Route #107 travels between Crest Plaza Shopping Center and the intersection of Main and Raspberry Streets in Bethlehem, while Bus Route #220 travels between Downtown Allentown and the City of Easton.

Additionally, as highlighted in the Allentown Vision 2030 plan, the Lehigh and Northampton Transportation Authority (LANTA) has proposed to implement a high-frequency Enhanced Bus Service (EBS) along the Hanover Avenue corridor. An EBS pull-off or shelter stop is proposed at ASH on Hanover Avenue. A transit station to support the new bus service may be a suitable use to include on this site.

Norfolk Southern Railway Company owns the freight railway located adjacent to River Drive and along the southern boundary of ASH. Norfolk Southern also owns and operates a railyard adjacent to the southeastern corner of ASH. This portion of the site remains undeveloped and largely constrained by steep slopes. However, there is evidence of a siding onto the eastern portion of the ASH site in an area with flatter topography. This siding was previously where hopper cars unloaded coal. While this location has more potential for a freight connection across River Drive due to the flatter topography, the curved track geometry presents a challenge to implementing the required switching. Therefore, while Norfolk Southern's busy Allentown Terminal is located in close proximity to ASH, the steep slope conditions and track geometry have prevented industrial use on this portion of the site.

Figure 13: Proposed LANTA EBS System



Source: City of Allentown, Allentown Vision 2030

STAKEHOLDER ENGAGEMENT: INITIAL STUDY PHASES

Stakeholder engagement was a critical component of this study, and was conducted across multiple phases of the study development process. During the beginning phases of the study, one-on-one interviews were conducted with a wide array of local and regional stakeholders including government and other public agencies, real estate brokers, workforce development providers, and area businesses. Additionally, interviews were conducted through a focus group comprised of municipal and economic development representatives. The interviews were helpful to gather the following type of information and supplement community input:

- Elements that make the site a good location for redevelopment
- Visions for site reuse and community needs
- Constraints limiting potential redevelopment
- Types of end uses that would be the most marketable
- Incompatible land uses
- Real estate trends

Table 2 provides a collective summary of the overarching themes that resulted from these interviews. During a latter phase of the study stakeholder engagement included exploration of plan concepts for three development scenarios, the results of which are described in the Visioning Process section of this report. The Visioning Process included a design workshop held virtually via Zoom due to concerns regarding the current COVID-19 pandemic. Participation was robust and consistent over the two-day workshop, and the goals of the workshop were accomplished.

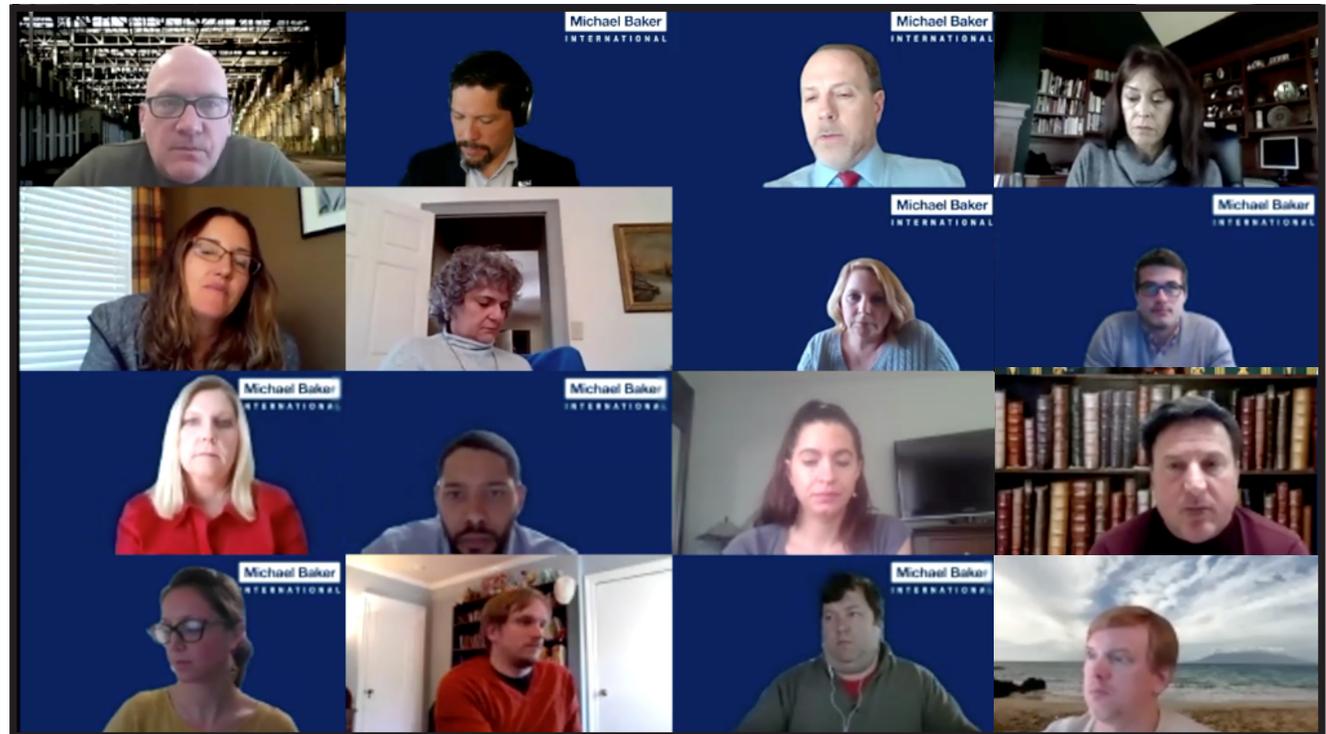


Table 2: Summary of Stakeholder Engagement in Initial Study Phases

Theme	Input
Site Location Advantages	<ul style="list-style-type: none"> • The site's location equidistant to the downtowns of Allentown and Bethlehem is advantageous, creating interaction between the two communities. • The property is a large piece of contiguous land in a land-constrained region. Large parcels in urban areas are rare. • ASH is positioned along a highly used transit route and is an area of emphasis in the City's new comprehensive plan. • The site is located within a planned node for transit-oriented development through LANTA EBS. • The property has infrastructure and population in place. Infill development minimizes sprawl and associated environmental concerns. • The natural environment, vast area of greenspace, and wildlife in an urban area is unique and presents an opportunity for future greenspace preservation and trail development.
Vision for Site Reuse	<ul style="list-style-type: none"> • Residential and light manufacturing uses could be viable. • Integrated affordable rental housing options should be considered; there are not many rental options in the immediate area. • There is noticeable growth in senior housing in the area and should be considered a possibility for ASH. • Industrial uses would create local jobs for local residents. • Due to access constraints, the site is not well-suited to serve the warehouse and logistics industry but rather smaller, local businesses looking for flex, light industrial space. • Hospital system expansion and or ancillary medical businesses or labs are plausible for the site. • Consider mixed-use residential uses, retail, personal services, and professional services particularly along Hanover Avenue. • Hanover Avenue could be redesigned to include a new streetscape that includes attractive lighting, trees and sidewalks, wayfinding signage, and a bike lane. • Consider a future resort enterprise that preserves open land, provides accommodations, and is geared towards open spaces taking advantage of the views at the top of the site. • A new school and athletic fields would benefit the Allentown School District. • Take advantage of open space; fields for regional sports events and tournaments could attract outside dollars to the area's businesses. • Preserve existing natural areas where wildlife and animal habitat exist.

Continued on the following page

Theme	Input
Community Needs	<ul style="list-style-type: none">• Land uses maximizing revenue generation would be beneficial and are needed.• Land uses which create jobs for local residents would be beneficial.• Dedicated road access is needed for the existing Community Services for Children property. Identifying access points having minimal disruption to the surrounding neighborhoods should be the goal.
Site Concerns and Constraints	<ul style="list-style-type: none">• Access to the site has always been a challenge. Connecting to established residential neighborhoods would disrupt current traffic patterns and will likely be met with resistance. The entry point on Hanover Avenue may be over-stressed if no other viable access point is created, and local zoning codes may require an additional access point.• Land constraints including steep slopes, wildlife and natural habitat, contamination and shallow bedrock, which could render certain areas unsuitable for development and could potentially divide the site. Additional fill, excavation, and regrading may be necessary for redevelopment.• New water and sewer lines and connections are needed for new development.• ASH has poor walkability and connectivity to Hanover Avenue. The corridor would need solutions for alternate mobility choices including pedestrian, transit, and bike.

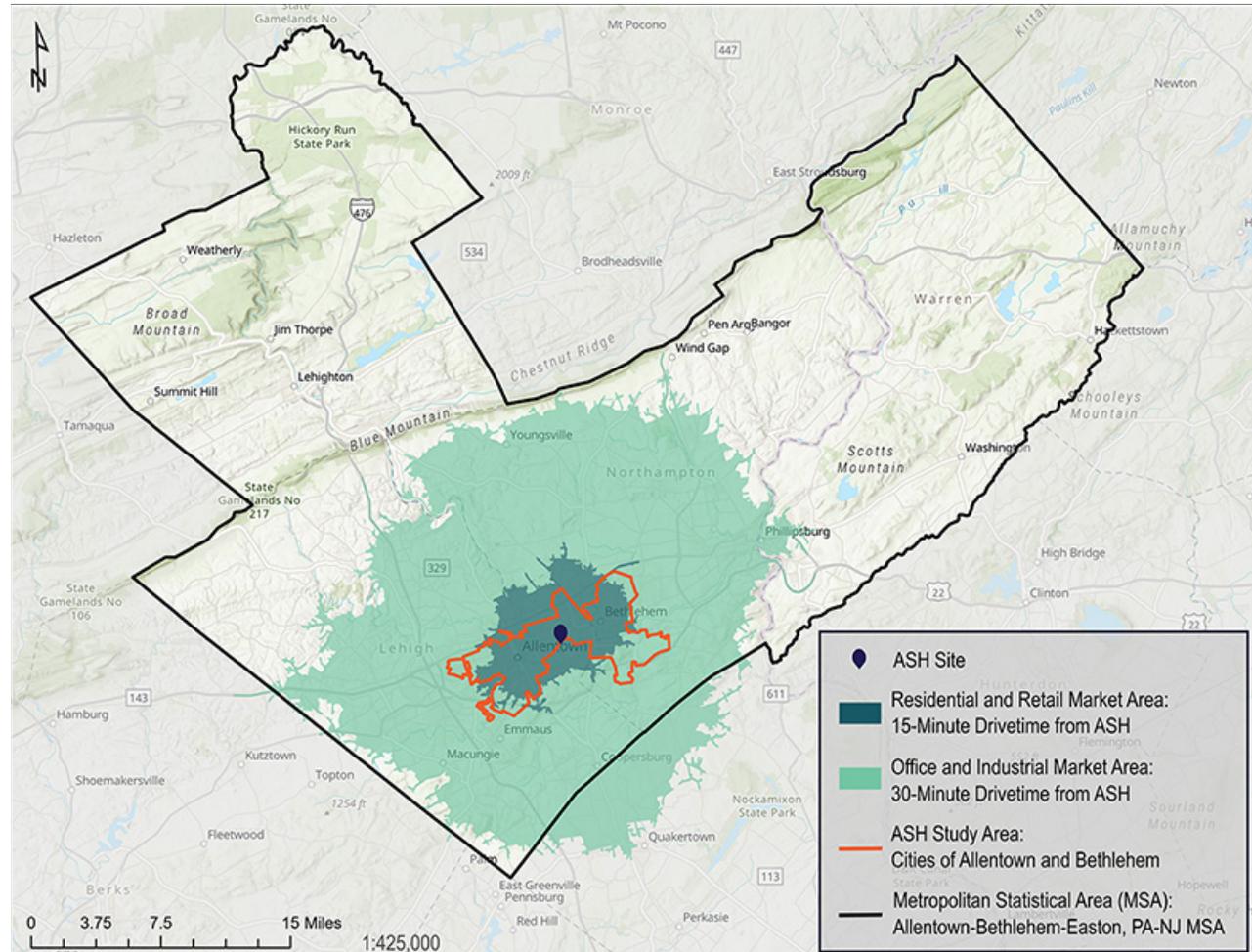
MARKET OPPORTUNITIES

To inform the development of feasible reuse scenarios for ASH, a real estate market study was conducted to better understand which end-uses could potentially be supported on-site based on local and regional market conditions. Specifically, the assessment explored the real estate market receptivity for industrial, office, retail, and residential uses on the site.

Relying on both quantitative data and qualitative information from regional stakeholder engagement, the assessment explored socioeconomic characteristics, employment trends, and real estate market conditions within defined geographic study areas. All of these factors contribute to identifying the market potential for end-uses of ASH. The geographic study areas are provided in Figure 14.

The key findings of this assessment highlight redevelopment opportunities for ASH and are provided in this section. The complete real estate market study is included as Appendix B.

Figure 14: ASH Geographic Study Areas



Source: Esri Business Analyst

Socioeconomic Profile

The socioeconomic composition of current and future residents provides essential underlying context that informs real estate market trends and potential future demand in both residential and commercial markets. The following provides the key findings of the socioeconomic analysis, which begin to uncover potential opportunities:



The population continues to grow, outpacing population growth in the Commonwealth.

Population growth in the region is surpassing growth statewide, reflecting the Lehigh Valley's location within the New York-New Jersey metropolitan area. Population growth at a basic level indicates corresponding growth in goods, services, housing, and employment.

Table 3: Population Trends

Market Area	2000	2010	2019	2024 (Projected)	% Change (2010-2024)
ASH Study Area	178,010	193,014	201,675	205,520	6.48%
MSA	740,398	821,173	855,812	872,121	6.20%
Pennsylvania	12,281,054	12,702,379	13,012,438	13,160,675	3.61%

Sources: U.S. Census Bureau, Esri Business Analyst



People living near ASH are young and ethnically diverse.

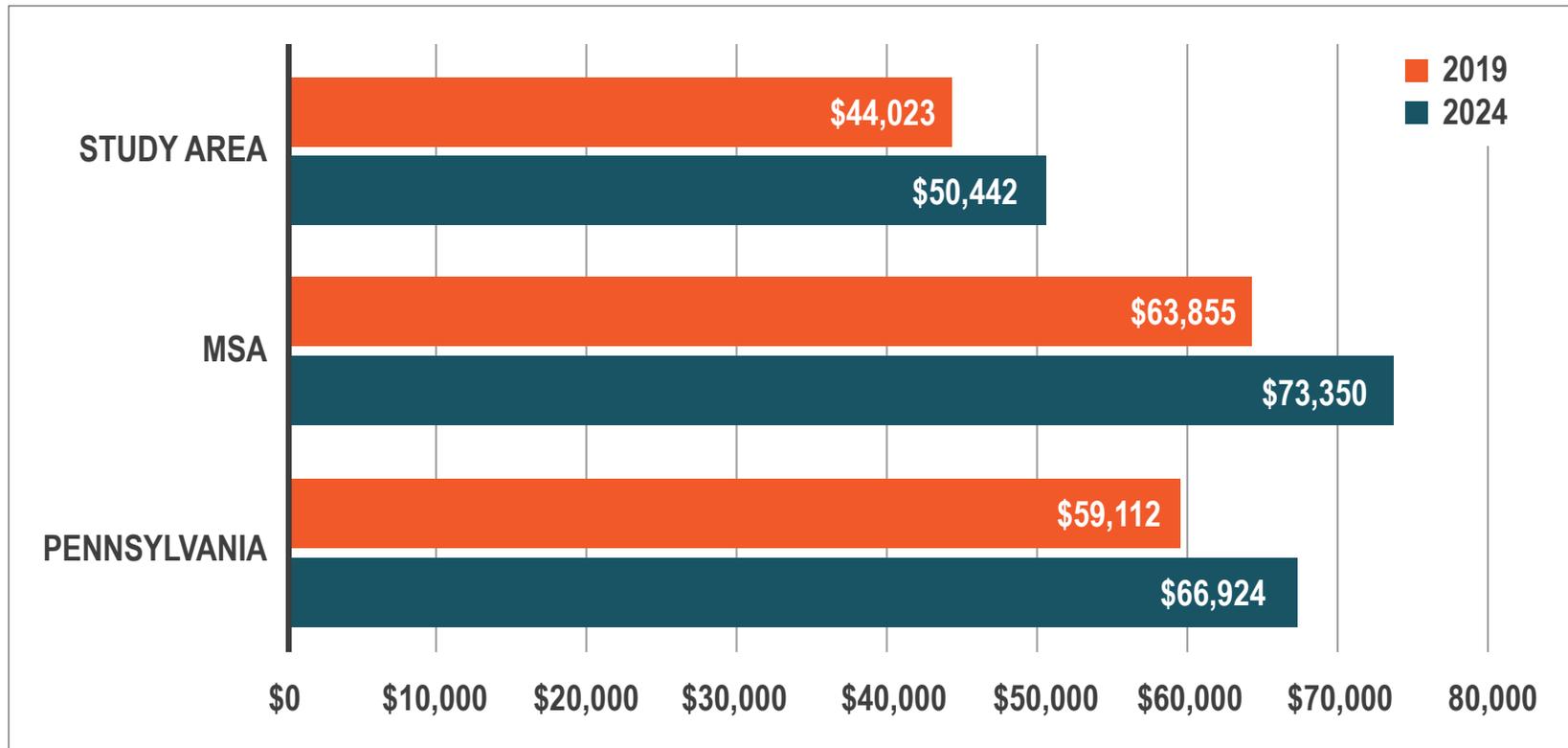
The median age in the ASH Study Area is young (35.1) with a greater number of Millennials compared to their Gen X counterparts in the MSA (42.2). Additionally, residents living near ASH are more ethnically diverse compared to the region. Based on an index that ranks diversity from low (0) to high (100), the ASH Study Area has a diversity index of 83.0 compared to 55.5 for the MSA.



Household income near ASH is lower than in the region, but is projected to increase.

The median household income in the ASH Study Area (Cities of Allentown and Bethlehem) is slightly lower than in the MSA, suggesting lower consumer spending power compared to the region. However, according to Esri projections, by 2024, the median household income is projected to increase by nearly 15%, outpacing statewide growth. This will raise income levels to a more moderate classification. Redevelopment of ASH using an integrated residential development approach could help foster a healthy mix of income levels in this area.

Figure 15: Median Household Income



Source: Esri Business Analyst



Renting is on the rise

The number of housing units within the ASH Study Area and PMA has been increasing since 2000. In addition to renter household being more prevalent than homeowner households, the number of renter-occupied units within the ASH Study Area is projected to continue increasing through 2024, indicating potential demand for rental housing options near ASH.

Table 4: Housing Units by Tenure (2000 – 2024)

MARKET AREA	2000	2010	2019	2024 (Projected)	% Change (2010-2024)	Numerical Change (2010-2024)
ASH Study Area	75,608	78,142	80,520	81,922	4.8%	3,780
Owner-Occupied Units	51.0%	46.7%	43.1%	42.4%	-9.2%	—
Renter-Occupied Units	41.7%	45.7%	49.2%	49.7%	8.8%	—
Vacant Units	7.2%	7.6%	7.7%	7.9%	3.9%	—

Sources: U.S. Census Bureau, Esri Business Analyst

Employment and Industry Trends

Economic growth is a significant factor influencing real estate market demand. Employment and industry trends and projections can indicate who will be residing and working in the area, providing data to help to align the workforce with appropriate residential opportunities, as well as informing potential future demand for additional workspace space. The following key findings highlight opportunities with respect to the region's workforce:

1 Workforce demand in the Lehigh Valley is increasing.

Online job postings increased from 3,759 to 5,907 between 2018 and 2019. According to LVEDC's Lehigh Valley Education & Talent Supply Report (2018), 71% of responding employers experienced challenges in recruiting, hiring, or retaining talent.

2 The Lehigh Valley faces a deficit of nearly 10,000 workers.

According to the Lehigh Valley Education & Talent Supply Report, 90,665 people in the workforce are expected to retire within the next 10 years, while only 80,952 people are projected to enter the market. This leaves the region with a potential deficit of nearly 10,000 workers over the next 10 years. As job shortages are filled, it could have implications for the housing market influencing the need for additional housing.

3 The number of jobs in the region is increasing and manufacturing jobs exceed state-level growth.

The MSA added 52,475 new jobs between 2010 and 2019, an 18% increase. The top employing industry is Health Care & Social Assistance, while Transportation & Warehousing had the greatest numeric and percent change in employment during this time. Manufacturing also rebounded in the region, exceeding statewide growth. Over 40% of the Commonwealth's manufacturing jobs added since 2010 were in the Allentown-Bethlehem-Easton MSA.

4 Additional goods-producing jobs in the ASH study area would provide residents jobs where they live.

City officials report that many Allentown residents, particularly those employed in the manufacturing sectors, travel outside the City to work. Census data reveals as many as 2,500 Allentown residents employed in manufacturing jobs work outside of the City. Creating new manufacturing job opportunities in the City would provide residents with job opportunities where they live.

Table 5: Top 5 Industries for Employment Growth in the MSA (2010 – 2019)

Industry (2-Digit NAICS)	Numeric Change	% Change
Transportation & Warehousing	18,188	134%
Health Care & Social Assistance	11,457	22%
Administrative & Support/ Waste Management & Remediation Services	6,556	35%
Manufacturing	6,047	21%
Accommodation & Food Services	5,206	24%

Source: Esri Business Analyst

TARGET INDUSTRIES

In 2018, LVEDC identified five target industry sectors for the Lehigh Valley based on current employment, demonstrated growth in employment in the last five years, and opportunity for growth in the next five years. Each of the target industry sectors was analyzed for potential compatibility at ASH.

Table 6: Target Industry Sector Potential at ASH

Target Industry Sector	Data	Site Analysis
<p>Manufacturing (Advanced and Food & Beverage)</p> 	<ul style="list-style-type: none"> • 2nd largest economic sector in the Lehigh Valley • Greatest economic multiplier of any sector (1 manufacturing job equals 4 in other sectors) • High demand occupations: machinists, engineers, welders, electricians/ electrical engineers, general labor • Annual demand: 2,676 workers 	<ul style="list-style-type: none"> • The ASH campus is a potential candidate for light manufacturing and flex space. • Small industrial users are situated in East Allentown on individual parcels or in business parks. • Real estate brokers and economic development professionals report the lack of small sized (less than 80,000 SF) manufacturing space throughout the Lehigh Valley. • Considering its location in a residential neighborhood, industrial vehicle access to the site should be carefully assessed. • The site could help meet the Lehigh Valley's need for high-value light manufacturing and flex space.
<p>High-Value Business Services</p> 	<ul style="list-style-type: none"> • The Lehigh Valley's location in proximity to the New York and Philadelphia metro areas combined with existing office facilities support industry sector growth. • Downtown Allentown is a significant regional driver for large corporate office space, primarily driven by tax incentives. Downtown Bethlehem offers tax incentives as well. • High demand occupations: sales and marketing, engineers, accountants, attorneys/paralegals • Annual demand: 1,168 workers 	<ul style="list-style-type: none"> • The ASH campus is a potential candidate to locate business services workers requiring smaller office spaces to support local needs. • Any future office development at the ASH campus should not detract from reinvestment in either downtown Allentown or Bethlehem. • Near the ASH campus, tenants are requesting office space sized between 2,500 SF and 5,000 SF.

Target Industry Sector	Data	Site Analysis
<p>Life Science Research & Manufacturing</p> 	<ul style="list-style-type: none"> • While over half of industry establishments in PA have fewer than 10 employees, the sector contributes a statewide economic output of \$88.5 billion. • Life sciences research and manufacturing are a critical sector for the Lehigh Valley's post-secondary educational institutions. • High demand occupations: Engineers, mechanical /mechanics, chemical operators/ chemical analysts, IT/Web Developer/ Software Developer • Annual demand: 167 	<ul style="list-style-type: none"> • The ASH campus is a potential candidate to locate life science research and manufacturing businesses. • A few small life science research and manufacturing firms have expanded in proximity to the ASH campus. • One firm has outgrown space at the nearby Ben Franklin Tech Incubator and will relocate to an existing 40,000 SF building in South Allentown creating 38 new jobs. • Flex space would accommodate industry sector needs. • The site could help meet future space needs for this high-value sector.
<p>Transportation, Warehousing, Logistics & Wholesale</p> 	<ul style="list-style-type: none"> • High demand occupations: CDL drivers, truck drivers, forklift operators and drivers, mechanical/mechanics, warehouse workers • Annual demand: 4,384 workers 	<ul style="list-style-type: none"> • The site is over 2.5 miles from a US 22 interchange. • Users of large-scale warehouses prefer locations near interstate connections. • Surrounding land uses and the local road network prevent the site from being a candidate to locate industrial warehouse use.
<p>Health Care</p> 	<ul style="list-style-type: none"> • Health Care is the Lehigh Valley's top industry by employment • High demand occupations: nurses, medical assistants, caregivers and home health aides, nurses, administrative assistant, psychologists • Annual demand: 1,451 workers 	<ul style="list-style-type: none"> • The ASH campus is a potential candidate to site health care operations requiring medical office space. • The site effectively provided health care services for more than a century. • Stakeholders report increasing need for medical office space. • Medical office space would meet the requirements for the health care industry sector.

Sources: LVEDC, Lehigh Valley Education & Talent Supply Report (2018); Workforce Board Lehigh Valley, PA Occupational Wages, Lehigh Valley WDA (May 2019); Stakeholder Interviews

Industrial Reuse Potential

Industrial market trends in the Lehigh Valley region are summarized in Table 7 with key findings linked to potential market receptiveness at ASH. Further analysis was conducted to quantify potential unmet industrial space demand and the likelihood ASH could capture some of that demand.

Table 7: Summary of Industrial Real Estate Market Findings

Key Findings	Market Data	ASH Potential
<p>The dominant real estate driver continues to be industrial warehouse space.</p>	<ul style="list-style-type: none"> • 28 MSF of industrial warehouse space has been delivered since 2010 with only 10% available for lease. • 13 industrial properties are under construction totaling over 4.5 MSF, 91% is warehouse distribution. • 26 industrial properties are proposed totaling over 7.2 MSF, 98% is warehouse distribution. 	<p>Nearby land uses, the existing road network, and the 2.5-mile distance from a U.S. 22 interchange prevent the site from being a candidate to locate industrial warehouse use.</p>
<p>The Lehigh Valley has documented demand for and limited availability of light industrial/flex space. Further, the existing supply is aging.</p>	<ul style="list-style-type: none"> • There is a shortage of small-footprint industrial buildings (40,000-80,000 SF) in the region. • No industrial buildings less than 80,000 SF are under construction, and only one is proposed. • Nearly half of LVEDC's 2019 economic development projects (office and industrial) required buildings sized less than 80,000 SF, averaging 36,000 SF. • 67% of top industrial leases in 2019 required a building sized 80,000 SF or less, averaging 42,000 SF. • Compared to an overall industrial vacancy rate of nearly 6%; the vacancy rate of industrial/flex space less than 80,000 SF is just 3%. • Per Allentown's 2014 Re-Industrialization Strategy, the greatest demand for industrial space is for small space less than 80,000 SF. • Industrial re-zoning in Allentown supports growing demand for new industrial space. • Of the 15.4 MSF inventory of small-footprint buildings in the Lehigh Valley, nearly 82% are older than 40 years with only 2% constructed in the past 10 years. • Current asking rent for industrial/flex buildings under 80,000 SF is \$6.78/SF compared to a lower rate of \$6.10/SF for all industrial buildings. 	<p>ASH could help meet the need for new industrial/flex space 80,000 SF or less.</p>

Continued on the following page

Key Findings	Market Data	ASH Potential
An inventory of industrial space is a key business retention factor.	<ul style="list-style-type: none"> • Close to one-third of LVEDC’s economic development projects completed in 2018 were expansion projects for existing Lehigh Valley companies. • Nearly all businesses interviewed for Allentown’s re-industrialization strategy noted growth and expansion plans within five to ten years. 	ASH provides a location for existing Lehigh Valley and ASH study area businesses to expand.
Businesses requiring smaller industrial space have located in close proximity to ASH.	<ul style="list-style-type: none"> • Within the last year, eight industrial buildings under 35,000 SF have been leased in the vicinity of ASH. • A specialty pharmaceutical manufacturer expanded from the Ben Franklin TechVentures incubator into an existing 40,000 SF building across the river from ASH campus. • A manufacturer recently relocated from Brooklyn, NY to an existing 80,000-SF building on Plymouth Street, approximately one-half mile from ASH. 	Constructing manufacturing and flex space at ASH could serve the needs of businesses requiring smaller spaces.

Sources: CoStar (2020); Stakeholder Interviews

With an estimated 19.5 MSF of industrial space available, under construction, or proposed in the Lehigh Valley, only 886,513 SF of industrial/flex space is available. Of this amount, only 225,963 SF is available in the ASH study area. The growth in manufacturing output has been significant with the manufacturing sector comprising \$7.3 billion, nearly 18%, of the Lehigh Valley’s economic output. Durable goods manufacturing increased nearly 10% between 2015 and 2018, indicative of a strong manufacturing sector. With the region’s manufacturing economic output growing, industrial/flex space is needed to keep pace with demand. ASH provides a potential location for site manufacturers seeking industrial/flex space.

There is documented demand for industrial/flex space in the ASH study area based on recent LVEDC economic development projects, CoStar data, stakeholder discussions, and Allentown’s 2014 Re-Industrialization Strategy. While the regional supply of industrial/flex space (886,513 SF) exceeds calculated demand (281,400 SF), constructing industrial/flex space of 80,000 SF in size or less would

help develop an inventory to meet current and future demand. The ASH campus provides an opportunity to construct new, modern industrial/flex space to help replenish older industrial building stock. Recent industrial re-zoning in the City of Allentown also supports increased industrial/flex space demand. Further, as industrial businesses from the New York-New Jersey metropolitan area continue to seek locations in the Lehigh Valley due to lower cost space and workforce availability, finding suitable locations in the ASH study area is necessary to meet ongoing demand.

The demand for industrial/flex space is well-documented in the ASH study area.

Office Reuse Potential

Office market trends are summarized in Table 8 with key findings linked to potential market receptiveness at ASH. Further analysis was conducted to quantify potential unmet office space demand and the likelihood that ASH could capture some of the unmet demand.

Table 8: Summary of Office Real Estate Market Findings

Key Findings	Market Data	ASH Potential
State and federal tax incentives in the Cities of Allentown and Bethlehem have attracted office growth and revitalization in their central business districts.	<ul style="list-style-type: none"> Approximately 1.8 MSF of office space has been delivered in the Lehigh Valley since 2010 with more than 1 MSF under construction or proposed. The office vacancy rate of 8% is at a 15-year low. Since 2015, annual net absorption averages 500,000 SF, nearly double annual supply growth. Allentown's NIZ has driven office growth downtown with 272,700 SF of space absorbed in one building in 2019; businesses locating in the NIZ may potentially offset lease rates up to 30-40%. Additional tax incentive programs in Allentown and Bethlehem include state-level KOZs, CRIZ, and federal QOZs. Both cities have active revitalization strategies in their downtowns adding amenities to meet needs of employees and residents. Stakeholders indicated that large-scale office space at ASH would compete with downtown revitalization efforts. 	While the office market in the Lehigh Valley is growing and active with recent large-scale corporate office development in downtown Allentown, ASH is not candidate to site large-scale and corporate office development and the site does not offer the same tax benefits afforded by the NIZ.
The majority of office leases in the Lehigh Valley are for smaller spaces.	<ul style="list-style-type: none"> Excluding leases over 100,000 SF, the average size for an office lease in the Lehigh Valley is 8,334 SF. Local real estate brokers report typical space requests near ASH between 2,500 and 5,000 SF with lease rates of \$18.00 per SF. 	ASH could fill the need for small-sized office users requiring 8,000 SF or less.
The inventory of medical office space is growing in the Lehigh Valley.	<ul style="list-style-type: none"> 100% of office space inventory added in 2017 was medical office space according to the Lehigh Valley Commercial Real Estate Report Office & Industrial Markets Issue #013, page 2. 12.8% of the region's office space in 2017 was medical office. Stakeholders report the need for medical office space near ASH. Health Care is a "Target Industry." 	ASH could provide office space to serve the region's Health Care industry.

Sources: CoStar (2020); Lehigh Valley Commercial Real Estate Report Office & Industrial Markets Issue #013; Stakeholder Interviews

An estimated 2.3 MSF of office space, including 512,586 SF of medical office space, is available for sale or lease. Currently, 1.1 MSF of office space is under construction or proposed, with 925,259 SF in the ASH Study Area.

Employment growth projections indicate 17,740 net new jobs will be added to the Lehigh Valley by 2026. The percentage of these new employees working in an office is estimated at 5,784. Of those employees, 3,199 are estimated to be employed in the Health Care & Social Assistance industry, requiring medical office space. Applying an average office space of 158 SF per worker, net new office space demand in the Lehigh Valley is estimated at 913,939 SF. This includes 505,409 SF of medical office space for the Health Care industry sector and 254,558 SF of professional office space to accommodate the High-Value Business Services target industry sector.

With over 3.6 MSF of office space available for sale, lease, under construction, or proposed in the Lehigh Valley, new office space demand is met. However, the supply of medical office space available for sale or lease is 512,586 SF, just slightly higher than projected demand of 505,409 SF. No additional medical office

space is proposed or under construction, signaling an opportunity for medical office space within the ASH study area.

There is an opportunity for new medical office space at ASH to accommodate estimated demand.

Retail Reuse Potential

Residents and workers within the defined retail market area for ASH (15-minute drive time from ASH) are well-served by current retail offerings. Overall, Retail Trade and Food & Drink industry sector establishments in this area show a surplus of nearly \$850 million provided through 1,620 businesses. This indicates that retail establishments within the market area are drawing customers from outside the community to shop.

Despite an overall surplus, consumer expenditure data indicates “leakage” in select retail sectors, which occurs when residents and workers leave their community for their shopping needs. Grocery Stores have the highest unmet demand, followed by Other Miscellaneous Store Retailers, which includes business that offer specialized lines of merchandise. Illustrative examples include art supply stores, candle shops, home security equipment stores, and collectors’ items stores.

Based on the sectors experiencing leakage and considering average establishment size and average sales SF, the market area is estimated to support an additional 154,270 SF of retail space.

Table 9: Additional Retail Space Supported in the Market Area (2019)

	NAICS	Retail Gap	Additional Establishments Supported	Additional SF Retail Supported
Lawn & Garden Equip & Supply Stores	4442	\$6,540,784	2.0	19,642
Grocery Stores	4451	\$62,645,735	1.5	75,996
Office Supplies, Stationery & Gift Stores	4532	\$668,895	0.1	1,635
Used Merchandise Stores	4533	\$15,295	0.0	42
Other Miscellaneous Store Retailers	4539	\$13,840,064	19.0	56,955
TOTAL				154,270

Source: Esri Business Analyst

However, stakeholders confirmed that retail, particularly regional retail, may not be the best fit for ASH given the extent of existing establishments and regional retail centers in the market area. Therefore, the viability of locating any portion of the additional square footage identified in Table 9 or any other retail uses at ASH should be considered in the overall context of supporting other potential industrial, office, and residential end-uses. **Service retail supporting the potential future end-uses at ASH would be consistent in character with the surrounding residential neighborhoods.** According to regional real estate brokers, neighborhood retail in the area leases quickly with rents typically between \$15.00 and \$18.00 per SF.

Residential Reuse Potential

The multi-family housing market in the Lehigh Valley has been outperforming by the standards of central and northeastern Pennsylvania. Employment growth in the transportation and healthcare sectors, combined with state and local tax incentives to spur downtown Allentown’s development, has helped support healthy apartment leasing. Additionally, newly delivered projects lease at a steady pace. Of five properties that opened in 2018, only one had a current vacancy rate higher than 5%.

Based on estimated demand generated by household growth and lost inventory (i.e., replacement demand) within the defined housing market area (15-minute drive time from ASH), a total of 2,202 new housing units will be needed by 2024 in the housing market area, or approximately 440 units per year. The 10-year projection estimates a total 3,367 new housing units will be needed by 2029, or approximately 337 units per year. Utilizing the demand scenarios and a 3% and 5% capture rate, ASH is estimated to have demand for between 51 and 110 units between 2019 and 2025 and between 101 and 220 units by 2029.

Table 10: Capture Rate Assumption, 2025-2029

	Conservative Demand Scenario 2025 <i>1,684 Units</i>	High Demand Scenario 2025 <i>2,202 Units</i>	Conservative Demand Scenario 2029 <i>3,367 Units</i>	High Demand Scenario 2029 <i>4,404 Units</i>
3% Capture Rate	51	66	101	132
5% Capture Rate	84	110	168	220

Sources: Esri Business Analyst; Michael Baker (2020)

SENIOR HOUSING

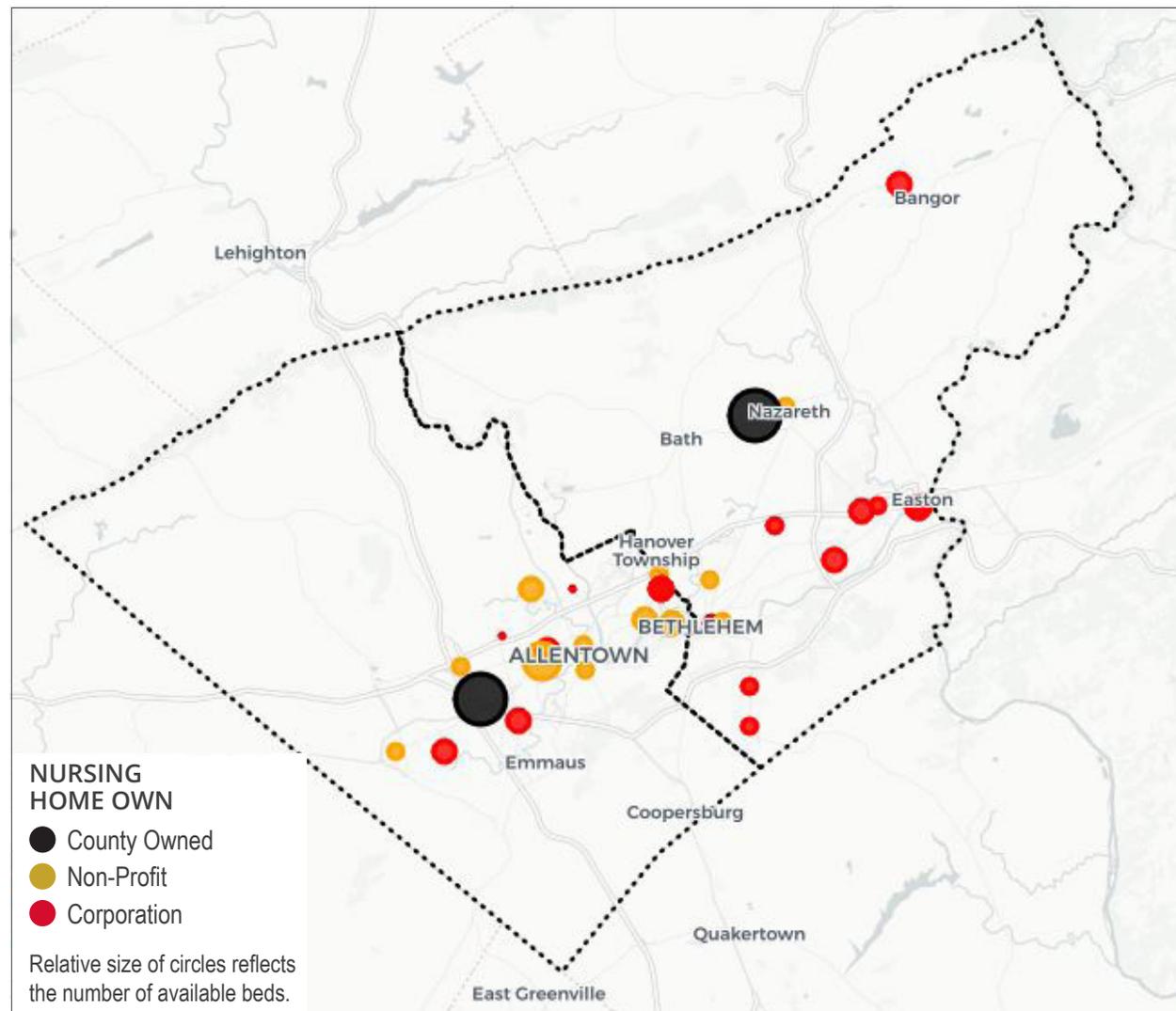
Additionally, ASH has the potential to attract a long-term care facility, such as a Continuing Care Retirement Community (CCRC). According to the Pennsylvania Bar Association in 2019, there were approximately 290 licensed CCRCs in the Commonwealth, an increase from the 230 operations reported in 2011. While new construction of CCRCs remains relatively slow nationally, the Philadelphia regional market has shown growth. ASH fits the CCRC site selection criteria given the open space of the site, transit access to both the Cities of Allentown and Bethlehem, and proximity to hospitals.

Lehigh County is estimated to gain an additional 1,978 households age 75+ by 2024, or an annualized growth rate of 3%. Using this growth rate to project forward to 2029, these elderly households could increase to 16,106 by 2029. This equates to a projected increase of 4,454 new households age 75+ during the 10-year period.

Senior housing penetration rates vary. For purposes of this study, a 10% penetration rate is utilized, meaning that 10% of the households age 75+ in Lehigh County will reside in local long-term care living facilities. Using this assumption, a total of 445 new beds will be needed in Lehigh County by 2029. As a comparison to current data, there are 0.07 long-term care beds (2,104) for every Lehigh County resident age 75+ (30,061). If the ratio of beds to residents remains constant, by 2029 there will be 2,909 long-term care beds, an increase of 805 beds.

This study estimates there is demand for between 445 and 805 long-term care beds in Lehigh County. Of the long-term care facilities currently located in the County, the average facility size is 124 beds. It is plausible that ASH could attract one new, long-term care facility with approximately 124 beds.

Figure 16: Long-term Care Facilities, Lehigh and Northampton Counties



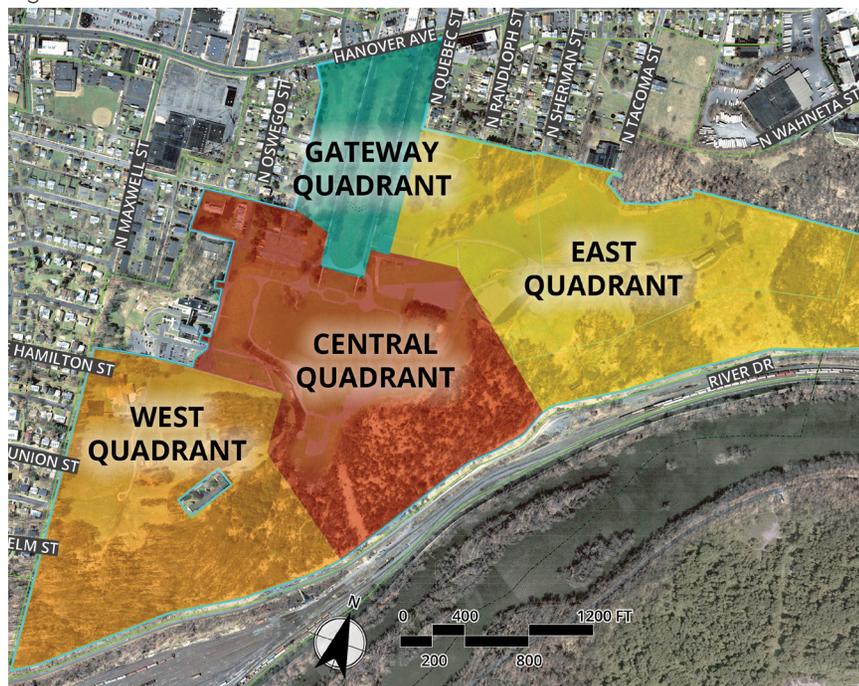
Source: Pennsylvania Department of Health

VISIONING PROCESS

Analysis and Framework: Workshop Session 1

The site's reuse potential was explored during a two-day visioning workshop that engaged stakeholders in a virtual design charrette. All stakeholders were invited to join one or both days to discuss ideas for ASH and test alternate visions and uses for future development. The first online workshop held on April 21, 2020 presented an overview of the site's constraints and opportunities, including a summary of the market study and analysis prepared to date. The 195-acre site is a massive area. To kick off the visioning process, the workshop asked stakeholders to think about the site as four quadrants and consider goals for each quadrant.

Figure 17: ASH Quadrants



Gateway: The prominent entrance to the site provides a sweeping view uphill and is easily accessed from surrounding neighborhoods as well as by bus. Based on market demand, minimal environmental constraints, and existing access, the Gateway Quadrant is a particularly high-value portion of the site for redevelopment and can be used to incentivize reuse.

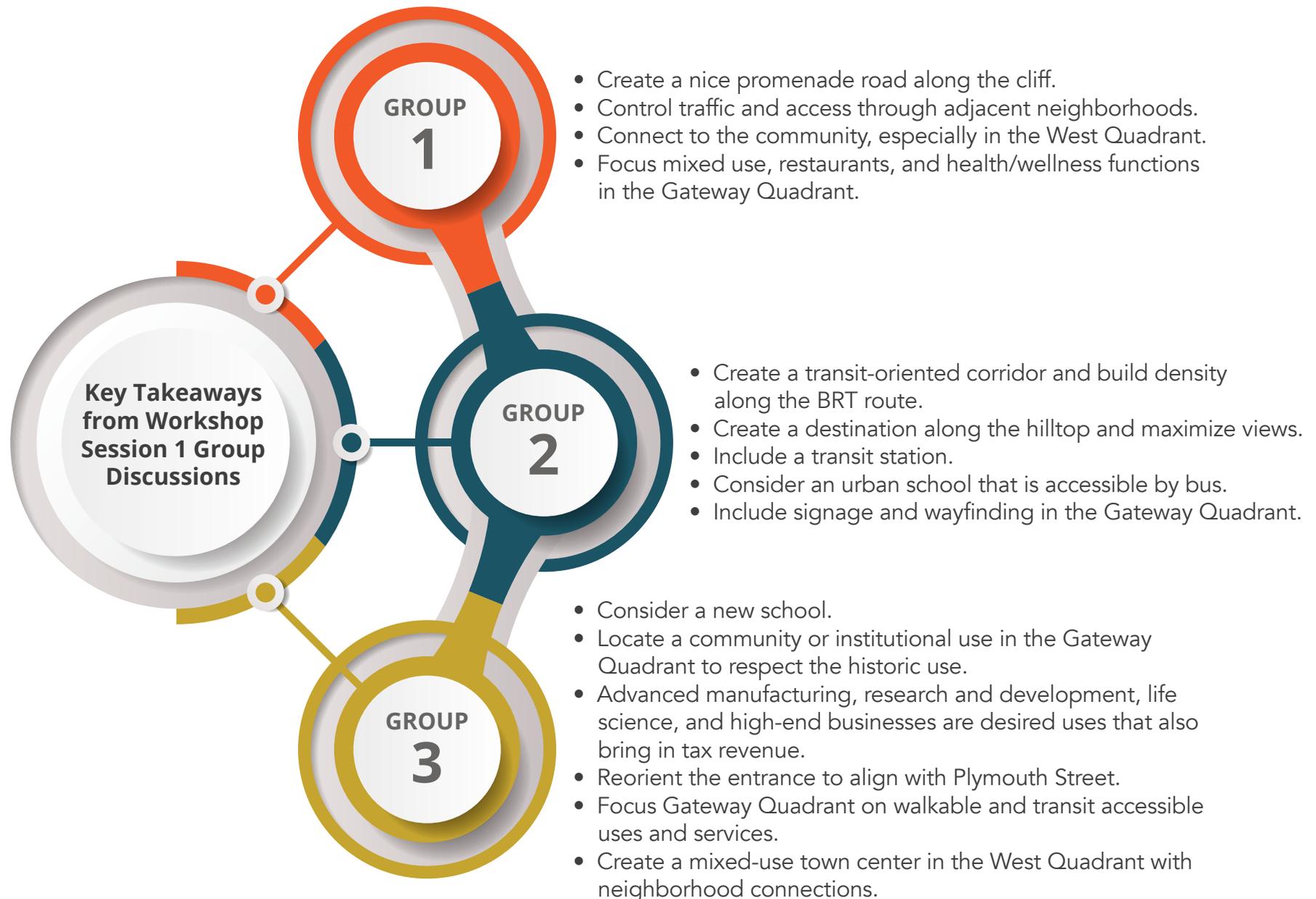
Central Core: The Central Core provides a relatively flat area to redevelop over the old campus footprint. Access is limited, however, so major development in this area is dependent on establishing new internal connections.

West: The western portion of the site boasts the highest point and offers excellent views. Access is limited though, due to steep slopes and the existing electrical substation. This quadrant is immediately adjacent to a residential neighborhood and the Community Services for Children center, both of which will be impacted by development. Connectivity to the existing neighborhood is a priority consideration here.

East: This is the only area of the site where topography allows southern access to River Drive to be reasonably considered. The area to the north includes both industrial uses and residential neighborhoods, and additional residential development is proposed. Despite the size of the East Quadrant, access here relies on roads through the core and/or connections into the residential neighborhood.

Stakeholders split into three breakout groups and conducted small group discussions focusing on a framework for planning uses and access, prompting each person to consider all four quadrants and understand the large scale of the site available. The groups then reconvened to share their thoughts. Some key takeaways from each group are summarized in Figure 18.

Figure 18: Key Takeaways from Workshop Session 1 Group Discussions



Concept Development: Workshop Session 2

On day two of the visioning workshop, stakeholders reconvened to turn ideas into plan concepts. A discussion of major program elements focused on understanding the available developable area in each quadrant and relative sizes of key desired uses. A developable acreage analysis helped participants visualize scale: despite the 195-acre parcel size, topography limits the use of a substantial portion. The Central, Gateway, and East Quadrants together represent approximately 77 contiguous acres of developable land, with another 21 acres available in the West Quadrant. Additional developable parcels are non-contiguous and have significant barriers in access, meaning that roughly half the site is limited or unavailable for development.

Furthermore, the majestic entrance is well known and easily visualized, yet there are many ways that redevelopment could reimagine the site's entrance and reconfiguring the road alignment. To aid stakeholders in envisioning what "could be," they were presented with a site map and were challenged to think about the site without roads. In order to test out various possibilities, each of the three breakout groups was asked to organize site entrance in a different way: (1) keep the road alignment, (2) shift the road alignment but maintain the historic axis, and (3) completely realign the entrance sequence.

While the team explored the possibility of keeping both roads that form the existing grand boulevard, this substantially limits reasonably developable parcels. This alignment does not support a highest and best use redevelopment.

With these guidelines in place, stakeholders spent an hour in three small breakout groups, each developing plan concepts as a facilitator sketched their ideas. The resulting three concepts were shared with the group, and contained a variety of visions and goals that became the framework for the reuse plan concepts.



Figure 19: ASH Developable Areas

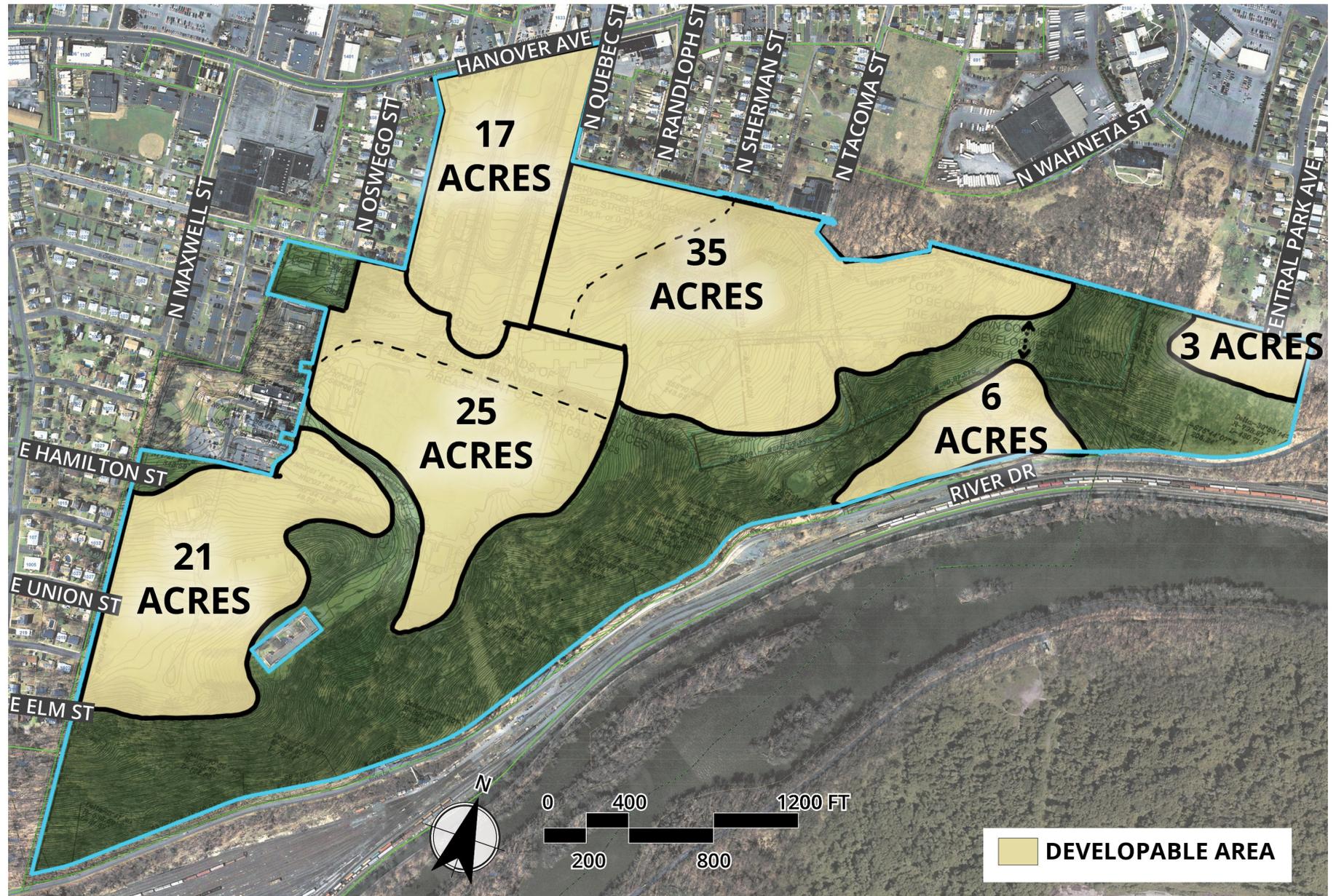
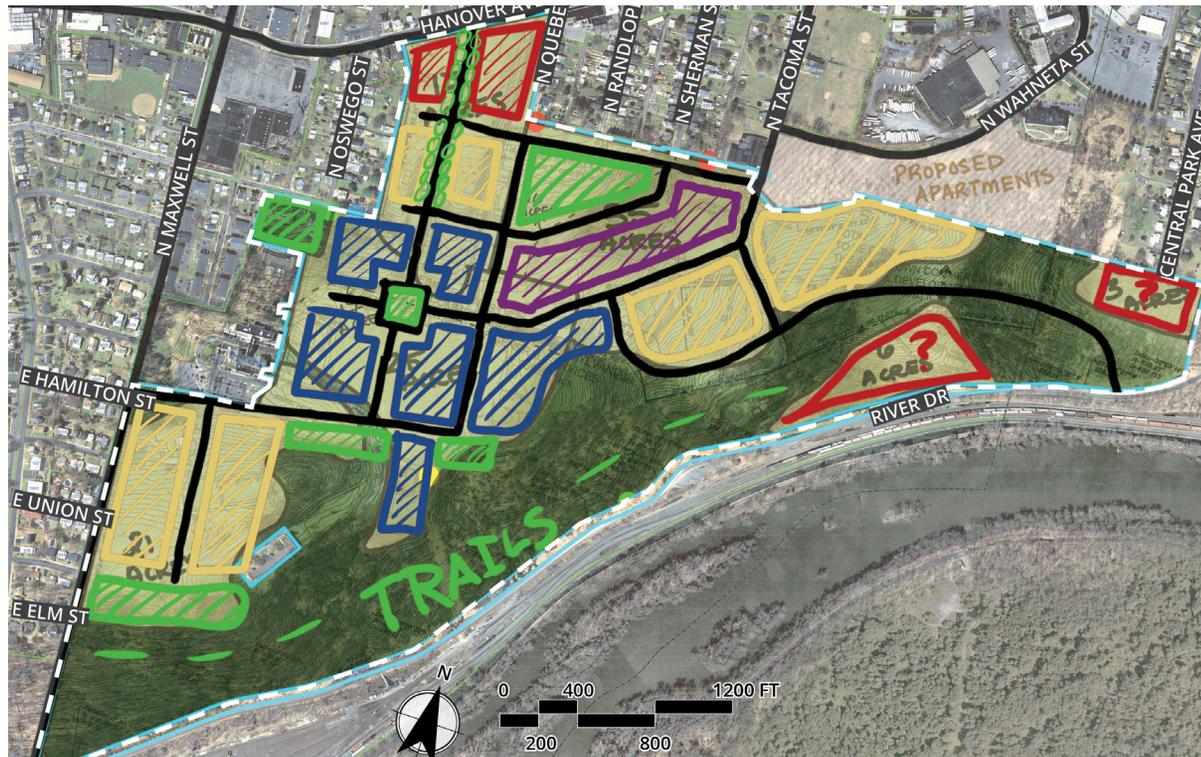




Figure 20: Keep the Road Alignment Sketch



The first group preserved one of the two existing entrance roads, in deference to the site’s heritage and the local value placed on the long views provided. For the plan concept, retail and mixed use along Hanover Avenue lead to new housing, a park, and a new school, all within walking distance from bus service. As the road approaches the center of the site, views terminate on a public green square. The existing hospital building campus at the center of the site becomes an office and employment campus around the square, which extends to the cliff and provides prime real estate for high value offices. The street grid creates coherent development parcels, and central office siting keeps them relatively visible and accessible from Hanover Avenue.

New residential neighborhood expansion connects to existing neighborhoods to the east and west. Industrial and manufacturing outposts are proposed in the corners, although access may be expensive to provide. Parklets and vista points at the top of the hill and trails throughout the slopes create a network of outdoor spaces.

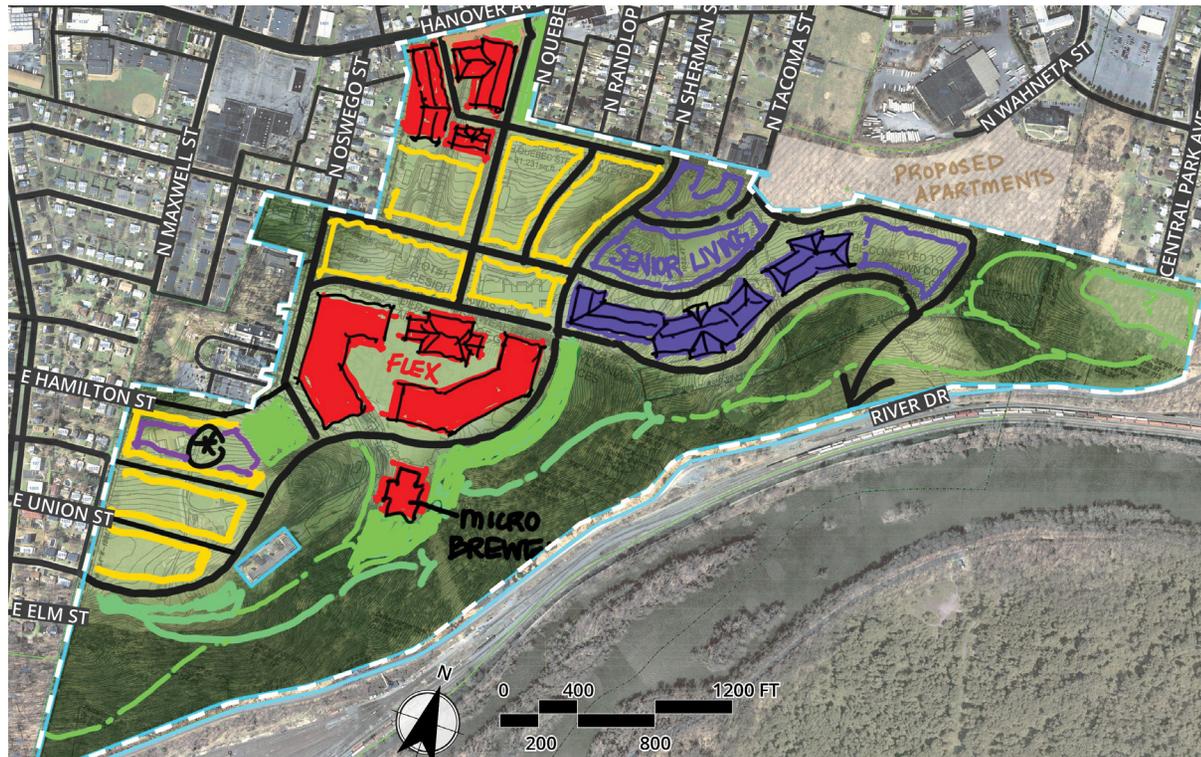
**GROUP
2**

Shift the Alignment, Keep the Axis

The second group realigned the entrance to meet Plymouth Street, which is a more heavily used route and allows an improved right-angle turn into the site from Hanover Avenue. In order to reflect the site's heritage, the road turns to preserve the existing axis and prominent views into the center of the site. North Quebec Street is also enhanced, allowing a straight connection towards the main hospital building campus location and emphasizing the value of views even as the uses change.

The plan concept includes a mixed-use neighborhood center with retail located along Hanover Avenue, surrounded by blocks of residential units, small offices, or a mix of both. A new campus in place of the former hospital buildings can accommodate larger offices and flex space: preferred tenants are medical services or research and development functions. To the west, new residential blocks connect to the existing neighborhood. To the east, this group proposed senior care facilities, which could include a mix of live-in care facilities as well as independent senior living units. A hilltop promenade and system of trails along the slopes maximize the views and preserve ample open space, with a restaurant or beer garden to attract the outdoor crowd.

Figure 21: Shifting the Alignment Sketch

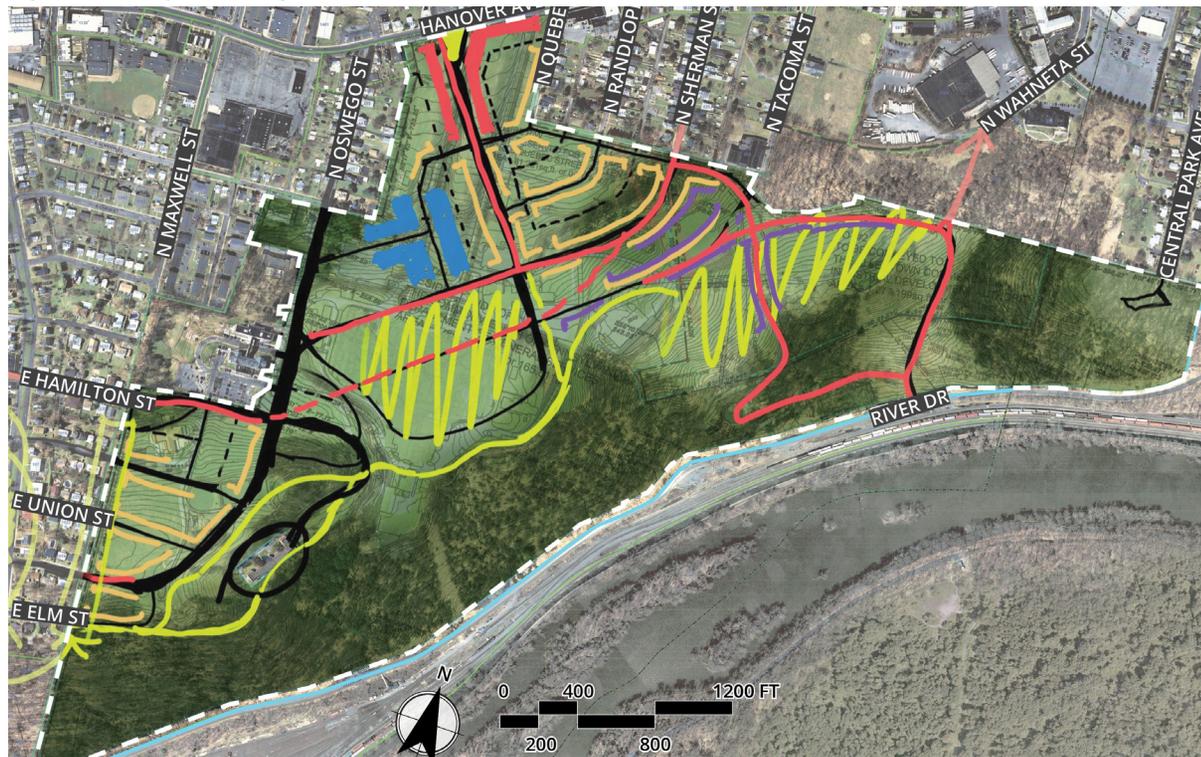




**GROUP
3**

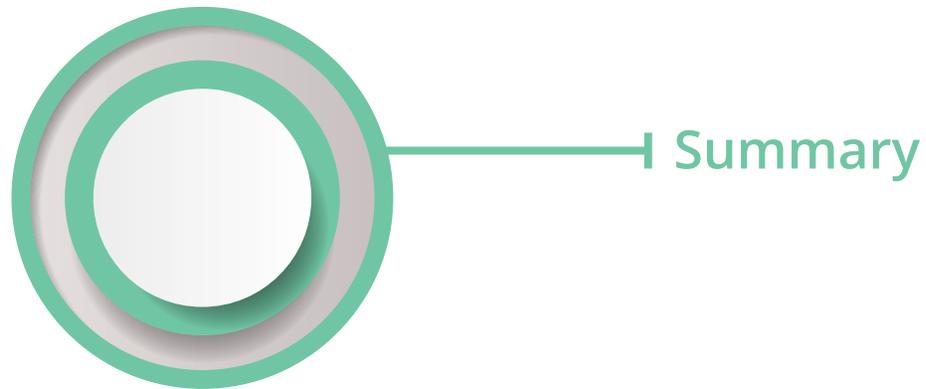
**Complete
Realignment**

Figure 22: Complete Realignment Sketch



The third group took a blank slate approach, assuming that no existing roads will be maintained. This allowed them to examine ideal land use and block size to maximize site usage, and determine from there where the site entrance should be placed. The main entrance was realigned with Plymouth Street to facilitate traffic flow, while a second street reduces bottlenecks. A large plaza allows the site to open onto Hanover Avenue, provides clear visibility into the site, and respects the gateway characteristic of the existing entrance by creating usable public space at the gateway.

The plan concept proposed a network of streets to filter users through the site and minimize heavy traffic in any single location. Mixed use retail with apartments above surround the plaza and face onto Hanover Avenue, offering community-oriented shops and services. Offices are located slightly uphill, adjacent to the mixed use and not too close to residential neighborhoods. The northeastern area of the site, just beyond the entrance plaza, is dedicated to residential neighborhood with a mix of higher density unit types, such as townhomes. The west side of the site is reserved for residential neighborhood matching the scale and character of the adjacent neighborhood. This group focused on a connected street network, public access to a linear green park and preserve along the slopes, and ensuring that residential neighborhoods are respected. To the west, a linear green was discussed to provide some connectivity at select points while creating a clear visual separation.



The three groups shared many similarities, such as focusing mixed use near Hanover Avenue and establishing an outdoor open space and trail network. The common elements were embedded in each of the final plan scenarios. Various differences exploring possible markets and programmatic elements continued to be studied for their feasibility and recommended site needs. These include the idea of a school, a senior care center, industrial or manufacturing uses, and different types of office. Stakeholders provided valuable guidance about what they find appropriate for the Allentown community. Their input helped inform this study in understanding community needs, benefits, and visions.

DEVELOPMENT CONCEPTS

The three development scenarios are based on four required redevelopment criteria: legal permissibility, physical possibility, financial feasibility, and maximum productivity. These criteria have been evaluated based on site due diligence findings, market study findings, community benefit/public use, and an assumption that required zoning changes will be secured. The scenarios are also presented in a matrix format for ease of comparison and discussion purposes.

The three concepts reflect the various alignments explored during the workshop, and have been named accordingly as Town Square, Grand Boulevard, and Urban Plaza. The development uses also vary so that each concept depicts a different possibility for future buildout. In addition to the criteria above, these scenarios consider how the market may change if new products are provided and reflect new demand creation. They also consider the market feasibility of uses in conjunction with one another. The development uses also vary so that each scenario depicts a different possibility for future buildout.



Town Square



Grand Boulevard



Urban Plaza



The Town Square concept keeps the existing straight road alignment leading into the site. In the center of the site at the main hospital building campus, the main street splits to surround a central green square that terminates the view from Hanover Avenue.

Figure 23: Town Square Illustration



Figure 24: Town Square Illustrative Master Plan



DEVELOPMENT CAPACITY

Development uses proposed in the Town Square include:

- **Mixed Use: More than 90,000 SF of Retail**
Mixed-use retail with upper floor residential uses along Hanover Avenue and the first block into the site place density near existing transit service.
- **Employment: More than 360,000 SF of Office and Flex Space**
Office development around the central square includes small offices and flex space. These buildings are oriented towards the street and the entire square is surrounded by office and flex uses, creating an employment district. This is an ideal location for medical offices, start-ups, and similar uses that can support one another and fit comfortably next to residential neighborhoods. Parking is provided internally within the block.
- **Residential: 644 New Units**
High- and medium-density residential uses surround the side streets near the retail and employment uses: apartments and townhouses provide new housing for rent and for sale. Apartments with one and two bedrooms are affordable for young workers who can commute to jobs around the city using bus service on Hanover Avenue. Townhouses on 22-foot wide lots allow entry-level prices for homeownership. New residential blocks towards the east and west of the site connect to the existing neighborhoods. Single-family homes, duplexes, and triplexes offer a variety of unit sizes and serve rental and for-sale markets. New units include 20 percent affordable homes, market-rate entry-level homes priced for new buyers, and larger homes along the hilltop ridge that demand higher prices.
- **School and Soccer Fields: 7-Acre Site**
As the population grows, a new school may be needed. This plan located the school a short distance into the site, easily accessible from existing and proposed residential neighborhoods as well as accessible by bus. The school site is over seven acres, including soccer playing fields committed as part of the divestment of the site by the Commonwealth to East Side Youth Center of Allentown that it will share with the school.
- **Senior Care: 5-Acre Site**
A senior care site is proposed just south of the school. This location offers excellent views over the river and valley and can connect directly to a trail system through the preserved slopes. The senior care facility may include full-time care, independent apartment living with on-site support services, independent living in accessible cottage units, or a combination.

For purposes of this study, Flex Building and Flex Space are defined as follows.

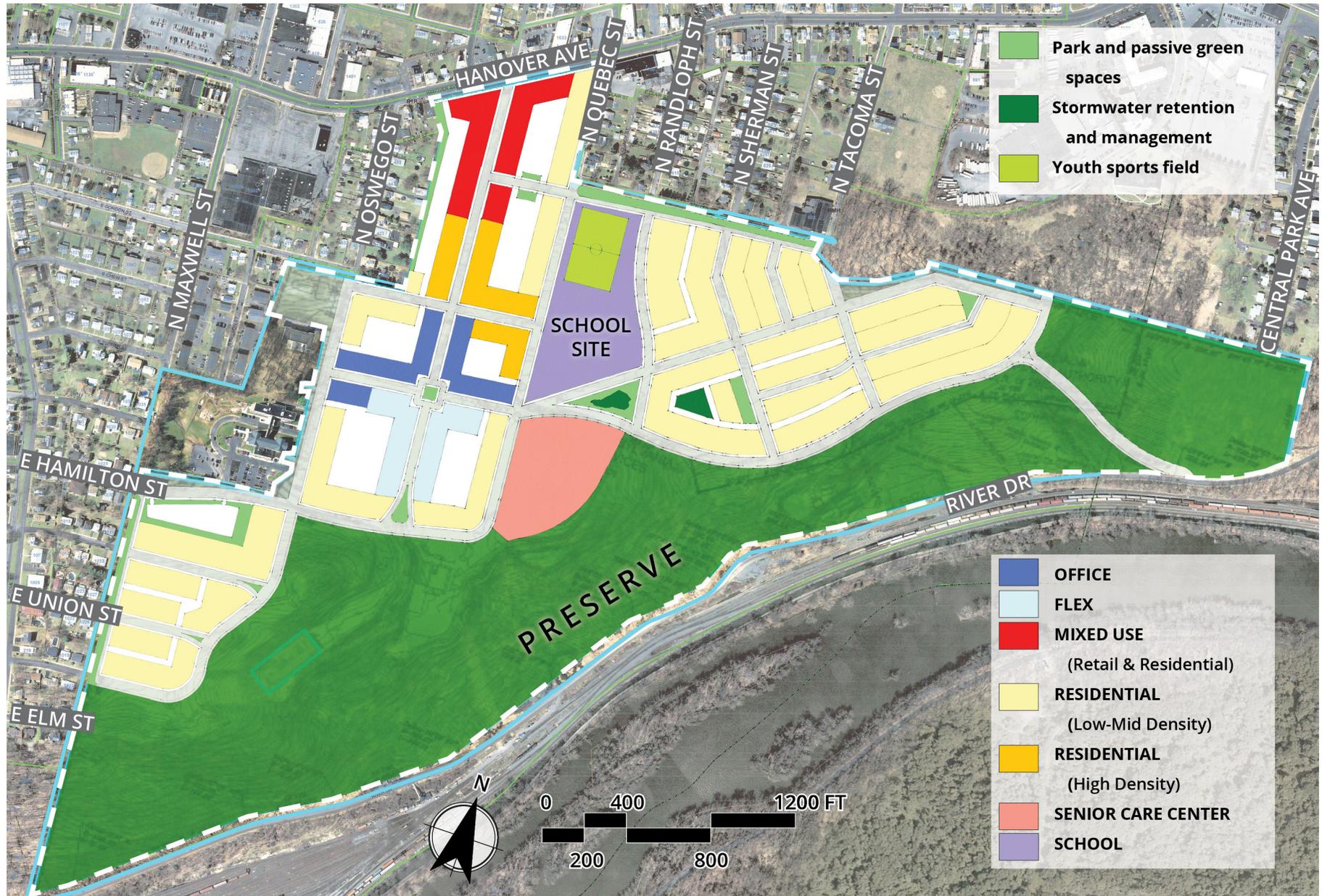
FLEX BUILDING

A type of building(s) designed to be versatile, which may be used in combination with office (corporate headquarters), research and development, quasi-retail sales, and including but not limited to industrial, warehouse, and distribution uses. At least half of the rentable area of the building must be used as office space. Flex buildings typically have ceiling heights under 18', with light industrial zoning. Flex buildings have also been called Incubators, Tech and Showroom buildings in markets throughout the country.

FLEX SPACE

This type of space is only found in flex buildings. It can be used as office, medical, industrial, warehouse, distribution, quasi-retail, or research and development space.

Figure 25: Town Square Land Use Master Plan



OPEN SPACE AND CONNECTIVITY

The hillside slopes include over 90 acres of preserve, which will include a trail network, bike paths, and exercise stations. Along the edge of the development, parklets in the clearings will allow all residents and visitors to enjoy the views, keeping this natural resource readily accessible to the public. While the green park space is mostly consolidated into the large preserve, the developed area is highly urban. Walkable and bikeable street design is inviting to pedestrians.

The offices, senior care site, and the school are close to the retail shops, allowing those shops to potentially cater to both demographics. Lunch spots, cafes, and a bookstore, for example, could tap into new market demand created by this development. The senior care units support increased demand for small and outpatient medical services around the square.

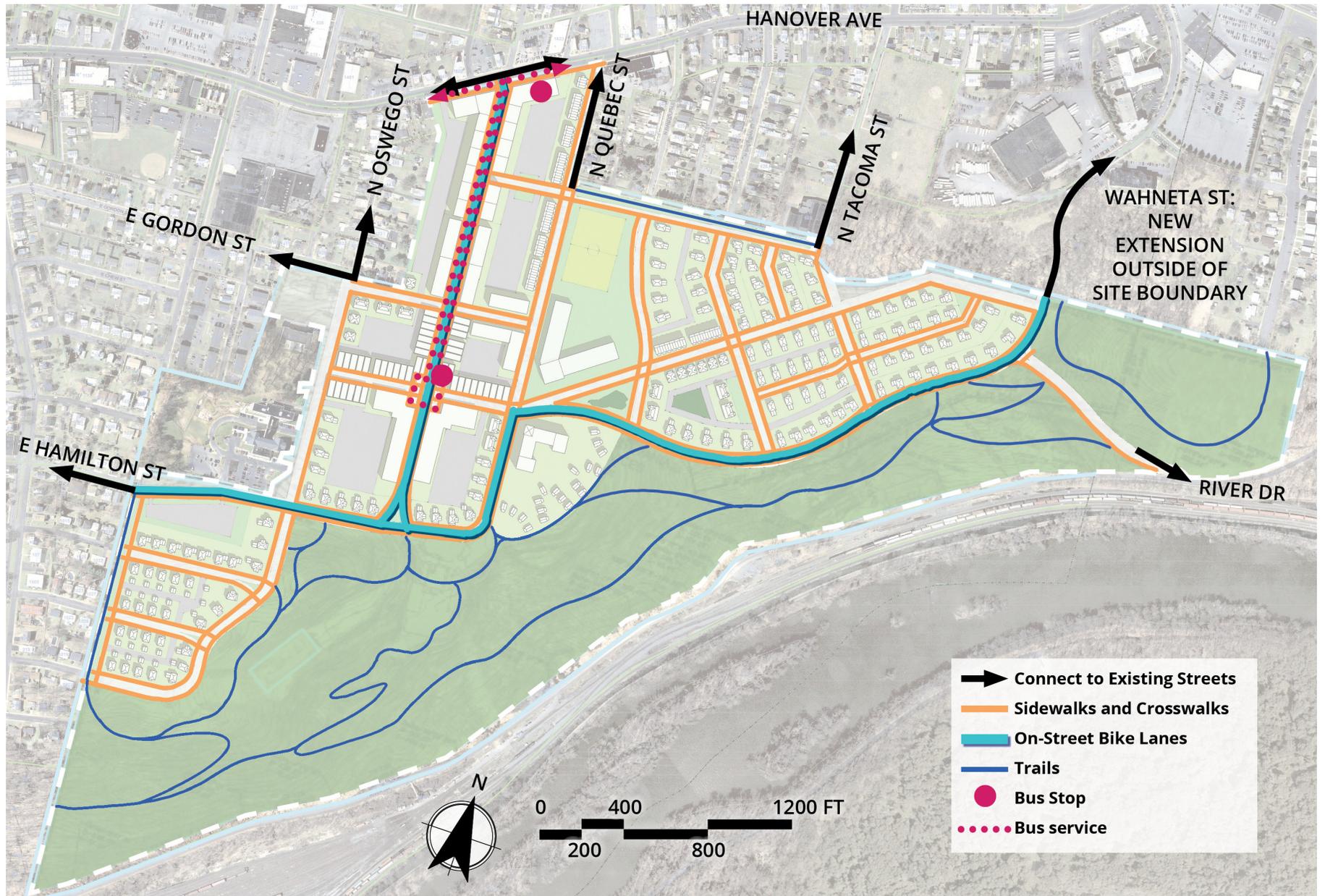
The street network provides multiple routes through the new development to disperse traffic and reduce the load on any single point. A new through road connects Hamilton Street to North Quebec Street. A new connection to North Wahneta Street that provides a second loop into the development. Linear greens along South Maxwell Street and East Allen Street provide visual and physical separation between the existing neighborhoods and proposed development. These can be utilized as linear parks to serve all residents as an amenity. While this concept does not specify a proposed transit station, it does benefit from the planned enhanced bus service along Hanover Avenue. Adding bus service into the site to serve the Town Square is recommended.

Potential connectivity issues that will need to be further investigated include the potential signalization of the main site driveway entrance at Hanover Avenue, and potential sight distance issues at the River Drive entrance. Additionally, it would be advantageous to construct the new development street network intersection approaches at 90° to allow for easier turning movements for both passenger cars and heavy vehicles. Further analysis will need to be performed once land uses have been finalized to determine how the surrounding road networks will be impacted by the new site traffic and what improvements, if any, will need to be made to address congestion issues.

PLAN COMPARISON

The Town Square has the smallest developable footprint (102 acres) due to the larger quantity of nature preserve and the more conservative approach to topographical regrading. Several areas in the eastern part of the site are left undeveloped due to the difficulty in providing access. The residential neighborhoods in this concept provide attractive and marketable housing options that respect the existing neighborhoods, including the new proposed development to the north of the site. While industrial uses are not included, the mix of uses reflect market needs that can be more easily accepted by the community and supported by traffic and access that the surrounding street grid can accommodate. This concept is the only one which includes a school site.

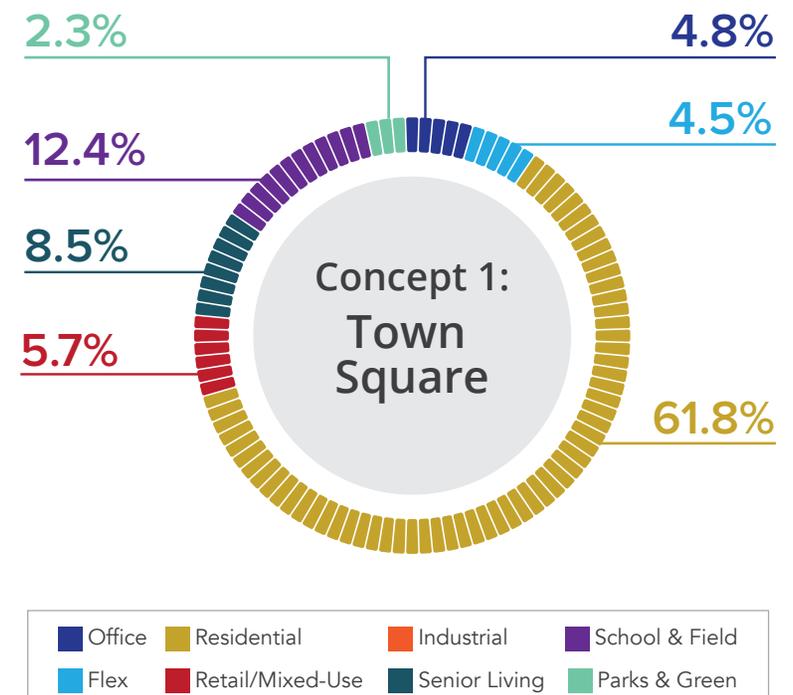
Figure 26: Town Square Connectivity



TOWN SQUARE

Development Concepts Matrix	Town Square Concept			
	Building SF	Residential Units	Lot Use by Acres	% of Total Use Acreage
Single Family Lot		139		
Duplex		18		
Triplex		27		
Townhouse		45		
Apartment		216		
Apartment over Retail		199		
Total Residential		644	35.89	61.8%
Senior Apartments		122		
Senior Cottage		19		
Total Senior		141	4.93	8.5%
Office	206,400		2.79	4.8%
Flex Office	160,000	122	2.63	4.5%
Retail	92,800		3.3	5.7%
Industrial	—	—	—	
School and Field	—		7.17	12.4%
Park with Field	Included with School			
Other Green Space			1.36	2.3%
Total Use Acreage			58.06	

Figure 39: Land Use Distribution (within Total Use Acreage)





The Grand Boulevard concept aligns the main road with Plymouth Street to create a smoother and safer entrance that is visible from both directions. Within the site, the main road turns to follow the existing road, terminating on an employment campus at the location of the former main hospital building campus. The Grand Boulevard establishes a strong internal center surrounded entirely by new development, while reflecting the site's history and preserving views.

Figure 27: Grand Boulevard Illustration



Figure 28: Grand Boulevard Illustrative Master Plan



DEVELOPMENT CAPACITY

Development uses proposed in the Grand Boulevard include:

- **Mixed Use: 140,000 SF of Retail**

Mixed-use retail with upper floor residential uses is proposed from Hanover Avenue to the internal boulevard. There is opportunity for a substantial amount of retail, with parking lots in the rear and parallel spaces on-street. Community-oriented shops, local services down the block, and eateries such as delis and cafes with outdoor patios can serve both new and existing residents.

- **Transit Center**

A preferred location for a bus stop and transit station is identified along Hanover Avenue. As the enhanced bus service is implemented and new development brings more uses to the site, this is an ideal location to provide additional rider amenities including bus shelters and a ticket booth. The transit station could be located within the retail frontage and is shown on the plan incorporated into the mixed-use buildings along Hanover Avenue. By emphasizing transit access, the development can entice transit use and reduce parking needs, allowing more land to be available for other uses. Additionally, there is potential to include a transit stop within the site that would help overcome the distance and topography from the core of the site to Hanover Avenue, which could be a barrier to pedestrian and bicycle access. Although size and scale of the transit station are not detailed in this study, this concept includes it as a program element that allows higher development capacity.

- **Residential: 524 Units**

High-density development lines the boulevard. This can be a prime location for higher-end apartments with a prominent location and views of the tree-lined boulevard. Townhouses, duplexes, and triplexes nearby provide more housing options that can serve rental and for-sale markets, with smaller units that are affordable to new buyers and young families. New residential blocks towards the west match the scale of the existing neighborhood. Single-family lots include 20 percent affordable homes, market-rate entry-level homes priced for new

buyers, and larger homes along the hilltop ridge that demand higher prices.

- **Employment: More than 410,000 SF of Office and Flex Space**

Office and flex uses occupy the existing campus site and terminate the view from the boulevard. Small offices on either side of the block can include small medical offices, incubator spaces, or entrepreneurial businesses. Each row of offices opens onto a public space, which can inspire a marketable identity and offer outdoor space for workers and customers to gather. The flex buildings can be larger footprints with high ceilings or several floors, as suits the end user, and accommodate a range of uses such as research and development, large medical functions, or light manufacturing. A row of flex buildings at the edge of the hill are distanced from residential uses, so related noise and loading will not negatively impact homes.

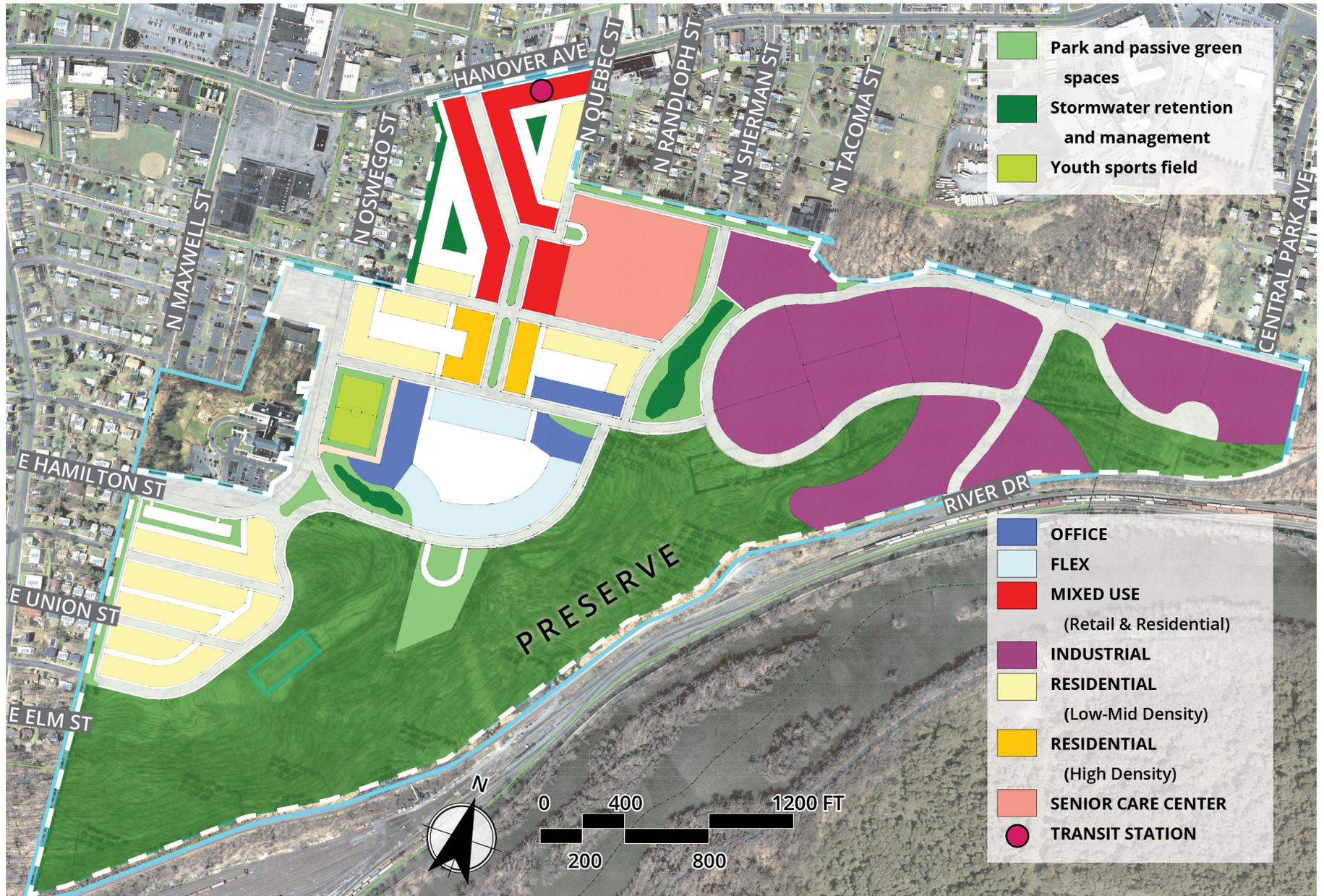
- **Senior Care: 7.8-Acre Site**

A senior care site is proposed adjacent to the main boulevard. This facility may include full-time care, independent apartment living with on-site support services, independent living in accessible cottage units, or a combination. This location is directly connected to the shops, easily walkable from the bus station, and visible from the boulevard, making it easy for seniors to get around and enjoy the community. The site is large enough to include a variety of building types, connected by internal walkable green spaces.

- **Industrial: More than 33 Acres**

Industrial uses cover the majority of the eastern side of the site. More than 33 acres of industrial space is located over moderate topography, maximizing the amount of land developed in this concept. A loop road uses two new connections with North Wahneta Street and River Drive to bring industrial traffic to these buildings while minimizing truck traffic through the rest of the site and adjacent neighborhoods. Due to the topography, the industrial uses are lower than the town center and are largely masked from view.

Figure 29: Grand Boulevard Land Use Master Plan



OPEN SPACE AND CONNECTIVITY

There are 69 acres of preserved slopes, which can include trails, bike paths, and parklets. A green linear park with stormwater swales separates the mixed-use town center and senior site from the industrial site, as well as directing water away from buildings and to a low point that can also become an attractive open space amenity. Trees and landscaping further keep the industrial buildings out of sight and buffered from nearby residences. A two-acre community park with youth playing fields is easily accessible to the existing child services center and residential neighborhoods. The boulevard and small pocket parks can include rain gardens and other stormwater management design elements that are attractive as well as functional.

The street network connects to adjacent streets in key locations, and provides numerous routes through the development to disperse traffic and reduce traffic load at any single point. Primary loops through the site include new connections from East Hamilton Street to North Oswego Street, and an extension of North Sherman Street into a new promenade that winds along the hillside. Linear greens along South Maxwell Street and East Allen Street provide visual and physical separation between the existing neighborhoods and proposed development. These can be utilized as linear parks to serve all residents as an amenity. By locating a transit station along Hanover Avenue, bus access to the site is prioritized, and adding bus service internal to the site along the boulevard is suggested.

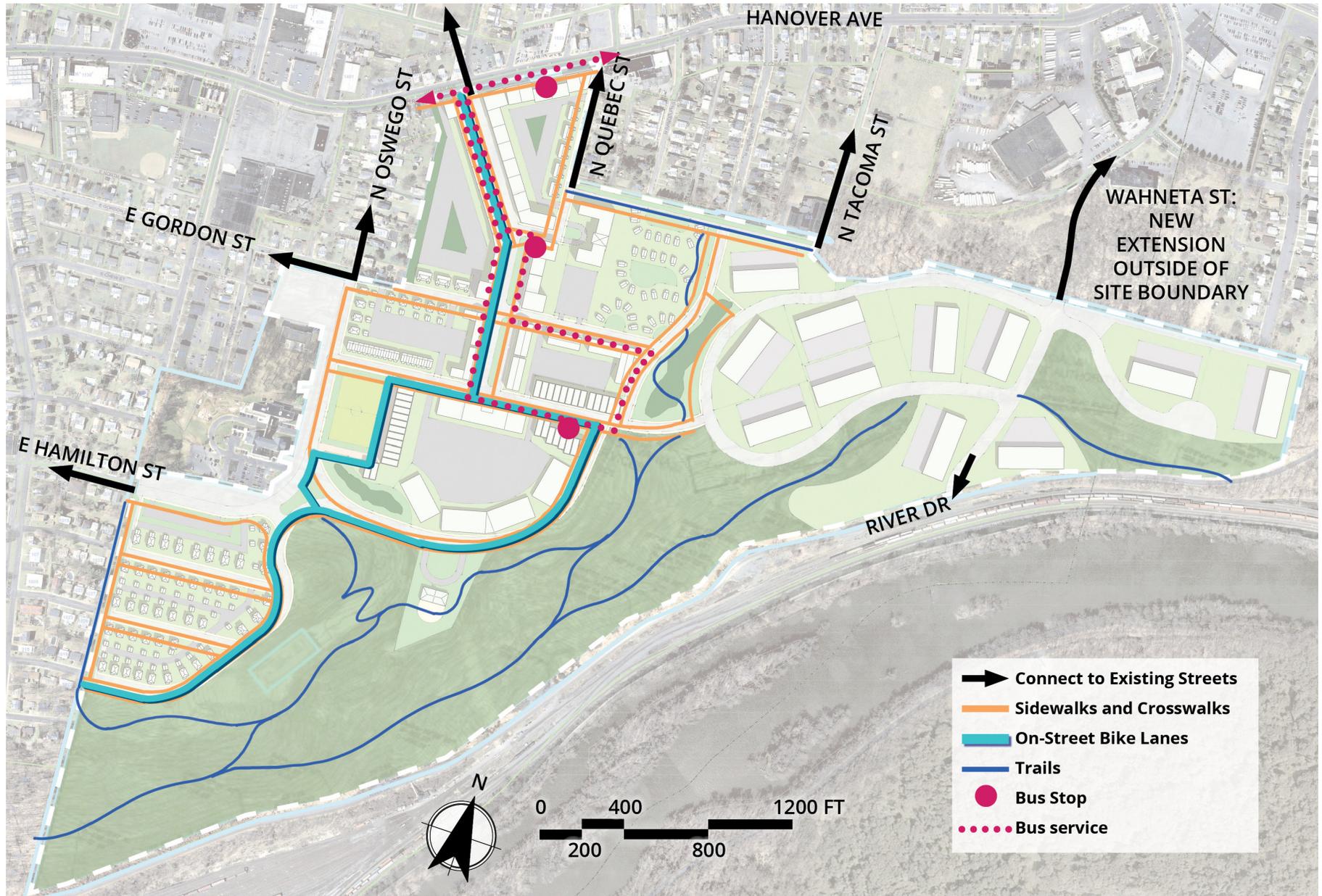
Potential connectivity issues that will need to be further investigated include the potential signalization of the main site driveway entrance at Hanover Avenue due to the high existing volume of traffic along Hanover Avenue, as well as the development along the main driveway. Further analysis will need to be performed once land uses have been finalized to determine how the surrounding road networks will be impacted by the new site traffic and what improvements, if any, will need to be made to address congestion issues.

PLAN COMPARISON

The Grand Boulevard concept has the largest developable footprint (120 acres), due to the smaller nature preserve and the more aggressive approach to topographical regrading. The industrial sites extend all the way to the east corner, which requires additional infrastructure but allows more extensive use of the site. The easternmost industrial lots also fall within the City of Bethlehem, so development in this concept affects two municipalities.

The senior care site is largest in this concept, and closest to shops and other uses for a design that prioritizes community interaction and independent living. The park is near the existing Community Services for Children property and has a public location. Flex uses are most distanced from residential, allowing a greater range in size and use.

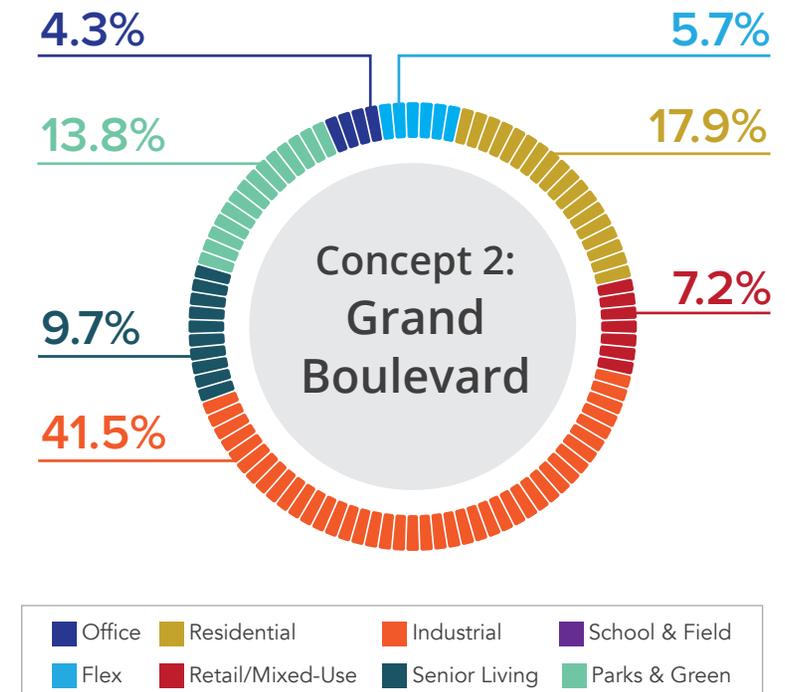
Figure 30: Grand Boulevard Connectivity



GRAND BOULEVARD

Development Concepts Matrix	Grand Boulevard Concept			
	Building SF	Residential Units	Lot Use by Acres	% of Total Use Acreage
Single Family Lot		54		
Duplex		--		
Triplex		24		
Townhouse		16		
Apartment		180		
Apartment over Retail		250		
Total Residential		524	14.4	17.9%
Senior Apartments		140		
Senior Cottage		30		
Total Senior		170	7.81	9.7%
Office	172,800		3.46	4.3%
Flex Office	240,000		4.6	5.7%
Retail	140,000		5.84	7.2%
Industrial	330,000		33.45	41.5%
School and Field	Not Included			
Park with Field			2.07	2.6%
Other Green Space			9.03	11.2%
Total Use Acreage			80.67	

Figure 40: Land Use Distribution (within Total Use Acreage)



Urban Plaza

The Urban Plaza concept creates a large plaza along Hanover Avenue with roads on either side that allow multiple entrance points and increased visibility to the larger development extending into the site. This creates a highly visible front door to the development and facilitates access at the gateway. The existing axial views are not preserved, but the realignment facilitates larger development blocks and clear access through the interior of the site.

Figure 31: Urban Plaza Illustration



Figure 32: Urban Plaza Illustrative Master Plan



DEVELOPMENT CAPACITY

Development uses proposed in the Urban Plaza include:

- **Mixed Use: More than 124,000 SF of Retail**

Mixed-use retail with upper floor residential uses lines Hanover Avenue and extends for two blocks. There is opportunity for a substantial amount of retail, with parking lots in the rear and parallel spaces on-street. Parking availability will limit the building square footage possible, although there is an opportunity to prioritize transit-oriented development and maximize density.

- **Transit Center**

A preferred location for a bus stop and transit station is identified along Hanover Avenue. As the enhanced bus service is implemented and new development brings more uses to the site, this is an ideal location to provide additional rider amenities including bus shelters and a ticket booth. The transit station could be located within the retail frontage and is shown on the plan incorporated into the mixed-use buildings along Hanover Avenue. By emphasizing transit access, the development can entice transit use and reduce parking needs, allowing more land to be available for other uses. Additionally, there is potential to include a transit stop within the site that would help overcome the distance and topography from the core of the site to Hanover Avenue, which could be a barrier to pedestrian and bicycle access. Although size and scale of the transit station are not detailed in this study, this concept includes it as a program element that allows higher development capacity.

- **Employment: More than 348,000 SF of Office and Flex Space**

Flex buildings and small offices are located west of the main street. These employment uses offer large and small building footprints that can accommodate a range of users and services, all within easy walking distance from the bus line and the new retail shops. This location supports businesses with minimal impact on their surroundings, as they are sited close to residential blocks and have limited parking available. Research and development, technology services, small medical, and other local services as well as an entrepreneurial incubator can enjoy the proximity to the plaza and mix of uses to create a thriving and exciting employment district.

- **Residential: 598 Units**

High-density residential lots line the main street to the top of the hill. Apartments near the mixed use allow housing close to transit and employment, while apartments at the hilltop are a prime location for a higher-end product with excellent views. Townhouses, duplexes, and triplexes surrounding these blocks provide more housing options that can serve rental and for-sale markets and offer smaller units that are affordable to new buyers and young families. More residential lots include single-family homes next to existing neighborhoods to the east and west. Houses can be a mix of smaller and larger products to include affordable housing and entry-level market-rate options, as well as higher-end homes that face the promenade and provide excellent views.

Figure 33: Urban Plaza Land Use Master Plan



OPEN SPACE AND CONNECTIVITY

There are more than 82 acres of preserved slopes, which can include trails, bike paths, and parklets. The historic campus site becomes primarily residential, letting community members make their homes here and enjoy the views that had long been private. The plaza and community park can include rain gardens and other stormwater management design elements that are attractive as well as functional.

The main street allows a straight, uninterrupted view to the top of the hill and preserve. This street can include bike lanes and encourage the connection from Hanover Avenue to the slope-side trails. Another key street connection is the extension of East Hamilton Street that crosses the development to an extension of North Sherman Street. Linear greens along South Maxwell Street and East Allen Street provide visual and physical separation between the existing neighborhoods and proposed development. These can be utilized as linear parks to serve all residents as an amenity. By locating a transit station along Hanover Avenue, bus access to the site is prioritized, and adding bus service internal to the site along the boulevard is suggested.

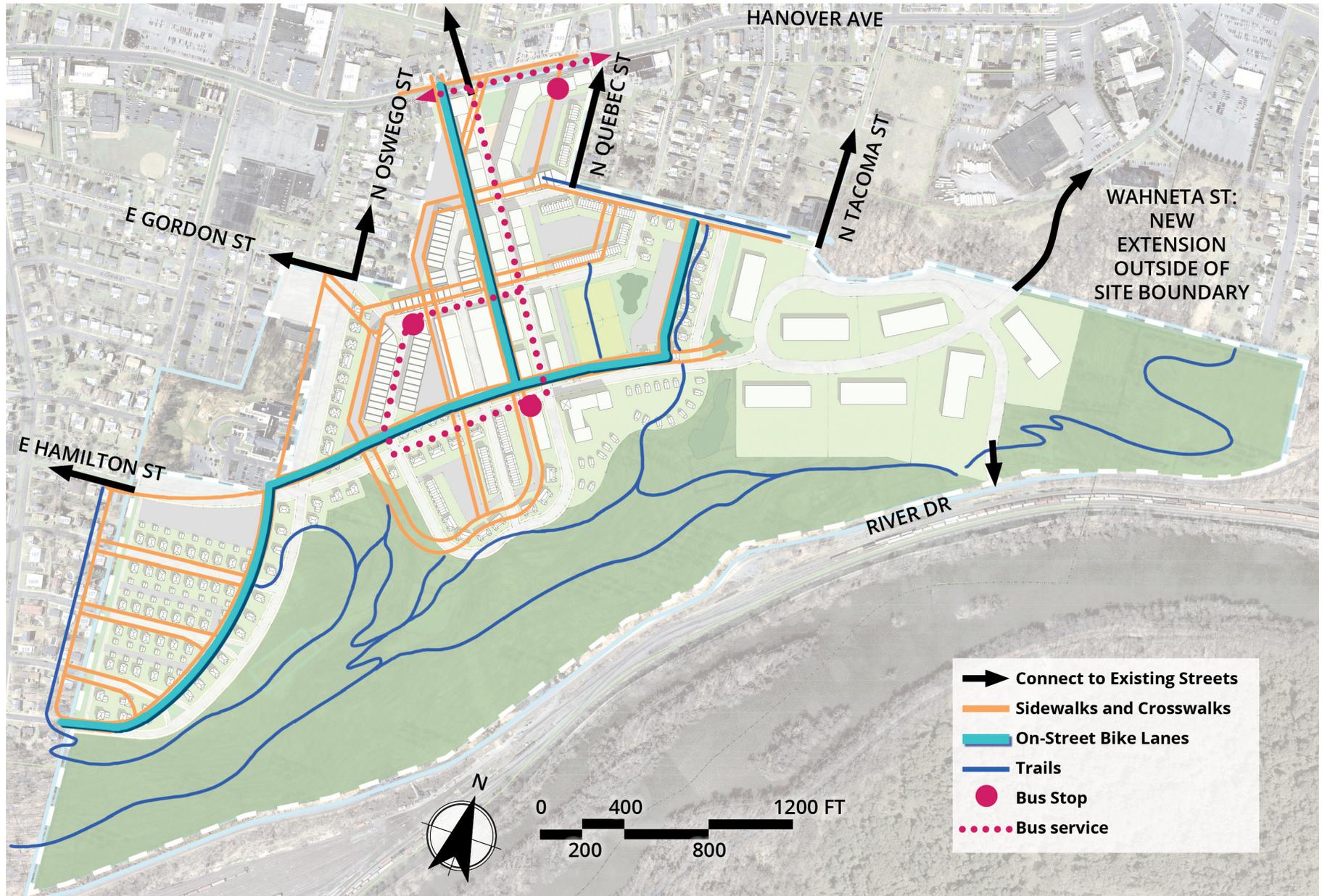
Potential connectivity issues that will need to be further investigated include the potential signalization of the main site driveway entrance at Hanover Avenue due to the high existing volume of traffic along Hanover Avenue, as well as the development along the main driveway. Further analysis will need to be performed once land uses have been finalized to determine how the surrounding road networks will be impacted by the new site traffic and what improvements, if any, will need to be made to address congestion issues.

PLAN COMPARISON

The Urban Plaza concept has a developable footprint of 107 acres. The size difference in comparison with the Grand Boulevard concept is primarily due to the undeveloped eastern corner. This eastern hilltop is potentially developable, but is located adjacent to residences and is difficult to access, so this concept focused development and infrastructure in a more compact footprint. There are 23 acres allotted to industrial uses, which focuses on the 23 acres that are most developable in this area.

The senior care site is smaller in this concept but occupies a highly visible location with great views. A site designed to offer walkability and internal spaces for retreat is well suited here. The park is centrally located, allows privacy inside the park due to its midblock siting, and is large enough for a multitude of park programming.

Figure 34: Urban PlazaConnectivity

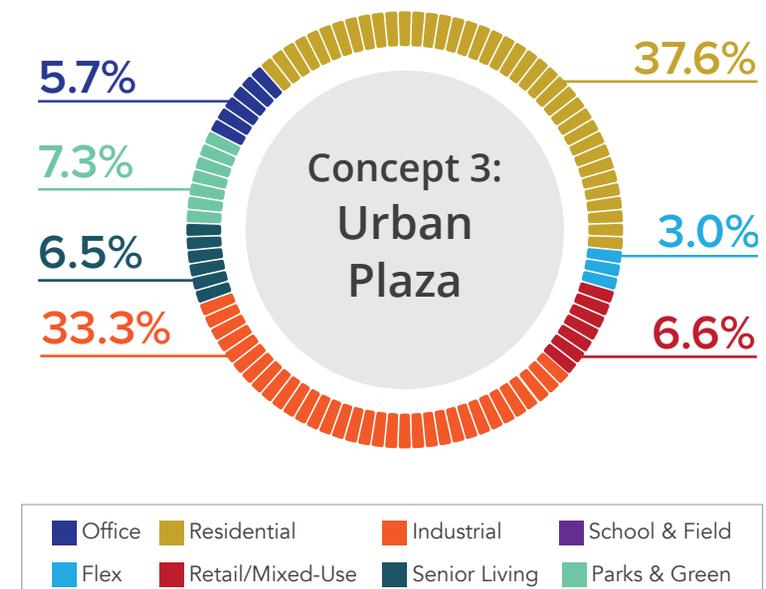


- Connect to Existing Streets
- Sidewalks and Crosswalks
- On-Street Bike Lanes
- Trails
- Bus Stop
- Bus service

URBAN PLAZA

Development Concepts Matrix	Urban Plaza Concept			
	Building SF	Residential Units	Lot Use by Acres	% of Total Use Acreage
Single Family Lot		73		
Duplex		22		
Triplex		45		
Townhouse		74		
Apartment		116		
Apartment over Retail		268		
Total Residential		598	26.13	37.6%
Senior Apartments		122		
Senior Cottage		21		
Total Senior		143	4.51	6.5%
Office	268,800		3.98	5.7%
Flex Office	80,000		2.06	3.0%
Retail	124,973		4.58	6.6%
Industrial	210,000		23.12	33.3%
School and Field	Not Included			
Park with Field			3.35	4.8%
Other Green Space			1.7	2.4%
Total Use Acreage			69.42	

Figure 41: Land Use Distribution (within Total Use Acreage)



Connections to Existing Neighborhoods

The feasible development concepts plans have been designed with three optional connections to the western-most and northeastern-most existing neighborhoods. In order for these options to work, the new neighborhood must maintain the existing road network into the site. Connectivity can be added in the future as part of Option 2 or 3 described below.



No Physical Connections

This option leaves the green buffer and existing fence as-is. Within the proposed, new neighborhood, a series of one-way streets are built that can be used for connectivity between the blocks. The fence and green buffer are continuous and only provide one connection along East Hamilton Street with a two-way road.

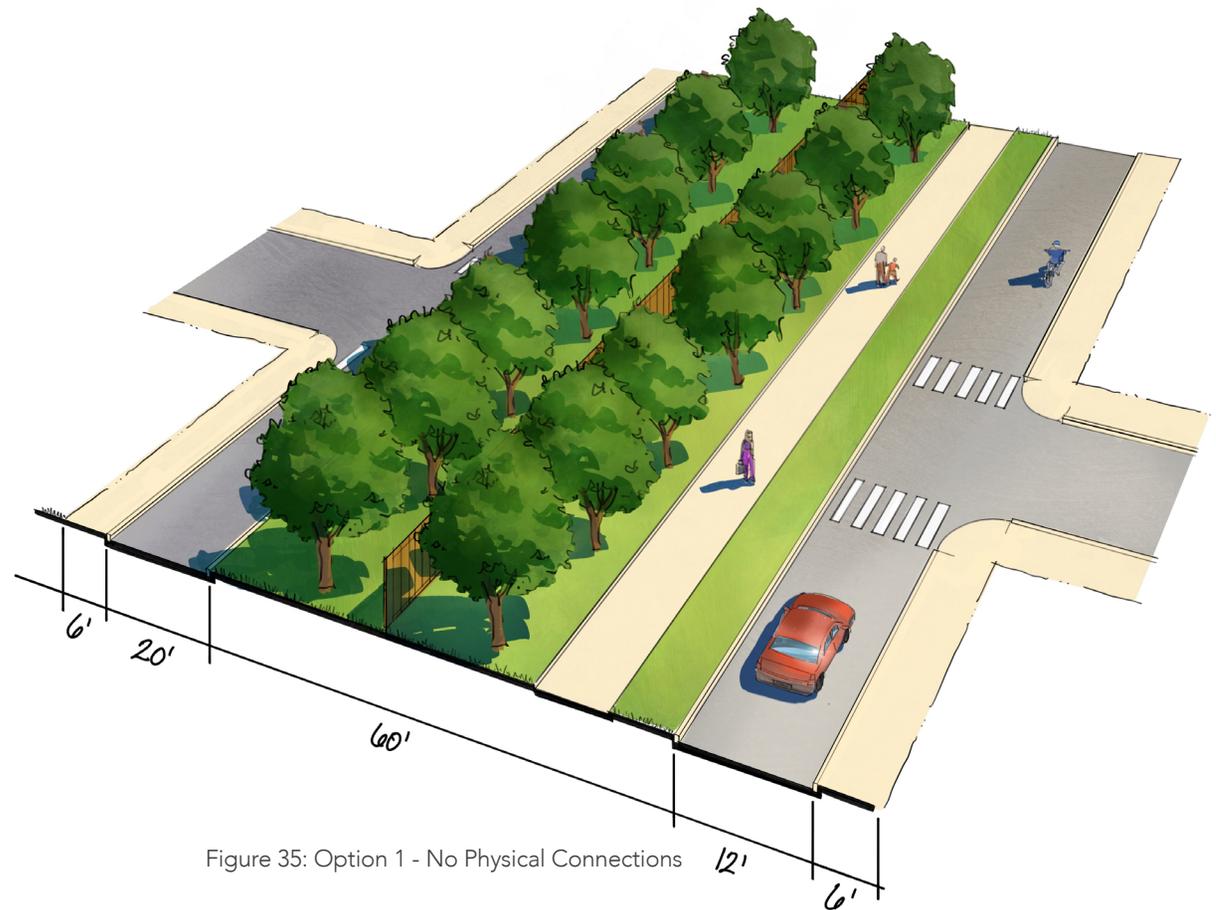


Figure 35: Option 1 - No Physical Connections

Connections to Existing Neighborhoods



Visual and Pedestrian Connection

As with Option 1, the green buffer is maintained, however, the fence is removed. The green buffer becomes a linear park that allows visual, pedestrian, and bicycle connections between the existing neighborhood and the newly designed neighborhood. The one-way road system is still built along the east side of the linear park to allow connectivity between the blocks. There is only one connection point for cars, and that is at East Hamilton Street.

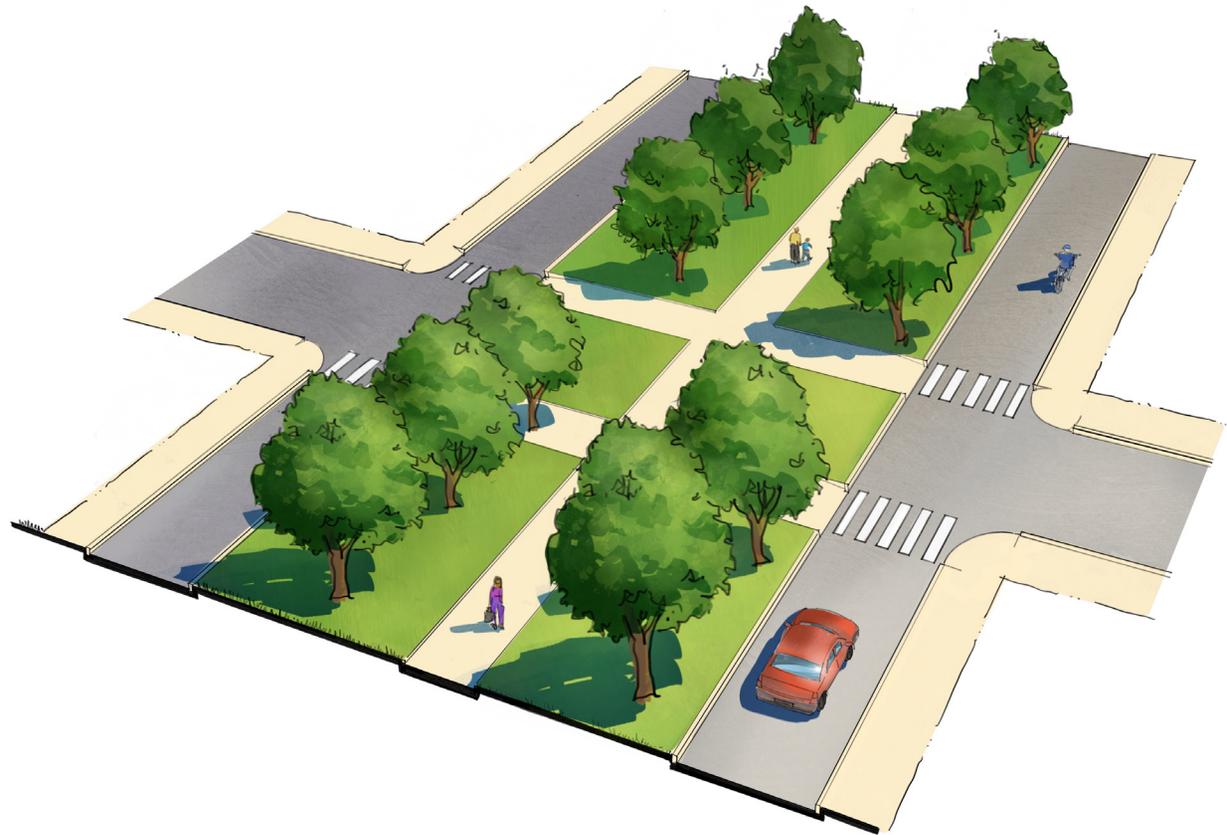


Figure 36: Option 2 - Visual and Pedestrian Connection

Connections to Existing Neighborhoods



Visual, Pedestrian, and Car Connectivity

As with the previous options, Option 3 takes advantage of the green buffer by converting it into a linear park. However, more connection streets between the existing neighborhood and the new neighborhood are possible by breaking up the linear park and making a paved connection. This can be done between East Union Street, East Fairview Street, or East Elm Street.



Figure 37: Option 3 - Visual, Pedestrian, and Car Connectivity

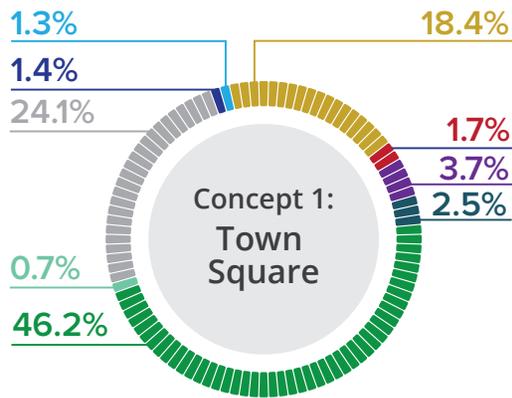
Development Concepts Matrix and Land Use Comparisons

Table 11 provides a summary of the three development concepts in terms of use by building square feet and acres, as well as residential units proposed.

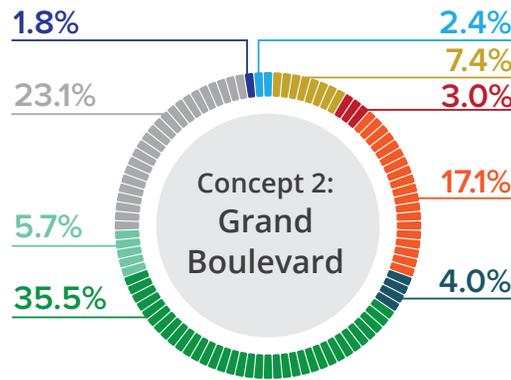
Table 11: Development Concepts Matrix

Development Concepts Matrix	Town Square Concept				Grand Boulevard Concept				Urban Plaza Concept				
	Building SF	Residential Units	Lot Use by Acres	% of Developable Acreage	Building SF	Residential Units	Lot Use by Acres	% of Developable Acreage	Building SF	Residential Units	Lot Use by Acres	% of Developable Acreage	
Residential		644	35.89	35.3%		524	14.4	12.0%		598	26.13	24.3%	
Senior Living		141	4.93	4.8%		170	7.81	6.5%		143	4.51	4.2%	
Office	206,400		2.79	2.7%	172,800		3.46	2.9%	268,800		3.98	3.7%	
Flex Office	160,000		2.63	2.6%	240,000		4.6	3.8%	80,000		2.06	1.9%	
Retail	92,800		3.3	3.2%	140,000		5.84	4.9%	124,973		4.58	4.3%	
Industrial	—	—	—		330,000		33.45	27.8%	210,000		23.12	21.5%	
School and Field			7.17	7.0%	Not Included				Not Included				
Green Preserve			90.14	88.6%			69.36	57.7%			82.62	76.9%	
Park with Field	Included with School						2.07				3.35		
Other Green Space			1.36	1.3%			9.03	7.5%			1.7	1.6%	
Total Use Acreage			58.06					80.67					69.42
Other/Infrastructure Acreage			46.97					45.14					43.13
Total Developed Area Acres			101.71					120.27					107.44

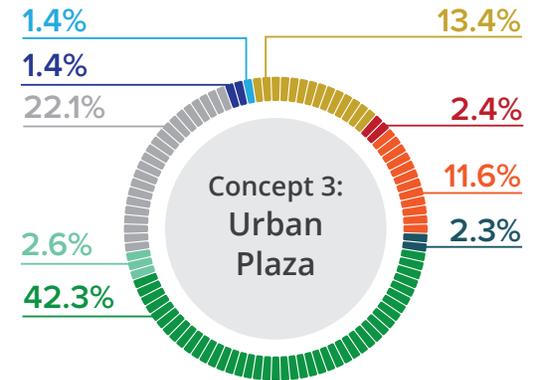
Figure 38: Sitewide Land Use Comparison



The Town Square concept prioritizes connecting with surrounding neighborhoods and keeps the largest area of preserved open space.



The Grand Boulevard concept balances neighborhood and commercial uses. It portrays the most development but will require substantial regrading to achieve.



The Urban Plaza concept balances neighborhood and commercial uses. It maximizes development in the most feasible areas but avoids major regrading that only supports small areas.



Fiscal and Economic Impacts

Economic and fiscal impact modeling are tools used to determine the economic impact resulting from a development project. For economic impacts, an econometric modeling system (i.e., Minnesota IMPLAN) estimates the cumulative effects of economic change. The analysis conducted for this study is based on the proposed conceptual site designs and estimated project costs. The econometric modeling captures both the construction phase of the project (temporary impacts) and the operational phase (permanent impacts), including direct and indirect job creation.

A fiscal impact analysis is utilized to estimate the potential tax revenue that could be generated from development or redevelopment of a site. Revenue such as property tax, sales tax, franchise fees, and other possible sources are calculated, and a net fiscal impact is determined after incorporating existing tax revenue generated from the site.

Both an economic impact analysis (jobs) and fiscal impact analysis (taxes) were completed for the three build-out scenarios. While a true fiscal impact analysis estimates the net impact on government for a particular project by projecting both incremental tax revenue and the additional cost on the local government (e.g., providing public services to the site, impact on the school district, etc.), a full fiscal impact analysis is beyond the scope of this study. However, a partial fiscal impact analysis estimating the impact on tax generation is provided.

The outputs from the economic and fiscal impact analyses show that the Grand Boulevard concept has the highest tax revenue and job impact, followed by the Urban Plaza scenario and then the Town Square scenario. A summary of findings is provided in Tables 12 and 13.

Table 12: Fiscal Impact Assessment

		CONCEPT PLAN		
		Town Square Concept	Grand Boulevard Concept	Urban Plaza Concept
REAL ESTATE TAX		\$507,643	\$620,642	\$581,282
Assessed Value	7.31			
City Effective Millage Rate(1)		\$3,710,870	\$4,536,893	\$4,249,171
Annual Real Estate Tax Revenue				
ACT 511 TAXES				
Earned Income(2)				
Income of ASH Residents		\$25,410,000	\$20,170,000	\$23,732,000
Income of non-residents employed in ASH businesses		\$50,090,000	\$70,180,000	\$57,000,000
Resident rate (city share)	1.475%	\$374,798	\$297,508	\$350,047
Non-resident rate (city share)(2)	0.358%	\$179,523	\$251,525	\$204,288
Deed Transfer, deed transfer rate per AV (3)	0.03%	\$158,076	\$193,263	\$181,007
Local Services(4)	\$1,700,000			
Residential Population	120,000	2,051	1,667	1,924
Per capita (residents)	\$14.17	\$29,049	\$23,609	\$27,250
Business Privilege Tax				
Projected sales volumes:				
Retail		\$50,112,000	\$75,600,000	\$67,500,000
Services tax rate		\$54,960,000	\$61,920,000	\$52,320,000
Retail tax rate	0.0015	\$75,168	\$113,400	\$101,250
Services tax rate	0.003	\$164,880	\$185,760	\$156,960

Continued on the following page

		CONCEPT PLAN		
		Town Square Concept	Grand Boulevard Concept	Urban Plaza Concept
Other Revenues (estimated by population)				
Residents + non-resident employees	124,000	3,396	3,605	3,502
Licenses and Permits(4)	\$7,948,361			
Per capita (residents + employees)	\$64.10	\$217,650	\$231,079	\$224,445
Charge for Services(4)	\$6,583,000			
Per capita (residents + employees)	\$53.09	\$180,263	\$191,385	\$185,890
Fines and Forfeitures(4)	\$378,000			
Per capita (residents + employees)	\$3.05	\$10,351	\$10,989	\$10,674
Other Local Taxes(4)	\$3,993,000			
Per capita (residents + employees)	\$32.20	\$109,341	\$116,087	\$112,754
Total Projected General Fund Revenues		\$5,209,968	\$6,151,498	\$5,803,736

Notes:

(1) Millage was increased in December 2018 and effective in 2019 (CAFR, 2019)

(2) Household earned income based on census tract data for representative neighborhoods in Allentown. Non-resident rate is 1.28 percent, however, the City retains only 28 percent of the assessment and returns the remainder to the employee city of residence. Assume 50 percent non-resident employees.

(3) Deed Transfer Rate Calculation

Assessed Valuation 2019: (\$1000's)

Residential: \$2,871,421

Commercial: \$1,445,226

Multi-family: \$697,000

Combo Property: \$173,000

Vacant: \$112,139

Total Assessed Value 2019 (CAFR, 2019): \$5,298,786

Deed Transfer Revenue (\$1,000): \$1,650

Deed Transfer Revenue Rate per \$1 of AV: 0.03%

(4) Actual budget revenues (Comprehensive Annual Financial Report, City of Allentown, 2019)

Table 18: Estimated Economic Impacts of Development

	Town Square Concept		Grand Boulevard Concept		Urban Plaza Concept	
	Construction (one time)	Operational (annual)	Construction (one time)	Operational (annual)	Construction (one time)	Operational (annual)
Economic Impact (Regional Product)^{(1) (2)}						
Output (Sales) Impact						
Direct	\$534,097,294	\$427,557,954	\$649,621,406	\$718,183,100	\$610,394,459	\$558,051,262
Indirect & Induced	\$266,419,960	\$254,875,799	\$324,046,032	\$416,375,894	\$304,478,733	\$325,618,053
Total Output Impact	\$800,517,254	\$682,433,753	\$973,667,438	\$1,134,558,993	\$914,873,192	\$883,669,316
Employment Impact^{(3) (4)}						
Employment						
Direct	3,953	2,634	4,808	3,813	4,517	3,079
Indirect & Induced	1,653	1,746	2,011	2,824	1,889	2,212
Total Job Creation	5,606	4,380	6,819	6,637	6,406	5,291
Employee Compensation						
Direct	\$258,336,940	\$250,301,264	\$314,214,673	\$353,357,217	\$295,241,033	\$284,122,949
Indirect & Induced	\$92,149,045	\$92,382,793	\$112,080,688	\$152,727,350	\$105,312,772	\$119,153,119
Total Employee Compensation	\$350,485,985	\$342,684,057	\$426,295,361	\$506,084,567	\$400,553,805	\$403,276,068

(1) All model results are in year 2018 dollar values.

(2) A countywide model of Lehigh County, Pennsylvania was the basis of analysis. Therefore, all results reflect county impacts.

(3) Operational impacts reflect the benefits of a development when it is in operation. Employment impacts reflect the jobs created and/or supported by the project at full build-out. All compensation and tax impacts are assumed to recur on an annual basis.

(4) Employment impacts reflect the total number of jobs created and/or supported by the project including part time employment. Full time equivalent (FTE) are calculated as a national average of the ratio of Implan projected employment to FTE for each industry sector.

Source: Implan, Inc. 2020

RECOMMENDATIONS

The Commonwealth of Pennsylvania, as the current owner for the former Allentown State Hospital (ASH) site, intends to issue a Developer Request for Proposal (RFP) as the mechanism for disposition of the property. As a result, what ultimately happens at this site will be determined by the new property owner and their development team.

Even with no ownership role, the City of Allentown and its redevelopment partners have the opportunity to play a significant role in facilitating and promoting the kind of redevelopment that it wants to see. This section identifies actions that the City and other public sector partners can take to foster strong economic development and community revitalization at ASH. The following recommendations discuss policy-related actions and positions that can establish a development-friendly atmosphere to incentivize the types of end-uses that are most desired.



Town Square Illustration Concept

Policy-Related Recommendations

PROACTIVE ENGAGEMENT WITH NEW PROPERTY OWNER AND THE COMMUNITY

Combined with the City of Allentown's previous planning efforts, this Reuse Feasibility Study gives the City and other public-sector leadership partners a strong foundation in terms of what type of development is possible given remaining site constraints, the results of the market study, and the desires of the community.

Following the selection of a buyer for the site by the Act 71 Committee and DGS, the City of Allentown will serve as the single point-of-contact entity that will act as the primary liaison with the new owner of the ASH property. As the Redevelopment Liaison, the City should be prepared to discuss:

- the findings of this Reuse Feasibility Study;
- the desires of the community and local government;
- the goals and timelines of the new property owner/developer; and
- the needs of the new property owner/developer in terms of zoning accommodations, etc.

By speaking through "one voice," the community's redevelopment vision will be consistently conveyed to the new property owner/developer. In addition, a cohesive local communication strategy will help to facilitate an efficient resolution of concerns and ensuring a unified vision and clearly identifying the project's highest priorities. This approach is the first step to establishing a strong partnership that avoids the "us versus them" scenario and also presents a united front with a common shared end-goal for success.

Serving as the single point-of-contact, or Redevelopment Liaison, the City of Allentown will coordinate with the party that purchases the site to provide the community with regular status updates throughout the redevelopment process. Celebrating successes and initial steps forward – both small and large – will generate excitement for the redevelopment and begin to develop community buy-in and pride throughout each phase of redevelopment.

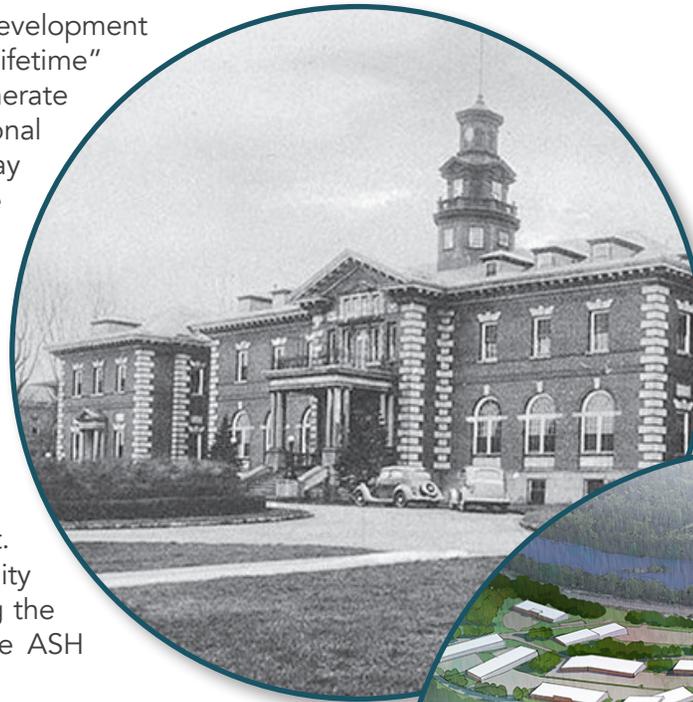
ZONING UPDATES AND FLEXIBILITY

The ASH site is currently located within the Institutional and Governmental zoning district, which does not permit most of the desired end uses identified in this Reuse Feasibility Study. However, the City of Allentown is proactively updating its zoning ordinance. It is recommended that the City leverage its current zoning code update efforts to begin to focus on the ASH site. This study should be used to directly inform the permitted land uses for and rezoning of the site for redevelopment. The rezoning should consider an array of reuse possibilities and flexible zoning standards.

CONCLUSION

Throughout the Reuse Feasibility Study process, redevelopment of the ASH site was described as a “once in a lifetime” opportunity for the region. The potential to generate new tax revenue, create new jobs, establish exceptional recreation amenities, and build a live-work-play community is well-supported by this study. The community must be patient and recognize that redevelopment of a site of this size will happen in phases and will likely take a decade or more to complete.

While not the property owner, the local leadership can have significant roles to play in establishing a favorable development atmosphere, serving to manage community expectations and robustly champion the success of the redevelopment effort. Recommendations proposed in this Reuse Feasibility Study can begin now and set the stage for realizing the highest levels of success for redevelopment of the ASH property.



Left: Yesterday: Allentown State Hospital, 1938
Right: Grand Boulevard Illustration Concept