Walnut Street

Final Report

McCormick Taylor
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Corridor Redevelopment Planning Study

Executive Summary

The Walnut Street Corridor Redevelopment Planning Study was a year-long cooperative effort of the City of Harrisburg, Susquehanna Township, Penbrook Borough, and Lower Paxton Township to examine the current circumstances of an eight-mile-long roadway corridor from the State Capitol to the West Hanover Township line and to come up with ideas that would advance the linked causes of economic development, improved aesthetics, and better mobility for this corridor into the future.

The impetus for the study was the stressed position that the Borough of Penbrook found itself in, geographically generally between the City of Harrisburg on the west and relatively large townships on the east, and functionally with a Central Business District that has had to compete with shopping centers while being kept in a virtual straightjacket of a main street with multiple travel lanes but few traffic signals and crosswalks, inadequate sidewalks, only intermittent on-street parking, and scarce shoppers' amenities. From the borough's perspective, the Walnut Street Corridor may have been performing adequately as a commuter route but has been underperforming as a setting for local business. The price has been the borough's tax base and its quality of life. For Penbrook, something needs to be done to improve the support the corridor offers for commercial, residential, and community activities.

For the other municipalities in the study, different priorities than Penbrook's exist, but each community occupies a position on the Walnut Street Corridor. It follows that a dialogue among this group of stakeholders will determine the limits, if not the actual feasibility, of what may be possible in this corridor.

The Walnut Street Corridor Redevelopment Planning Study process involved the oversight of a Steering Committee, professional guidance from the City of Harrisburg Planning Bureau, and technical work by a consultant team. The team documented existing conditions in the corridor and then, in cyclical fashion, explored a variety of alternative strategies with the Steering Committee that could possibly be applied in the corridor over the next five-to-twenty years. This exploration of alternatives was open ended, and some far-reaching ideas were probed. At various points in the process, public information meetings were held to achieve broad input into the ongoing discussions from residents, business operators, and other interested parties.

The exploration of alternatives revealed both the possibilities and limitations for redevelopment along the corridor. An availability of land for additional development is present, although the area is highly developed already. There are potential market prospects, but these will need to be actively pursued. Transportation improvements are possible, but not necessarily easy to implement.

With respect to land development, opportunities for "infill" development on vacant and underutilized sites in Harrisburg (State Street), Penbrook (Walnut Street and Herr Street), and Susquehanna (Walnut Street, both to the west and to the east of Penbrook) are present. In the case of Lower Paxton Township, a greater intensification and mixing of land use on parcels is possible.

Access and parking are severe challenges in the central-western portion of the corridor. A tightly-constrained right-of-way for Walnut Street through the Borough of Penbrook (and the westerly portion of Susquehanna Township) points to the need to trade vehicular travel lanes for on-street parking. The model for a successful traditional "Main Street" shopping district, such as what Penbrook Borough would like to have, includes on-street parking on both sides of the street, as well as generous-width sidewalks, and pedestrian amenities such as street trees. The inclusion of these Main Street features would necessitate giving up moving lanes of traffic, a condition that conflicts with Walnut Street's widely-accepted role as a major commuter corridor.

Various alternatives to try and overcome the Walnut Street conundrum have been looked at, with several employing Herr Street in concert with Walnut Street to try

and fulfill the promise of Walnut Street as a Main Street while allowing for commuting traffic to circulate under reasonably favorable conditions. Including Herr Street in a “paired” role with Walnut Street would mean changes to the functions and characteristics of Herr Street.

The importance of the Walnut Street corridor as a commuter route prompted a look at prospects for significant transit upgrades. Again, physical constrictions, especially in the Penbrook and Susquehanna portions of the corridor, severely challenge notions of transit vehicles on fixed guideways or traveling along exclusive transit lanes. The addition of specifically-designated transit lanes through the corridor would translate to a widened cartway and right-of-way for Walnut Street in Susquehanna Township and, at the least, a widened cartway and right-of-way for Herr Street in Penbrook Borough.

The alternatives offered the promise of a better future for the corridor, but the cost of some of the public improvements would be high and the time required to implement them could be lengthy. Penbrook Borough is anxious to get started on something soon even if an initiative would not deliver a full package of features such as contained in many of the alternative concepts. This suggests a course for the future that would allow for immediate actions to improve conditions in the corridor, especially through Penbrook, in the context of more far-reaching changes that could occur over a longer period of time.

The Recommendations of this study outline things that can be done over the short term, to improve conditions throughout the corridor and at specific places (deemed “Priority Areas” in the report), even while further planning studies occur to determine the feasibility of further actions. A two-pronged effort is required, one to implement near-term recommendations, the other to continue to study longer-term ideas. The Implementation Strategy that concludes the report lays out a step-by-step set of actions for each municipality to pursue.

Acknowledgments

The Walnut Street Corridor (WSC) Redevelopment Planning Study Team would like to thank Senator Jeffrey Piccola, Representative Ronald Marsico, Representative Ronald Buxton, and Representative Mark McNaughton for providing funding for this study. The WSC Redevelopment Planning Study would also like to thank Harrisburg City's Mayor Stephen Reed, Susquehanna Township Commissioners Jacquelyn Patton and Frank Lynch, Lower Paxton Township Supervisor Bill Seeds and Penbrook Borough Mayor Richard Stottlemyer for their vision to organize and initiate this study.

This report could not have been prepared without the dedicated participation efforts of the WSC Redevelopment Planning Study Steering Committee, which included representation from Lower Paxton Township, City of Harrisburg, Susquehanna Township, Penbrook Borough, Penbrook Planning Commission, Tri-County Regional Planning Commission, Dauphin County Commissioners, Capital Area Transit Authority, Pennsylvania Department of Community and Economic Development, Dauphin County Department of Community and Economic Development, and the Pennsylvania Department of Transportation. This group provided critical insight, guidance, and feedback in the creation and development of this plan.

Three public information meetings were held during the course of the planning study development. St. Margaret Mary's Church and the National Civil War Museum kindly made their facilities available to host these three important events. The Pennsylvania Department of Transportation contributed to the study by providing information message boards that advertised these public information meetings.

The WSC Redevelopment Planning Study most appreciatively would again like to thank Harrisburg City's Mayor Stephen Reed and the City of Harrisburg for providing the staff support to guide the plan through its development and for its liaison assistance to the planning consultant team.

Walnut Street Corridor Redevelopment Planning Study
Steering Committee Roster

Name	Affiliation
Lori Wissler	Lower Paxton Township
Gary L. Myers	Susquehanna Township
Jim Armbruster	Penbrook Borough
Kathy Possinger	City of Harrisburg
Daniel Leppo	City of Harrisburg
Vern McKissick	City of Harrisburg
Richard Stottlemyer	Penbrook Borough
Scott K. Leedy	Penbrook Borough Planning Commission
Jackie Patton	Susquehanna Township
Frank Lynch	Susquehanna Township
Bill Seeds	Lower Paxton Township
Dennis Guise	Lower Paxton Township
Paul Clark	Dauphin County Planning Commission (@TCRPC)
Dan Miller	City of Harrisburg - Councilman
Kent Haberle	Capital Area Transit Authority
Phil Robbins	PA Dept. of Community and Economic Development
Ted Robinson	PA Dept. of Community and Economic Development
Skip Memmi	Dauphin Co. Dept. of Community and Economic Development
John Bachman	Pennsylvania Department of Transportation - District 8-0 Office
Ron Buxton	PA House of Representatives, 103th District
Susan Helm	PA House of Representatives, 104th District
Ron Marsico	PA House of Representatives, 105th District
Patricia Herigan	Representative Marsico's office
Chris Ramsey	Senator Piccola's Office
Aaron Shenck	Senator Piccola's Office
Al Sundara	Tri-County Regional Planning Commission
Diane Myers-Krug	Tri-County Regional Planning Commission

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- Background
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- Project Area

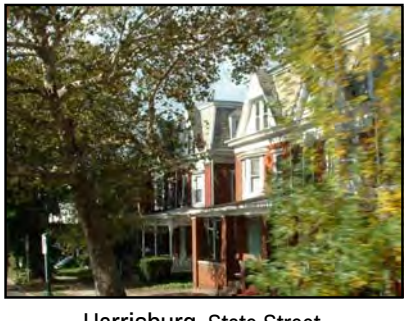
PROJECT BACKGROUND

WALNUT STREET CORRIDOR REDEVELOPMENT PLANNING STUDY

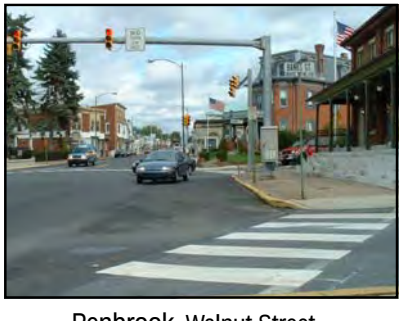
In the spirit of municipal cooperation, the City of Harrisburg, Susquehanna Township, Penbrook Borough, and Lower Paxton Township joined together to plan for redevelopment and improvement of the Walnut Street Corridor.

The Walnut Street Corridor Redevelopment Planning Study (WSCRPS) had its origins in 2002, when concerned citizens in Penbrook Borough realized they needed to do something to turn around the economic state of their community, characterized by increasing service costs, a shrinking tax base, and the loss of retail activity to suburban shopping centers. They formed Penbrook Revitalization Incorporated (PRI), a 501(c)3 non-profit organization, with this mission:

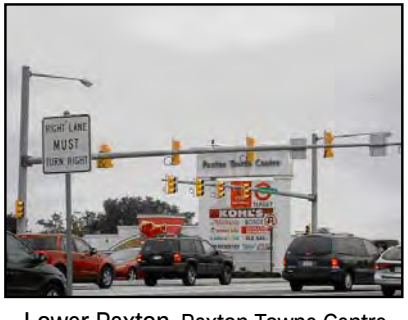
"Improve the living environment, safety and welfare of its citizens, and to assist in projects to improve the Penbrook Borough downtown area, and all other business areas, include the creation and retention of jobs and economic development activities to encourage new businesses to locate in the Borough of Penbrook."



Harrisburg, State Street



Penbrook, Walnut Street



Lower Paxton, Paxton Towne Centre

Penbrook's actions, which included retaining the Pennsylvania Downtown Center for technical assistance, led to planning discussions with the City of Harrisburg. These conversations led to the realization by the participants that anything Penbrook planned or did was going to be affected by forces beyond the borough's boundaries, and that cooperation with the city and neighboring Susquehanna Township and Lower Paxton Township was desirable. In 2004, the four municipalities entered into a cooperative agreement that outlined the goal of undertaking a comprehensive study of the corridor from the State Street Bridge to the West Hanover Township boundary, focusing on three main issues:

1) Traffic Movement & Pedestrian Safety

2) Aesthetic Improvements

3) Economic Development

All four municipalities recognized that any successful long-term revitalization and transportation improvement strategy needed to be rooted in intergovernmental cooperation among the local governments, Dauphin County, and state and federal agencies, as well as private and non-profit entities within the region. With challenges to the long-term visibility of the corridor's circulation system, as well as concerns about how to improve the local quality-of-life and economic strength of the businesses within the corridor, the partners in this study viewed the project as a critical first step in developing far-reaching strategies for their corridor.

A Steering Committee was created from this multi-municipal group, with the City of Harrisburg Planning Bureau personnel providing professional guidance.

The Steering Committee

The Steering Committee for the Walnut Street Corridor Study comprised of representatives from each of the four municipalities, as well as state and local government representation. Representative Buxton's office, Representative McNaughton's Office, Representative Marsico's office, Senator Piccola's office, the Pennsylvania Department of Transportation, Tri-County Regional Planning Commission, Pennsylvania Department of Community and Economic Development, Dauphin County Department of Community and Economic Development, and the Dauphin County Commissioners were all included in the Steering Committee.

The Steering Committee created a Request For Proposals which was released in March 2005. Fourteen proposals were received and, in June 2005, a consulting team was selected to undertake the project. Concurrently, the City of Harrisburg Planning Bureau staff submitted multiple grant applications to help fund the project.

The project kicked off in September of 2005 and an adoptable Plan was presented to the Steering Committee in the Fall of 2006. It is anticipated that each municipality will consider adopting the Plan as amendments to its respective comprehensive plan, and implementation of recommendations within the Plan would then be able to proceed.

WORK PROGRAM & SCOPE

The Scope of Work completed for the study consisted of four phases and twenty-four discrete tasks. This organization provided a logical progression of activities by the consultant team, the Steering Committee, and other stakeholders over the course of the study.

Identifying Opportunities (Phase A), constituted the data collection, analysis, and synthesis efforts that provided the necessary foundation to consider alternative approaches for the future of the corridor.

Visioning (Phase B), focused on the systematic and cyclical examination of future scenarios for the corridor that incorporated alternative land use, economic, streetscape, and transportation concepts.

Draft Report (Phase C), included the preparation of the Draft Corridor-wide and Priority Area Improvement Plans; Design Guidelines; Traffic, Transit, and Parking Plans; and Draft Implementation Strategy and Management Plans, culminating with the synthesis of these plans into a single Draft Corridor Redevelopment Plan document.

Final Report (Phase D), incorporated the reviews of the Draft Plan and the preparation of the Final Corridor Redevelopment Plan document.

Work Program Schedule

Walnut Street Corridor Redevelopment Planning Study

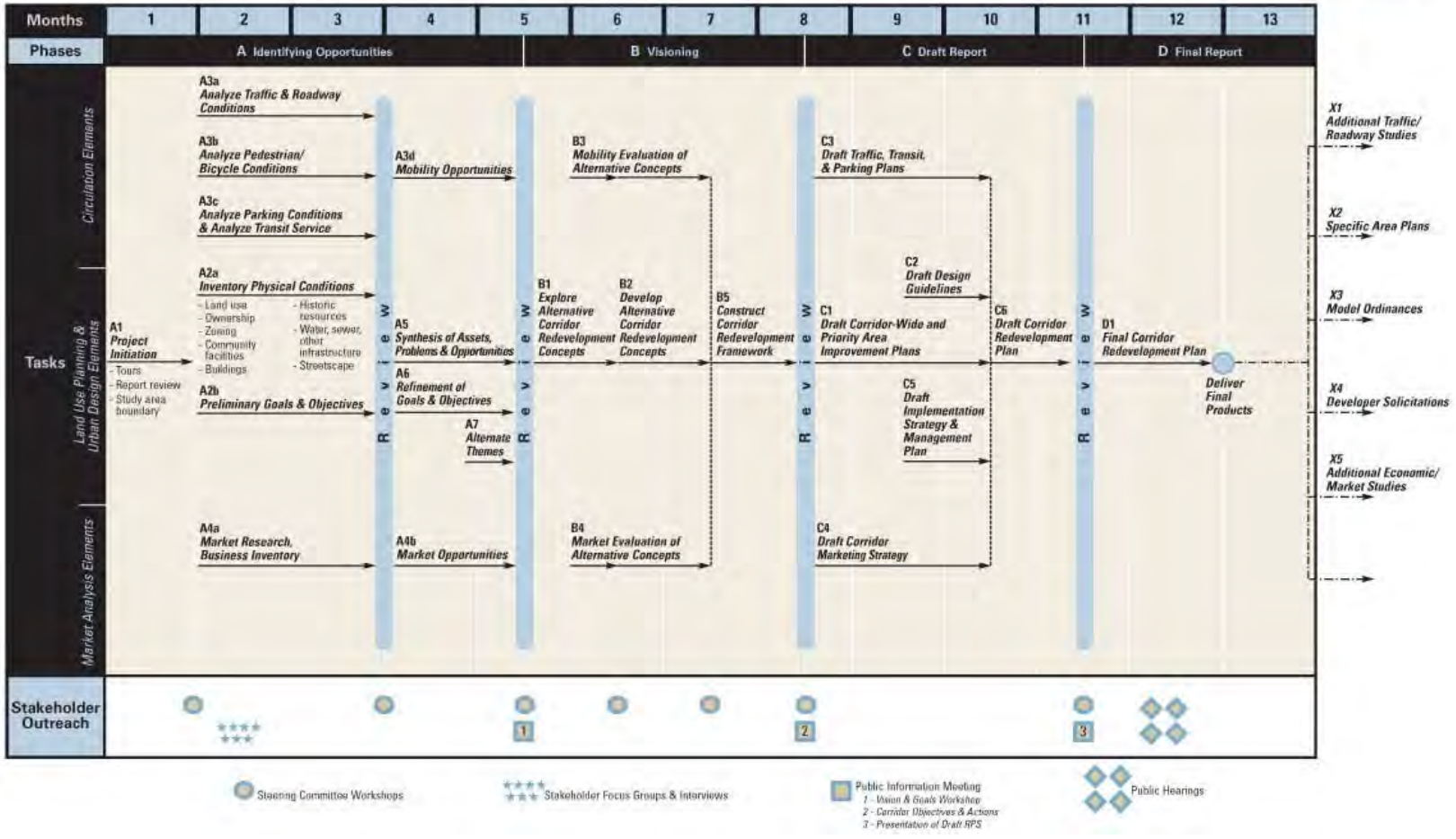


Figure 1.1

Project Area


Interstate
81
Mountain Road
Allentown Boulevard
Colonial Commons &
Paxton Towne
Centre
Colonial Park
Mall
Lower Paxton
West
Hanover

Figure 1.2

WALNUT STREET
CORRIDOR REDEVELOPMENT PLANNING STUDY

Chapter 2

- Existing Land Use
- Vacant & Underutilized Land
- Building Conditions
- Streetscape Conditions
- Pending & Proposed Development
- Market Analysis
- Transit
- Traffic & Roadway

The result of four-and-a-half month process of data collection, analysis, and synthesis effort, the Existing Conditions chapter presents an array of information necessary as a basis for considering future visions for the corridor. Existing Land Use, Vacant and Underutilized Land, Building Conditions, Streetscape Conditions, Pending and Proposed Development, Market Analysis, and Transit, Traffic and Roadway conditions are presented in this chapter.

EXISTING LAND USE

Land use in the corridor, particularly in the City of Harrisburg, Susquehanna Township, and Penbrook Borough, is a blend of residential, commercial, and mixed uses. Lower Paxton Township is largely commercial and "big box" developments (Figure 2.1) dominate the corridor. The Existing Land Use map (Figure 2.1) illustrates how land is currently used in the study area. The following land use categories describe the use of the parcels within the corridor:

- - - - - -

1. Residential - Single Family Detached
2. Residential - Single Family Attached
3. Residential - Multi Family
4. Mixed Use Commercial/Residential
5. Commercial
6. Public Institutional
7. Private Institutional
8. Recreational
9. Vacant

Existing Land Use

Mixed
Residential-Commercial Uses

Single Family Detached
Residential Use

Lincoln School

State Street

City of Harrisburg

The portion of the corridor within the City of Harrisburg encompasses a large number of residential properties with three-story, single-family attached residences dominating. A few commercial facilities, including Dollar General, City Gas and Diesel, Horstick's Auto Repair, and Costumes by Susie Q/Doll House Museum, are interspersed with the residential uses.

Some public institutions, including Memorial Evangelical Lutheran Church, Reclaim the Street Ministries, and Faith Temple are also present along the corridor. Lincoln School, part of the Harrisburg School District, is on the southern side of State Street between 16th and 17th Streets. Reservoir Park, fronting State Street, at the intersection of State Street and Parkway Drive, is the largest public open space within the study area.

Susquehanna Township (West)

Susquehanna Township's western portion contains primarily residential land uses. Relatively large single-family detached dwellings are located on both sides of the corridor. One multi-family structure and a newly constructed single-family attached dwelling are present on the southern side of Walnut Street.

A few commercial and mixed use parcels are present along the northern side of the corridor. These include the Volunteers of America, a doctor and therapeutic massage office, and Penbrook Plaza (located in Susquehanna Township and not in the borough). One private institutional facility, the Hansel and Gretel Learning Center, is also present in this section.

Existing Land Use

Walnut & 27th Streets

The Wing Ho Supermarket

2636 Walnut Street

Walnut Street

Penbrook Borough

Penbrook Borough's downtown area, centered on Walnut Street, contains residential, retail, and mixed uses. The most prominent area visually of the borough is the intersection of Walnut, Banks, and Canby Streets. This location contains several commercial parcels in addition to the "Abide with Me" bed and breakfast and The Arc, which collectively provide contrast to adjacent land uses.

Residential uses are primarily single-family detached dwellings, with a mix of single-family attached and multi-family units along the roadway. Interspersed among the residential properties is a variety of multi-use retail shops, including an Oriental Foods Store, a deli, and an insurance office. Numerous auto-oriented businesses are located at intersections within the corridor. A few institutional facilities, such as Redeeming Life Christian Fellowship and Grace Church United Methodist, are also present.

The northern portion of Penbrook Borough along Herr Street contains a variety of land uses. The East Harrisburg Cemetery and St. Margaret Mary Church bound the northern side of Herr Street. Several types of residential parcels, including single family detached and attached dwelling types, are interwoven with commercial and vacant properties along the southern side of the roadway.


Near 25th & Walnut Streets

Existing Land Use


Vacant Restaurant


Bob's Tire & Auto Service


Harrisburg Cemetery

Walnut / Jonestown Road

Susquehanna Township (East)

Walnut Street retail commercial uses in Susquehanna Township range from smaller-scale storefronts to auto-oriented businesses and larger retailers near the township's eastern border. West of Penrose Street, a moderate number of single-family detached and attached residential structures remain along the corridor. A concentration of mixed-use properties is located between 34th and 39th Streets. Several vacant residential and commercial parcels are found mostly along the southern side of the corridor. The Progress Fire Company, Home Association, and American Legion are located in this portion of the study area.

Lower Paxton Township

Lower Paxton Township occupies over one-half of the total eight-mile-long study area. This portion of the study area contains commercial uses along the corridor in the form of shopping centers, "big box" retailers, and auto-related commercial uses.

Despite the dominance of retail commercial uses, there are a few cemetery properties. For example, Shoop's Cemetery is a 21-acre parcel adjacent to the I-83 interchange. The interchange itself is a major land use in the western part of Lower Paxton Township, although a few residential uses are located in this area also.

Existing Land Use

Colonial Commons Retail Area


Paxton Towne Centre

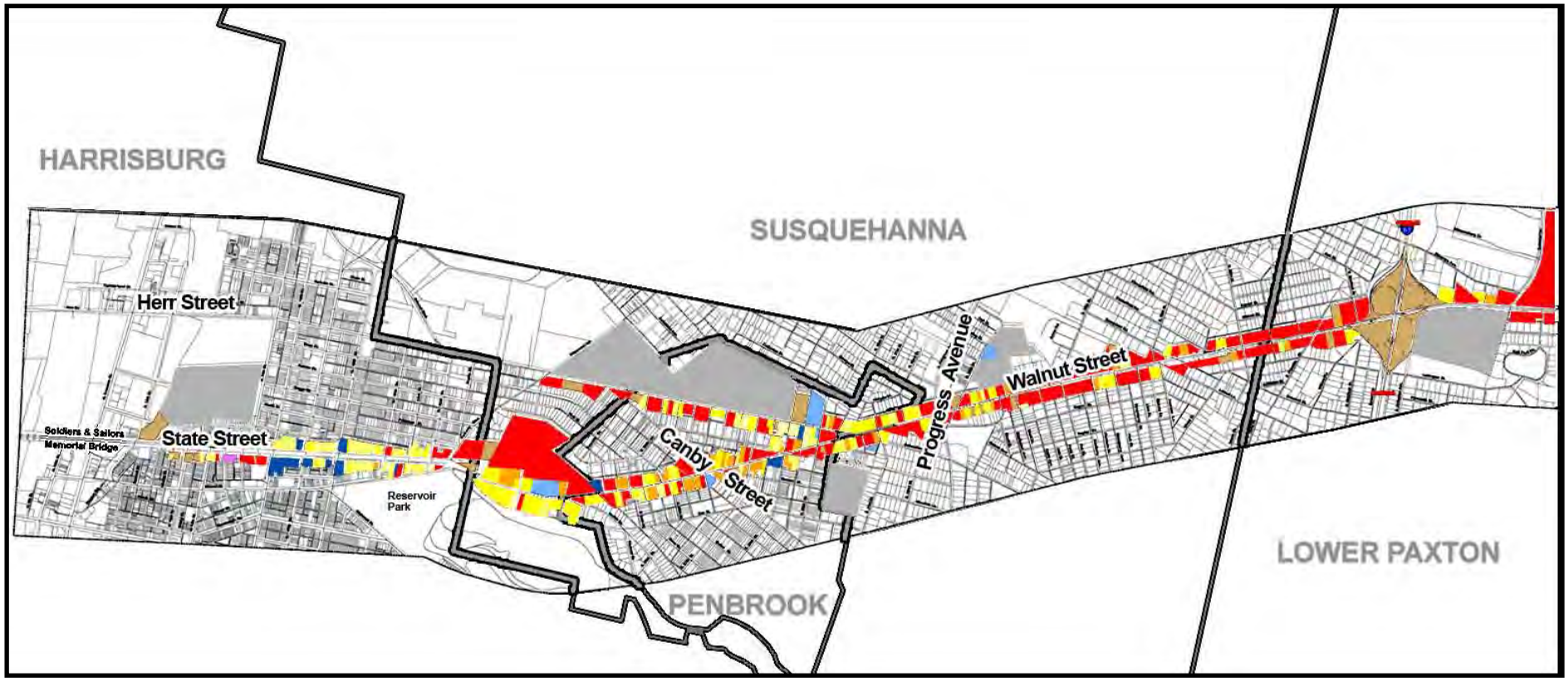

Colonial Park Mall

Allentown Boulevard


Shoop's Cemetery

Large shopping plazas, including K-Mart, Best Buy, Home Depot, and Paxton Towne Centre, dominate the center of the township. Colonial Park Mall is also a large presence in this area. Toward the eastern portion of the township, executive office parks and smaller retail facilities are important land use components.

Existing Land Use



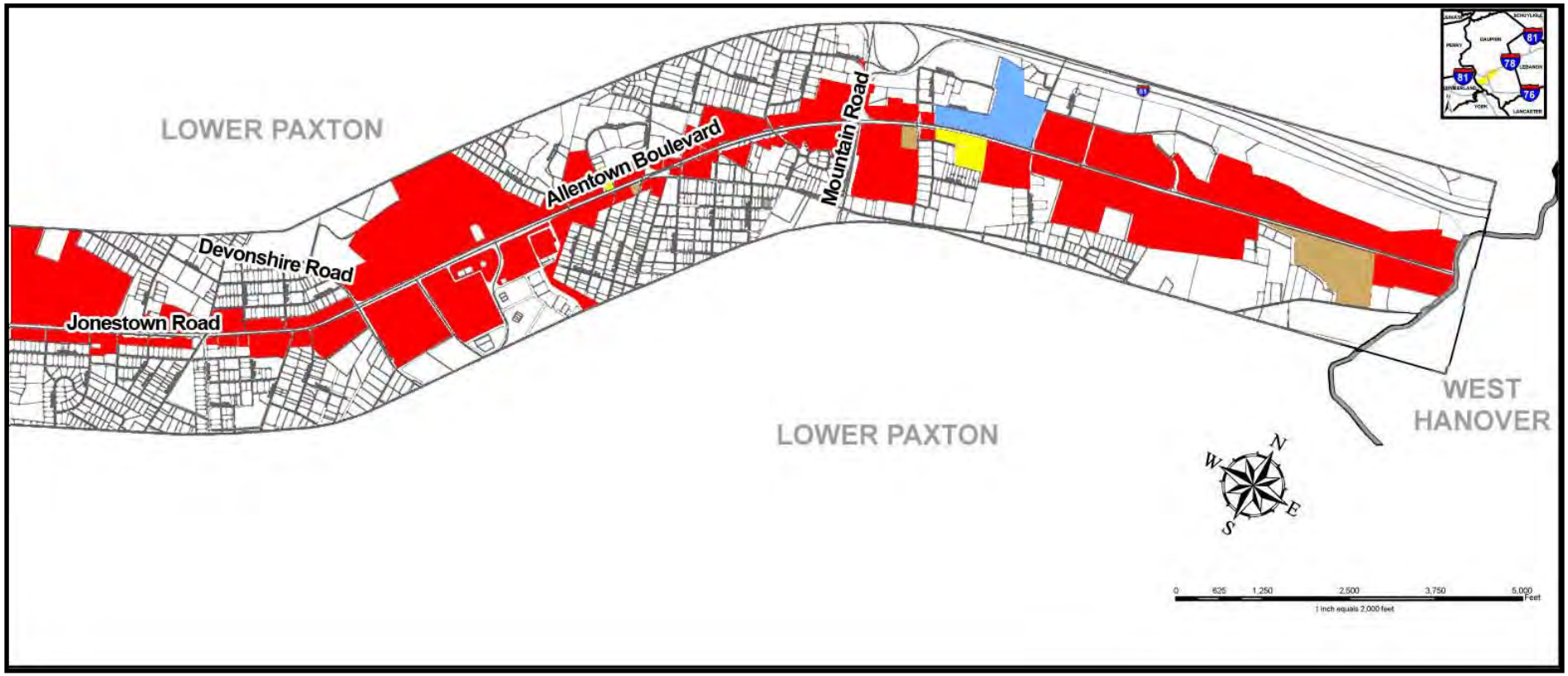

LOWER PAXTON
Allentown Boulevard
Mountain Road
Devonshire Road
Jonestown Road
LOWER PAXTON
WEST HANOVER
N
W
E
S
0
625
1,250
2,500
3,750
5,000
Feet
1 inch equals 2,000 feet

Figure 2.1

VACANT & UNDERUTILIZED LAND

The Vacant and Underutilized Land map (Figure 2.2) illustrates the presence of such parcels throughout the study area. Vacant and underutilized buildings and land can represent potential development or redevelopment opportunities. Relatively small parcels, for example a single house or lot in a row, present opportunities for "infill." In contrast, larger parcels could allow for significant new construction. Most vacant buildings and parcels are relatively small in size, although a few larger parcels are located in the western portion of the study area. Underutilized parcels, which are scattered throughout the corridor, are also small in size. Surface parking, a form of underutilized land, is much more extensive and widespread, particularly in Lower Paxton Township.

City of Harrisburg

The City of Harrisburg contains a few large vacant parcels located near the intersection of State and 13th Streets, including a former gas station and a large overgrown area adjacent to Harrisburg Cemetery. Underutilized and surface parking areas are scattered along the corridor and make up over 900 feet of street frontage. Two vacant buildings are located along State Street at the intersections of 15th and Linn Streets.

Susquehanna Township (West)

Although only two parcels within this portion of the township are underutilized, these are highly visible parcels as they form the gateway into Susquehanna Township from Harrisburg. Several sections of surface parking also front the roadway, including the area in front of Penbrook Plaza, which totals roughly 325 linear feet.


15th & State Streets


13th & State Streets


Corner Lot Parking

State Street

Vacant & Underutilized Land

Penbrook Borough

Penbrook Borough's share of the study area contains several small vacant buildings and multiple areas of surface parking. East of Booser Street, these areas become more prominent. At the junction of Herr and Walnut Streets, one small parcel of surplus right-of-way was created following the roadway realignment.

Susquehanna Township (East)

Susquehanna Township's eastern portion within the study area includes several prominent underutilized parcels, including the parcels adjacent to KFC just west of 39th Street. Surface parking associated with commercial properties is common in this area. The Rite-Aid at the intersection of Walnut and Fox Streets has an extensive paved parking lot. A few vacant parcels exist throughout the corridor as well, although none of these lots are currently slated for development.

Infill potential in Susquehanna Township

Lower Paxton Township

Many corridor-fronting properties are comprised of surface parking in combination with retail commercial uses. Paxton Towne Center, located between Devonshire Road and Carolyn Street, and Colonial Park Mall, located on the northeast corner of Colonial and Jonestown Roads, have the largest representations of underutilized land in the area, with their large parking lots. A few vacant parcels exist with the most visible is located in the eastern portion of the corridor at the intersection of Allentown Boulevard and Mountain Road.

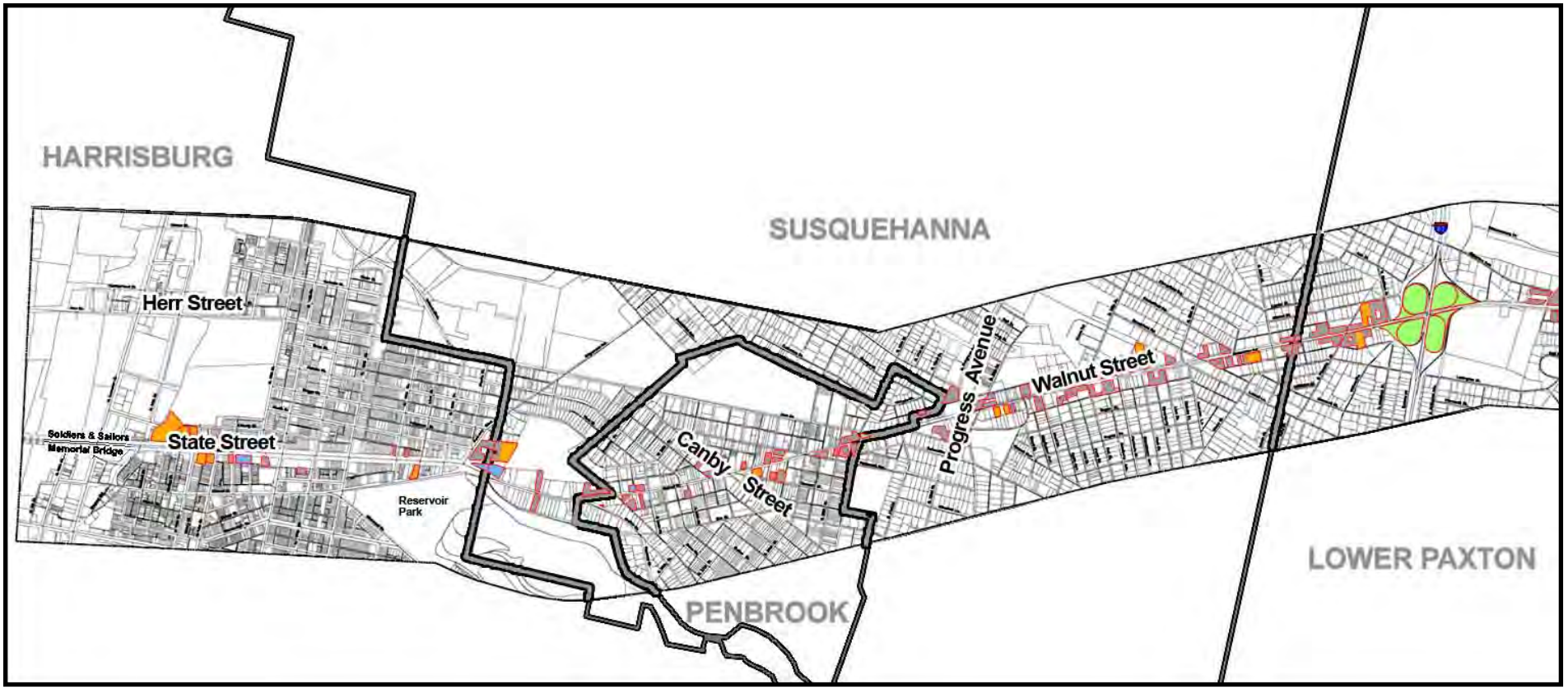
Vacant parking lot, Penbrook Borough

Vacant lot, Susquehanna Township

Colonial Park Mall, Lower Paxton Township

Walnut Street - Allentown Blvd

Vacant & Underutilized Land



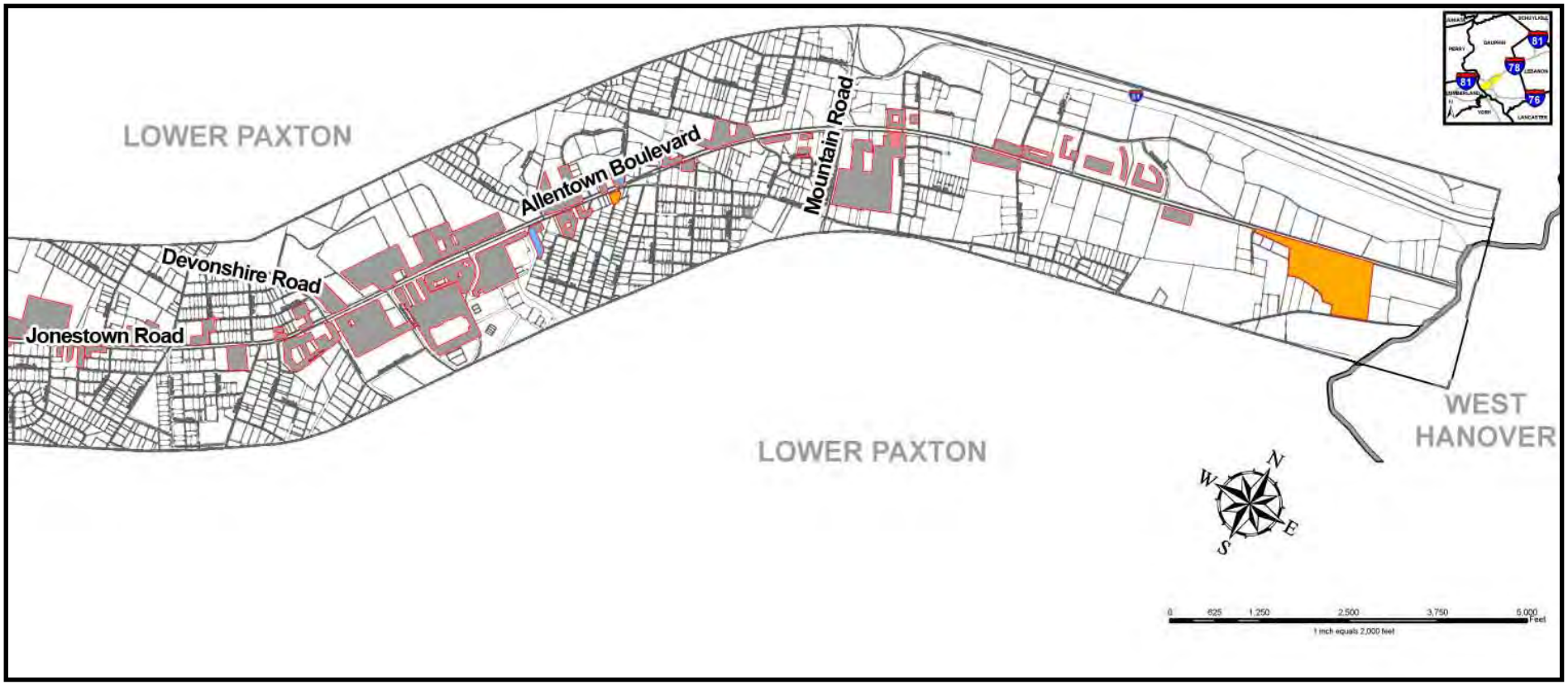

LOWER PAXTON
Allentown Boulevard
Mountain Road
Devonshire Road
Jonestown Road
LOWER PAXTON
WEST HANOVER
N
W
E
S
0 625 1,250 2,500 3,750 5,000 Feet
1 inch equals 2,000 feet

Figure 2.2

BUILDING CONDITIONS

Building conditions in the corridor have been assessed based on exterior visual examinations. Buildings have been categorized as either Good-to-Fair, Fair-to-Poor, or Poor. All structures in the corridor that are in Fair-to-Poor or Poor condition are noted on the Building Conditions map (Figure 2.3).

Between North Cameron Street in Harrisburg, east to the Rt. 22/I-83 interchange, only two properties have been listed in the Poor category. Fifty-seven structures received a Fair-to-Poor rating, while the remaining majority are documented as Good-to-Fair.

Four clusters of Fair-to-Poor properties have been noted in Figure 2.3, all of which are located within the western half of the corridor.

Concentrations of Fair-to-Poor and Poor properties are noted as follows:

City of Harrisburg

1. The northwest and southwest corner of the Linn and State Street intersection.

Penbrook Borough

2. Between Canby and 27th Streets, along both sides of Walnut Street.
3. Between Brooks Alley and the Herr Street split, generally along the south side of Walnut Street.

Susquehanna Township

4. Northeast and southeast corners of North 34th and Walnut Streets, continuing for two blocks along the north side of Walnut Street.

Good-to-Fair: Sound structures that indicate periodic maintenance.

Fair-to-Poor: These are essentially sound structures that have noticeable evidence of erosion along the exterior of the building. Conditions may deteriorate to Poor if remaining unattended for a lengthy period of time. Evidence of Fair-to-Poor conditions includes deteriorated front porches, gutters that are in disrepair, and siding that is no longer intact.

Poor: Structures with interiors that have significant exposure to the outdoor elements. Missing windows and dilapidated rooftops are some of the more common examples. These structures are typically vacant and in some cases have evidence of fire damage.

Building Conditions

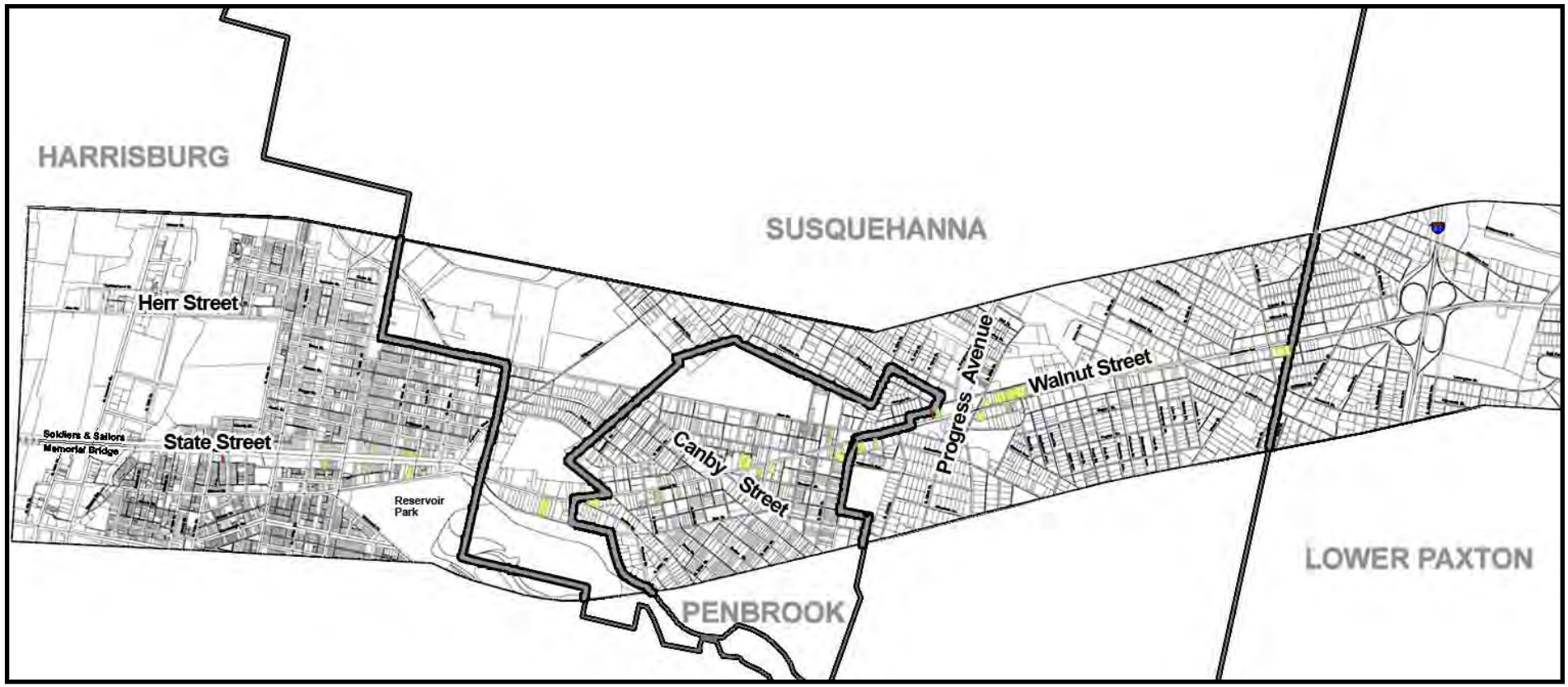


Figure 2.3

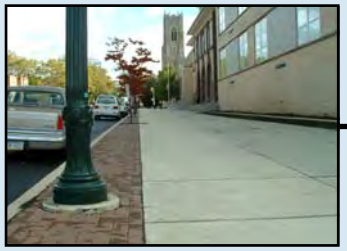
STREETSCAPE CONDITIONS

Streetscape conditions of the corridor have been evaluated primarily based on observed circumstances for pedestrians. Of primary importance is sidewalk status, including pavement width, pavement conditions, and the presence of obstructions. Other criteria include grade changes and the presence of landscaped buffers and street lighting. This information has been documented on the Sidewalk Conditions map (Figure 2.4).

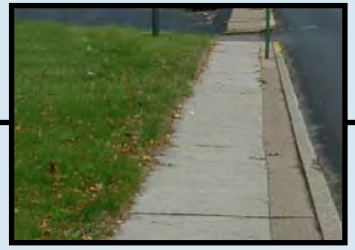
Since the quality of the pedestrian experience may be influenced by other factors, the existence of street trees and street furniture (benches, trash bins, etc.) was also noted. Streetscape conditions are presented on the Sidewalk Conditions map. The span of the observed circumstances range from 13th Street in Harrisburg to Colonial Road in Lower Paxton, and includes Herr Street from Walnut Street to Parkway Drive.

Sidewalk widths are noted as being less than four feet, between four and five feet, and greater than five feet. Sidewalk width data, when combined with pavement conditions and similar information, have allowed the classification of all sections of the corridor relative to conditions for pedestrian movement. The following classifications have been used:

- Good-to-Fair
- Fair-to-Poor
- Poor
- None



Good-to-Fair: Consistent pavement that is a minimum width of five feet, with little to no indication of spalling or cracking. There is a buffer that separates the walkway from the cartway. Outdoor furniture and lighting also exist.



Fair-to-Poor: Intact pavement that is less than five feet in width, with some minor wear and often situated flush with the roadway. Curbs are not necessarily intact.

Poor: Pavement that is less than four feet in width, frequently with patches of infiltrating vegetation. Cracks mixed with debris make the surface unsafe for foot traffic. Curbs are either absent or in a deteriorated condition. Obstructions, such as utility poles and signs, are common.

None: Throughout the corridor, there are several areas missing sidewalks. The largest breaks occur along the East Harrisburg Cemetery on Herr Street in Penbrook Borough and along several portions of the corridor in Lower Paxton Township.

City of Harrisburg

The western-most portion of the study corridor provides the best examples of a Good-to-Fair streetscape. The pavement is greater than five feet in width, in good condition, and joined by consistent lighting and informative signs. A tree-lined landscaped strip along much of the eastern Harrisburg neighborhoods is provided.


State Street

Susquehanna Twp. (West)

Sidewalks generally vary between Poor and None. Curbs are seldom present.


Walnut Street

Penbrook Borough & Susquehanna Twp. (East)

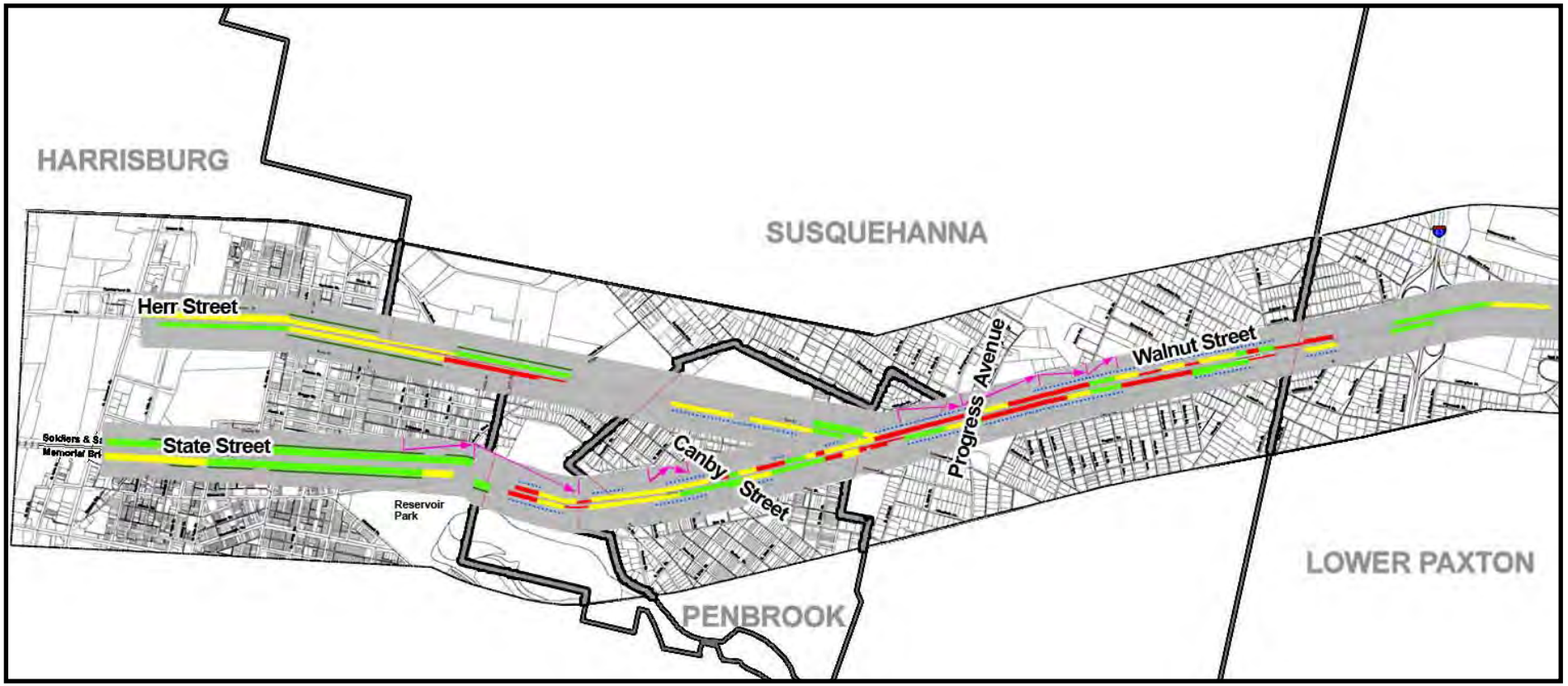
Much of the borough and Susquehanna Township have a streetscape that is consistently Fair-to-Poor. Sidewalk widths are relatively narrow at a four to four-and-a-half-foot width. The pavement is commonly level with asphalt on the street. There are also frequent retaining walls along the property side of the walkway, further constricting passage. A common occurrence is circumstances where signs and poles are placed in the middle of sidewalks.


Near 23rd & Walnut Streets

Lower Paxton Township

In conjunction with its auto-dependent commercial development, Lower Paxton Township presents the largest portion of the corridor without sidewalks. Where sidewalks do exist, their condition is Fair-to-Poor and Good-to-Fair.

Sidewalk Conditions



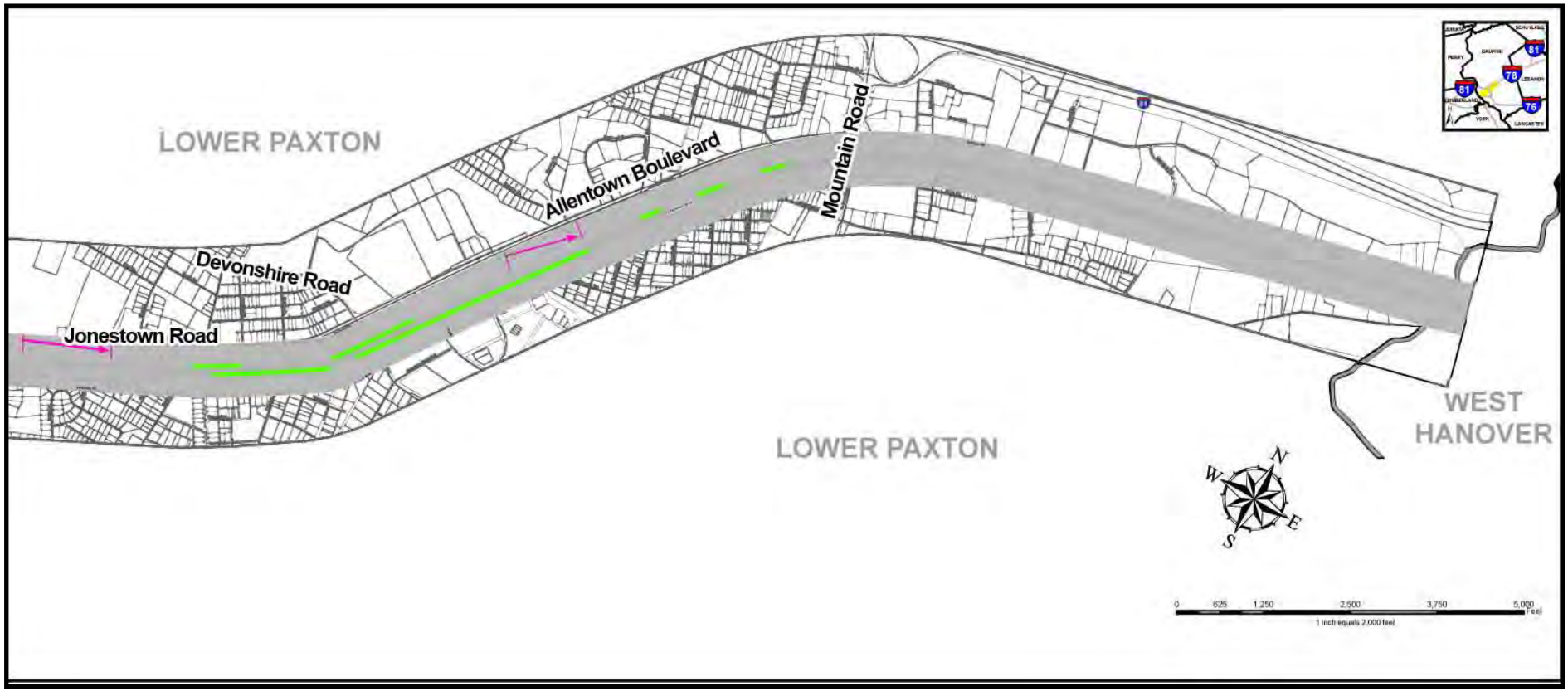

LOWER PAXTON
Allentown Boulevard
Mountain Road
Devonshire Road
Jonestown Road
LOWER PAXTON
WEST HANOVER
N
W
E
S
0 625 1,250 2,500 3,750 5,000 Feet
1 inch equals 2,000 feet

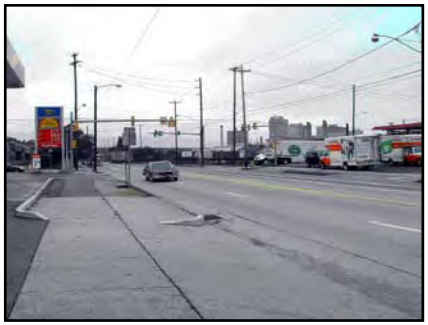
Figure 2.4

PENDING & PROPOSED DEVELOPMENT

Pending and proposed development sites are properties that have some legitimate likelihood of being developed or redeveloped in the next few years. The Pending and Proposed Development map (Figure 2.5) illustrates the location of these parcels along the corridor.

Locations identified as known pending development or redevelopment sites are located solely within Penbrook Borough and Lower Paxton Township.

City of Harrisburg



Cameron Street

The City of Harrisburg Bureau of Planning supports the redevelopment of the privately-owned vacant lots located along the southern side of State Street between 13th and 15th Street, believing that this location could be appropriate for a physical "gateway" element for the city. However, there are currently no actual pending or proposed development or redevelopment plans within the city portion of the Walnut Street corridor.

The Capitol View Commerce Center is approved for construction on a 10.42-acre former steel manufacturing site at Cameron and Herr Streets (1000 North Cameron Street). The site will house the expansion of the the Advanced Communications Agency, Inc., a local printing and bindery operation along with a mix of retail and office space.

Susquehanna Township

There are no pending/proposed development or redevelopment plans within the Walnut Street corridor portion of the township at this time.

Penbrook Borough

Two vacant parcels within the borough are slated for future development. The first property, just west of 27th Street along the southern side of Walnut Street, is currently a parking lot. This parcel was previously subdivided into four lots and is planned as two sets of twins to be known as Penbrook Townhomes.

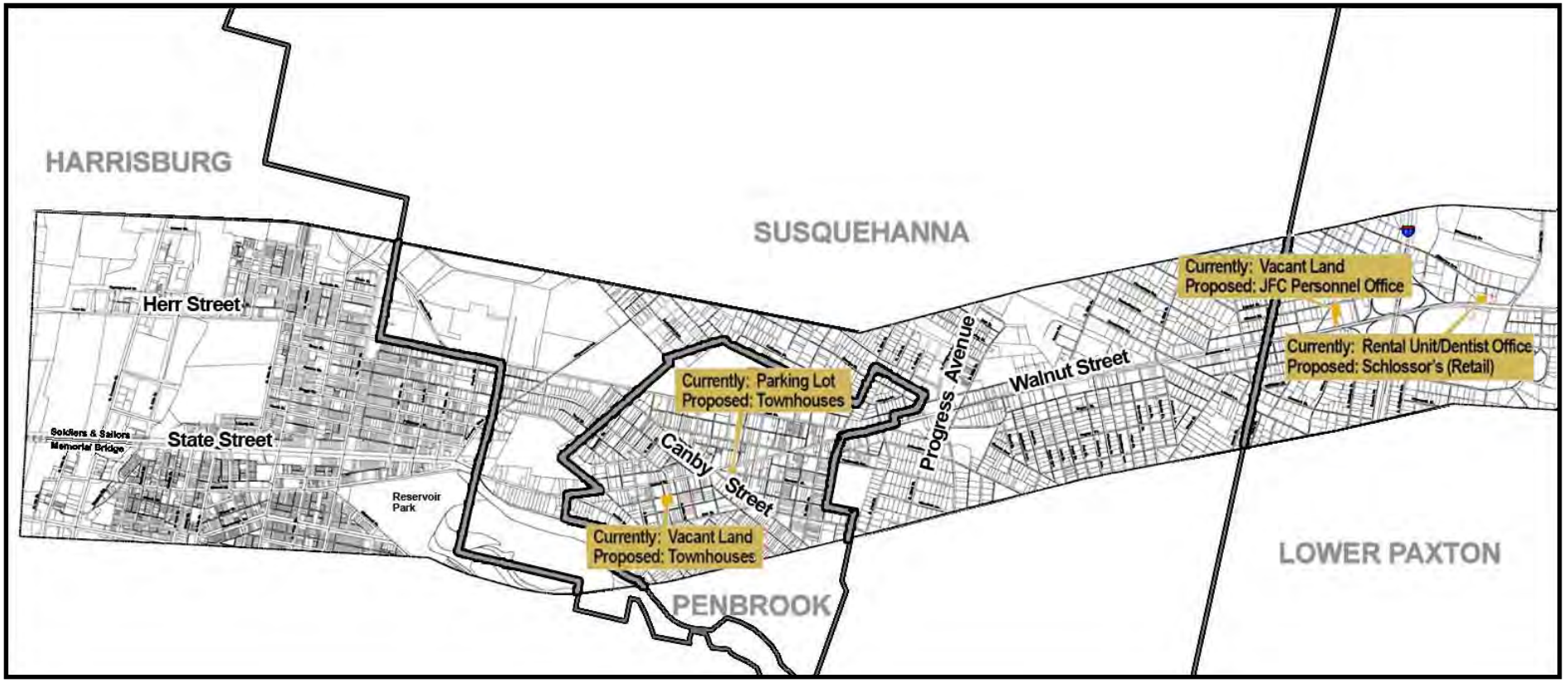
Pending & Proposed Development

The second property, located one block south of Walnut Street, is bounded by 25th, Douglas, and Baker Streets. Although unnamed, this project proposes ten single-family attached dwellings intended for median income families. The parcel is currently undergoing grading; however, a construction plan has not yet been submitted to the borough.

Lower Paxton Township,

At the intersection of North Mountain Road and Allentown Boulevard, a combination restaurant and retail store is proposed at this former restaurant location. A small retail store, potentially a jewelry store, is planned for a lot at South Lockwillow Avenue. The latter site was previously a restaurant and the former had three single-family residences.

Pending & Proposed Development



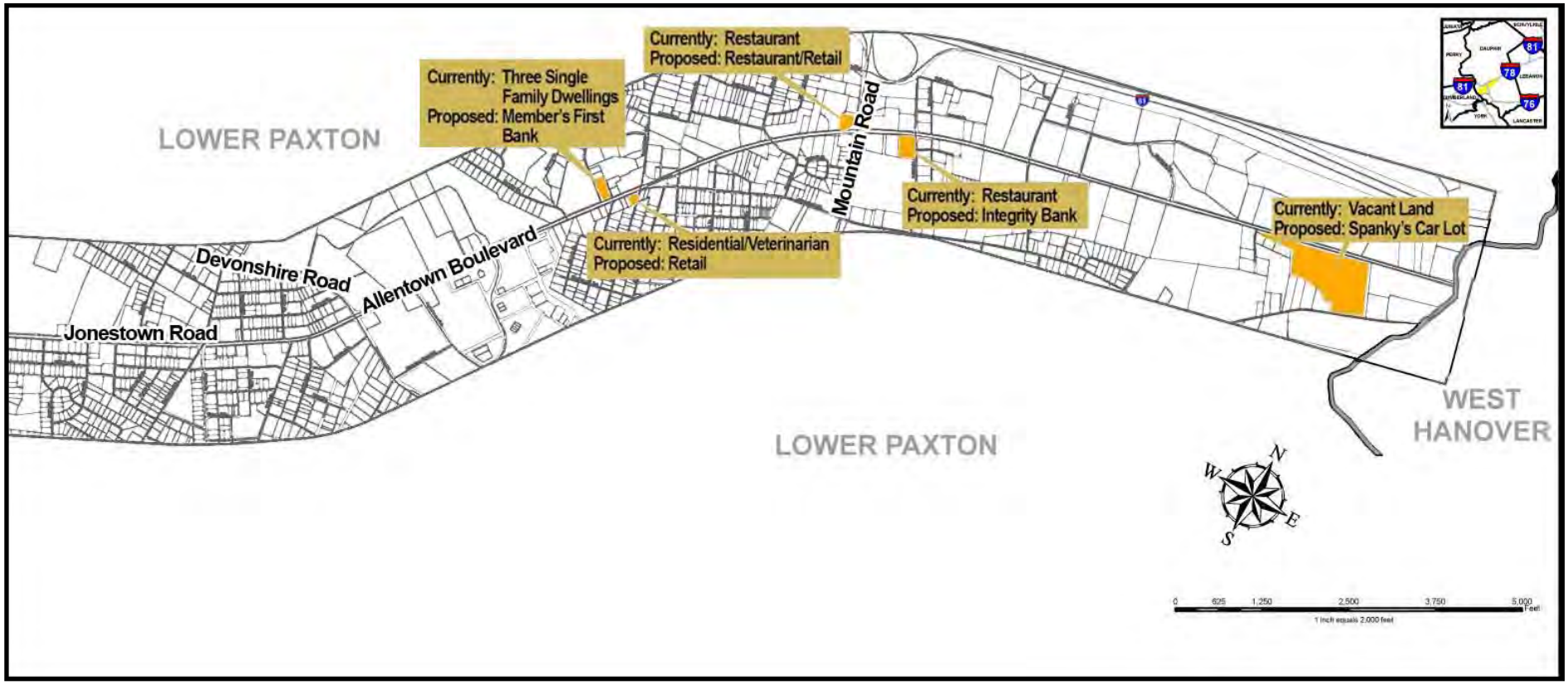

Currently: Three Single Family Dwellings
Proposed: Member's First Bank
Currently: Restaurant
Proposed: Restaurant/Retail
Currently: Residential/Veterinarian
Proposed: Retail
Currently: Restaurant
Proposed: Integrity Bank
Currently: Vacant Land
Proposed: Spanky's Car Lot
LOWER PAXTON
Devonshire Road
Allentown Boulevard
Jonestown Road
Mountain Road
LOWER PAXTON
WEST HANOVER
N
W
E
S
0 625 1,250 2,500 3,750 5,000 Feet
1 inch equals 2,000 feet

Figure 2.5

EXISTING MARKET ANALYSIS

In this market analysis, the focus has been on estimating the level of market support, generally for commercial and residential uses in the Walnut Street Corridor for the next ten to fifteen years. At the same time, locations within the corridor most appropriate for certain kinds of uses have also been identified.

Office

For-Lease Space

Since 1996, the overall metropolitan Harrisburg office market has averaged a net absorption of approximately 135,000 square feet per year, according to data tracked by Landmark Commercial Realty, Inc. These data exclude medical and government office buildings, owner-occupied properties, and single-tenant buildings not routinely offered for lease. Forecasts indicate a stable market and employment outlook; thus it is assumed that this level of absorption will remain relatively constant during the planning period.

The East Shore submarket, within which the Walnut Street Corridor is located, represents nearly 32 percent of the total metropolitan inventory. Assuming that the East Shore can capture a pro rate share of net absorption, and that the Walnut Street corridor captures approximately one third of the East Shore figure, then the Corridor could support between 150,000 and 225,000 square feet of new multi-tenant for-lease office space over the planning period.

Government users and build-to-suit projects could potentially push this figure higher. For planning purposes, a for-lease office demand range of between 250,000 and 350,000 square feet over a ten-to-fifteen-year period would be appropriate.

Office Condominiums

Likely locations for for-lease office space include areas in close proximity to interstate highway interchanges or with strong links to the downtown office core. Areas of the corridor with these characteristics include the area around Herr and Cameron Streets as well as sites along Route 22 in Lower Paxton.

Because office condominiums are rare in this market, they will likely be marketable in most parts of the corridor with the first project to come to market capturing pent-up demand.

Existing Market Analysis

Retail

A small-scale development may be appropriate in Penbrook as part of a mixed-use project. The area immediately west of the Route 22/I-83 interchange would also be an appropriate location. Good visibility and accessibility from Route 22 as well as adequate parking would be essential to the success of this type of office development.

Because individual businesses and professionals are committing to ownership of these units, the nature of surrounding land uses is an important consideration. For example, sites within close proximity to the adult uses near the border of Lower Paxton and Susquehanna Township would not be appropriate for office condominium development. Office condominium units typically range from 500 to 2,000 square feet and serve small service industry businesses and professional tenants.

The concentration of retail space from Colonial Park Mall to Paxton Towne Centre has created a gravity effect that will continue to attract national chain retailers throughout the planning time horizon. Those sites within close proximity to I-81 or I-83 interchanges that offer sufficient acreage to meet the needs of today's larger store footprints will be of interest to retail developers.

As a result of competition from the western portion of the corridor, Downtown Harrisburg and shopping centers at interchanges of I-83, the retail prospects for sites in Penbrook and Allison Hill are more limited. Demand generators for these areas include:

- Convenience needs of the population within a one-to two-mile radius;
- The substantial automobile traffic passing by these locations (22,000 to 36,000 average daily traffic counts); and
- Visitors to the area including Civil War Museum attendees and users of Reservoir Park.

Together the high commuter traffic counts passing by visible sites and the attractions that bring visitors to this part of the corridor from outside the surrounding neighborhood open up the possibility of establishing "destination" tenants that draw patrons from outside the immediate Penbrook and Allison Hill vicinity.

Consumer expenditure and sales data for 2005 for one- and two-mile radius trade areas around the following intersections have been examined:

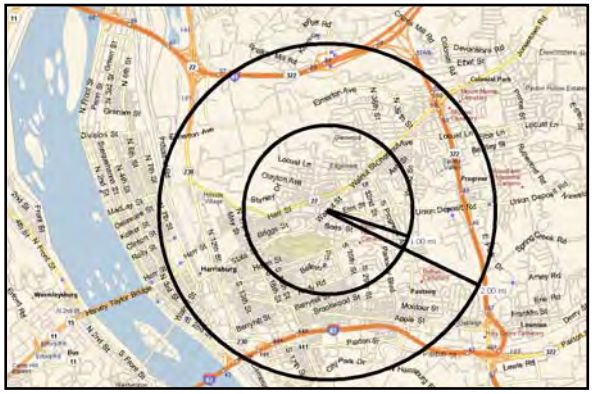
- Walnut and Canby Streets in Penbrook
- State Street and Parkway Drive in Harrisburg

Existing Market Analysis

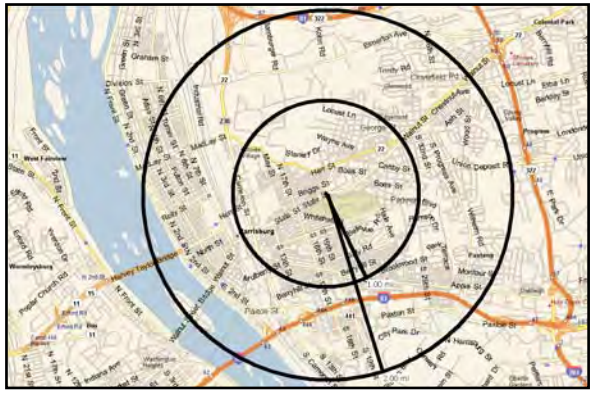
The maps on the following page show the area covered by each radius. The data are presented in Tables A.1 and A.2 (See Appendix A -1 & A - 2). The "expenditure" column shows consumer spending potential by category generated by residents of the trade area. The "sales" column shows estimated sales by category for establishments located within the trade area. For categories where sales exceed expenditures in the trade area, the net spending potential is shown in red. These cases reflect the impact of spending in trade area stores that is drawn in from a wider area. In many cases, this suggests that trade area demand has been met.

Conversely, those categories showing positive net consumer spending potential -- shown in black -- represent a starting point for evaluating retail opportunities.

In interpreting these data, care must be taken to match trade areas with store types. In other words, while the one-mile trade area shows net demand for clothing stores,



1- and 2-mile rings around Walnut and Canby Streets in Penbrook



1- and 2-mile rings around State Street and Parkway Drive in Harrisburg

Existing Market Analysis

it is typical for shoppers to travel up to five or more miles to shop for clothes. The presence of a significant number of clothing stores in the corridor east of I-83, in downtown Harrisburg and at Susquehanna Marketplace suggests that this need is being met.

The data suggest potential for the following types of retail establishments in Penbrook and Allison Hill along with typical sizes.

- Pharmacy/drug store (11,000 to 13,000 SF)
- Specialty food stores (cheese shops, seafood, ethnic delicatessen, etc.) (1,000 to 3,000 SF)
- Restaurant/cafes: This could include a full-service restaurant near the park as well as BYOB establishments in Penbrook. A bakery café or food service related to a specialty food store would also be appropriate. (Up to 7,500 SF for a full- service restaurant; 1,500 to 3,000 SF for café/BYOB establishments)

Although the data in some cases show negative consumer spending potential for restaurants, this is because of restaurant sales in downtown Harrisburg being figured into the analysis. Restaurants can be destination driven, with demand affected by word-of-mouth and visibility. A restaurant near the park, if positioned correctly, could serve both as a destination location as well as serving the local area. A BYOB restaurant located in Penbrook could serve the surrounding neighborhoods, but still be visible to passing motorists. Depending on the side of the street and the ease of proximate parking, the needs of commuters coming into town (coffee, baked goods, prepared lunch foods) and out of town (prepared foods for dinner, specialty groceries) could be met. The provision of convenient off-street parking is critical to the success of any retail/restaurant enterprises. For establishments that target commuters, the parking access must be visible and immediately accessible to the store.

Ensuring the visibility of businesses to the substantial traffic flow on Walnut Street will be critical to attracting tenant interest. Diverting traffic onto Herr Street would alleviate congestion on Walnut Street in Penbrook, but would limit opportunities to encourage additional commercial establishments in the borough. At the same time, it is important to consider that the level of demand for new establishments in Penbrook may not justify substantial engineering to create adequate storefront and sidewalk depth along Walnut Street throughout the borough solely to encourage commercial development. Because the intersection of Walnut and Canby Streets has been improved with some attractive building renovations (the ARC building and Abide with Me Bed & Breakfast) it would be appropriate to focus redevelopment in this area.

Existing Market Analysis

Residential

Penbook has an opportunity to focus on strengthening residential neighborhoods as a primary community redevelopment strategy. The Borough offers affordable, attractive, well-maintained neighborhoods with excellent proximity to Harrisburg and East Shore suburban employment centers, Reservoir Park and developing the Capital Area Greenbelt. A focus on neighborhood preservation and enhancement (including aggressive measures to prevent illegal conversion of single-family homes to multi-family rental use) as well as marketing efforts to raise awareness of Penbrook as a "good place to live" will create a climate where small businesses and restaurant operators will want to be.

While outside of the scope of this analysis, it is reasonable to assume that additional residential development in the corridor would enhance the overall health of commercial enterprises along Route 22. Demographic projections suggest that household growth and replacement demand could result in demand for between 200 and 250 additional housing units annually in the corridor communities. If tenure patterns remain constant, between 30 and 40 percent of new units could be expected to be rental units while the remainder would be targeted to homeownership. Residential development would be appropriate throughout the corridor, with rental development perhaps more marketable as part of mixed-use structures. Continuing to strengthen the corridor's residential base, and particularly the homeownership base in the western portion, will create a built-in market for retail and service establishments.

New residential construction provides both a captive market of patrons for local businesses but also, as in this case, provides additional off-street parking capacity for shoppers.

Existing Market Analysis

Mixed-Use

Throughout the United States, successful mixed-use projects are being developed in "infill" locations. Demographic trends supporting this include the transformation of the Baby Boom generation to empty-nester status and the entry of Generation Y (including persons ages 12 to 27) into the housing market and workforce. Both groups are looking for low-maintenance housing with convenient proximity to shopping, employment, and entertainment. Traffic congestion in metropolitan areas has led workers of all ages to appreciate employment locations with easy access to shopping and dining. The integration of new development and redevelopment opportunities along the Walnut Street Corridor into mixed-use projects should be explored to maximize both their impact on the corridor overall and the ability of individual components to capture potential demand over the planning period.

Commercial mixed-use (office above retail)

Residential dwelling units above retail space

TRANSIT

Public transportation comprises an important component of the mobility system within the study area. Public transit provides the only mode of travel within and beyond the corridor for many riders who do not own cars. For those with automobiles, the convenience and economy of public transportation encourages its use. Although transit is no longer a primary mode of transportation, it can influence development patterns and land use decisions and assure the economic vitality of the area. This section presents a description of the existing transit system in terms of the service available to residents, employees, and other users. It also provides a summary of current ridership levels of these services and ongoing planning efforts.

Service Description

The Cumberland-Dauphin-Harrisburg Transit Authority, also known as Capital Area Transit (CAT), is the Harrisburg metropolitan region's provider of mass transportation services including CAT bus service and other transit services. While the study area is serviced solely by CAT buses, the Harrisburg Transportation Center provides connections to other transit services including Amtrak and Capitol Trailways. As shown on the Transit map (Figure 2.6), numerous bus routes are located along the corridor and within the study are. A description of the various routes is presented in Table 2.1 and noted on Figure 2.6.

Four CAT bus routes provide transportation to the study area municipalities and all routes connect to the CAT Market Square Center. Route12 services the entire corridor from Harrisburg to Lower Paxton via State Street, Walnut Street, and Jonestown Road. Within Lower Paxton Township, this route connects to area shopping centers located on and off the corridor. Route 12 utilizes portions of Old Jonestown Road, Allentown Boulevard, Flank Drive, Lockwillow Avenue, and Mountain Road to promote service to neighborhoods adjacent to the main roadway. Park-and-ride lots located at Colonial Park Mall, K-mart, and North Mountain Road support use of this route.

Colonial Park Mall Park-and-Ride

Route 12 follows the corridor from Harrisburg to the intersection of Walnut and 38th Streets in Susquehanna Township. It then travels eastward into Lower Paxton Township along Locust Lane and proceeds outside the study area. Route 16 also follows the corridor beginning in Harrisburg and reaching the intersection of Walnut and Canby Streets. Here, the route runs eastward through Penbrook Borough and Susquehanna Township. A limited portion of Route 18 is within the study area, operating on Herr Street near Parkway Boulevard to Edgemont Road, on its Whisperwoods

extension, on Locust Lane, joining Progress Avenue about a block from the Progress Avenue/Walnut Street intersection.

Level of Service

A major determinant as to whether people ride public transportation is the frequency of service, which influences wait and transfer times. In the study area, the interval between vehicles is a function of both demand levels to eliminate overcrowding and policy considerations to limit waiting times. It should be noted that CAT buses do not operate at all on Sundays or on major holidays.

The frequency of service was measured in terms of headways, or the interval between transit vehicles, in minutes (Table 2.2). Values were computed for three operating periods during a weekday since ridership levels vary considerably. On weekends, ridership levels are generally more uniform, although some differences are noted. Accordingly, headways were determined for the midday period to indicate the relative frequency of service. The interval between buses differs within each operating period and along difference segments of a route, thus the headways shown below are representative times.

Another important measure of the level of service is when service is available to riders for the trips they make. The span of service was computed from the first departure to the last arrival at a location representative of the study area. Separate start and end times were computed for weekdays and Saturdays. Typically, there is a correlation between frequency and span. Routes with the most frequent service often have the longest span of service; the converse is also true.

Table 2.1
Bus Service Description

Route	Between	And
12 Colonial Park/ Colonial Commons/ Gateway/Linglestown	Market Square Transfer Center	Linglestown Square
16 Union Deposit/ Pennswood	Market Square Transfer Center	Pennswood Apartments
18 Glenside	Market Square Transfer Center	Whisperwood Apartments

Table 2.2
Frequency of Bus Service *(Headways in Minutes)*

Route	Weekday			Weekend
	Peak	Midday	Evening	Saturday
12	25	40	15	40
16	60	No Service	60	No Service
18	30	90	30	85

The duration of service reflects ridership levels, which are used to schedule transit service. Within the study area, a direct relation appears evident. The most popular routes operate the entire day with no gaps in service, while less popular routes operate only a few times and do not operate on weekends. The representative times of when service is available is shown in Table 2.3.

The fares charged to CAT riders vary by distance traveled and whether the trip requires a transfer. A base fare of $1.50 is charged for adults traveling within Zone 1, which includes all locations within a nine-mile radius of downtown Harrisburg. An additional fare of $0.35 per zone is applicable for longer trips into Zones 2, 3, and 4. All stops within the study area are located in Zone 1. Riders are offered discounted monthly passes ($40.00) and multiple ride tickets ($15.00 for 11 and $30.00 for 25). A transfer charge of $0.25 is required when more a passenger changes from one bus to another.

Ridership

The current utilization of the bus service along the Walnut and Herr Street corridors was obtained from CAT. Ridership along these routes is oriented to travel between residential areas and downtown Harrisburg, as well as the commercial districts of Susquehanna, Penbrook, and Lower Paxton. At this time CAT does not routinely count passenger boarding and alighting for individual stops; however, annual and average daily ridership levels are presented in Table 2.6.

Route 12, which has the most extensive coverage in the study area, also has the largest number of riders. More than twenty thousand riders annually are provided service along the corridor. This route serves

Table 2.3
Span of Bus Service

Route	Weekday		Weekend	
	Start	End	Start	End
12	5:29 AM	8:52 PM	6:46 AM	9:20 PM
16	6:59 AM	5:30 PM	No Service	No Service
18	6:23 AM	5:56 PM	9:06 AM	4:10 PM

Table 2.4
Walnut & Herr Streets
Bus Ridership by Route

Route	Annual Riders	Daily Riders
12	289,752	1036
16	18,736	74
18	40,186	149

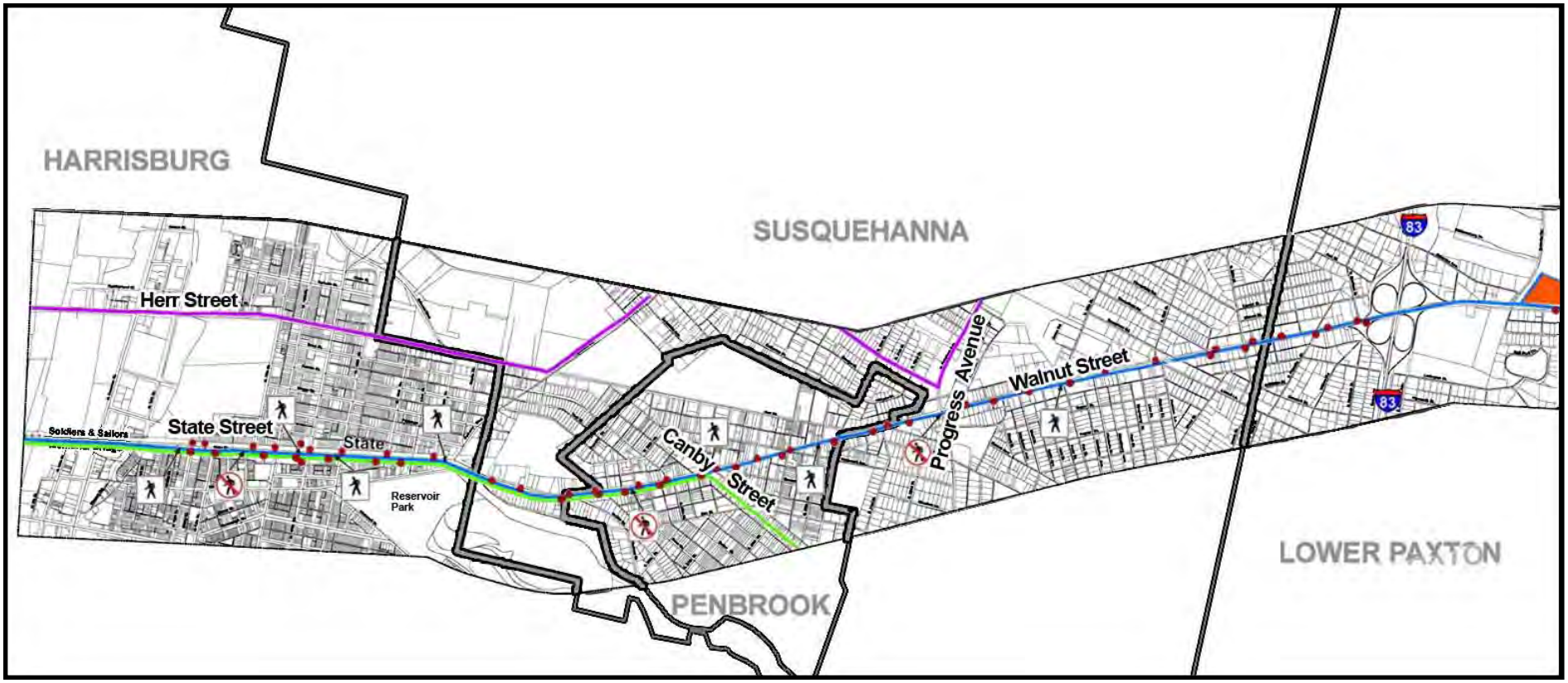
Source: Capital Area Transit, December 2006

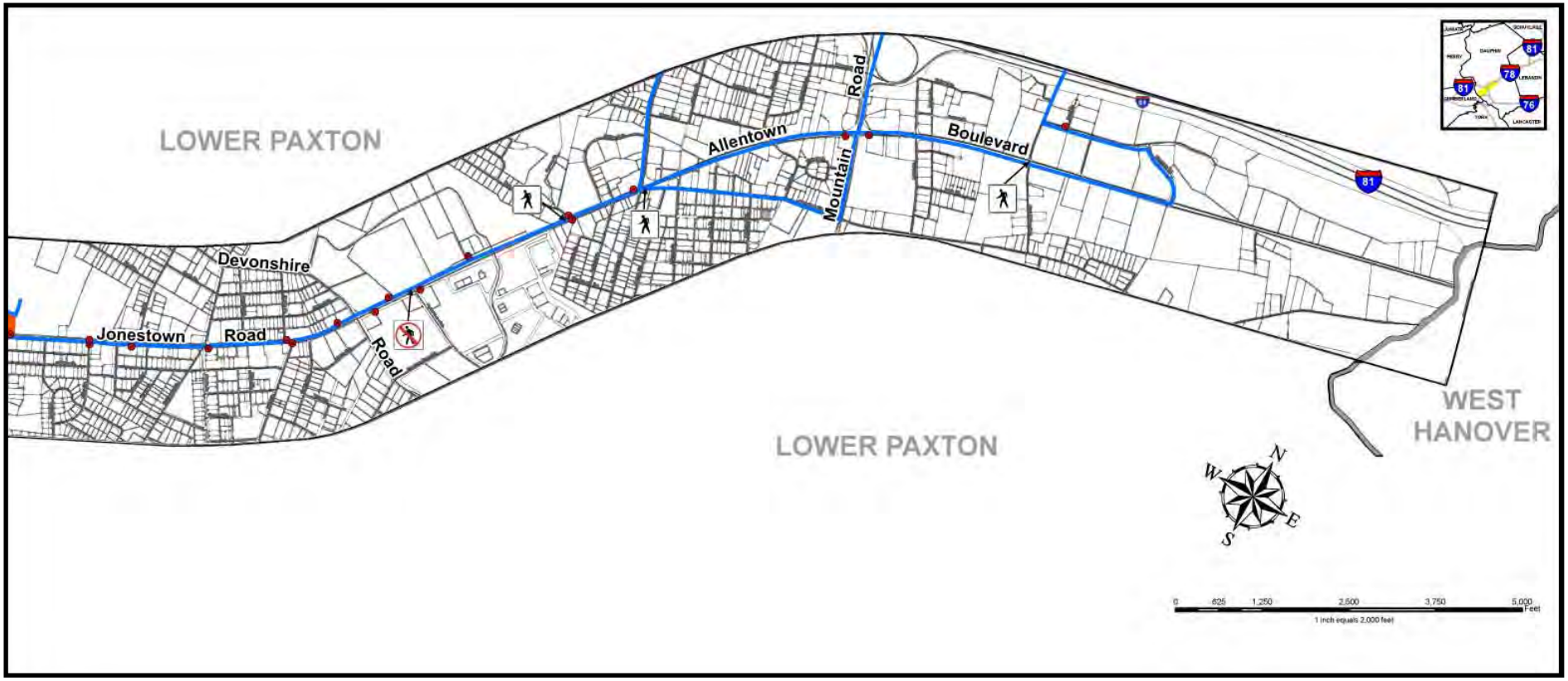
Proposals

the Paxton Towne Center and Colonial Park Mall, which are major generators in Lower Paxton Township.The other routes are primarily oriented to roadways intersecting Walnut Street, but provide access to residents, jobs, and other generators along the corridor. Annually, these routes service between 18,736 and 40,186 riders, with daily ridership levels ranging from 74 to 1,036.

As part of the current analysis, discussions were held with CAT staff. At this time, there are no plans to make major adjustments to the bus routes or service schedules. However, route additions to the overall system improvements to the overall system are under consideration as the transit authority has received funding for Congestion Management Air Quality studies (CMAQ) -- based service initiatives.

Transit Service




LOWER PAXTON
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Jonestown
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1,250
2,500
3,750
5,000
Feet
1 inch equals 2,000 feet

Figure 2.6

TRAFFIC & ROADWAY

This section reviews the existing traffic volumes, intersection level of services, and identified roadway jurisdiction and classification of the Walnut Street Corridor study area. Intersections studied are listed in the following table.

A roadway network description for the entire study corridor, existing traffic volumes, and a parking survey for the Borough of Penbrook may be found in the Appendix.

Study Intersections		
Intersection Numbers	North / South Streets	East / West Streets
1	N. 7th Street	Herr Street
2	Cameron Street	Herr Street
3	Edgemont Road/Parkway Drive	Herr Street
4	N. 13th Street	State Street
5	N. 15th Street	State Street
6	N. 17th Street	State Street
7	N. 18th Street	State Street
8	Parkway Drive/Civil War Drive	State Street
9	Canby Street	Walnut Street
10	S. 28th Street	Walnut Street
11	Herr/30th Streets	Walnut Street
12	Progress Avenue	Walnut Street/Jonestown Road
13	N. 17th Street	Herr Street
14	Arsenal Blvd.	Herr Street

Table 2.5

Existing Traffic Volumes

Turning movement counts at each of the study intersections were conducted for the AM and PM time periods on weekdays during the week of October 25, 2005 through the week of November 7, 2005 from 6:30AM to 9:30AM and from 3:00PM to 6:00PM.

Turning movement counts for Herr Street & Arsenal Boulevard and Herr Street & North Seventeenth Street were obtained from the City of Harrisburg's Seventeenth Street signals upgrade project. The counts were conducted on March 3, 2004 and January 7, 2004, respectively. The counts were then grown at a rate of 1.4%, in accordance with the 2004 PENNDOT Traffic Statistics, to the existing year 2005.

Capacity Analysis

Capacity analysis, as defined by the Highway Capacity Manual 2, is a set of procedures used to estimate the traffic-carrying ability of a facility over a range of defined operational conditions. The capacity analysis uses Levels of Service (LOS) to describe the operational conditions. Levels of Service are assigned letter designations "A" through "F," with "A" being the most desirable operating conditions. A Level of Service "E" is considered to be at or near capacity, while a Level of Service "D" is generally considered acceptable in an urban environment. The LOS criteria for signalized intersections are given in Table 2.6.

For signalized intersections, the level of service measures the average control delay time per vehicle. Also, the volume to capacity ratio, which is a ratio of the peak hour traffic volumes for a facility to the theoretical maximum traffic volume the facility can handle, relates to the level of service of a facility.

Capacity analysis at each of the study intersections were performed using Synchro software. The analysis were conducted based on the existing traffic volumes, intersection controls, and geometrics for the AM and PM peak hours. Table 2.7 provides a summary of the AM and PM peak hour existing levels of service at the study intersections.

Table 2.6

Signalized Intersections – LOS Criteria	
Average Control Delay (sec/veh)	Level of Service
< 10	A
> 10 and < 20	B
> 20 and < 35	C
> 35 and < 55	D
> 55 and < 80	E
> 80	F

Table 2.7

Existing Conditions Level of Service Summary				
Intersection	*Approach*	*Movement*	*Existing Conditions*	
			AM	*PM*
Herr Street & Seventh Street				
Herr Street	Westbound	Left	C	D
		Through-Right	B	C
Seventh Street	Northbound	Left	C	C
		Through	C	C
		Right	A	A
	Southbound	Left	C	B
		Through-Right	B	B
OVERALL			C	C

EXISTING CONDITIONS LEVEL OF SERVICE SUMMARY (CONT'D.)				
Herr Street & Cameron Street				
Herr Street	Eastbound	Left	E	F (80.9)
		Through-Right	D	F (126.0)
	Westbound	Left	D	F (85.0)
		Through-Right	F (87.7)	F (95.3)
Cameron Street	Northbound	Left	F (197.7)	D
		Through-Right	D	D
	Southbound	Left	D	D
		Through-Right	F (108.1)	D
OVERALL			F (87.4)	E
Herr Street & Parkway Drive/Edgemont Road				
Herr Street	Eastbound	Left	A	A
		Through-Right	A	B
	Westbound	Left	A	A
		Through-Right	B	A
Parkway Drive	Northbound	Left-Through-Right	C	C
Edgemont Road	Southbound	Left-Through-Right	C	C
OVERALL			B	B
State Street & Thirteenth Street				
State Street	Eastbound	Through-Right	B	C
	Westbound	Left	A	D
		Through-Right	C	B
Thirteenth Street	Northbound	Left-Through-Right	E	F (237.0)
	Southbound	Left-Through-Right	D	E
OVERALL			C	D
(99.9) – Delay in second/vehicle				
INTERSECTION	***Approach***	***MOVEMENT***	***EXISTING*** *AM*	*PM*
State Street & Fifteenth Street				
State Street	Eastbound	Left	B	A
		Through-Right	A	A
	Westbound	Through-Right	A	A
Fifteenth Street	Southbound	Left-Through-Right	D	D
OVERALL			A	A

State Street & Seventeenth Street				
State Street	Eastbound	Left	B	A
		Through-Right	B	B
	Westbound	Left	A	C
		Through-Right	C	B
Seventeenth Street	Northbound	Left-Through-Right	E	F (113.4)
	Southbound	Left-Through-Right	C	D
OVERALL			C	C
State Street & Eighteenth Street				
State Street	Eastbound	Left	A	A
		Through-Right	A	A
	Westbound	Through-Right	B	A
Eighteenth Street	Northbound	Left-Through-Right	D	D
OVERALL			B	A
State Street/Walnut Street & Parkway Drive/Civil War Museum				
State Street	Eastbound	Left	B	A
		Through-Right	B	A
Walnut Street	Westbound	Left	A	B
		Through-Right	B	B
Civil War Museum Drive	Northbound	Left-Through-Right	D	D
Parkway Drive	Southbound	Left-Through	D	D
		Right	D	D
State Street Extension	Southwestbound	Left-Through-Right	D	E
OVERALL			B	B
(99.9) = Delay in second/vehicle				
Walnut Street & Canby Street/Banks Street				
Walnut Street	Eastbound	Left-Through-Right	B	C
	Westbound	Left-Through-Right	B	B
Canby Street	Northwestbound	Left-Through-Right	E	F (226.2)
	Southbound	Left-Through	D	D
	Southbound	Through-Right	E	E
OVERALL			C	E

Walnut Street & Twenty-Eighth Street				
Walnut Street	Eastbound	Left-Through-Right	A	A
	Westbound	Left-Through-Right	A	C
Twenty-Eighth Street	Northbound	Left-Through-Right	F (154.6)	E
	Southbound	Left-Through-Right	D	D
OVERALL			C	C
Walnut Street & Thirtieth Street/Herr Street				
Walnut Street	Eastbound	Left-Through	B	D
	Westbound	Through	A	C
Thirtieth Street	Northbound	Left-Through-Right	E	E
Herr Street	Southbound	Left	E	E
		Right	A	C
OVERALL			B	D
Walnut Street/Jonestown Road & Progress Avenue				
Walnut Street	Eastbound	Left-Through-Right	D	F (529.0)
Jonestown Road	Westbound	Left-Through-Right	E	F (109.9)
Progress Avenue	Northbound	Left	D	C
		Through-Right	D	D
	Southbound	Left	C	D
		Through	E	E
		Right	D	C
OVERALL			E	F (236.1)
(99.9) = Delay in second/vehicle				
Herr Street & Seventeenth Street				
Herr Street	Eastbound	Left-Through-Right	B	B
	Westbound	Left-Through-Right	B	B
Seventeenth Street	Northbound	Left-Through-Right	B	B
	Southbound	Left-Through-Right	B	B
OVERALL			B	B
Herr Street & Arsenal Boulevard				
Herr Street	Eastbound	Through	B	C
	Westbound	Through	C	B
		Right	A	A
Arsenal Boulevard	Southbound	Left	A	A
OVERALL			B	B
(99.9) = Delay in second/vehicle				

Continued

Existing Deficiencies

At the intersection of Herr Street and Cameron Street, the eastbound left operates at a LOS E in the AM peak hour and an undesirable level of service in the PM peak hour. The eastbound through-right movement operates at an undesirable level of service in the PM peak hour. The westbound left movement operates at an undesirable level of service in the PM peak hour. The westbound through-right operates at an undesirable level of service in the AM peak hour and an undesirable level of service in the PM peak hour. The northbound left operates at an undesirable level of service in the AM peak hour. The southbound through-right movement operates at an undesirable level of service in the AM peak hour. The intersection operates at an overall undesirable level of service in the AM peak hour and a LOS E in the PM peak hour.

The operating conditions at this intersection are deficient. The eastbound queuing on Herr Street reaches the railroad bridge, and the northbound and southbound movements experience excessive queuing and long delays.

At the intersection of State Street and North Thirteenth Street, the northbound left-through-right operates at a LOS E in the AM peak hour and an undesirable level of service in the PM peak hour. The southbound left-through-right operates at a LOS E in the PM peak hour.

While the mainline State Street progresses fairly well, the movements on North Thirteenth Street experience excessive delays due to the long cycle length.

At the intersection of State Street and North Seventeenth Street, the northbound left-through-right movement operates at a LOS E in the AM peak hour and an undesirable level of service in the PM peak hour.

While the mainline State Street progresses fairly well, the movements on North Seventeenth Street experience excessive delays and queuing. The queue has been observed to extend back to Walnut Street due to the long cycle length.

At the intersection of State Street/Walnut Street and Civil War Museum Drive/ Parkway Drive/State Street Extension, the southwest bound left-through-right movement operates at a LOS E in the PM peak hour.

Due to the long cycle length, the southwest bound movement experiences long delays. However, few vehicles are affected by this deficiency due to the low volume on this approach.

At the intersection of Walnut Street and Canby Street/Bank Street, the northwest bound left-through-right operates at a LOS E in the AM and PM peak hours. The southbound through-right operates at a LOS E in the AM peak hour and an undesirable level

of service in the PM peak hour. The intersection operates at an overall LOS E in the PM peak hour.

The northwest bound movement on Canby Street experiences long delays and queues. The southbound through-right movement operates poorly due to the queuing of the southbound left-through movement queuing past the lane split thereby blocking access to the through right lane.

Vehicle idles on Hoffer Lane while blocking access to the through right lane on Walnut Street.

At the intersection of Walnut Street and Twenty-Eighth Street, the northbound left-through-right operates at an undesirable level of service in the AM peak hour and at a LOS E in the PM peak hour.

The northbound movement has a long queue due to the long cycle length and the amount of green time given to the main line Walnut Street movements.

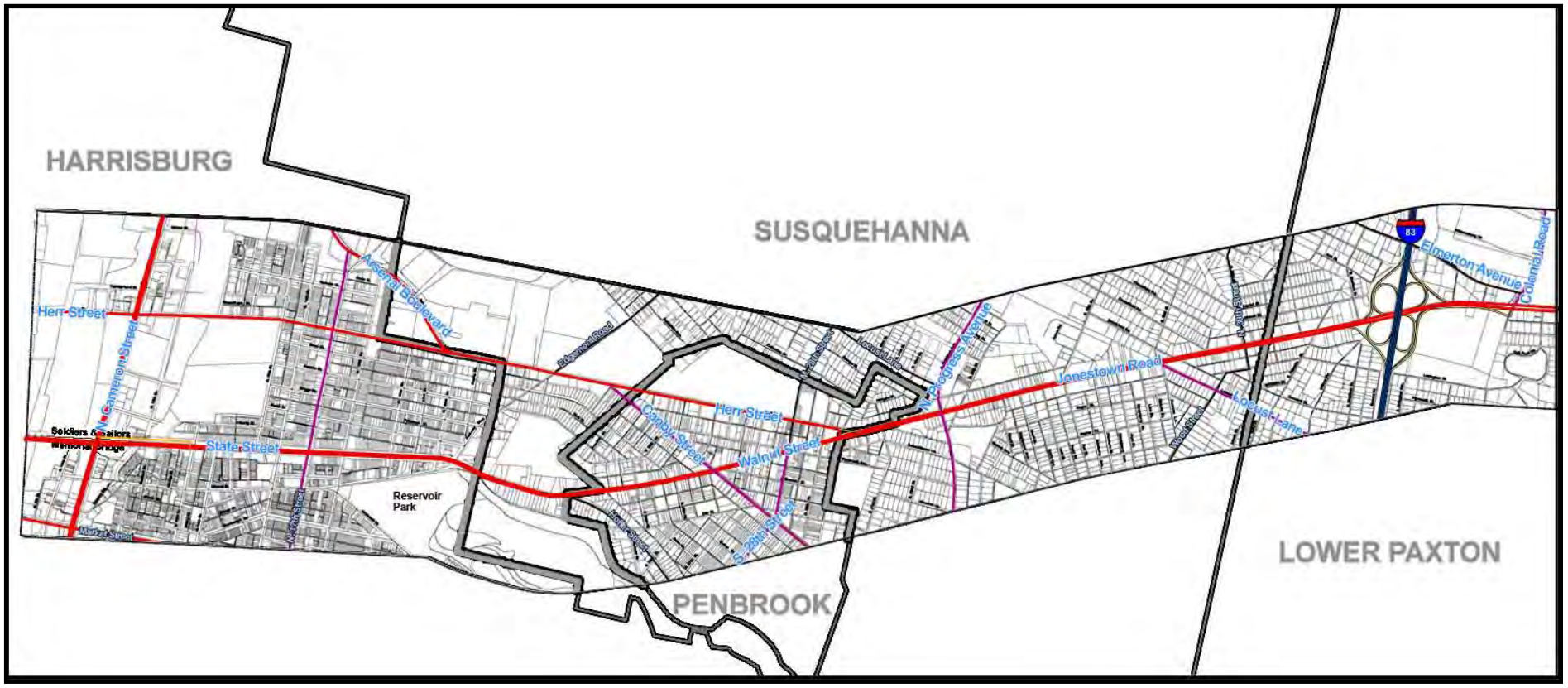
At the intersection of Walnut Street and Herr Street/Thirtieth Street, the northbound left-through-right movement operates at a LOS E in the AM and PM peak hours. The southbound left operates at a LOS E in the AM and PM peak hours.

Due to split phasing of the northbound and southbound movements and the high volumes of traffic on the mainline, the northbound and southbound movements receive less time and experience long queues and delays.

At the intersection of Walnut Street/Jonestown Road and Progress Avenue, the eastbound left-through-right movement operates at an undesirable level of service in the PM peak hour. The westbound left-through-right movement operates at a LOS E in the AM peak hour and an undesirable level of service in the PM peak hour. The southbound through movement operates at a LOS E in the AM and PM peak hours. The overall intersection operates at a LOS E in the AM peak hour and an undesirable level of service in the PM peak hour.

The operating conditions at this intersection are deficient. There is limited capacity for the volume of traffic that uses this intersection. Queuing in all directions and extremely long delays are a result of this deficiency.

Roadway Jurisdiction and Classification



Map Features

- Municipal Boundary
- Project Area
- Parcel Boundaries
- Streets

Functional Classification

- Urban Principle Arterial Interstate
- Urban Principle Arterial
- Urban Other Principle Arterial
- Urban Minor Arterial
- Urban Collector
- Urban Local
- Ramp

Jurisdiction

- State — Walnut Street
- Non - State Federal Aid Roads — Locust Lane
- Local — 14th St

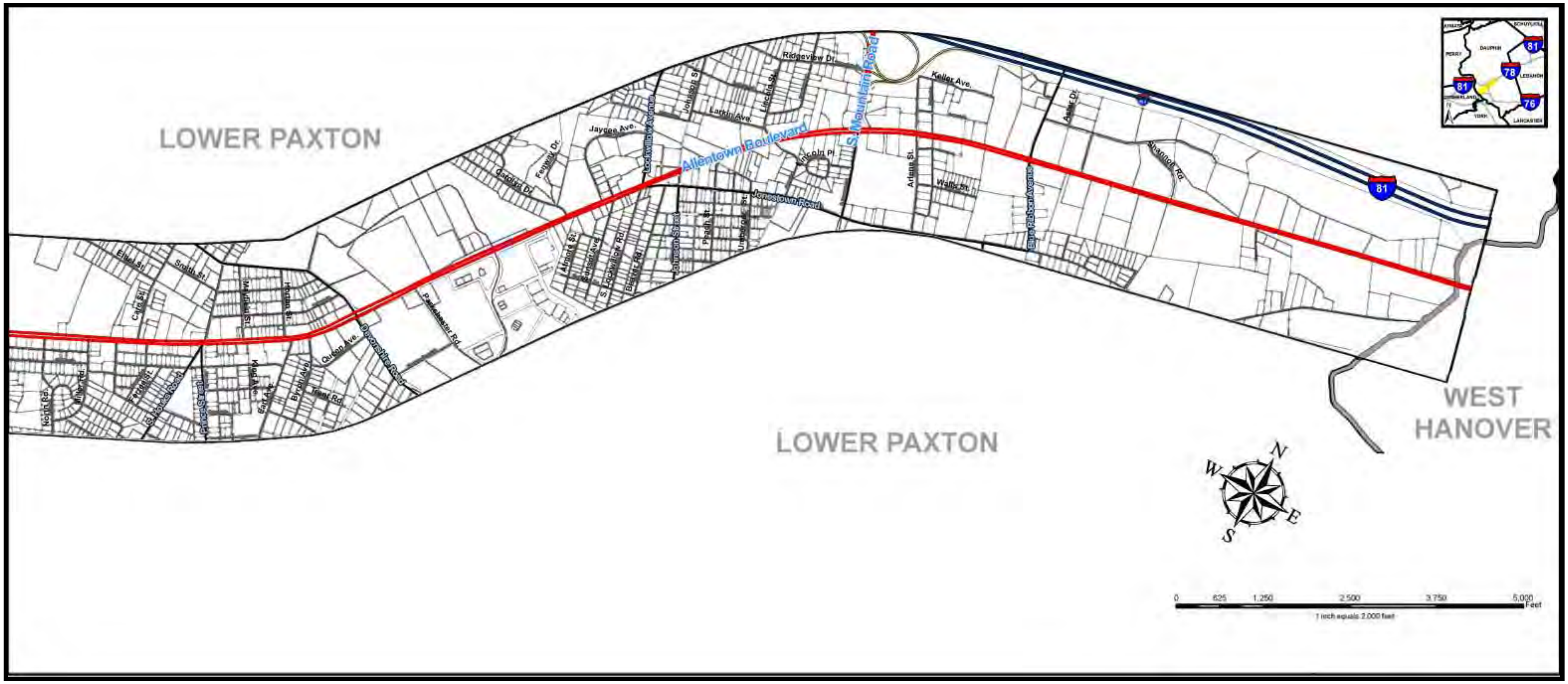

LOWER PAXTON
Allentown Boulevard
S. Mountain Road
Jonestown Road
Ridgeview Dr.
Keller Ave.
Jaycee Ave.
81
LOWER PAXTON
WEST HANOVER
N
E
S
W
0
625
1,250
2,500
3,750
5,000
Feet

Figure 2.7

WALNUT STREET
CORRIDOR REDEVELOPMENT PLANNING STUDY

Chapter 3

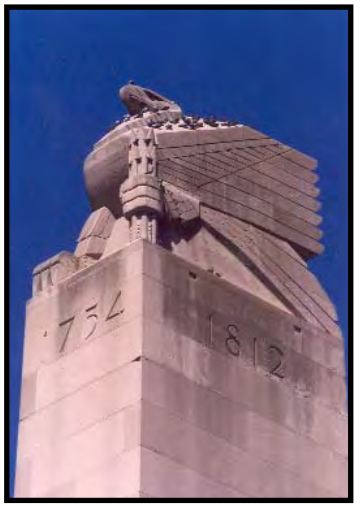
ASSESSMENT OF EXISTING CONDITIONS

- Assets
- Constraints
- Opportunities
- Goals & Objectives


THE
NATIONAL CIVIL WAR
MUSEUM
Harrisburg, Pennsylvania

The inventory of existing conditions, summarized in Chapter 2, has been synthesized into a summary of assets, constraints, and opportunities for the corridor. *Assets* are aspects of the corridor's current situation that are positive factors for redevelopment and that may form a foundation upon which to capitalize. *Constraints* are aspects of the corridor that are negative factors for revitalization and that will have to be overcome in some manner to realize a redeveloped future. *Opportunities* are the initial identification of potential possibilities toward achieving a redeveloped and revitalized future.

Following the presentation of the corridor's asset, constraints, and opportunities, a summary set of goals & objectives for the corridor is outlined.



Monument at the Soldiers & Sailors Memorial Bridge in Harrisburg is an asset.

Assets, Constraints, and Opportunities

Assets

- Historic Soldiers & Sailors Memorial Bridge.
- Capital District vista from State Street.
- State Street streetscape.
- Direct access to Reservoir Park.
- Accessible to Capital Area Greenbelt.
- Harrisburg, East Harrisburg, and Shoops Cemetery provide green space.
- Historic, human-scaled retail street frontages along the western half of the corridor.
- CAT bus service available along the corridor.
- Diverse housing stock.
- Competitive retail market within Susquehanna and Lower Paxton Townships.
- Captive market of local residents.

Constraints

- Multiple jurisdictions/piecemeal configuration.
- CAT bus service does not run on Sundays and is not frequent on week-days.
- Narrow, constricted cartway and right-of-way from Susquehanna into Penbrook and at the Walnut Street-Progress Avenue intersection.
- Few grocery store options in Harrisburg and Penbrook.
- Western end of corridor has vacant and underutilized buildings, including some in fair-to-poor condition.

On Walnut Street in Penbrook Borough vehicles often need to brake suddenly when approaching parked cars in the right lane.

- Occurrence of on-street parking in Penbrook slows traffic circulation.
- Poor accessibility from some neighborhoods to the corridor.
- CAT commuter park-and-ride potential not realized.
- Inadequate shoppers' parking in Penbrook.
- Limited off-street parking options in Penbrook.
- Visually confusing in places.
- Access to Sunshine, Royal Terrace, Little Valley, and Ridgeview Brightbill Parks from the corridor is difficult.
- Lack of street trees and streetscape amenities, primarily from Susquehanna Township through Lower Paxton Township.
- Discontinuities in sidewalk system; crosswalks poorly marked or missing.
- Little support offered for biking.
- Traffic lights not synchronized along the corridor.

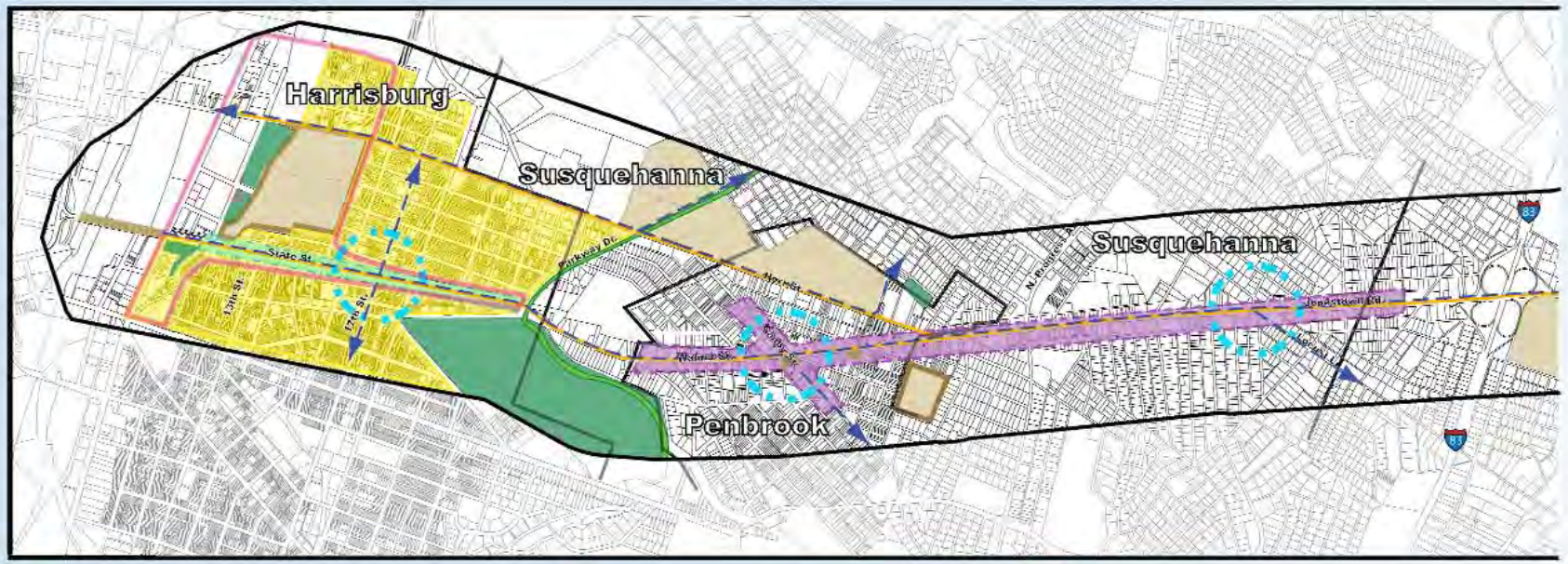
Assets, Constraints, and Opportunities

Opportunities

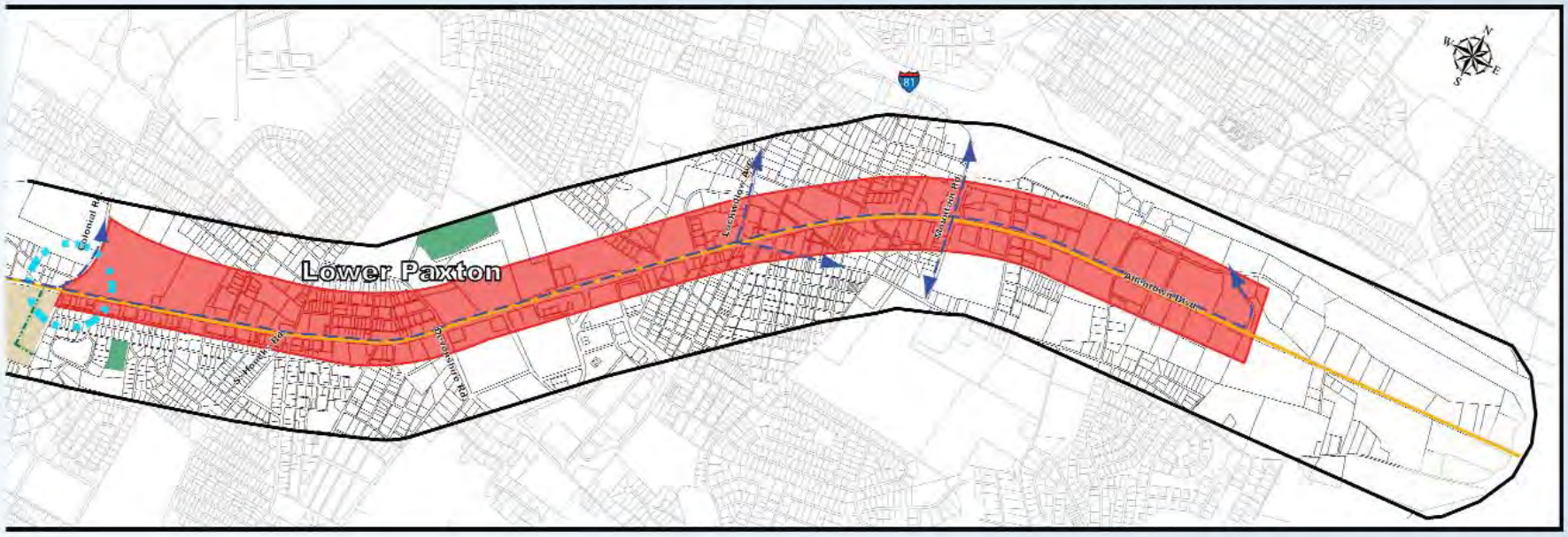
- Emphasize neighborhood-oriented commercial uses mixed with residential uses within the western half of the corridor.
- Create Special Services districts and a multi-jurisdictional management entity along the corridor, and a "branding" identity for sub-areas.
- Create continuity of transit service along the corridor, encourage Transit-Oriented Development in the corridor, and established park-and-ride sites.
- Improve sidewalk system and provide safer pedestrian crossings.
- Promote better connectivity for pedestrians and cyclists to the corridor.
- Opportunity to "infill" blocks and rehabilitate structures.
- Take full advantage of green space and greenways.
- Create/improve civic open spaces.
- Redevelop underutilized tracts with new uses.
- Take advantage of views into Harrisburg and over parks and cemeteries.
- Consolidate/rationalize property driveway access.
- Provide traffic calming measures in the Penbrook central business district.
- Improve intersection operations/traffic circulation, consistent with land use and community character goals.
- Interconnect traffic signals along the corridor.
- Improve local intersecting routes to ease local traffic circulation.
- Improve green space access and interconnectivity.

Brick pavers within crosswalks are widely used as traffic calming measures, promoting safer passage for pedestrians.

Corridor Assets



- Study Corridor
- Wide boulevard/attractive streetscape
- Capital Area Greenbelt
- Vista of the Capitol area
- Parks & recreation
- Cemeteries
- Historic features
- Strong retail/commercial corridor
- Residential neighborhoods on or close to the corridor
- Existing retail business area



Bus Service (CAT)

Foci for commercial/community facilities with transit service

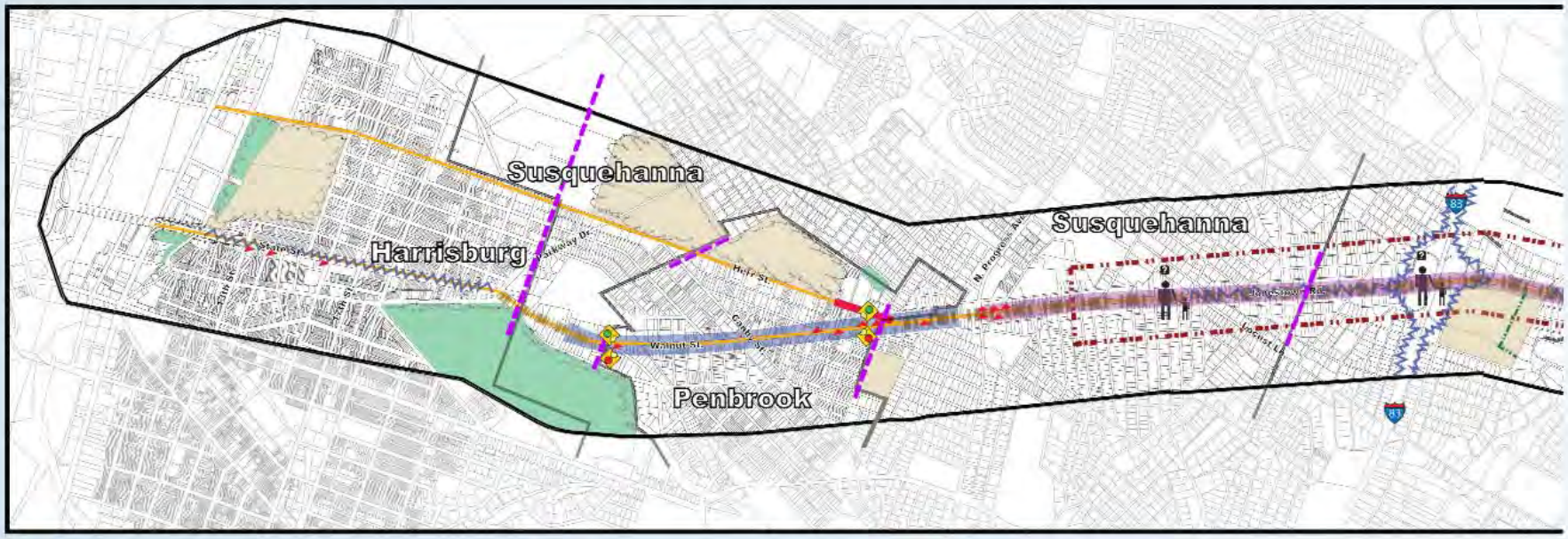
February, 2006

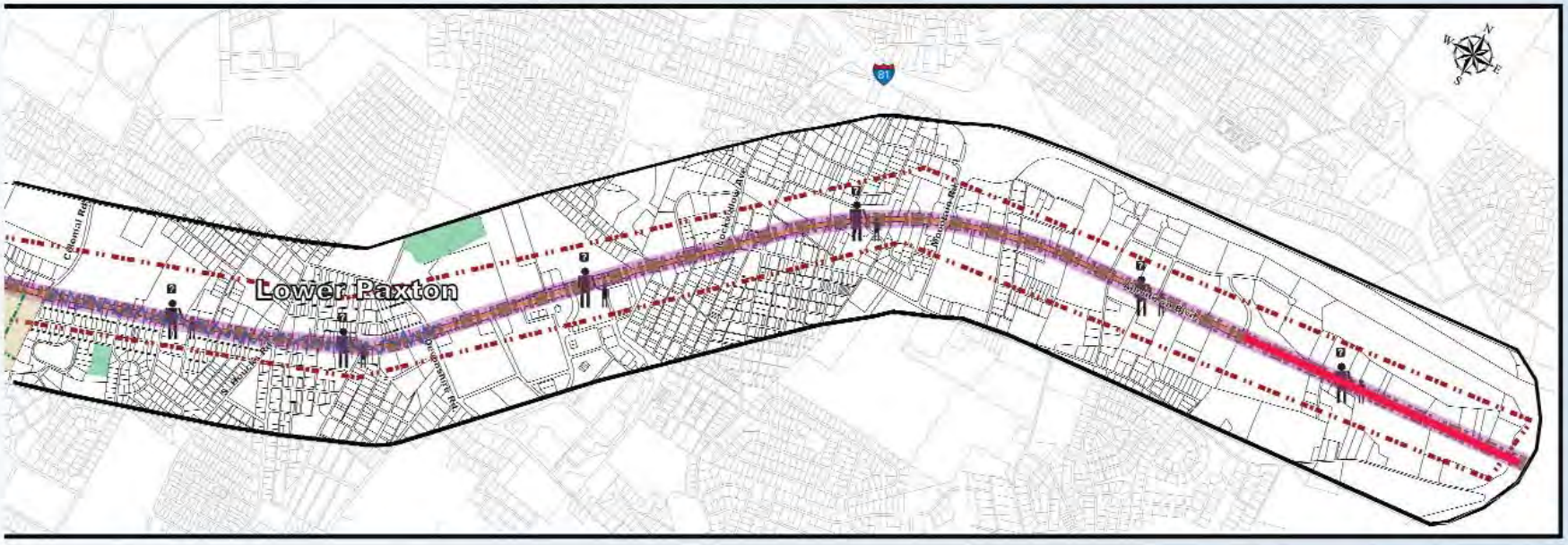
0 600 1,200 2,400 Feet

McCormick Taylor
Engineers & Planners Since 1946

Figure 3.1

Corridor Constraints





Poor accessibility for pedestrians, particularly from surrounding residential neighborhoods

Traffic signals not synchronized with neighboring municipalities

Underutilized properties at major intersections

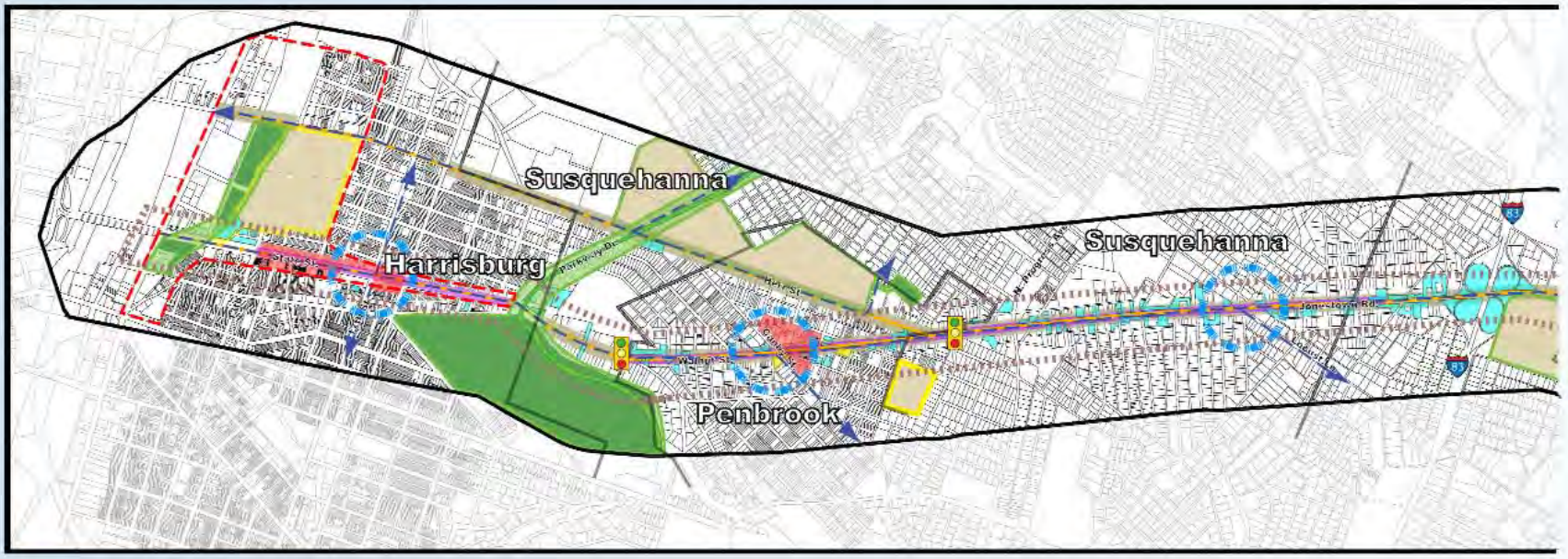
February, 2006

0 600 1,200 2,400 Feet

McCormick Taylor
Engineers & Planners Since 1946

Figure 3.2

Corridor Opportunities



- Study Corridor
- Emphasize neighborhood commercial mixed with residential, fronting the corridor
- Bus Service (CAT)
- Take advantage of Capitol Complex views
- Promote better connectivity for pedestrians and cyclists between neighborhoods
- Promote safety by providing consistent wider sidewalks along with traffic calming measures

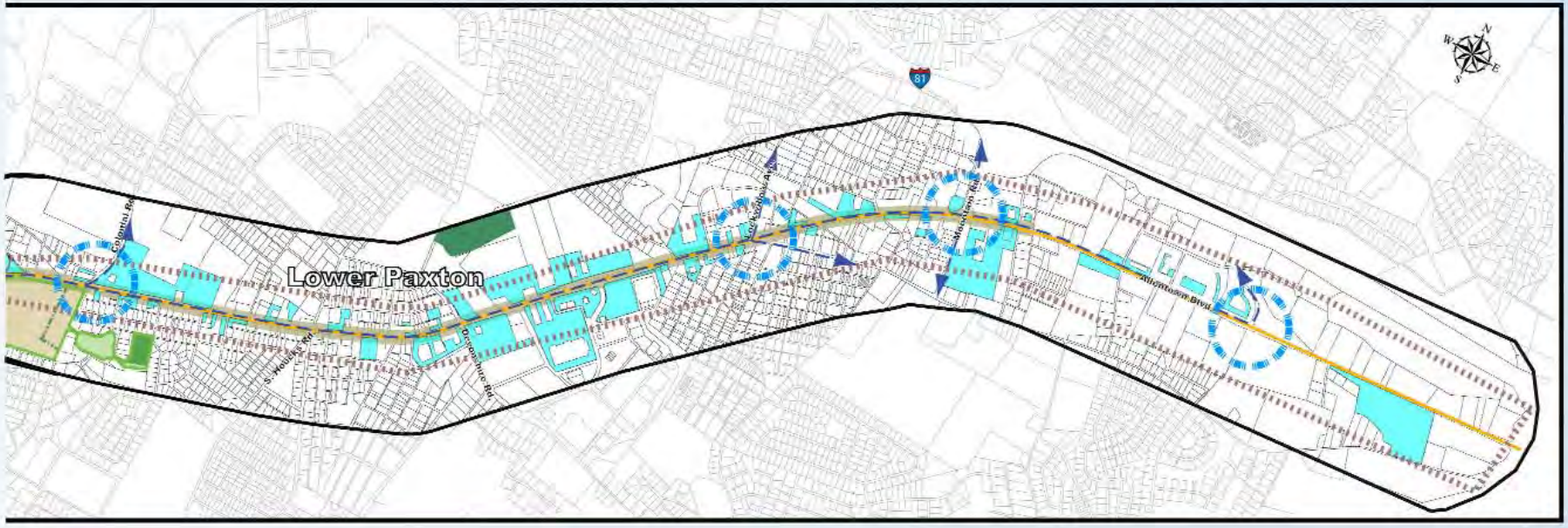

Lower Paxton
81
Redevelop tracts with new uses
(See Figure 2.2)
Improve green space access & interconnectivity
Historic significance
Parks & recreation
Cemeteries
Promote Bed & Breakfast District
Take advantage of multiple CAT routes for transit-oriented development
Integrate traffic signals with neighboring municipalities
February, 2006
0 600 1,200 2,400
Feet
McCormick Taylor
Engineers & Planners Since 1946

Figure 3.3

Goals & Objectives

With the synthesis of the assets, constraints, and opportunities completed, initial ideas for the corridor could be refined into a set of specific objectives for the Walnut Street Corridor Redevelopment Planning Study, organized under five (5) main goals.

GOAL: Develop a plan for Penbrook to be able to support new commercial uses and a walkable "Main Street USA" atmosphere for its business district.

Objective: Make recommendations for rights-of-way, roadways, sidewalks, crosswalks, lighting, landscaping, signage, and streetscape amenities on and off Walnut Street.

Objective: Accommodate appropriate infrastructure for vehicles, pedestrians, and cyclists.

Objective: Consider the needs of residents, business operators, shoppers, and commuters for mobility and safety.

Objective: Recommend suitable locations for short-term parking to support local businesses, as well as parking for residents.

Objective: Indicate target markets for Penbrook businesses.

GOAL: Identify opportunities for development and redevelopment all along the corridor.

Objective: Propose new uses for vacant and underutilized parcels.

Objective: Reinforce local neighborhoods through uses that meet the needs of residents for goods and services.

Objective: Recognize potential market for local businesses represented by mixed-use districts, including residential and office commercial uses.

Objective: Recognize potential market for local businesses represented by community and cultural venues and events to draw people to the area for entertainment, leisure-time activities, and shopping.

Objective: Emphasize new commercial activities and other development that is compatible with a desired character for the corridor and special identity areas along it.

Objective: Reinforce important existing local business nodes.

Goals & Objectives

GOAL: Outline methods to enhance the quality of the visual image and the experience of being in and traveling through the corridor.

Objective: Make recommendations for property and building access, building bulk and set-back, façades, roadway and sidewalk surface treatments, crosswalks, lighting, landscaping, signage, and streetscape amenities through the corridor.

Objective: Identify distinctive streetscape characteristics for subareas and potential figurative or literal "gateways" along the corridor.

Objective: Target the improvement and adaptive reuse of vacant, underutilized, and deteriorated properties.

Objective: Test the degree of compatibility of potential new development with adjacent and neighboring uses with a view toward maintaining a setting that anticipates and accommodates subsequent development.

Objective: Protect the corridor's historic resources and scenic and open space assets and consider their utility as an anchor and catalyst for new development and activities.

GOAL: Facilitate mobility through the corridor and to important corridor destinations, and connections to adjacent neighborhoods.

Objective: Identify methods of reducing circulation deficiencies at key intersections and along key roadway segments.

Objective: Recommend improvements to public transportation so that residents and visitors can travel through the corridor conveniently, efficiently, and economically.

Objective: Identify opportunities to enhance safe and convenient pedestrian movement along the corridor, across it, and to retail and mixed-use centers on the corridor from adjacent residential areas.

Objective: Highlight wayfinding to Reservoir Park.

GOAL: Map the way to implementation.

Objective: Demonstrate a phased implementation strategy, including the short- , medium-, and long-term actions needed to put recommendations into effect.

Objective: Indicate the key actors and their implementation responsibilities.

Objective: Outline funding sources for implementation, especially ones that can support intermunicipal cooperation.

WALNUT STREET
CORRIDOR REDEVELOPMENT PLANNING STUDY

Chapter 4

- Exploration of Alternative Revitalization Concepts Process
- Components & Variables (Land Use, Market, & Transportation)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The second phase in the preparation of the Walnut Street Corridor Redevelopment Planning Study was the Visioning phase. In this phase, a series of alternative plans were developed to portray different ways in which the corridor could evolve over the next five-to-twenty-five years. Each alternative was responsive to the existing conditions found in the corridor, its assets, constraints, and opportunities, and the set of goals and objectives set for the study.

In this phase, concepts were developed and then evolved into newer ones following a series of reviews by both the Steering Committee and the public. Each Alternative presented a distinct concept for the function, features, and general character of the corridor as a whole and for specific parts of it. Each suggested different implications for the corridor and its subareas – in terms of land use mix, redevelopment potential, circulation system, urban design qualities, community facilities, housing profile, recreational opportunities, and other issues.

Included in this chapter is an outline of the four cycles of explorations of alternative concepts undertaken as part of the Visioning phase.

EXPLORATION OF ALTERNATIVE CONCEPTS

Initial Concepts

Concept A: Tourism, Visitation, & Cultural

- Corridor evolves into an eastern gateway to the Capitol Complex and City of Harrisburg;
- Emphasize opportunity for Penbrook as restaurant/café center;
- Malls/stores in Lower Paxton are significant draw for shopping with I-83 providing expressway access to center of corridor;
- Significantly-sized sites available for "infill" near Reservoir Park and at Colonial Park and Paxton Towne Centre malls.

Concept B: Residential & Mixed-Use

- Emphasis on medium-density mixed-use dwelling units throughout the corridor.
- Opportunity to improve public green space and facilities;
- Promote infill redevelopment in Penbrook;
- Improve connectivity between residential neighborhoods and the existing commercial services in Susquehanna and Lower Paxton;

Concept C: Multi-Modal Mobility

- Corridor is a commuter thoroughfare and will remain one;
- Improve both through-put of traffic and community safety;
- Park-and-ride lots, commercial services for commuters, bus shelters and lanes, and bike lanes are emphasized;
- Penbrook commercial activity may be more in "off-corridor centers" than right on Walnut Street.

2nd Round Concepts

Concept C2: Three Lane Pairs (Walnut/Herr Streets)

- Herr Street and Walnut Street in Penbrook Borough together form two three-lane thoroughfares, with two travel lanes west-bound and one lane eastbound on Herr Street and two travel lanes eastbound and one lane westbound on Walnut Street. One-side, on-street parking only on the north side of Walnut Street is permitted;
- Jonestown Road/Allentown Blvd., Lower Paxton provide designated bike lanes and sidewalks along the corridor, along with street trees.

Concept D1: Making Main Street

- State Street, Harrisburg includes designated bicycle lanes with improved pedestrian conditions;
- Parkway Drive, Harrisburg and Susquehanna Township, provides two travel lanes westbound and one lane east-bound;
- Herr Street, Susquehanna Township and Penbrook, is widened to two travel lanes in each direction. There is no on-street parking;

- Walnut Street in Penbrook Borough has one travel lane in each direction with on-street parking along both sides;
- Walnut Street, Susquehanna Township is widened to a four-lane, boulevard-type roadway with an "intercept" park-and-ride lot also included with an intermodal transit facility;
- Jonestown Road/Allentown Blvd., Lower Paxton provide designated bike lanes and sidewalks along the corridor, along with street trees.

Concept D2: Multi-Modal

- State Street, Harrisburg provides designated bus lane operations in each direction in peak commuting periods.
- Parkway Drive, Harrisburg and Susquehanna Township, provides a reversible designated bus lane in addition to one travel lane for vehicles in each direction;
- Herr Street, Susquehanna Township and Penbrook, is widened to accommodate two westbound vehicular travel lanes with a designated bicycle lane alongside. Eastbound, there is one travel lane for private vehicular use and a reversible bus lane is adjacent to the curb on the south side of the street;
- Walnut Street, Penbrook, has two travel lanes eastbound and one lane west bound. On-street parking is permitted on the north side;
- Walnut Street, Susquehanna Township is widened to a four-lane, boulevard-type roadway with an "intercept" park-and-ride lot also included with an intermodal transit facility;
- Jonestown Road/Allentown Blvd., Lower Paxton, provides designated bike lanes and sidewalks along the corridor, along with street trees.

3rd Round Concepts

Concept I: Main Streets/Green Streets

- Reservoir Park is a gateway area with new recreational and tourism attractions;
- Walnut Street in Penbrook Borough has one travel lane in each direction with on-street parking along both sides;
- Susquehanna and Lower Paxton Townships incorporate design guide lines that would include landscape buffers for off-street parking and sign standards.

Concept II: Walnut Street–Herr Street Network

- Walnut Street in Penbrook Borough has parking on the north side of the street only (“half side Main Street”). Commuter traffic into Harrisburg uses Herr Street westbound and Walnut Street eastbound in Penbrook. Bus pull-outs and shelters exist the length of the corridor. Boulevard landscaping occurs in Susquehanna and Lower Paxton Townships;
- State surplus property site near Reservoir Park is redeveloped as a mixed-use project.

Concept III: Boulevards and Bus Lanes

- Walnut Street in Penbrook Borough has one travel lane in each direction with on-street parking along both sides of the street;
- Designated bus lanes on State Street in Harrisburg and Susquehanna Township along with bus pull-outs and shelters the length of the corridor;
- Susquehanna and Lower Paxton Townships incorporate design guidelines that include landscape buffers for off-street parking and sign standards.

4th Round

Concept IV: Main Streets/Boulevards

- South side of Herr Street in Penbrook is redeveloped to accommodate new medium-density residential uses;
- Herr Street has two travel lanes in each direction requiring and right-of-way widening;
- Parkway Drive undergoes a series of improvements to accommodate additional vehicular traffic;
- Walnut Street in Penbrook Borough has one travel lane in each direction with on-street parking along both sides of the street.
- Susquehanna and Lower Paxton Townships incorporate design guidelines that include landscape buffers for off-street parking and sign standards.

COMPONENTS AND VARIABLES

The final four concepts from Rounds 3 and 4 of the Exploration of Alternative Concepts process are summarized in the four tables that begin on the following page.

CURRENT

27th and Walnut Streets, Penbrook

AFTER long-term improvements (artist's rendering)

CONCEPT I
MAIN STREETS / GREEN STREETS

	LAND USE	MARKET	TRANSPORTATION
State Street Harrisburg	• Mixed-use infill development on vacant and underutilized sites.	• Residential on upper floors; • Restaurants, local services and stores on ground floor.	• 2 travel lanes in each direction for vehicular use; • Improved bike & pedestrian access.
Walnut Street Penbrook Borough	• Mixed-use infill development on vacant and underutilized sites.	• "Main Street" mix of restaurants and café's; • Potential for Bed & Breakfast District.	• 1 travel lane in each direction for vehicular use; • On-street parking on both sides of the street.
Herr Street Penbrook Borough	*(Not addressed)*	*(Not addressed)*	*(Not addressed)*
Walnut Street Susquehanna Township	• Highway commercial.	• Convenience retail.	• 2 travel lanes in each direction for vehicular use; • Improved bike & pedestrian access.
Jonestown Road/Allentown Boulevard Lower Paxton Township	• Major retail centers; • Highway commercial.	• Convenience retail; • Shoppers goods and entertainment.	• 2 travel lanes in each direction for vehicular use; • 1 bicycle lane in each direction.

Table 4.1

CONCEPT II :
WALNUT STREET / HERR STREET NETWORK

	LAND USE	MARKET	TRANSPORTATION
State Street Harrisburg	• Mixed-use infill development on vacant and underutilized sites.	• Residential on upper floors; • Restaurants, local services and stores on ground floor.	• 2 travel lanes in each direction for vehicular use; • Improved bike & pedestrian access.
Walnut Street Penbrook Borough	• Mixed-use infill development on vacant and underutilized sites.	• "Main Street" mix of restaurants and café's.	• 2 travel lanes eastbound, 1 travel lane westbound; • On-street parking on the westbound side only.
Herr Street Penbrook Borough	*(Not addressed)*	*(Not addressed)*	• 2 travel lanes in westbound, 1 travel lane eastbound.
Walnut Street Susquehanna Township	• Highway commercial.	• Convenience retail.	• 2 travel lanes in each direction for vehicular use; • Improved bike & pedestrian access; • Include bus pullouts & shelters.
Jonestown Road/Allentown Boulevard Lower Paxton Township	• Major retail shopping; • Highway commercial.	• Convenience retail; • Shoppers goods and entertainment.	• 2 travel lanes in each direction for vehicular use; • 1 bicycle lane in each direction; • Bus pullouts & shelters.

Table 4.2

CONCEPT III :
BUS LANES & BOULEVARDS

	LAND USE	MARKET	TRANSPORTATION
State Street Harrisburg	• Mixed-use infill development on vacant and underutilized sites.	• Residential on upper floors; • Restaurants, local services and stores on ground floor.	• 2 travel lanes in each direction for vehicular use; • Improved bike & pedestrian access; • Bus pull outs and shelter at Reservoir Park with designated transit lanes in each direction.
Walnut Street Penbrook Borough	• Mixed-use infill development on vacant and underutilized sites.	• "Main Street" mix of restaurants and café's.	• 1 travel lane in each direction for vehicular use; • On-street parking on both sides of the street.
Herr Street Penbrook Borough	• Medium density residential.	• Primarily residential with the ability to shop Walnut Street Penbrook.	• 2 travel lanes westbound, 1 travel lane eastbound with 1 designated transit lane.
Walnut Street Susquehanna Township	• New multi-story mixed-use buildings	• Ground floor commercial; • Residential and or office on upper floors; • High quality dining.	• 2 travel lanes in each direction for vehicular use; • 1 bicycle lane in each direction; • Dedicated transit lanes in cartway; • Intercept park-and-ride and intermodal transit facility.
Jonestown Road/Allentown Boulevard Lower Paxton Township	• New mixed-use residential in commercial centers.	• Convenience retail; • Shoppers goods and entertainment; • Apartments and condominiums.	

Table 4.3

CONCEPT IV : MAIN STREETS / BOULEVARDS

	LAND USE	MARKET	TRANSPORTATION
State Street Harrisburg	• Mixed-use infill development on vacant and underutilized sites.	• Residential on upper floors; • Restaurants, local services and stores on ground floor.	• 2 travel lanes in each direction for vehicular use; • Bus pull outs and shelter at Reservoir Park with designated transit lanes in each direction.
Walnut Street Penbrook Borough	• Mixed-use infill development on vacant and underutilized sites.	• "Main Street" mix of restaurants and cafés; • Potential for Bed & Breakfast District.	• 1 travel lane in each direction for vehicular use; • On-street parking on both sides of the street.
Herr Street Penbrook Borough	• Medium density residential with mixed use at intersecting streets.	• Primarily residential with the ability to shop Walnut Street Penbrook.	• 2 travel lanes westbound, and two travel lanes eastbound. (Right-of-way widened)
Walnut Street Susquehanna Township	• New multi-story mixed-use buildings	• Ground floor commercial; • Residential and or office on upper floors; • High quality dining.	• 2 travel lanes in each direction for vehicular use; • 1 bicycle lane in each direction; • Bus pullouts & shelters; • Intercept park-and-ride and intermodal transit facility.
Jonestown Road/Allentown Boulevard Lower Paxton Township	• New mixed use residential in commercial centers.	• Convenience retail; • Shoppers goods and entertainment; • Apartments and condominiums.	

Table 4.4

WALNUT STREET
CORRIDOR REDEVELOPMENT PLAN

Chapter 5

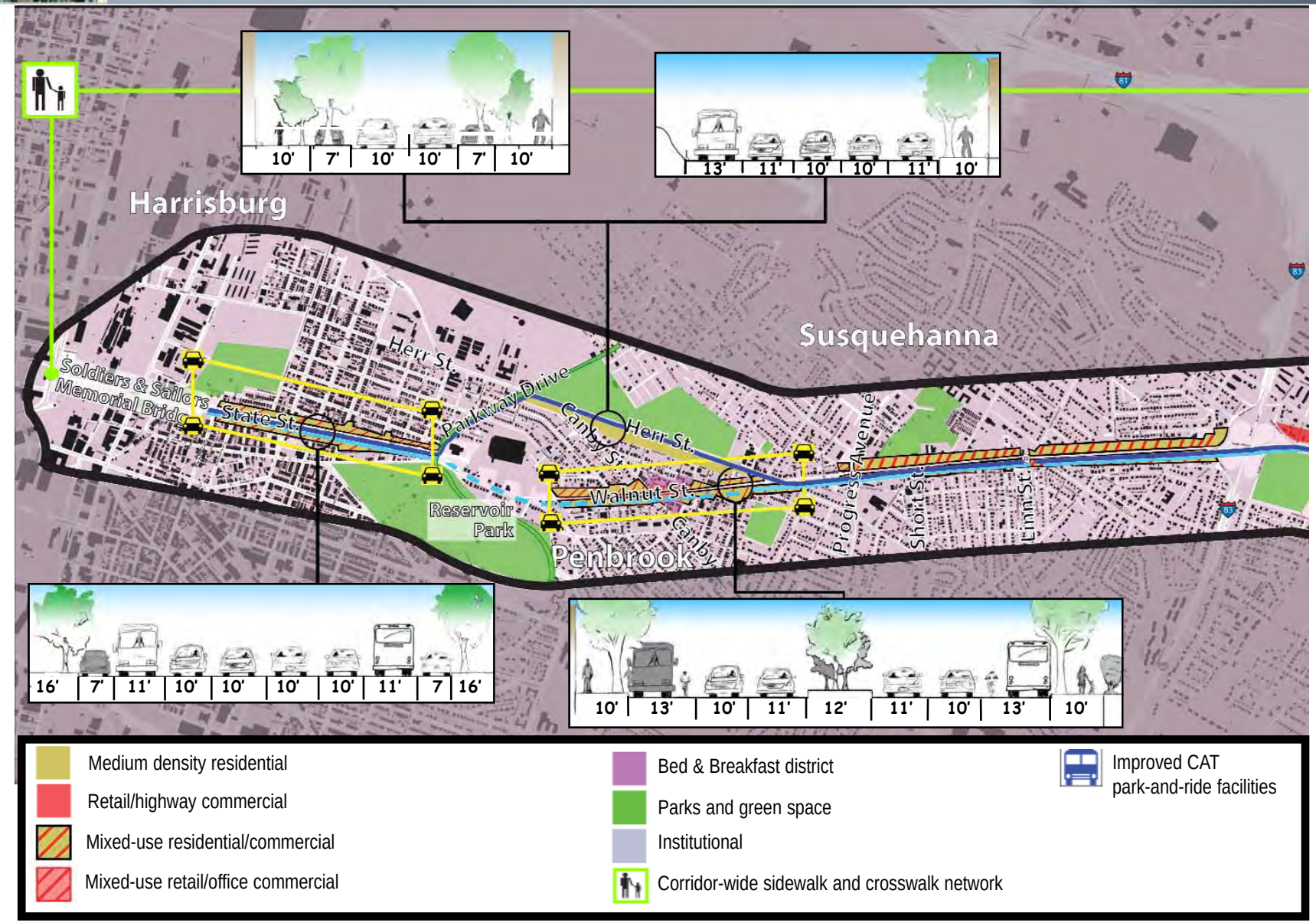
RECOMMENDED REDEVELOPMENT PLAN

- Corridor Wide Recommendations
- Priority Area Recommendations

The Exploration of Alternatives conducted in the Visioning phase permitted a series of ideas to emerge that, together, can form a cohesive plan for the Walnut Street Corridor. This Plan has recommendations of two main types – those for the corridor as a whole and those for seven priority areas identified along the corridor. Both the corridor-wide and priority area recommendations advance the goals and objectives described in Chapter 3 and, collectively, provide a vision for the corridor, to be implemented by the municipalities of the corridor and their planning partners, both public and private.

CORRIDOR WIDE RECOMMENDATIONS

Corridor-wide recommendations (Figure 5.1) outline streetscape, land use, market, and transportation improvements that are appropriate throughout the Walnut Street Corridor. Implementation of these recommendations in a coordinated manner will advance the redevelopment and revitalization of the corridor. A consistent set of common physical elements will provide visual unity for the entire eight-and-a-half-mile-long corridor.


10' 7' 10' 10' 7' 10'
13' 11' 10' 10' 11' 10'
Harrisburg
Susquehanna
Soldiers & Sailors Memorial Bridge
State St.
Herr St.
Parkway Drive
Canby St.
Herr St.
Walnut St.
Reservoir Park
Penbrook
Canby
Progress Avenue
Short St.
Linn St.
16' 7' 11' 10' 10' 10' 10' 11' 7' 16'
10' 13' 10' 11' 12' 11' 10' 13' 10'
Medium density residential
Retail/highway commercial
Mixed-use residential/commercial
Mixed-use retail/office commercial
Bed & Breakfast district
Parks and green space
Institutional
Corridor-wide sidewalk and crosswalk network
Improved CAT park-and-ride facilities

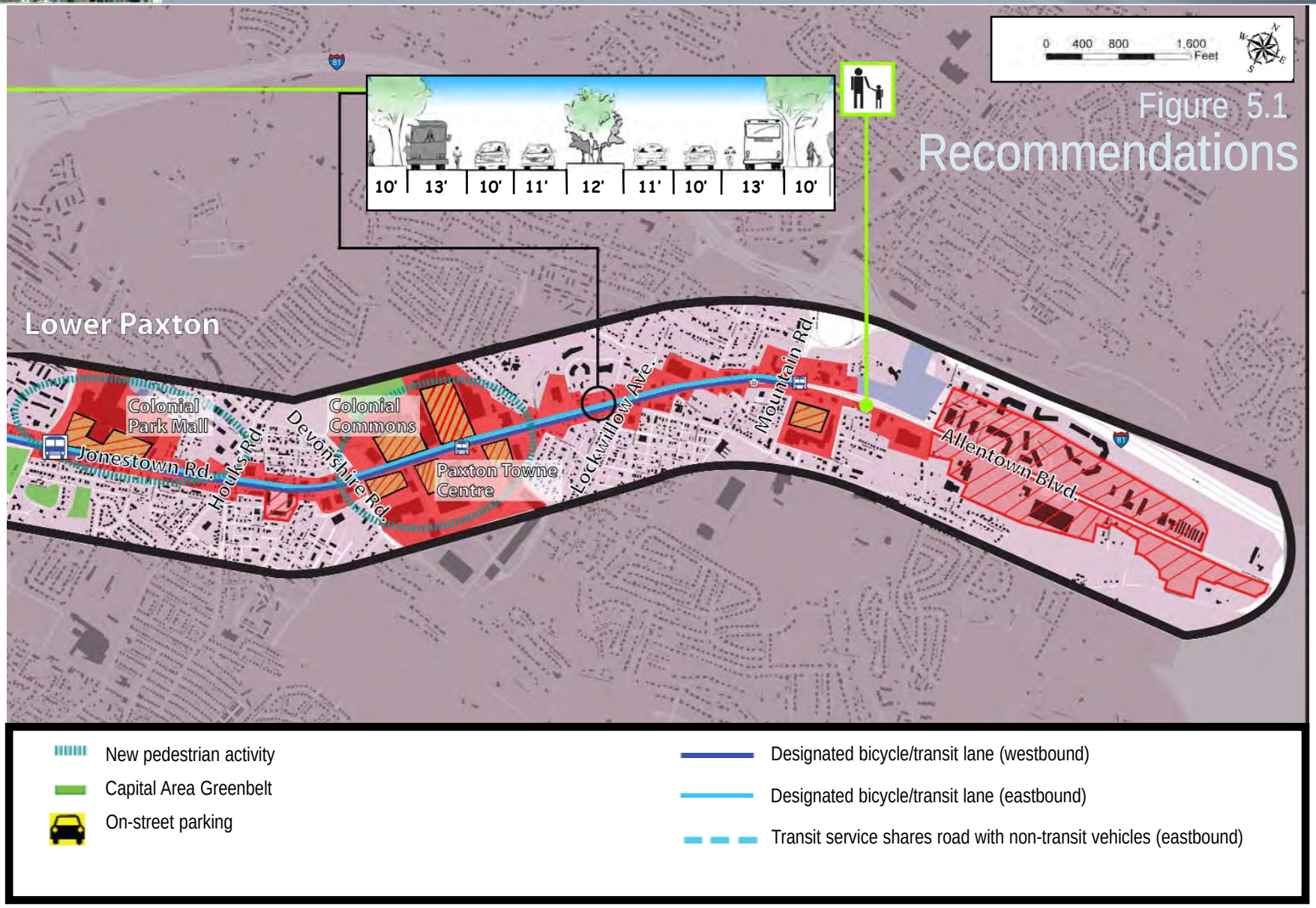


Figure 5.1
Recommendations

Corridor Wide Streetscape

Streetscape elements that contribute positively to the overall appearance of the corridor, support pedestrian activity, and do not impede vehicular movement, are recommended. Included are the following elements:

- Building Placement and Façades
- Building Orientation & Access
- Sidewalks
- Lighting
- Street Trees
- Utility Coordination
- Wayfinding
- Gateways

Building Placement and Façades

In a traditional "Main Street" environment, buildings fronting the roadway define the public space and can contribute significantly to the experience of being in that space. Recommendations for the Walnut Street Corridor include both improving existing buildings and defining future buildings along the corridor, especially in its western half. With regard to the former, routine maintenance and focused refurbishing of existing building façades along the corridor are strongly encouraged.

Compatibility of setbacks, proportion, scale, form, materials, pattern of façade features, and roof configuration in new construction along the corridor is of high importance for State Street and Walnut Street in Susquehanna Township and Penbrook Borough. Front façades of new commercial buildings here should utilize awnings, columns, offset rooflines, cornices, and transoms to articulate architectural styles and provide an articulated first story and entryway in a manner similar to existing structures.

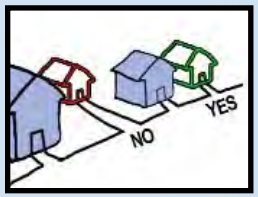
Façade treatments and design should encompass lighting, accessories such as commercial signs, as well as the building itself. Maintenance of the roof, windows, siding, entrance, and landscaping is fundamental.

Corridor Wide Streetscape

Building Orientation & Access

Pedestrian activity along the western half of the corridor is essential for successful commerce and as a setting for both residents and visitors. Buildings should be oriented to sidewalks parallel to the street, with patrons entering commercial premises from the front sidewalks.

Buildings should be sited up to sidewalks. While small "pocket" parks may be considered, these should be thought of as extensions of the sidewalk pedestrian space by being accessible to the public and providing café-style seating, landscaping and/or seating areas. Primary building access should be from the corridor while off-street parking and service requirements are met behind buildings, off the corridor frontage.

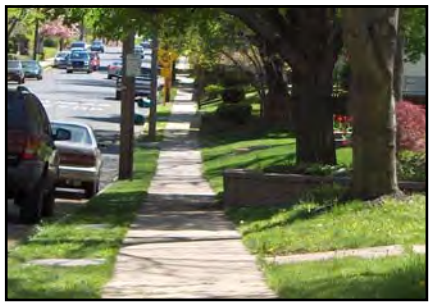


Access

Sidewalks

Improved conditions for pedestrian movement along Walnut Street/Route 22 are a high priority for the corridor. Sidewalks should be a minimum of five feet in width throughout the corridor and, where feasible, detached from the roadway by means of a landscaped or textured verge lined with trees.

Continuous along both sides of streets, sidewalks should be well-maintained, provide direct access into buildings fronting the corridor, make connections to intersecting roadway sidewalks, and safely direct pedestrians to crosswalk areas. Vehicular access to off-street parking lots should be by means of driveway aprons that slope up and cross sidewalks.



Sidewalks should be detached from the street where feasible.

Vehicular access to off-street lots should be by means of driveway aprons that slope up and cross sidewalks.

Corridor Wide Streetscape

Street Trees

Street tree plantings are encouraged along the entire length of the Walnut Street corridor. A consistent tree canopy provides for color and textural interest, areas of shade, and a setting that supports pedestrian activity.

Trees should be deciduous and drought and urban setting tolerant. Typical tree spacing should be forty feet on center and located on both sides of the street in the grassy verge.

Opportunities to provide more trees and plantings along the corridor may arise with the future installation of landscaped center median/turning lanes on the corridor east of Progress Avenue and into Lower Paxton Township.

Landscaped center median/turning lane

Lighting

A pedestrian-oriented ambience for the corridor can be strongly encouraged through the installation of pedestrian-scaled street lighting poles and fixtures. A consistent type of style of lighting through the corridor will provide a theme that visually ties all parts of the corridor together.

Not recommended

Lighting more appropriate for pedestrian-oriented areas

Utilities

In much of the corridor, overhead utility lines are visually intrusive. Removal of above-ground utilities would help to provide an open, uncluttered streetscape, ultimately resulting in a safer environment for pedestrians and motorists and a more attractive, appealing view. Municipalities should consider “undergrounding” utilities as part of prospective streetscape improvement projects and as additional development occurs along the corridor.

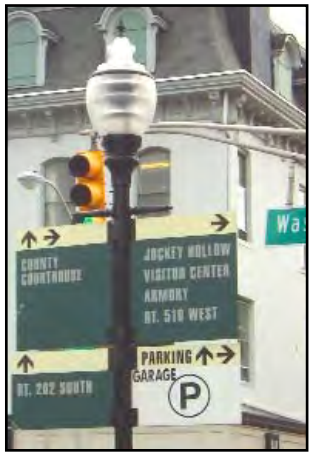
Walnut Street, Susquehanna

Corridor Wide Streetscape

Wayfinding

Signage along the corridor should clearly direct vehicular and pedestrian traffic. Street signs should be located at every intersecting street and match the predominant existing style of signs along the corridor in scale, color, and font. Street signs should be visible at night and should be free of obstruction from landscape materials or commercial signs.

Municipalities are strongly encouraged to reduce the number of commercial signs (including billboards) along the corridor by preparing revised sign ordinances, perhaps in conjunction with corridor overlay zoning regulations.



Gateways

Visual gateways for the communities along the corridor have the potential to add interest and inform motorists traveling through the area. A limited number of locations should be considered as special gateway areas, perhaps to include the following sites: I-83 interchange, Progress Avenue and Walnut Street intersection, Reservoir Park entrance, and the Soldiers and Sailors Memorial Bridge on State Street.

Gateway designs can convey a message to corridor users about where they are, and if they are passing a significant feature or crossing a jurisdictional line. Key features to include in gateway designs may involve wayfinding and "branding" text, interpretive signs referencing the history or environment of the community, specialty lighting, art displays, water features, seating areas, and landscape walls and/or fencing.

Gateway in Reston, Virginia

Gateway in Rockville, Maryland

Corridor Wide Land Use and Market

The land use recommendations for the corridor (Figure 5.2) reflect an analysis of its real estate market opportunities for office, retail, and residential uses over the next ten to fifteen years (see Chapter 2).

Land use recommendations are presented with respect to the following categories:

- Office
- Retail
- Residential and Mixed-Use
- Marketing and Branding

Office

The Harrisburg metropolitan area economy is stable, due in large part to the impact of the state government presence. As a result, the office sector experiences only modest growth year over year. Over the planning time horizon, the Walnut Street Corridor study area should be able to capture between 250,000 and 350,000 square feet of incremental for-lease office demand. Sites in close proximity to interstate highway interchanges or with strong links to the downtown office core would be most appropriate for new office development. The areas of the corridor with these characteristics include the blocks around Herr and Cameron Streets as well as sites along Route 22 in Lower Paxton.

The market analysis also indicates potential demand for office condominiums in the corridor. Office condominium units typically range from 500 to 2,000 square feet and serve small service industry businesses and professional tenants,

I-83 / Route 22 Interchange

growing segments of the East Shore employment market. A small-scale development may be appropriate in Penbrook or in the area immediately west of the Route 22/I-83 interchange. Adequate parking, good visibility from Route 22, and complementary surrounding land uses are keys to success for office condominium projects.

Corridor Wide Land Use & Market

Retail

Route 22 has historically been a commercial corridor, although smaller retail establishments in the western portion of the study area have waned while a major concentration of retail space from Colonial Park Mall to Paxton Towne Centre has evolved. This agglomeration of retail activity has created a gravity effect that will continue to attract national chain retailers. Sites within close proximity to I-81 or I-83 interchanges with sufficient acreage to accommodate large building footprints will be appropriate for new retail development.

As a result of competition from the eastern portion of the corridor, Downtown Harrisburg and shopping centers at interchanges of I-83, commercial redevelopment in Penbrook and Allison Hill will need to be carefully focused. Demand for retail, service, and restaurant establishments in these "main street" environments will be driven primarily by the needs of the population within a one-to-two-mile radius and the 22,000 to 36,000 vehicles that pass through these communities daily on Walnut/State Streets.

Visitors to the Civil War Museum and Reservoir Park represent another source of retail demand. A detailed consumer expenditure potential analysis indicates that demand exists for a pharmacy/drug store, for specialty food stores, and for new restaurants in the western portion of the Walnut Street corridor. Visible, accessible parking as well as a safe, attractive pedestrian environment will be critical to the success of retail and restaurant establishments.

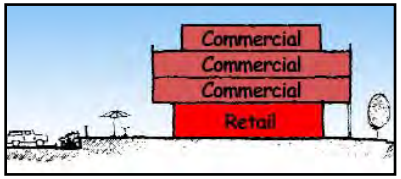
Lower Paxton Township

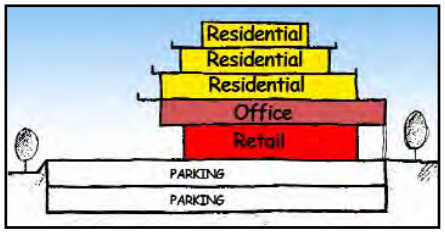
Residential & Mixed Use

The demographic trends that will influence the corridor over the next two decades will support development of low-maintenance housing with convenient proximity to shopping, employment, and entertainment. Encouraging residential development and strengthening existing residential neighborhoods in the corridor will expand the market for nearby retail and service businesses and is a critical strategy for revitalization of the western portion of the corridor.

Mixed-use environments will become increasingly popular, particularly as traffic congestion—already an issue in the Harrisburg metropolitan area—worsens. Integrating new development and redevelopment opportunities along the Walnut Street Corridor into mixed-use projects can maximize both the individual development's performance and its impact on the corridor overall. It is estimated that demand will be generated

Corridor Wide Land Use & Market





Typical mixed-use configurations

Residential/Retail Mixed-Use

for between 200 and 250 additional housing units annually in the corridor communities. If tenure patterns remain constant, between 30 and 40 percent of new units could be expected to be rental units while the remainder would be targeted to homeownership. Many of these new residential units could be developed as part of mixed-use projects.

Marketing and Branding

An important aspect of corridor revitalization will be marketing strategies designed to raise awareness of the corridor as a place to work, shop, and live. The fact that the road name changes throughout the study area (State Street/Walnut Street/Jonestown Road/Allentown Boulevard) is a potential impediment to creating a consistent identity for the corridor. Most individuals identify the road as Route 22, so it would be logical to use that name in the branding effort.

A consistent logo used on banners and other signage throughout the eight-mile-long corridor should be the first phase of a marketing strategy. Use of a different color to signify each community (Harrisburg, Penbrook, Susquehanna, and Lower Paxton), as well as identifying the municipality by name on banners, signage, and bus shelters, would improve wayfinding and increase community awareness. This color scheme could carry over to brochures and printed maps as well.

Other facets of the marketing strategy should include:

- Branding a bus route as the "Route 22 Shopper" or the "Route 22 Commuter."
- Leveraging activities in Reservoir Park to attract new patrons to corridor businesses. The City of Harrisburg publishes a monthly calendar of Parks and Recreation events that includes advertising space at reasonable rates. The calendar is distributed to all Harrisburg residents. This medium presents an excellent opportunity for businesses, particularly in Penbrook and Allison Hill, to advertise to individuals planning to attend events at the nearby park.
- Slogans can be used to brand specific marketing campaigns. For example, a “Route 22 and You” campaign could be used for general image development purposes. New pedestrian and bike mobility enhancements could be rolled out with a "Route 22: Not Just for Traffic Anymore" campaign. This type

Corridor Wide Land Use & Market

of campaign will require a responsible coordinating entity or coalition of entities, such as business associations or Main Street organizations.

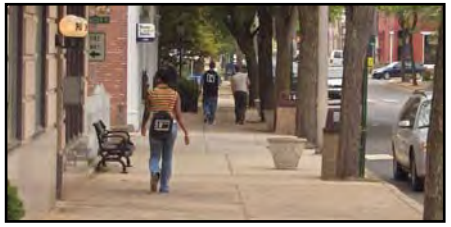
- A corridor shopping guide, including locator maps and store descriptions, would encourage existing corridor shoppers to explore other venues along Route 22. The shopping guide should be available for distribution at businesses throughout the corridor.

Real Estate Market Impact of Streetscape and Circulation Improvements

Throughout the corridor, streetscape improvements and greening initiatives will improve the appeal and marketability of commercial properties for prospective tenants and help attract new customers to the Route 22 shopping environment. Corridor-wide improvements to traffic patterns and to bicycle and pedestrian circulation is important to the long-term success of Route 22 as a commercial corridor.

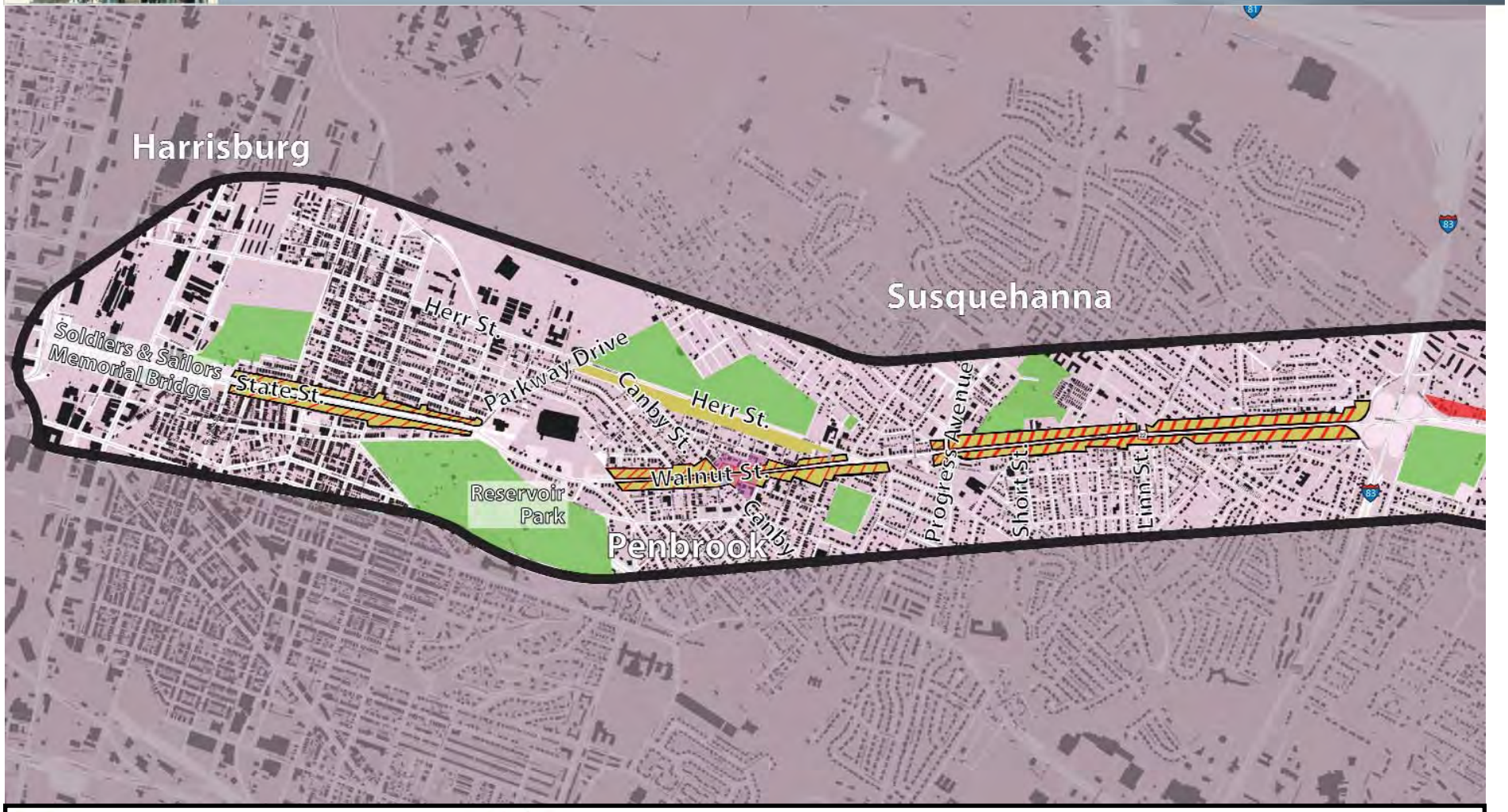
In Penbrook, the diversion of some traffic volume to Herr Street will allow the borough to begin to recreate a "main street" commercial core and enhance quality-of-life for nearby residents. Having on-street parking available on both sides of Walnut Street will be an important factor to attract new tenants to Walnut Street storefronts. Signage should be provided at the fork of Walnut and Herr Streets to direct drivers to stores and restaurants on Walnut Street.

Encouraging transit use through the provision of attractive park-and-ride lots will not only help to mitigate traffic congestion, but also will create retail opportunities for businesses serving commuters returning from work, such as stores offering prepared foods and dry cleaners.



A traditional "main street" streetscape

A boulevard streetscape with landscape center median/turning lane is most appropriate for the eastern two-thirds of the corridor.


Harrisburg
Susquehanna
Penbrook
Soldiers & Sailors Memorial Bridge
State St.
Herr St.
Parkway Drive
Canby St.
Herr St.
Walnut St.
Reservoir Park
Canby
Progress Avenue
Short St.
Linn St.
83
81
Medium density residential
Retail/highway commercial
Mixed-use residential/commercial
Mixed-use retail/office commercial

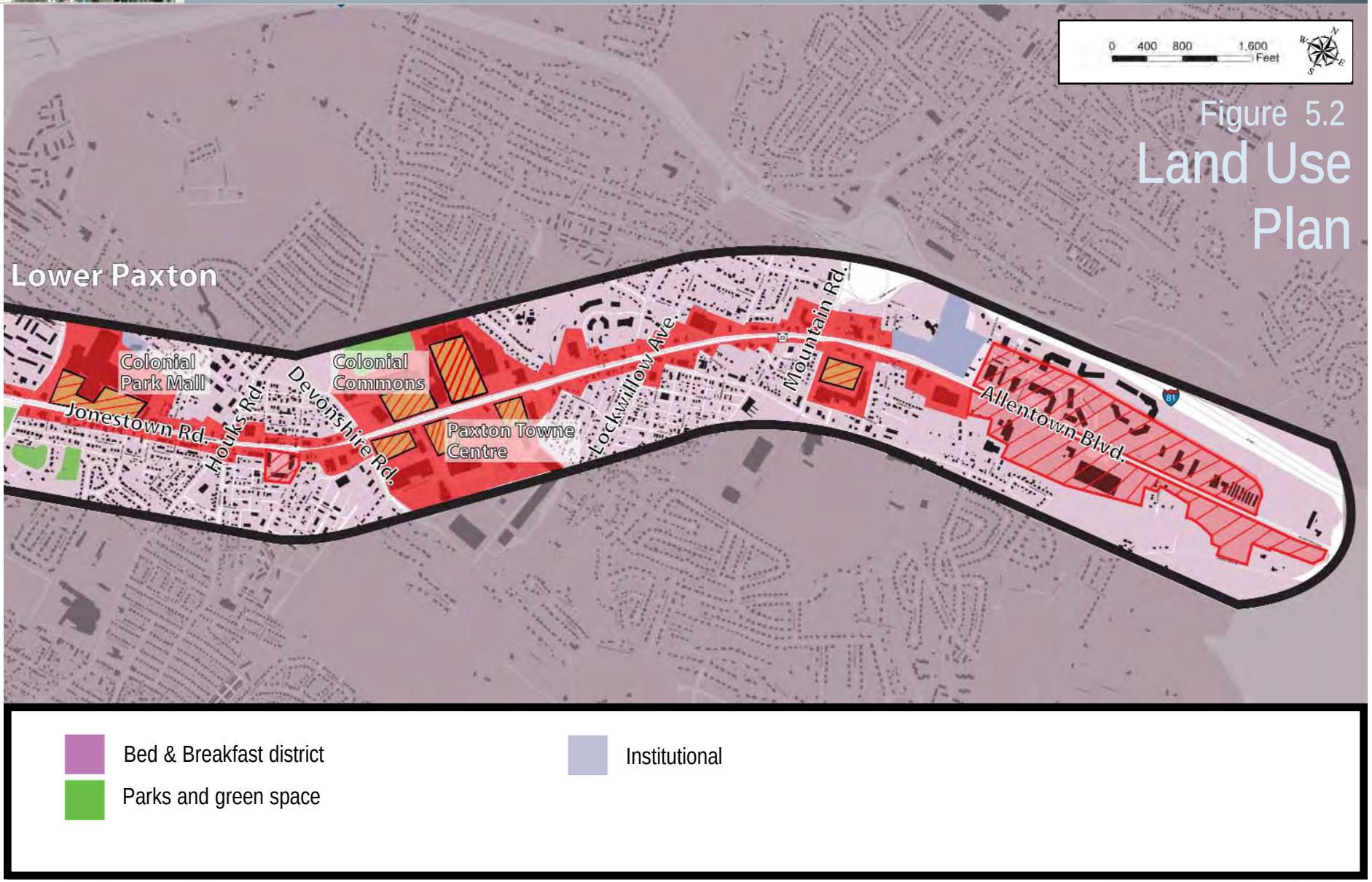


Figure 5.2
Land Use Plan

Corridor Wide Transportation

A series of corridor-wide recommendations are proposed in support of the functional systems of mobility. These recommendations are intended to provide improved conditions for pedestrians, cyclists, transit users, and motorists as they travel into, along, and across the corridor. Recommendations address the following issues:

- Vehicular Mobility
- Transit Service
- Pedestrian Circulation
- Parking

Vehicular Mobility

While the attraction of a widened Walnut Street Corridor from end to end is obvious from a traffic mobility perspective, the reality is that physical circumstances make such a prospect difficult. Other factors include the need to consider neighborhood quality-of-life issues and business district viability.

As a result, vehicular mobility must be considered in the context of also enhancing corridor economic vitality and preserving character, especially across the western third of the corridor.

Improvements to problematic intersections, and the synchronization of traffic signals across the corridor's span are key short-term measures that are recommended. Reconfiguration of traffic patterns through Penbrook is another step that this Plan recommends, with short-, medium-, and long-term configurations.

Although vehicular mobility and transit service are addressed separately in this section, the study concludes are that they are closely interdependent, especially in the long term. A series of multi-modal recommendations are made for implementation over a span of a decade and beyond. Alternative modes of travel may offer commuters mobility choices and reduce congestion; improved transit conditions may contribute significantly to improved resident and commuter mobility in the corridor.

A variety of options to travel the corridor is a key recommendation, to be achieved through a comprehensive network of vehicular travel lanes, designated bicycle/transit lanes, and pedestrian sidewalks and paths. Intercept park-and-ride facilities would enable a smooth transition from automobile to transit vehicle as part of a commute along this corridor.

This future system will require additional roadway right-of-way width across much of the eastern two-thirds of the corridor, where rights-of-way are already significantly more generous than to the west.

Corridor Wide Transportation

Transit Service

Transit recommendations present a strategic vision for public transportation, but not a detailed operating plan. As the Walnut Street Corridor Redevelopment Plan is advanced, more thorough analysis will be required to describe route alignments and service levels as well as integration with other CAT service improvements. These recommendations are somewhat ambitious, which is consistent with the nature and scale of the land use, urban design, and economic development recommendations. In general, new development or redevelopment should seek to make transit access easier and thereby increase transit use.

Bus Stop Locations/Park & Rides

Typically, CAT bus stops are marked with the standard signs indicating the stop and route. Some revisions may be appropriate as development occurs to assure that bus stops are located close to both existing and new activity centers, safely out of the way of pedestrian and vehicular traffic, and conspicuous to all users of the corridor.

Additional park-and-ride facilities should be established, especially at the Herr and Walnut Street split and 36th Street.

Bus Stop Features

All bus stops should be clearly marked by signs. Consideration could be given to design/graphic themes that support both transit system awareness as well as the corridor identity. Municipalities should seek out shelters, canopies, signage, and seating areas related to transit as opportunities to provide theme and identity to the community at large. Other aspects of stops include surface materials, lighting, community art displays, and landscaping. Physical features should be consistent with ADA requirements.

- Shelters/canopies - In addition to serving as a visual marker of the transit stop, shelters also provide protection from wind, rain, and snow for waiting passengers. In some cases, where pavement width is not sufficient, reliance should be placed on canopies that extend from building lines.

Corridor Wide Transportation

Shelters/canopies should be placed at more heavily utilized stops.

- Benches - At more heavily utilized bus stops, seating should be provided that is visible to traffic, set back from the street and out of the way of the effective sidewalk area.
- Bus bulbs - Curb extensions are often used to enhance the waiting area at bus stops and avoid conflicts with access to adjacent businesses. Bulb outs can also provide additional space for amenities such as benches and shelters. Usually, the bulb-out is achieved by extending the pavement into the curb lane used for parking.
- Information kiosks - Information kiosks could be provided that describe transit services.
- Expanded bus service - Seven-day-a-week service should be instituted.

Designated Bicycle & Peak Hour Transit Lanes

Participating municipalities should work together to create a multi-modal corridor along Walnut Street/Route 22. Designated travel lanes for bicyclist and for peak-hour rapid transit are a significant step. For specific locations for these features see Figures 5.3 and 5.4.

Lane designated for rapid transit

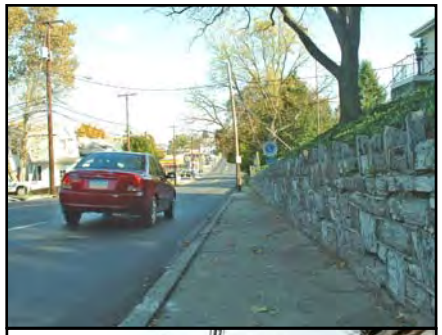
Pedestrian Circulation

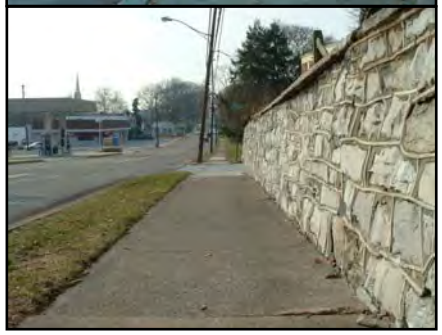
Sidewalks & Crosswalks

Continuous along both sides of the corridor, sidewalks should be well maintained, provide direct access into buildings fronting the corridor, make connections to intersecting roadway sidewalks, and safely direct pedestrians to crosswalk areas. Landscaped buffers separating walkways from roadways are recommended where feasible.

Pedestrian crossings at intersections should be located at corners with Americans with Disabilities Act-acceptable ramps set ninety degrees to the cartway. Crosswalks should be a minimum of ten feet wide, delineated with a seventy-five percent contrasting color from the roadway paving, and located at least six feet away from an intersection vehicular stop bar.

Corridor Wide Transportation





Boulevard designs include sidewalks with landscaped buffers between the curb and the walkways. This provides a sense of safety for pedestrians, especially when walkways are flush with retention walls.

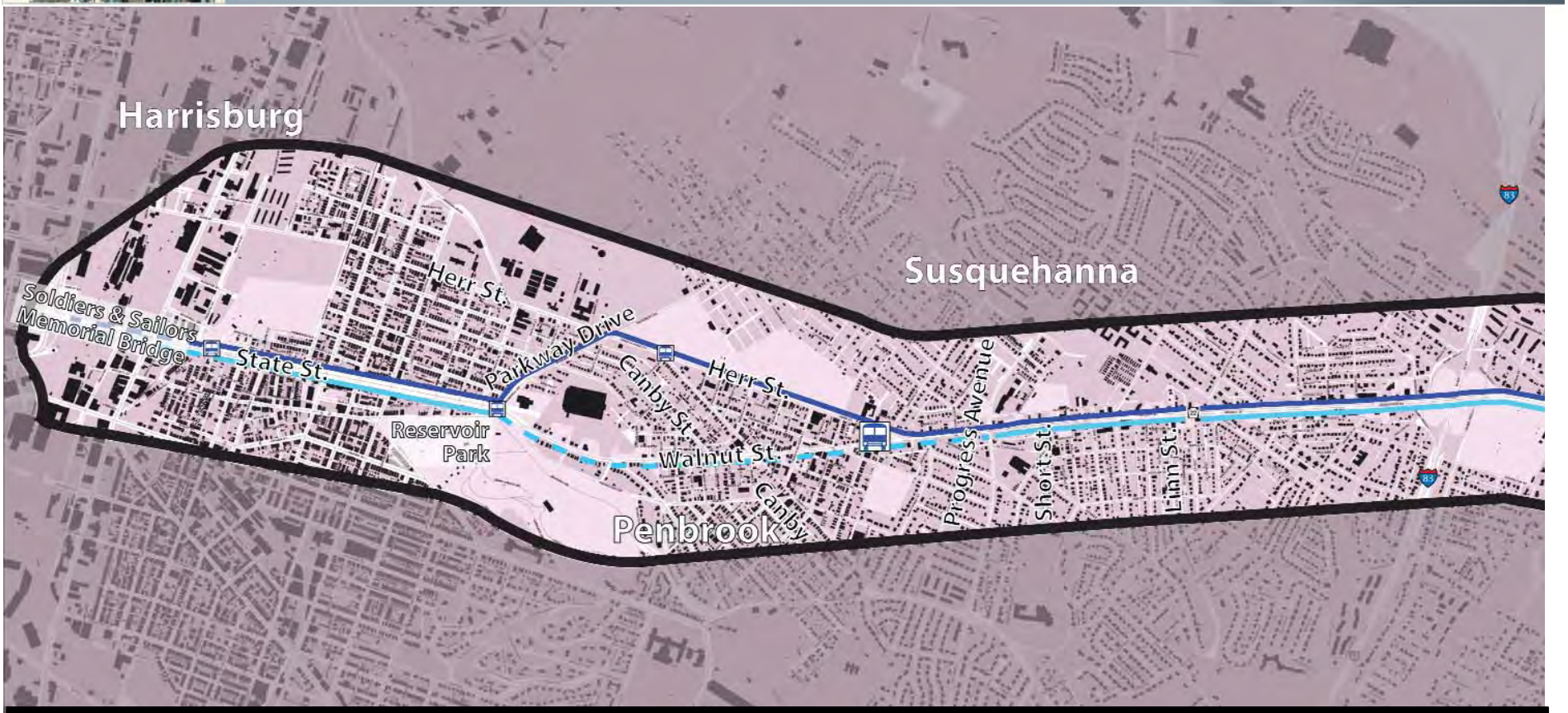
Parking

On-street parking is a critically important element for successful commerce and a pedestrian-friendly ambiance in traditional business districts and neighborhoods. For this reason, on-street parking is strongly encouraged for State Street and for Walnut Street in Penbrook Borough.

For State Street and for Walnut Street in Susquehanna Township and Penbrook Borough, off-street parking should not be provided in front of buildings along the corridor. In the short term, where existing properties along the corridor have parking in front of buildings, such parking should not be permitted to block pedestrian passage along the front of properties. Over the longer term, such front-of-building parking should be eliminated and the parking accommodated in an alternate location (behind the building, in most cases).

As new development occurs along the corridor, increasing the density of land uses, opportunities for structured and shared parking facilities should be pursued. Development incentives, joint use with CAT park-and-ride sites, and modified local parking requirements can help make parking structures financially feasible.

Off-street parking, screened from view along street, with landscaping.



Peak-Hour Designated Transit Lane (Westbound)

Peak-Hour Designated Transit Lane (Eastbound)

Transit service shares the road with non-transit vehicles (westbound)

Transit service shares the road with non-transit vehicles (eastbound)

Figure 5.3

Transit Plan

CAT park-and-ride with pull-outs and shelter

CAT Intercept park-and-ride transit centers (to be built over time, with structured parking)

Designated bicycle lane (eastbound)

Designated bicycle lane (westbound)

Bicycles share the road with motorized vehicles (eastbound)

Bicycles share the road with motorized vehicles (westbound)

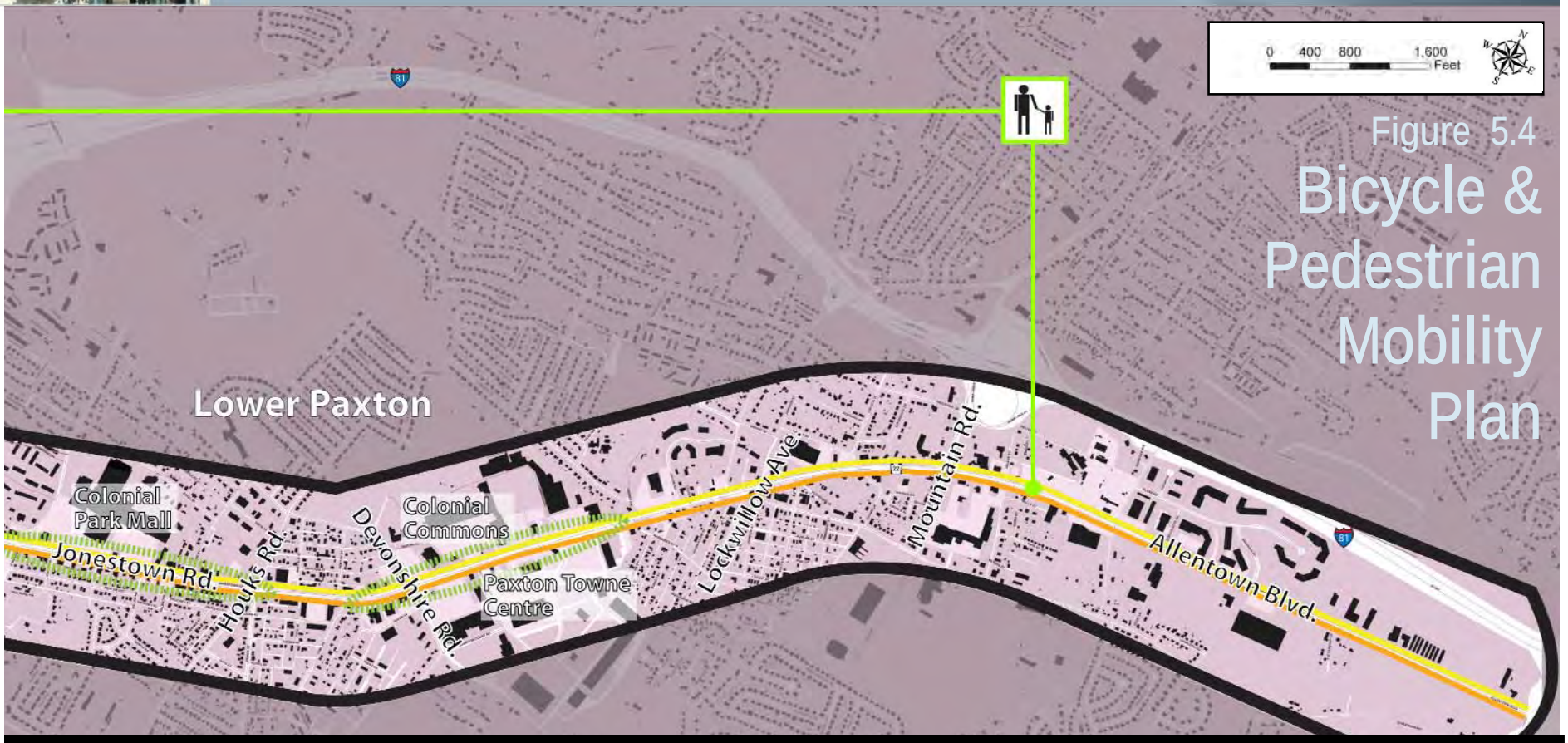
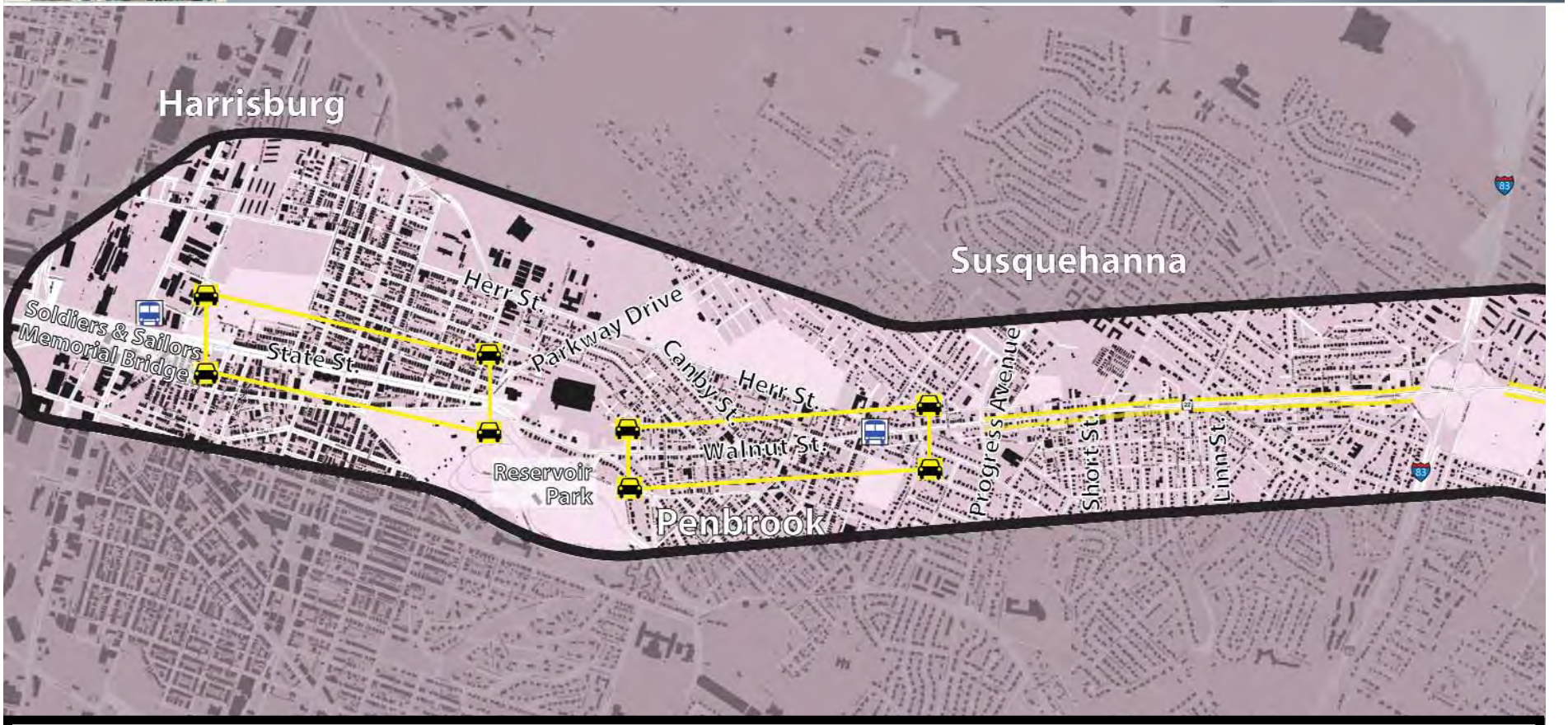


Figure 5.4
Bicycle & Pedestrian Mobility Plan



Provide Corridor-Wide Design Guidelines, including landscape buffers for off-street parking and sign standards

On-street parking with bulb-outs

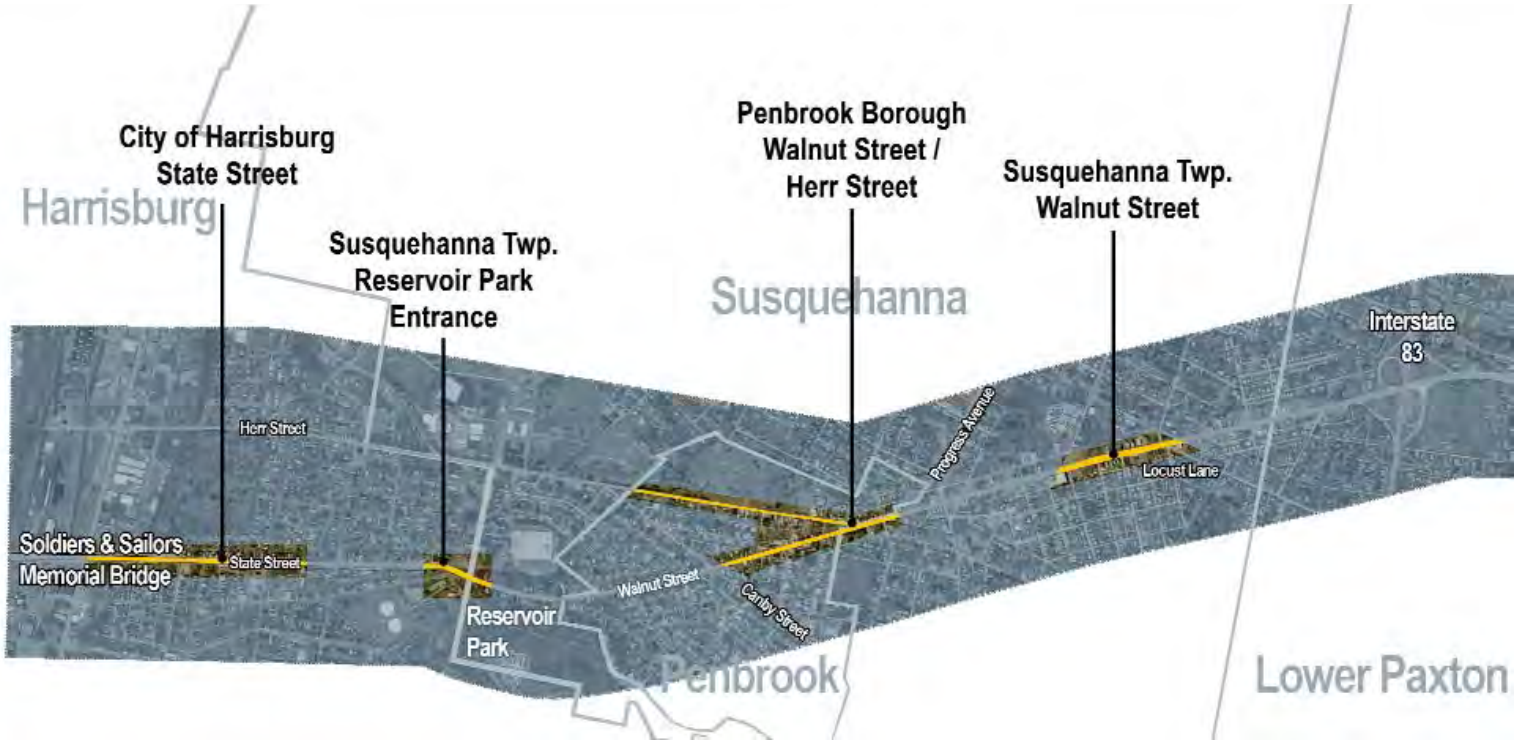
Figure 5.5

Parking Plan

Improve off-street parking conditions at existing CAT park-and-ride sites and build new sites

PRIORITY AREA RECOMMENDATIONS

Six priority areas have been identified along the corridor (Figure 5.6), reflecting key parts of the study area for development and redevelopment initiatives. Streetscape, land use, market, and transportation improvements at these locations can provide immediate economic, mobility, and quality-of-life benefits to the respective communities and act as a catalyst for further public and private investment along the corridor. The six priority areas are as follows:



1. State Street (City of Harrisburg)
2. Reservoir Park Frontage (City of Harrisburg)
3. Walnut/Herr Streets (Penbrook Borough)
4. Walnut Street (Susquehanna Township)
5. Jonestown Road at Colonial Park Mall (Lower Paxton Township)
6. Jonestown Road at Paxton Towne Centre (Lower Paxton Township)

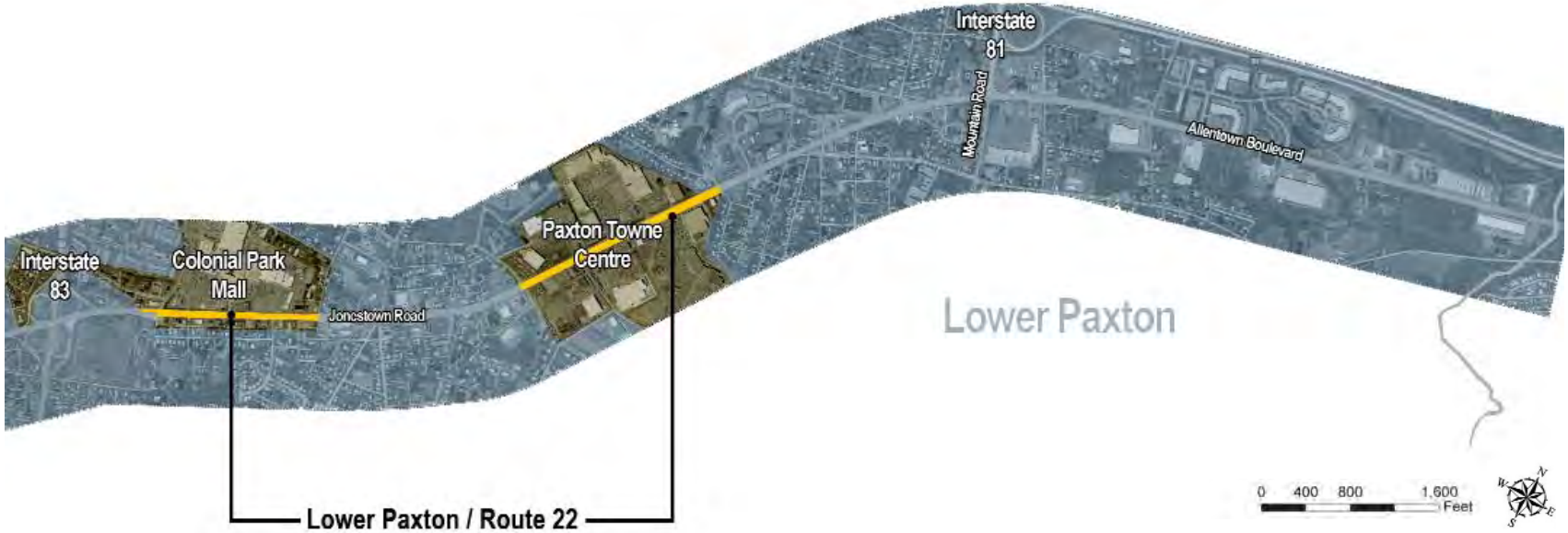


Figure 5.6

State Street Priority Area

City of Harrisburg

Positioned with the Soldiers and Sailors Memorial Bridge to the west and 17th Street to the east, State Street has the strongest residential character of the corridor. Dwellings range from single-family detached to multi-family, and there are wide sidewalks, on-street parking spaces, and views of the State Capitol.

The Walnut Street Corridor Redevelopment Planning Study recommends strengthening this area with "infill" construction comprised of medium-density residential dwellings and mixed-use buildings that have locally-oriented commercial space on ground floors and residential uses above. Over the longer term, designated transit/bicycle lanes can be installed within the existing cartway of State Street.

Streetscape

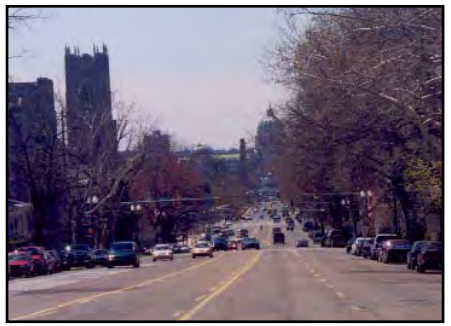
Existing sidewalks, tree canopies, and lighting play an important role in creating a favorable atmosphere along State Street. Installation of additional streetscape elements, including benches, planters, trash receptacles, and bicycle racks are recommended, along with additional wayfinding signs for both pedestrians and motorists.

The traditional siting and building orientation toward State Street should be followed in any new construction and on-street parking should be retained.

Curbs along both sides of the street are frequently in poor condition; these should be repaired.

Interpretive sign outside Lincoln School provides historical information.

Maintenance of sidewalks and landscaping should be high priority.



Preservation of a consistent tree canopy is important for this area.

State Street Priority Area

Land Use and Market

Vacant parcels northwest of the corner of State and 13th Streets should be redeveloped with mixed-use, medium-density residential development.

Mixed-use infill development for all four continuous vacant lots at the southwest corner of State and 13th Streets is also recommended and, at State and 16th Streets, the vacant property near the southwest corner should be redeveloped. A similar approach for the southwest corner of this intersection is also recommended. Both parcels at the southwest corner of State and Linn Streets should be developed in this manner.

In each case, neighborhood-oriented commercial uses such as a grocer are appropriate, especially for ground-floor levels, with multi-family housing and/or office commercial uses for levels above.

In addition, Royal Terrace and Sunshine Parks should be improved to provide additional active recreational opportunities including playground areas, open field space, and improved landscaping.

Royal Terrace playground

Transportation

The addition of a designated transit/bicycle lane in each direction within the existing State Street cartway is recommended (Figures 5.7 and 5.8). These lanes should operate near the intersection corner of 13th and State Streets to the west, as well as at or near the Reservoir Park entrance to the east. A signal prioritization system for transit vehicles is also recommended.

Pedestrian safety across the Soldiers and Sailors Memorial Bridge during the winter season is a current concern. A winter maintenance protocol that includes snow clearing and salting is essential and should be developed by PennDOT in consultation with the City of Harrisburg.

State Street Priority Area

Intersection Recommendations

An additional southbound right-turn lane for Parkway/Civil War Museum Drive at the intersection of State/Walnut Street is recommended.

In addition to this specific intersection change, coordination of traffic signals all along the corridor is desirable.

Cartway Recommendations

In general, the generous width of the State Street cartway can accommodate various changes proposed to occur over the long term. These include the addition of a transit/bicycle lane in each direction (peak-hour transit-use and non-peak exclusive bicycle use).

With respect to Parkway Drive, over the long term, its cartway should be increased to forty-four (44) feet, north of State Street.

CURRENT

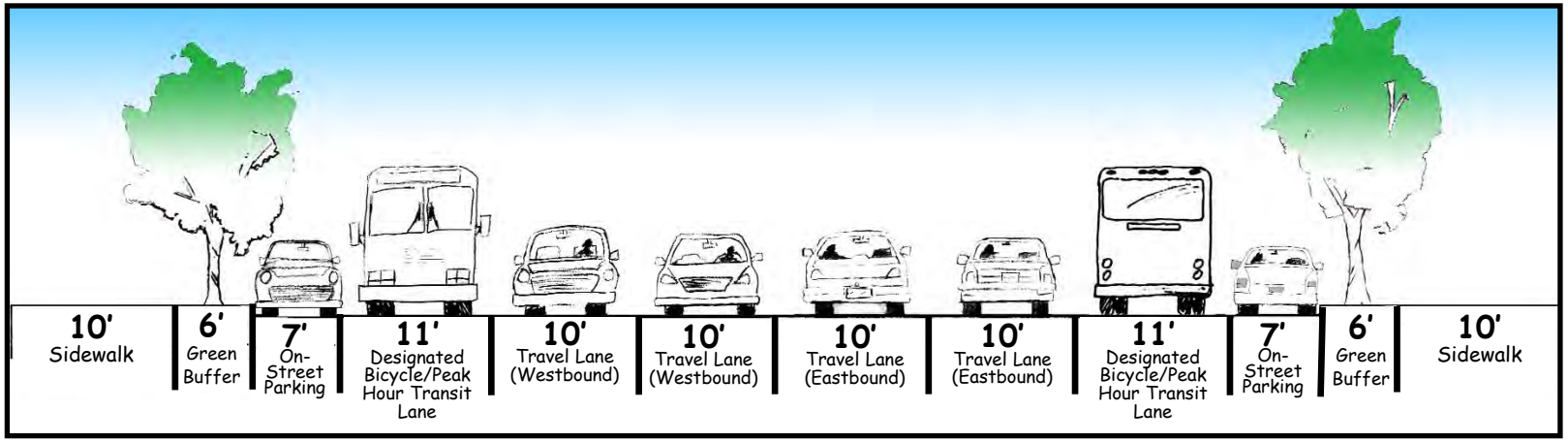
AFTER long-term improvements (artist's rendering)

13th & State Streets, Harrisburg

Figure 5.7

Figure 5.8
State Street, Harrisburg.
Recommended Cross-Section.

Long-term improvements would include the addition of designated bicycle/peak hour transit lanes.



State Street

Reservoir Park Entrance Priority Area

City of Harrisburg & Township of Susquehanna

Reservoir Park has its principal entrance from the corridor, on the boundary of the City of Harrisburg and Susquehanna Township. This is a physically prominent location along the corridor, where Walnut Street transitions to State Street.

The park itself is an important local open space feature, with support for civic events provided by the bandshell and the Park Mansion. The park also contains the National Civil War Museum, potentially a strong tourist draw to the area.

Streetscape

As the park is an important local destination, the frontage of Reservoir Park should provide optimal conditions for pedestrians. Conceptionally, an extension to the strong pedestrian environment of State Street should be made over to the frontage of the park. A network of side-walks and crosswalks should be completed with generous widths and landscaped buffers consistent with the boulevard appearance of State Street. Traffic calming is important here to reinforce the pedestrian-oriented atmosphere.

The park may be considered the “eastern gateway” for the State Capitol, and attention should be placed on both transit-oriented furnishings and street trees. Emphasis on effective way-finding measures for both pedestrians and motorists less familiar with the immediate environment is also important.

Land Use & Market

To the northeast of the Parkway Drive and State Street intersection is the State Surplus site. One of the largest-sized properties in the western third of the corridor, this is a significant setting. The location has potential for redevelopment with a multi-story structure with medium-density residential use on upper levels and dining and family entertainment use on lower levels. Such uses can advance a synergy between Reservoir Park and the Walnut Street Corridor, increasing patronage and activity for both the Reservoir Park area as well as other parts of the corridor.

The State Surplus Site possesses the largest building footprint in the entire western third of the corridor.

Reservoir Park Entrance Priority Area

Transportation

As State Street transitions to Walnut Street, cartway widths should remain as they are. However, the future State Street designated eastbound transit/bicycle lane should merge into a eastbound Walnut Street lane near the Reservoir Park entrance.

A designated westbound transit/bicycle lane, emerging from Herr Street, should connect to State Street through a reconfigured Parkway Drive. The recommended Parkway Drive cross-section should be forty-four (44) feet and should accommodate a designated southbound transit/bicycle lane with an additional travel lane for non-transit vehicular use.

Other changes to this area should include improvements to the Capital Area Greenbelt pathway between Reservoir Park and the East Harrisburg Cemetery.

Capital Area Greenbelt map links Reservoir Park, Parkway Drive, and portions of the East Harrisburg Cemetery.

Pedestrian access to Reservoir Park from both adjacent neighborhoods as well as the corridor should be re-examined for its adequacy. The integration of park sidewalks and pathways with the Walnut Street Corridor pedestrian system is strongly encouraged.

Currently, there is only limited access to Reservoir Park from localities other than the front entrance.

Walnut/Herr Streets Priority Area

Borough of Penbrook

Walnut Street between Hoffer Lane and 31st Street is Penbrook's main business street. As the spine of its central business district, Penbrook is dependent on this part of the corridor for its economic life, but in its present circumstances there is inadequate support for stopping, parking, and walking -- essential components for a successful shopping district.

With some alterations to the right-of-way (but no change to its overall width), a supportive streetscape for "main street" commerce could be created here.

Herr Street is bounded by the East Harrisburg Cemetery along most of the north side of the two-lane arterial road, with its south side primarily consisting of single-family detached dwellings and some non-residential uses. The designated Priority Area is from 30th Street in the east to Parkway Drive on the west.

Herr Street is parallel to Walnut Street and relatively close to it. Herr Street can function in a complementary manner to Walnut Street, in a pairing mode for vehicular movement and as a residential component matched with Walnut Street's more mixed-use and commercial character.

Pedestrian-scaled lighting on State Street

Walnut Street Streetscape

Long term, this priority area should include sidewalks along both sides of Walnut Street with widths no less than six (6) feet. An additional four (4) foot buffer between sidewalks and the cartway is recommended, as is a consistent tree canopy. Street furnishings, including pedestrian-scaled light fixtures as well as trash receptacles, benches, and bicycle racks, are encouraged to support pedestrian activity.

Long term, on-street parking should be made permanent for both sides of the street, with bulb-outs or curb extensions near intersections, allowing for safer pedestrian conditions for crossing Walnut Street.

Improved sign standards and design guidelines for façades should be enacted. Ambient street lighting should be provided through pedestrian-scaled light fixtures. Pole height for the fixtures should be ten to fifteen feet.

Walnut/Herr Streets Priority Area

In addition, consideration should be given to converting some alleys such as Ludwig Alley between 28th and 29th Streets to pedestrian-only or shared-use paths.

Herr Street Streetscape

A relatively ambitious set of recommendations for Herr Street would, over the long term, widen this right-of-way and support a transition of land uses on the south side of the street to more intensive residential ones. Additional right-of-way would be able to support wider sidewalks along the south side of the street. New street lighting and pedestrian- and transit-oriented furnishings such as benches, shelters, and trash receptacles would be consistent with the enhanced role for Herr Street.

Opportunities to use transit should be supported by the pedestrian-friendly setting. Sidewalks should be at a minimum width of five (5) feet with no less than two (2) feet of a landscaped buffer next to the cartway.

Opportunities for the removal of above-ground utilities could occur in conjunction with proposed road widening work.

View of East Harrisburg Cemetery from Herr Street.

Walnut/Herr Streets Priority Area

Walnut Street Land Use & Market

New development should include multi-story, mixed-use structures, with retail commercial and/or office commercial space on ground floors. Upper floors should include medium-density, multi-family residential use and/or office commercial space.

Parcels should be assembled for mixed-use redevelopment at the following identified areas:

A strong market potential may exist for the area near Canby and Walnut Streets for a Bed and Breakfast district.

- Southeast corner of Hoffer and Walnut Streets;
- Southeast corner of Hoffer Lane and Walnut Street;
- North side of Walnut Street between 23rd Street and Hoffer Lane;
- North side of Walnut Street between Forster and 24th Street.
- Northwest corner of Canby Street, and both northeast and southeast corners of 29th Street;
- Southeast corner of 29th and Walnut Streets;
- Southeast corner of Penbrook Avenue and Walnut Street.
- Between 27th Street, Penbrook Avenue, 28th Street, and Walnut Street.
- Between Brooks Alley and 29th Street, along Walnut Street.
- Between Herr Street and Penbrook Avenue, along the east side of 27th Street.
- Northeast corner of 28th and Walnut Streets.
- Along Penbrook Avenue, between 29th Street and Brooks Alley.
- Between Penbrook Avenue and Walnut Street at 29th Street.
- Between Brooks Alley, Herr Street, 29th Street and small east-west pedestrian oriented street.
- Between 29th and 30th Streets along Walnut Street.

Walnut/Herr Streets Priority Area

Herr Street
Land Use & Market

As Herr Street is widened, the south side of Herr Street is proposed to be redeveloped to include medium-density residential dwelling units. New housing here would bring nearby Walnut Street a captive market that is necessary for the economic vitality of Penbrook Borough. New development on Herr Street may also include mixes of neighborhood commercial uses on ground floors near intersecting streets and the inclusion of off-street parking behind structures, away from the Herr Street frontages.

Parcels should be assembled for mixed-use redevelopment at the following identified areas:

- Northeast corner of Herr and 28th Streets.
- Corner of Herr Street and Brooks Alley.
- Between Walnut and Herr Streets and 29th and 30th Streets.

Walnut/Herr Streets Priority Area

Walnut/Herr Streets Transportation

The transportation changes are part of a "paired" program between Walnut and Herr Streets to enhance mobility while supporting economic development. To make this pairing work for the short term, Herr Street's on-street parking should be replaced by an additional westbound travel lane. The three-lane Herr Street would then function as part of a pair with a proposed three-lane Walnut Street. Herr Street would carry the majority of westbound commuting traffic in the morning, while Walnut Street would carry most evening commuters eastbound (Figures 5.9 and 5.10). On-street parking would therefore be permitted along the north side of Walnut Street but prohibited on the south side.

In the longer term, Herr Street should be widened to a fifty-five (55) foot wide cart-way (all of the widening along the south side), and become a five-lane road (Figures 5.11 and 5.13).

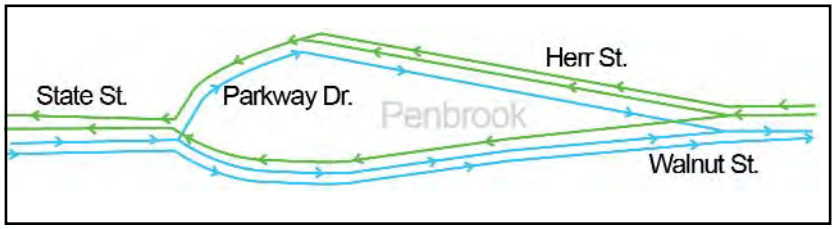
In Walnut Street's ultimate configuration, there would be permanent on-street parking on both sides of Walnut Street and a single travel lane in each direction (Figures 5.12 and 5.14).

Over the long term, a transit lane is proposed for Herr Street (Figure 5.11). Within Penbrook, a transit facility is also recommended.

New parking policies should also be considered that meet the parking needs of business customers, merchants, employees, visitors, and residents while encouraging frequent turnover of spaces.

An annual parking survey should be conducted to provide up-to-date data on parking conditions. The inventory should provide the borough with average daily occupancy rates and average duration of parked vehicles.

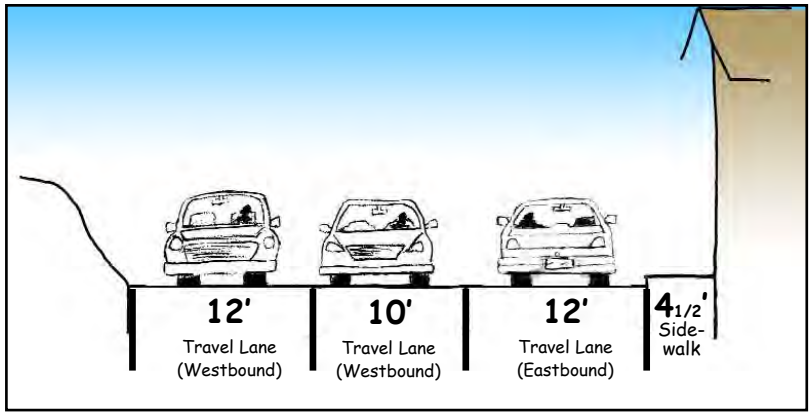
Figure 5.9



Short-Term Vehicular Circulation Map:
2 travel lanes westbound and one eastbound along Herr Street, 2 travel lanes eastbound and one west-bound along Walnut Street

Transit facility oriented to commercial streets

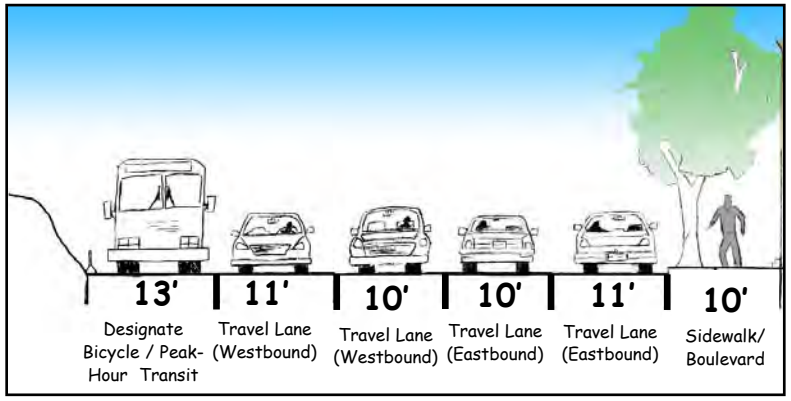
Walnut/Herr Streets Priority Area



Herr Street

Figure 5.10
Herr Street, Penbrook.
Recommended Short-Term Cross-Section.

The existing cartway width is reconfigured to support two travel lanes westbound and one travel lane eastbound as a short-term mobility solution.

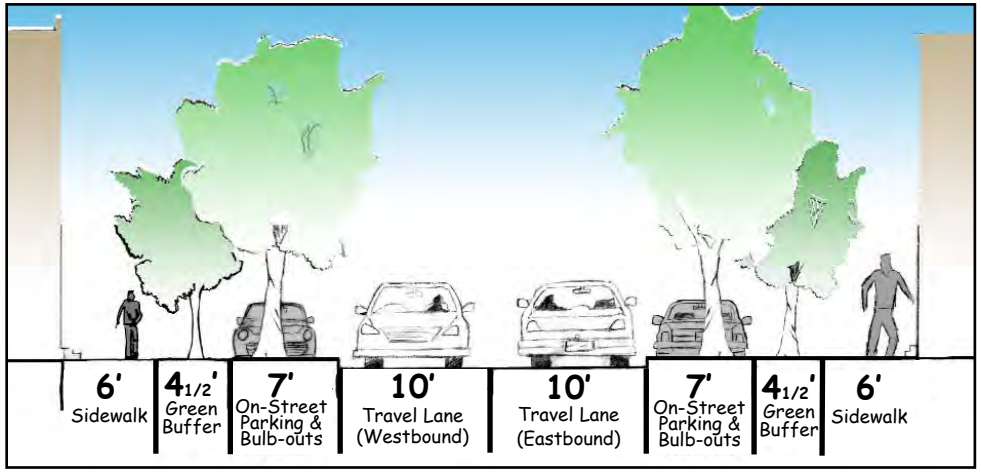


Herr Street

Figure 5.11
Herr Street, Penbrook.
Recommended Long-Term Cross-Section.

When Walnut Street is reconfigured to include a single travel lane in each direction, Herr Street should be widened to 2 travel lanes in each direction plus a west-bound designated transit/bicycle lane.

Walnut/Herr Streets Priority Area



Walnut Street

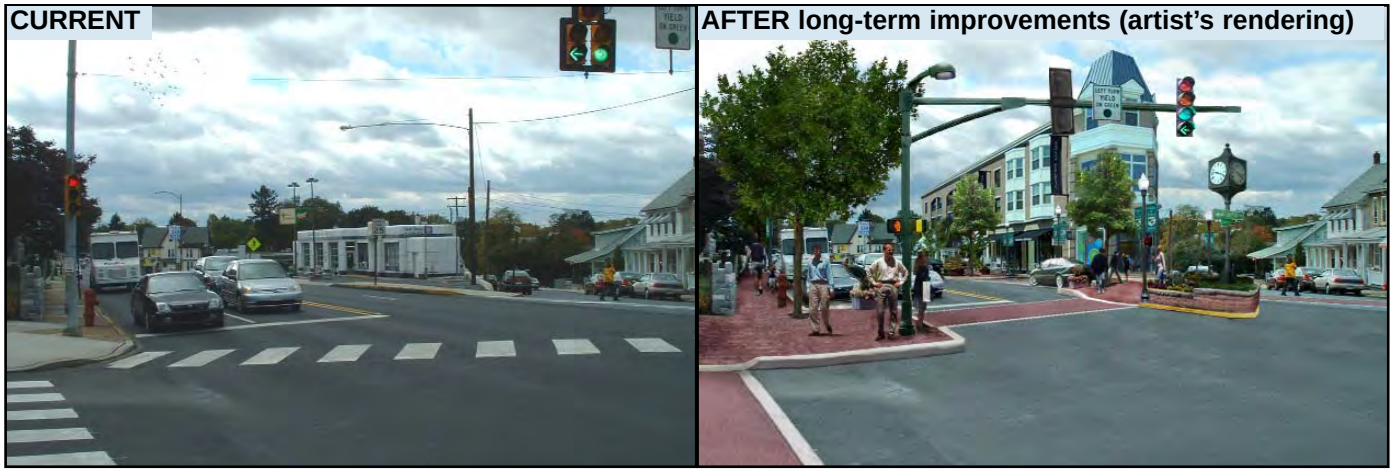
Figure 5.12
Walnut Street, Penbrook. Recommended Long-Term Cross-Section

Long-term vision is of "Main Street USA" with permanent on-street parking, bulb-outs (curb extensions), and one travel lane in each direction.

Figure 5.13

28th & Herr Streets, Penbrook Borough

Figure 5.14



28th & Walnut Streets, Penbrook Borough

Walnut Street Susquehanna Priority Area

Township of Susquehanna

Walnut Street in this part of Susquehanna Township forms a transition from the pre-World War II development area to the west and the post-World War II area to the east. This area has a mix of small single-family residential properties intertwined with highway commercial uses. This area is east of 34th Street and west of Locust Lane.

Recommendations for this portion of the corridor emphasize a transition to a multi-modal corridor, with improved design standards to reconcile the differences in character between the western portion and the eastern.

Progress Avenue Intersection Changes

The Walnut Street Corridor Redevelopment Planning Study has been coordinated with the planning of changes to the Walnut Street-Progress Avenue intersection.

Streetscape

To the east of Progress Avenue, a variety of large-scale improvements should be considered for Walnut Street in Susquehanna Township. Long term, a wider cartway, including a landscaped center median/turning lane, is proposed. The wider cartway will allow room for designated transit/bicycle lanes in each direction.

Recommendations also include emphasis on a complete network of sidewalks along both sides of the street. Sidewalks should be a minimum of six (6) feet in width and there should be at least four (4) feet of landscaping between the sidewalk and the cartway. Consistent tree canopies and other street furnishings between the pavement and the roadway should be included along these green verges.

Included with future roadway widenings should be the removal of above-ground utilities, creating an open, uncluttered streetscape for pedestrians and motorists.

In their place should be new roadway lighting, including poles and fixtures oriented to traffic and those oriented to pedestrians.

Buildings should be sited up to a newly-established right-of-way line, with business access from fronting sidewalks. Parking lots associated with new development should be located behind buildings; existing lots should have additional frontage landscaping to reduce the visual dominance of parking along the length of the corridor.

Revised sign standards and design guidelines are also recommended, along with new wayfinding sign programs. A reduction in visual clutter, along with improved directional signage, should enhance the attractiveness of the corridor and the experience of traveling along it.

Walnut Street Susquehanna Priority Area

Land Use & Market

The cartway widening should occur along the north side of Walnut Street in Susquehanna Township (east of Progress Avenue). As this widening occurs, substantial redevelopment can take place along the corridor, especially on the north side of the street.

New development should include multi-story, mixed-use structures, with retail commercial and/or office commercial space on ground floors. Upper stories should include medium-intensity, multi-family residential use and/or office commercial space.

Specific targeted retail uses should include nationwide bakery chains, restaurants, or business services with floor plans capable of being integrated with mixed-use structures.

Jonestown Road
Excessive size of commercial signage is a current problem.

Transportation

A new eighty-one (81)-foot-wide cartway is proposed to support two (2) travel lanes in each direction and an additional thirteen (13) foot wide transit/bicycle lane in each direction (Figure 5.15). Traffic signal prioritization is also encouraged for transit vehicles.

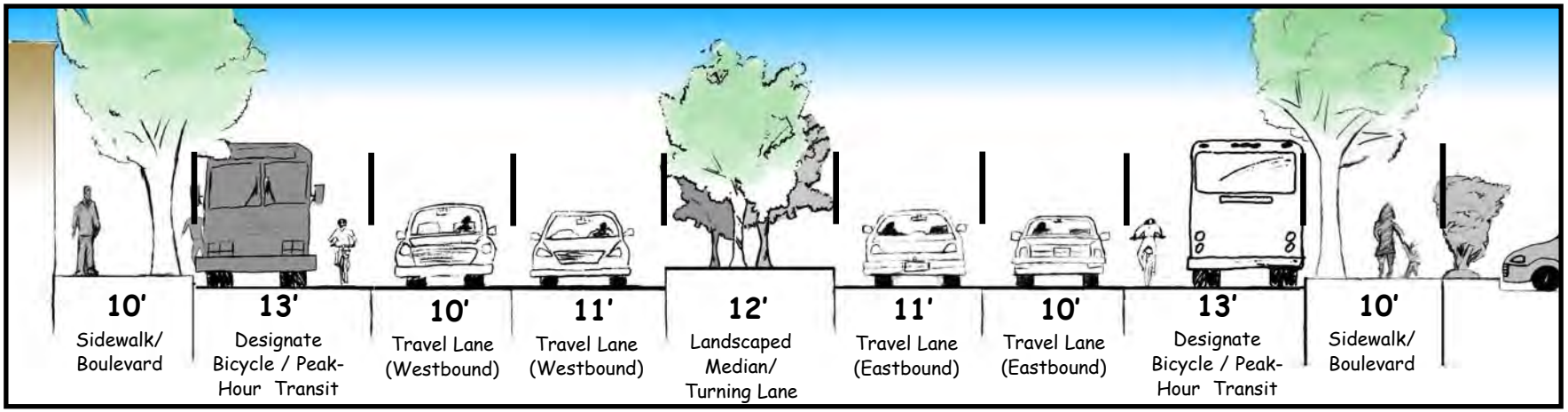
For optimal pedestrian mobility and safety, sidewalks with a minimum width of six (6) feet for both sides of Walnut Street should be constructed and connect to neighboring areas along the corridor.

A total of a one hundred-ten-foot-wide ultimate right-of-way is recommended. A landscaped center median/turning lane is also proposed to run the length of the priority area and to the east into Lower Paxton Township.

In the short-term, sidewalks, crosswalks, and landscaping can improve the appearance and function of this part of the corridor (Figure 5.16).

Figure 5.15
Walnut Street, Susquehanna.
Recommended Long-Term Cross-Section

Long-term vision of the corridor east of Progress Avenue and into Lower Paxton Township includes a minimum cartway width of 80 feet with 10 foot-wide sidewalk/boulevards along both sides.



Walnut Street

Figure 5.16

Walnut Street/Route 22, Susquehanna Township

Lower Paxton Route 22 Priority Areas

Township of Lower Paxton

The two easternmost priority areas are somewhat similar in nature. Colonial Park Mall and Paxton Towne Centre are comprised of large building footprints with high concentrations of retail commercial use. Both priority areas are easily accessible from the region.

In the future, opportunities to balance the retail uses with residential and office uses in mixed-use configurations and improved public transportation services should be pursued.

Streetscape

These two easternmost priority areas already have the most generous right-of-way widths of the entire corridor. Sidewalks should be installed along both sides of the corridor since there is room now to do this. Sidewalk widths are recommended to be a minimum of six (6) feet with no less than four (4) feet of landscaping between the sidewalk and cartway. Consistent tree canopies and other street furnishings between the pavement and the roadway should be included along these green verges.

Corridor lighting that is appropriate for pedestrians as well as vehicles should be considered for these areas. Removal of above-ground utilities is also encouraged. Such efforts would help to provide an open, uncluttered streetscape for pedestrians and motorists. Revised sign standards and corridor design guidelines are also recommended.

A landscaped center median/turning lane is also proposed to run the length of the two eastern priority areas and west into Susquehanna Township. This would enhance the attractiveness of the corridor, support safe left-turn opportunities, and enable pedestrians and cyclists to cross the corridor in a safer manner than at present. The typical long-term cross-section is the same as in Susquehanna Township (See figure 5.15).

Lower Paxton/Rt. 22 Priority Area

Land Use & Market

Future development should be in multi-story, mixed-use structures with retail-commercial and/or office-commercial space on ground levels, and occur on sites at the Colonial Park Mall and in the Paxton Towne Centre vicinity. These new structures should include medium-intensity, multi-family residential uses and/or office commercial space on floors above the ground level.

The opportunity to provide a balanced mix of residential, office, and retail uses will ensure a long-term "captive" market for the retail businesses, and concentrations of residential units and office activities will support transit use.

Transportation

A minimum of an eighty-one (81)-foot-wide cartway is proposed to support two (2) travel lanes in each direction and an additional thirteen (13) foot wide transit/bicycle lane in each direction. Traffic signal prioritization is also encouraged for transit vehicles.

An intercept park-and-ride lot/center is recommended for the area between the I-83 and Route 22 interchange at or near the Colonial Park Mall. This location should be able to have a significant role in attracting riders to board CAT transit vehicles.

New mixed-use developments may include structured parking, to be shared among the uses included in the development.

For optimal pedestrian mobility and safety, sidewalks with a minimum width of six (6) feet and a four (4) foot landscaped buffer should be constructed on both sides of the corridor. Street trees should be planted and maintained as part of the landscaped buffer and along a network of sidewalks perpendicular to the corridor that connect to off-street parking lots and nearby neighborhoods.

A shared-use path is recommended to parallel Elmerton Avenue, adjacent to a garden apartment complex at Colonial Road and and directly across from the Colonial Park Mall. This path would be able to safely move pedestrians and cyclists from the Colonial Park Mall area west across I-83 via the Elmerton Avenue overpass. Movement would then be directed back on the study corridor through a system of trail signs.

Elmerton Avenue Overpass

WALNUT STREET
CORRIDOR REDEVELOPMENT PLAN

Chapter 6

IMPLEMENTATION STRATEGY

- Implementation Strategy
- Funding Sources


ONLY

In Chapter 5, a series of ambitious recommendations were presented for the entire corridor. This chapter recognizes the phased implementation of those recommendations; for each municipality some recommendations maybe realized in the short term while others will take much longer to achieve. The Implementation Strategy includes Short-Term (1-5 Years), Medium-Term (5-10 Years), and Long-Term (10+ Years) recommendations to help municipalities and their planning partners set priorities.

A Funding Source section within this chapter describes programs that may be pursued to assist municipalities in implementing improvements recommended in the Plan. Support from all levels of the Walnut Street Corridor community and from its public and private planning partners is required now and will need to be sustained in order to achieve the goals of the Plan.

City of Harrisburg
RECOMMENDATIONS

SHORT-TERM
1-5 Years

Adopt a district redevelopment plan consistent with this Plan's set of recommendations.

Initiate cultural events such as markets and fairs.

Provide a tax abatement program for facade and other property improvements.

Repair curbing.

Provide stricter parking enforcement through parking regulations that have two-hour limits except for resident parking (have resident parking permits).

Include proper maintenance on the Soldiers & Sailors Memorial Bridge, such as snow removal on walkways, for improved conditions for cyclists and pedestrians (by PennDot).

MEDIUM-TERM
5-10 Years

Enhance access to and features of nearby parks and green space, including landscaping, as well as improved views from State Street.

Improve system of wayfinding such as signs, banners, maps, kiosks, etc. (See Appendix A - 26)

Install a CAT bus shelter/transit stop near the corner of 13th and State Streets.

Enhance the Capital Area Greenbelt trail and its access to the corridor from the north near the East Harrisburg Cemetery with an improved system of wayfinding and trail demarcation.

Solicit developers to construct new infill construction and renovate suitable existing structures for residences and local retail uses.

Provide CAT bus pullout and shelter at the Reservoir Park entrance (integrated into a gateway feature).

Provide plans/incentives for a Bed & Breakfast District in proximity to pedestrian paths to strengthen tourism and visitation.

LONG-TERM
10+ Years

Provide designated transit lanes in each direction of State Street between the Soldiers & Sailors Memorial Bridge and Reservoir Park.

Redevelop State Surplus site to the north of Reservoir Park.

Widen Parkway Drive to a forty-four (44) foot wide cartway to accommodate an additional travel lane and designated southbound bicycle lane and peak-hour transit lane.

Borough of Penbrook

RECOMMENDATIONS

SHORT-TERM
1-5 Years

Adopt district redevelopment plan consistent with this Plan's set of recommendations.

Install permanent on-street parking along one side of Walnut Street by way of demarcated lines, with two travel lanes eastbound and one westbound.

Reconfigure existing cartway of Herr Street to have two travel lanes westbound and one eastbound with no on-street parking (See the following pages' *Artist's Renderings*).

Revise setback standards to anticipate a fifty-five (55) foot cartway on Herr Street.

Provide a tax abatement program and design guidelines for facade and other property improvements.

Adopt new higher-density residential zoning provisions to permit 3-5 story multi-family housing on the south side of Herr Street and at other appropriate locations in the borough.

Synchronize traffic signals with neighboring municipalities.

Install improved crosswalks.

Conduct parking studies.

MEDIUM-TERM
5-10 Years

Widen sidewalks along both sides of Walnut Street to a minimum of six (6) feet.

Improve system of wayfinding such as signs, banners, maps, kiosks, etc. (See Appendix A - 26)

Develop a CAT transit stop near the Herr/Walnut Street intersection.

Solicit developers to construct new infill construction and renovate suitable existing structures for residences and businesses.

Close off selected street(s)/alleys near the corridor for pedestrian and bicycle shop/travel paths.

Provide plans/incentives for a Bed & Breakfast District in proximity to pedestrian paths to strengthen tourism and visitation.

LONG-TERM
10+ Years

Reconfigure the Walnut Street cross-section to support one travel lane in each direction with permanent on-street parking on both sides of the street, including bulb-outs.

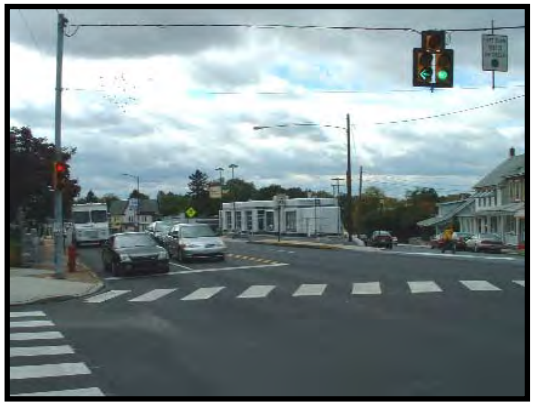
Reconfigure Herr Street with a fifty-five (55) foot-wide cartway comprised of two travel lanes in each direction plus a transit lane. Redevelop the south side of Herr Street to include medium-density residential dwelling units.

Widen Parkway Drive to a forty-four (44) foot wide cartway to accommodate an additional travel lane and designated transit lane.
Provide a CAT bus pull-out with priority traffic signalization near the intersection of Canby and Herr Streets. Provide a park-&-ride facility at a CAT transit stop at the Herr/Walnut Street intersection.

Install consistent tree canopies, pedestrian lighting, and street furniture along with landscaped boulevards a both sides of Walnut Street plus the south side of Herr Street.

27th and Walnut Streets
(existing conditions)

<u>Short & Medium-Term Improvements:</u>
Two travel lanes eastbound, one travel lane westbound within existing cartway. Permanent on-street parking on north side.



28th and Walnut Streets
(existing conditions)

<u>Long-Term Improvements:</u>
One travel lane in each direction with permanent parking on both sides of Walnut Street. Wider sidewalks with street trees. New land uses with a mix of retail, office, and residential.

28th and Herr Streets
(existing conditions)

Short & Medium-Term Improvements:
Two travel lanes westbound, one travel lane eastbound within existing cart-way. No on-street parking.

Long-Term Improvements:
Two travel lanes in each direction and a designated transit lane (total cart-way width = 55 feet). New medium-density, mixed-use residential units with a ten (10)-foot-wide landscaped boulevard and sidewalk along the south side of Herr Street. No on-street parking.

NOTE: This rendering does not show the designated transit lane.

Township of Susquehanna

RECOMMENDATIONS

SHORT-TERM
1-5 Years

Adopt district redevelopment plan consistent with this Plan's set of recommendations.

Synchronize district redevelopment plans with Progress Avenue/Walnut Street intersection enlargement.

Revise setback standards to anticipate a one hundred-ten (110)-foot-wide ultimate right-of-way, with widening taking place on the north side of the street.

Fill in missing links in sidewalk system along the corridor, add unit-paver crosswalks, and connect corridor to adjacent neighborhoods with new pedestrian linkages.

Revise development regulations concerning signs, parking, and building form.

MEDIUM-TERM
5-10 Years

Plan for cartway widening along the corridor east of Progress Avenue and west of Locust Lane.

Improve system of wayfinding such as signs, banners, maps, kiosks, etc. (See Appendix A - 26)

Revise development regulations to encourage medium-density, mixed-use residential/ commercial structures.

LONG-TERM
10+ Years

Redevelop north side of corridor east of Progress Avenue and west of Locust Lane with mixed-use structures fronting on wide, landscaped sidewalks and off-street parking behind the buildings.

Construct new eighty-one (81)-foot-wide cartway supporting two travel lanes and a designated bicycle/peak-hour transit lane in each direction, and a landscaped median/ turning lane.

Provide consistent tree canopy along a landscaped and/or textured verge with six (6)-foot-wide sidewalks.

Add pedestrian-scaled lighting the length of the corridor.

Widen Parkway Drive to a forty-four (44) foot wide cartway to accommodate an additional travel lane and designated southbound bicycle lane and peak-hour transit lane.

Township of Lower Paxton

RECOMMENDATIONS

SHORT-TERM
1-5 Years

Adopt district redevelopment plan consistent with this Plan's set of recommendations.

Install street trees the length of the corridor.

Fill in missing links in sidewalk system along the corridor, add unit-paver crosswalks, and connect corridor to adjacent neighborhoods with new pedestrian linkages.

Provide a transit shelter at the existing North Mountain Road park-and-ride lot.

Provide additional cartway width to accommodate transit lanes in conjunction with corridor roadway changes associated with I-83 interchange upgrades.

MEDIUM-TERM
5-10 Years

Provide additional cartway width to support a designated bicycle lane/transit lane in each direction between Mountain Road and the Colonial Park Mall entrance.

Improve system of wayfinding such as signs, banners, maps, kiosks, etc. (See Appendix A - 26)

Improve pedestrian connectivity between commercial centers and adjacent existing residential neighborhoods by means of new sidewalks, pathways, and trails.

Adopt redevelopment regulations to support the inclusion of mixed-use retail/residential and retail/office structures at Colonial Park Mall and Paxton Towne Center/Colonial Commons.

LONG-TERM
10+ Years

Redevelop both Colonial Park Mall, Colonial Commons, and Paxton Towne Centre priority areas to add mixed-use retail/residential, retail/office structures as well as structured parking.

Construct a thirteen (13)-foot-wide landscaped median/turning lane along the corridor.

Funding Sources:

FEDERAL

Safe Routes to School
Federally-available funding for a wide variety of programs and projects, from building safer street crossings to establishing programs that encourage children and their parents to walk and bicycle safely to school.

Transportation Enhancement Projects
Federal funding to support projects that are designed to foster more livable communities, preserve and protect environmental and cultural resources, and to promote alternative modes of transportation. Funds are available for design, right of way acquisition, and construction.

Tax Credits

Low Income Housing Tax Credit

Historic Rehabilitation Tax Credit

HUD Sec. 202 Supportive Housing for the Elderly -
provides grants to private, nonprofit organizations to help finance the construction, rehabilitation or acquisition of structures that will serve as supportive housing for very low-income elderly persons, and provides rent subsidies for the projects to help make them affordable.

PENNSYLVANIA

Department of Community & Economic Development (DCED)
www.newpa.com identifies resources and strategies for business and community growth in the State. The Land Use Planning and Technical Assistance Program (LUPTAP) provides grants to local governments for land use planning activities. The DCED New Communities Program assists communities in integrating the revitalization of downtowns with that of industrial/manufacturing areas. DCED's Community Revitalization Program provides grants for community revitalization and improvement projects.

Downtown Center - (padowntown.org) - Training and technical assistance offered in five year grant cycles.

Main Street - Developed by the National Trust for Historic Preservation in 1980, outlines four key components for community based revitalization: design, promotion, organization, and economic restructuring. If program criteria are met, a Main Street community receives State technical assistance and grants for commercial revitalization projects. Different program levels can provide full or partial funding for economic development, preservation, and promotion activities. Main Street communities can also develop additional tools, such as Business Improvement Districts in conjunction with the State program.

Elm Street - The state has recently passed the Elm Street bill, which will provide similar assistance to residential districts adjacent to Main Street communities. The intent is strengthening older communities by a "five-step" approach: Clean, Safe & Green; Neighbors and Economy; Design; Image and Identity; and Sustainable Organization.

Transit Revitalization Investment Districts (TRID) - Enabling legislation offering state support for planning and implementing transit-oriented development. Program is administered by the Department of Community and Economic Development (DCED) and PennDOT.

Pennsylvania Industrial Development Authority (PIDA) - provides low interest loans for eligible commercial projects, including research and development, computer/operations centers, multi-tenant projects, as well as traditional manufacturing and industrial projects. PIDA's First Industries Fund provides low interest financing for agriculture and tourism-related businesses, including farmers' markets.

The Foundation for Enhancing Communities (TFEC) - Expertise in managing charitable funds since 1920. TFEC's mission is to stimulate philanthropy and enhance the quality of life in the community through accumulating, managing and disbursing financial assets, and to serve as a catalyst and neutral convener to meet a wide range of community needs in the south central Pennsylvania counties of Cumberland, Dauphin, Franklin, Lebanon, and Perry, and also in the Dillsburg area.

MULTI-MUNICIPAL

Business Improvement District - Basic for assessed collections from a group of property owners and/or business owners, for the purpose of economic development. Different policing powers and legal implications are implied with the formation of a Special Service District or a Neighborhood Improvement District.

Joint Purchasing (Service Sharing) - Multiple municipalities joining together with the purpose of reducing the costs of purchases and/or services.

Community Development Block Grants
Local governments ineligible for Federal funding from the U.S. Department of Housing and Urban Development are eligible for funding from Dauphin County's Office of Housing and Community Development.

WALNUT STREET
CORRIDOR REDEVELOPMENT PLAN

APPENDIX

Prototype Priority Area Plans

General Appendix

Prototype Priority Area Plans

Walnut Street Corridor Redevelopment Plan

Of the six priority areas identified in Chapter 5, this chapter presents four as more-detailed plans. Each plan identifies development and redevelopment opportunities at the respective location. In addition, these plans may be considered as prototypes, providing direction for future development and redevelopment at other locations along the corridor.

Prototype Priority Area Plans also illustrate the series of systems that would accompany development and redevelopment, including plans for Building Use, Vehicular Circulation, Parking, Bicycle & Pedestrian Circulation, and Parks & Green Space.

The four Prototype Priority Area Plans are as follows:

- **Eastern Gateway**
  City of Harrisburg
- **Penbrook Downtown**
  Borough of Penbrook
- **Susquehanna Center**
  Township of Susquehanna
- **Colonial Park Station**
  Township of Lower Paxton

Eastern Gateway
City of Harrisburg

The development opportunity in the State Street/Harrisburg Eastern Gateway area is essentially an "infill" one, comprising relatively small sites along the corridor frontage that are appropriate for new residential, commercial, and mixed-use construction. Pockets of vacant and underutilized land along State Street are therefore recognized to have important redevelopment potential in this context. Between 16th Street and the Soldiers and Sailors Memorial Bridge, mixed-use nodes on each end are proposed as functional 'book-ends" with retail and other commercial services for local neighborhood patronage. In between, new residential development infills vacant/underutilized lots.

Through a reconfiguration of its existing cartway, State Street is proposed to accommodate peak-hour transit lanes in conjunction with pairs of travel lanes in each direction, as well as on-street parking. Improved pedestrian and bicyclist mobility is also recommended.

Building Use

New buildings include a supermarket at 16th Street, mixed-use retail-office and retail-residential-office structures at the vicinity of 13th Street, a parking structure with retail functions near the Soldiers and Sailors Memorial Bridge, and residential and residential-retail activities at 15th Street and Hoerner Street. With exception to the northwest corner of State and 13th Streets, all proposed new buildings are located on the south side of State Street (Figures A.1 and A.2).

Between 16th and Hoerner Streets.
0.8 acres

- 2-story, 25,000-square-foot supermarket with parking provided partly alongside and partly on the ground level (See Parking section for number of spaces).

Between Hoerner and 15th Streets.
0.3 acres

- 3-story, mixed-use (retail and residential) building providing 3,500 square feet of retail space on the ground level, and 4 dwelling units on the upper two floors. Parking is provided on a surface lot adjacent to and in conjunction with the proposed supermarket.

Eastern Gateway

- Two new 2.5-story multi-family attached residential buildings adjacent to the southeast corner of 15th and State Streets. Each structure accommodates 2 dwelling units with private parking underneath, accessible from a rear alley.

Between 15th and 14th Streets.
0.1 Acres

- New 3-story, residential building with 6 dwelling units.

Between 14th and 13th Streets.
0.5 Acres

- 4-story, commercial mixed-use (office/retail) building on east side of Brady Street with 5,000 square feet of ground floor retail space. The upper three floors include 15,000 square feet of office commercial use.
- 4-story, commercial mixed-use (office/retail) building on west side of Brady Street. The first two floors hold 14,000 square feet of retail space and a similar amount of office space occurs on the upper two floors. Adjacent to the corner of 13th and State Street, public open space is provided (See Open Space for square footage).

Northwest Corner of 13th and State Streets.
0.8 Acres

- 6-story, mixed-use (residential, commercial, and retail) building with 12,000 square feet of commercial space on the first two floors. Retail space is identified for the street level and office space for the second floor. A total of 15 residential units are also proposed for the upper four floors.
- Adjacent to the new building is a 4-level parking garage (See Parking section for number of spaces).

Totals:

New Development	2.5 acres
Retail	53,500 square feet
Office	35,000 square feet
Residential	27 dwelling units

Eastern Gateway

Vehicular Circulation

For improved multi-modal mobility along the corridor, transit lanes are proposed on State Street. As shown in Figure A.3, peak-hour designated transit lanes are provided in addition to four travel lanes (two in each direction) for general vehicular use, while maintaining the existing cartway width.

Roadway

Outside travel lanes support eastbound and westbound lanes designated for transit service. Inside lanes accommodate two travel lanes in each direction for general vehicular use.

A system for traffic signal prioritization can allow for improved transit mobility during peak commuting hours.

Transit Shelters

Transit service improvements include shelters at key locations along State Street, including at the proposed new commercial nodes at the 13th Street and 16th Street intersections.

Parking

On-street parking is maintained on both sides of State Street. Rehabilitation of curbing should be implemented.

A 4-level parking structure is proposed in proximity to the northwest corner of State and 13th Streets (Figure A.4). This facility will accommodate 180 spaces and is intended to serve surrounding new development, transit patrons, and state government employees.

Adjacent to and beneath the proposed supermarket, 65 parking spaces are provided to serve both supermarket customers and neighboring new residential/retail mix activities.

Eastern Gateway

Bicycle & Pedestrian Circulation

From the immediate east of the Soldiers and Sailors Memorial Bridge to the Susquehanna Township line, bicycle mobility involves the sharing of designated transit lanes proposed for the outside lanes of State Street (Figure A.5).

An improved pedestrian environment for State Street includes bulb-outs and additional street furnishings (benches and trash receptacles) at all street intersections beginning at 13th Street and continuing east through 17th Street. Unit-paver crosswalks are proposed at the 13th, 14th, 15th, 16th and 17th Street intersections for enhanced pedestrian safety.

Where sidewalk conditions are substandard (see Figure 2.4), they should be upgraded. Snow and ice removal from the Soldiers and Sailors Memorial Bridge's sidewalks and the pedestrian approaches to the bridge should be a high priority.

Parks and Green Spaces and Gateway Features

In addition, new street trees and landscaping should be installed on the approaches to the Soldiers and Sailors Memorial Bridge.

The intersection of 13th and State Streets is recommended for gateway features, particularly on the southeast corner, where 4,300 square feet of public open space is proposed (Figure A.6).

Additional landscaped green space is recommended along the western edge of the new parking structure proposed across from the north side of the bridge, as well as at Summit Terrace Park to the south of the bridge.

Harrisburg Eastern Gateway
Summary of Development Program

16th-to-Hoerner Streets and State Street (south side):

Total 0.8 Acres

- New 2-story commercial building
  - Ground floor parking 65 spaces
  - Second level supermarket 15,000 s.f.

Hoerner-to-15th Streets and State Street (south side):

Total 0.3 Acres

- New 3-story mixed use (residential & retail) building
  - Ground floor retail 3,250 s.f.
  - Upper two floors residential 4 units
- Two (2) new 2.5-story multi-family attached residential buildings
  - Residential 4 units
  - Parking underneath rear half of structure

15th-to-14th Streets and State Street (south side):

Total 0.1 Acres

- New 3-story multifamily residential building. 6 units

14th-to-13th Streets and State Street (south side):

Total 0.5 Acres

- New 4-story commercial mixed-use building on east side of Brady Street
  - Ground floor retail 4,800 s.f.
  - Upper four floors of office 14,500 s.f.
- New 4-story commercial building on west side of Brady Street
  - First two floors retail 6,500 s.f.
  - Upper two floors office 6,500 s.f.
- Public open space for passive and active recreational use at southeast corner of State and 13th Streets 4,300 s.f.

Northwest corner of 13th and State Streets:

Total 0.8 Acres

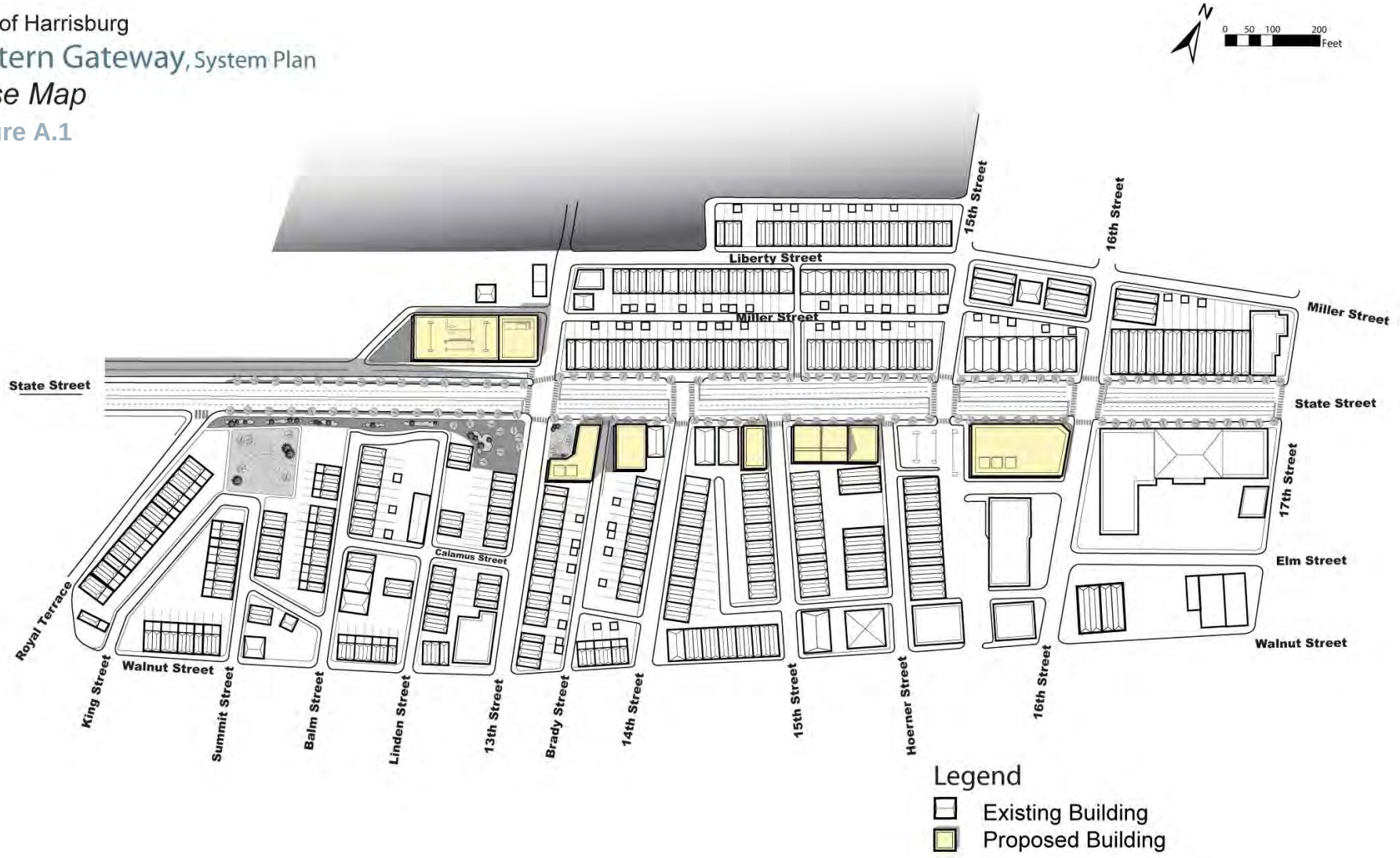
- One new 6-story mixed-use (residential, commercial and retail) building
  - Ground floor retail 5,600 s.f.
  - Second floor office 5,600 s.f.
  - Upper four (4) floors residential 15 units
- New 4-story parking garage 140 spaces

City of Harrisburg

Eastern Gateway, System Plan

Base Map

Figure A.1



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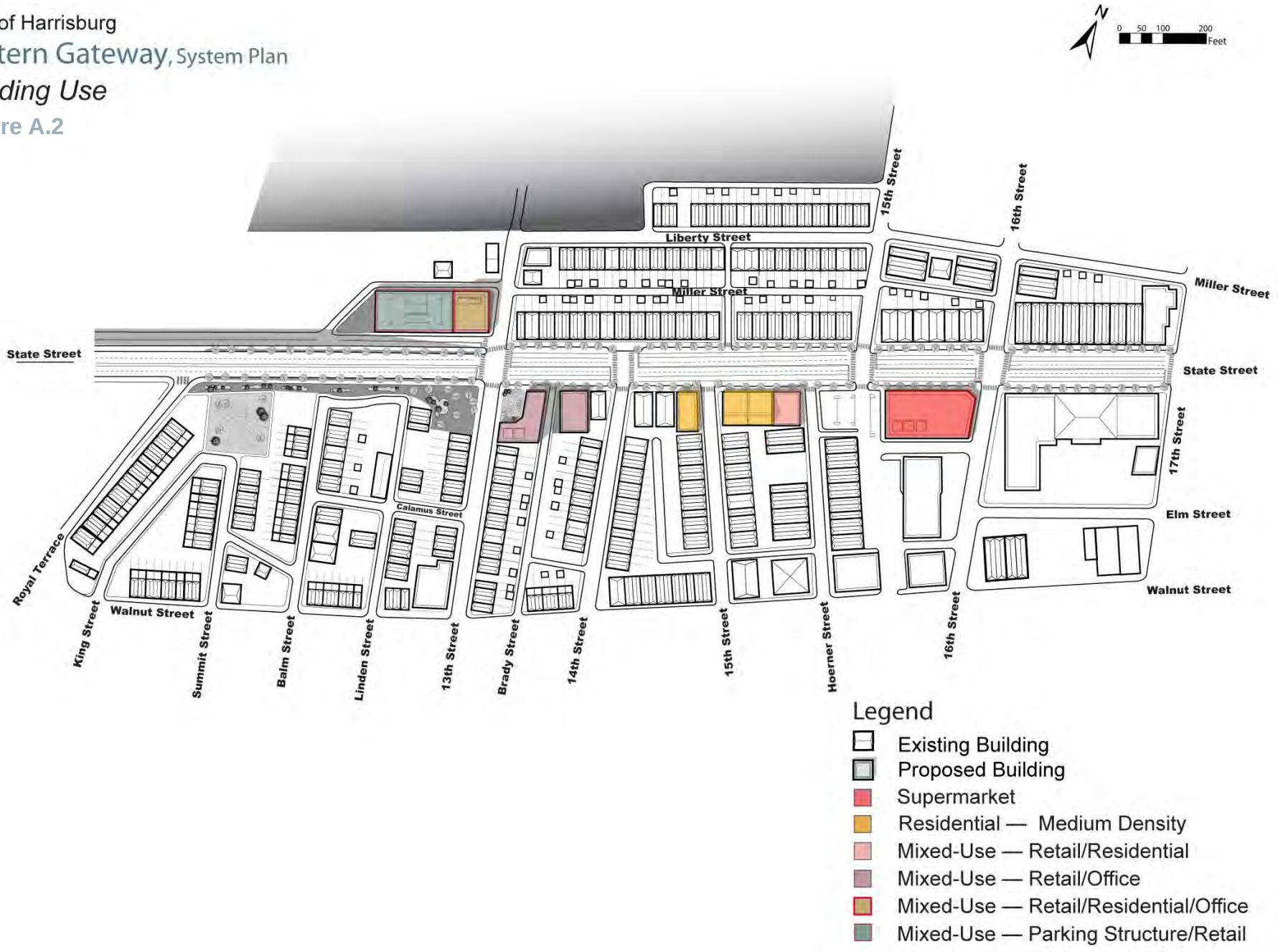
City of Harrisburg

Eastern Gateway, System Plan

Building Use

Figure A.2



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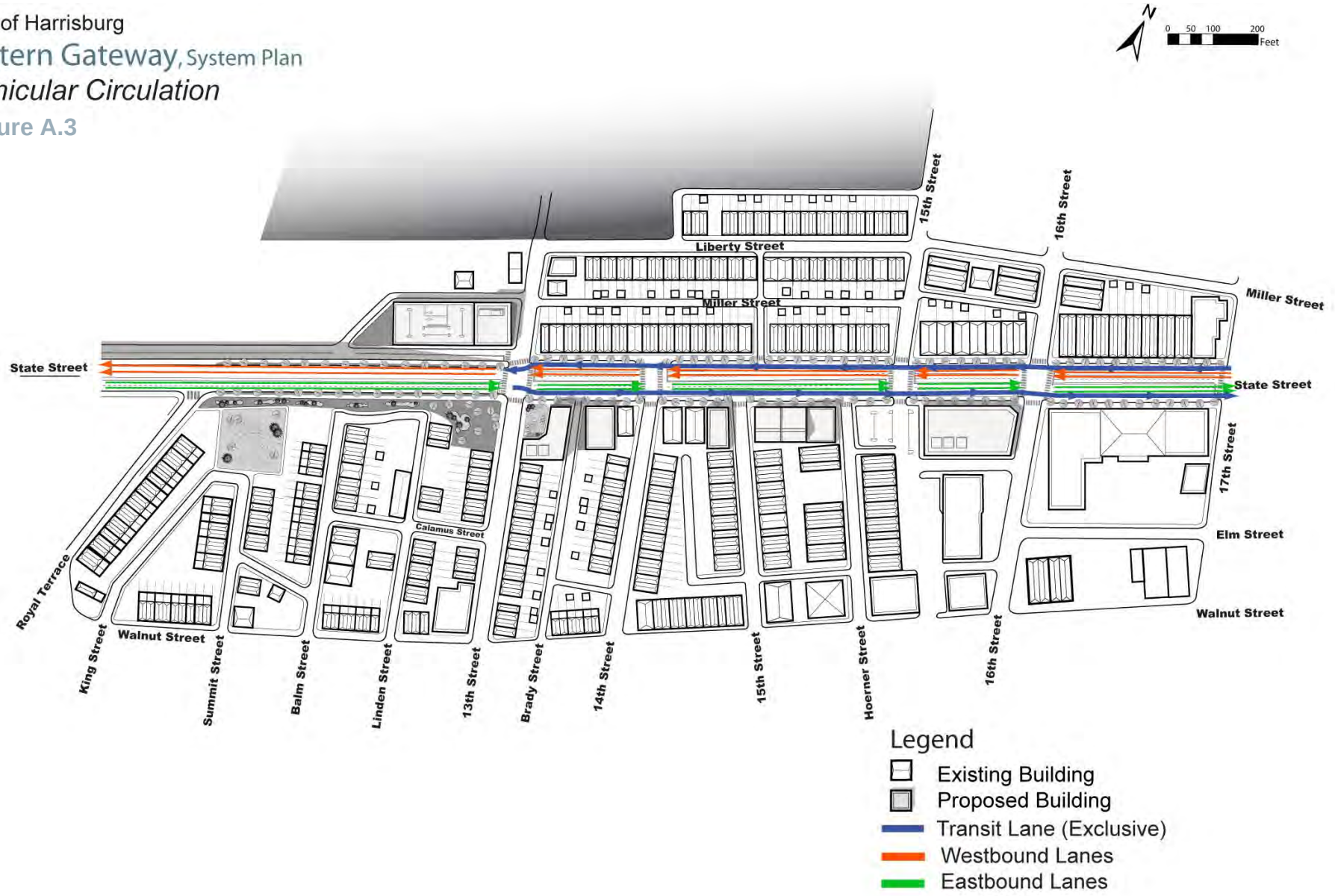
Vehicular Circulation

Figure A.3

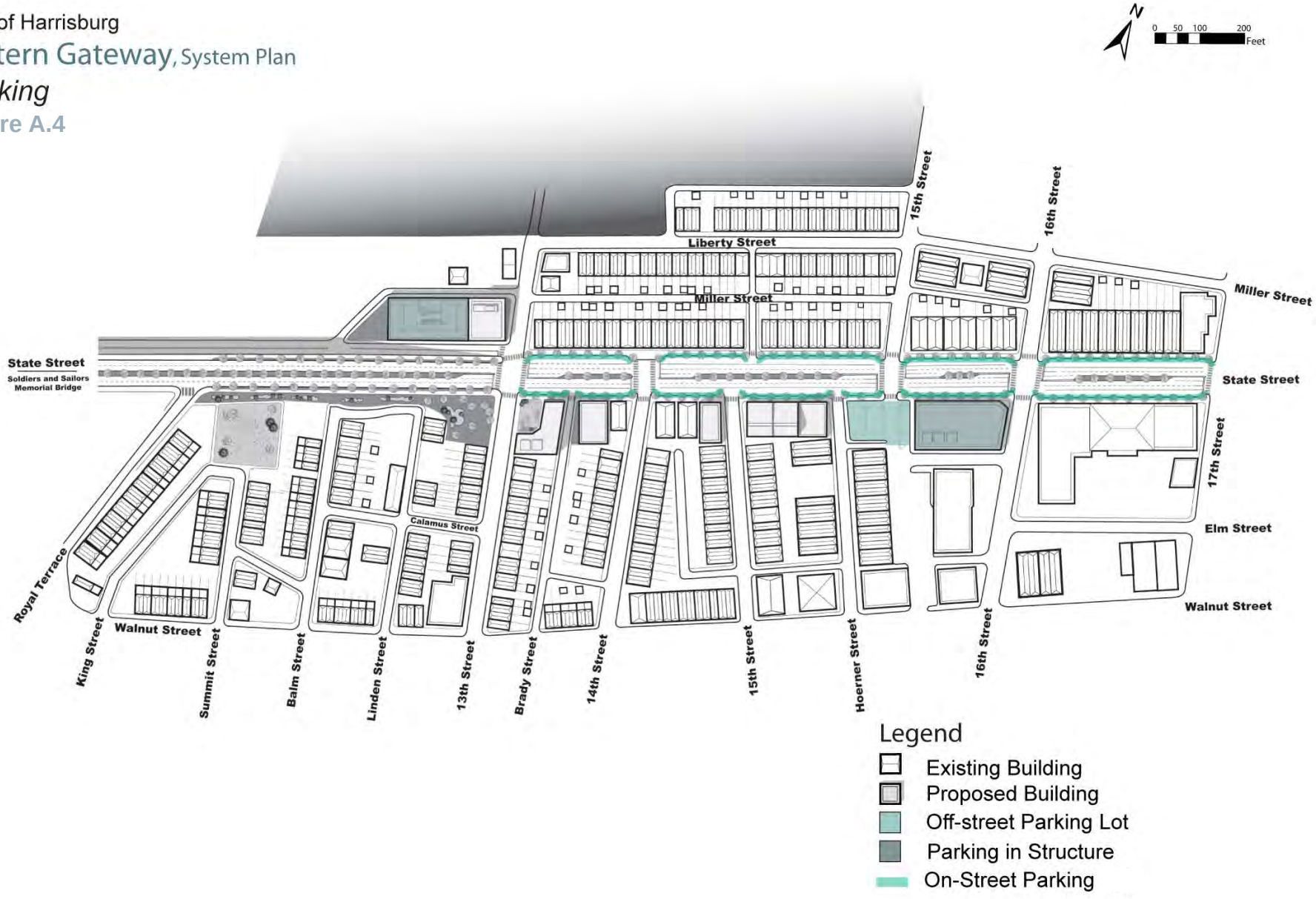


City of Harrisburg

Eastern Gateway, System Plan

Parking

Figure A.4



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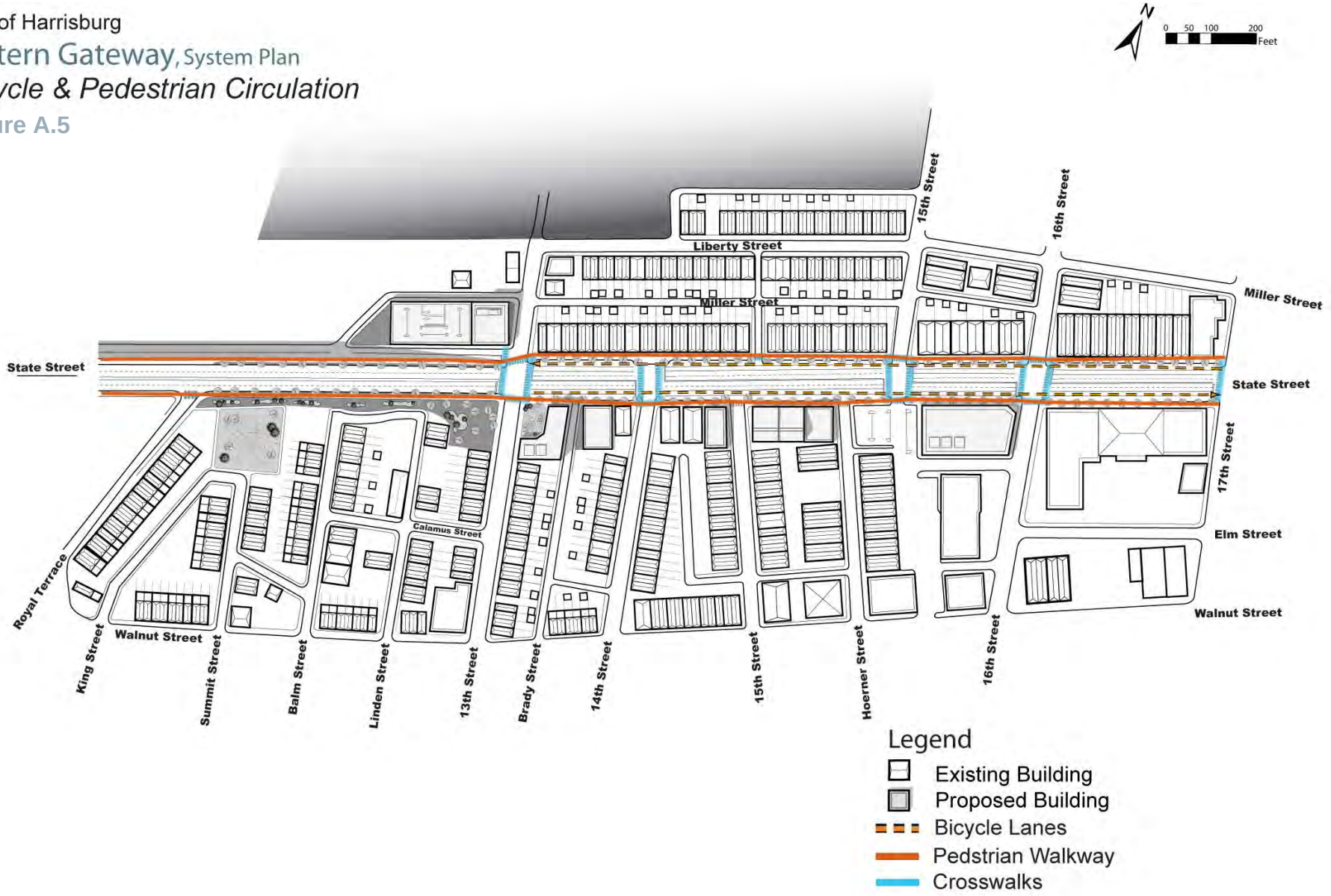
City of Harrisburg

Eastern Gateway, System Plan

Bicycle & Pedestrian Circulation

Figure A.5



City of Harrisburg

Eastern Gateway, System Plan

Parks & Green Space

Figure A.6

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Penbrook Downtown

Borough of Penbrook

The Penbrook Downtown Priority Area Plan covers territory east of 27th Street, along and south of Herr Street, west of 31st Street, and north of Booser Avenue. Within this area, blocks are proposed to be redeveloped with commercial and residential uses, as well as public/private open space. Buildings are proposed to contain a mix of uses and are configured to encourage pedestrian activity along Walnut Street.

Vehicular circulation is consistent with the recommendations of the overall Walnut Street Corridor Plan. Commuter traffic is primarily carried by Herr Street, while Walnut Street functions as a shopping street.

Building Use

As Penbrook's central business district, this area is recommended for relatively intense residential and commercial uses. Adjacent to Walnut Street, emphasis should be placed on a mixing of uses (Figure A.7 and A.8). More specifically, building ground level use should be substantially retail. Upper floors should be residential and/or office.

Mixed-use development is intended to be concentrated along Walnut Street between 29th and 30th Streets. Additional redevelopment is proposed around the perimeter of the overall Penbrook Downtown area, with an emphasis on residential uses. Increasing the number of families and individuals who reside in and or close to Penbrook's downtown should provide a larger market for local businesses.

The following new buildings are recommended:

Between Walnut and Herr Streets and 29th and 30th Streets.
0.41 acres

- 5-story, mixed-use building of office and retail space, including 18,000 square feet of retail use on the ground floor and 72,000 square feet of office space on the top four floors.

Penbrook Downtown

Between 29th and 30th Streets along Walnut Street.
0.74 acres

- 4-story, mixed-use building to include 14,000 square feet of retail space on the ground floor and a total of 44,000 square feet of office space above. Surface parking would be provided in the rear along Penbrook Avenue (See Parking for number of spaces).

Between Brooks Alley, Herr Street, 29th Street and small east-west pedestrian-oriented street.
0.58 acres

- 5-story, mixed-use parking structure with 25,000 square feet of retail space on the ground level (See Parking for number of spaces).

Between Penbrook Avenue and Walnut Street at 29th Street.
0.34 acres

- 5-story, mixed-use (residential and retail) building to include 15,000 square feet of retail space on the ground floor and 40 residential units (60,000 square feet) on the top four floors.

Along Penbrook Avenue, between 29th Street and Brooks Alley.
0.52 acres

- 3-story, residential building with 20 units (32,000 square feet) and surface parking in rear (See Parking for number of spaces).

Corner of Herr Street and Brooks Alley.
0.22 acres

- 3-story, mixed-use retail/residential structure to include 10,000 square feet of retail space on the first floor and 12 residential units (19,000 square feet) on the top two floors.

Northeast corner of 28th and Walnut Streets.
0.33 acres

- 2-story, relocated Borough Hall with 29,000 square feet of office and public meeting space.

Between Herr Street and Penbrook Avenue, along the east side of 27th Street.
2.35 acres

- Twelve 3-story, single family attached (townhouse) dwellings oriented to Ludwig Street/Alley, with parking underneath each unit. At the northeast corner of Penbrook Avenue and 27th Street, a single-story, light-industrial workshop facility is recommended.

Northeast corner of Herr and 28th Streets.
1.87 acres

- 5-story, residential building with 58 dwelling units and surface parking in rear (See Parking for number of spaces).

Penbrook Downtown

Between Brooks Alley and 29th Street, along Walnut Street.
0.15 acres

- 2-story, mixed-use (office and retail) building, to include 6,500 square feet of retail space on the ground floor and 6,500 square feet of office space on the top floor.

Between 27th Street, Penbrook Avenue, 28th Street, and Walnut Street.
0.45 acres

- 5-story, mixed-use (retail and residential) building, with 39,000 square feet of retail space on the first two floors and 40 residential dwelling units above, on the upper three floors.

Totals:	
New Development	7.96 acres
Retail	128,000 square feet
Office	122,000 square feet
Residential	182 dwelling units
Government	29,000 square feet

Vehicular Circulation

The primary change to circulation would occur in the form of shifting some of the commuter traffic traveling through the Borough of Penbrook off of Walnut Street and onto Herr Street. In addition, new transit, pedestrian, and bicycle mobility options would be implemented, consistent with the overall plan for the Walnut Street corridor (Figure A.9).

Transit

Several improvements to CAT transit service are recommended for Penbrook Borough. Westbound service would be accommodated by a thirteen-(13) foot-wide designated transit travel lane. This lane would run along Walnut Street from the eastern border of the borough and be diverted onto Herr Street via 29th Street. Eastbound transit service would remain entirely on Walnut Street, with a series of pull-outs at transit stops, including one at the 29th Street intersection. A transit center and structured parking is proposed at 29th Street between Walnut and Herr Streets.

Penbrook Downtown

Roadway

The reconfigured Herr Street includes two travel lanes in each direction for general vehicular use and one thirteen (13) foot wide designated travel lane for transit vehicles and bicyclists on the north side. The recommended cartway width should be no less than fifty-five (55) feet. East of the Herr Street intersection, Walnut Street would have a similar configuration. A widened 30th Street allows for a smooth transition to occur on 30th Street for vehicles traveling between Walnut Street and Herr Street.

Between 30th and 29th Streets, Walnut Street would have one travel lane in each direction for general vehicular movement and one designated westbound transit lane on the north side. In addition, on-street parking would be provided on the south side of the street.

For 29th Street, in addition to the existing travel lane in both directions, a thirteen (13) foot transit lane in the northbound direction with pull-outs is recommended.

West of 29th Street, Walnut Street would have on-street parking on both sides of the street, with a single travel lane in each direction.

Parking

Parking for downtown Penbrook Borough is proposed in the form of a full range of facilities for both short-term and long-term parking needs (Figure A.10). These facilites include on-street parking, off-street surface lots, and structured parking.

On-street parking occurs on both sides of Walnut Street between Hoffer Lane and 29th Street. Additional on-street parking is also provided on the south side of Walnut Street between 29th and 30th Street.

Off-street parking is accommodated on three new surface lots behind proposed new buildings.

Penbrook Downtown

Bicycle & Pedestrian Circulation

A series of improvements to provide for pedestrian and bicycle mobility and safety are recommended (Figure A.11). These range from new unit-paver crosswalks to more far-reaching ideas, such as the conversion of Ludwig Street between the proposed CAT transit facility at the intersection of 29th and Walnut Streets and 28th Streets into a fifteen (15) foot-wide pedestrian and bicycle path. This pathway would provide safe access between new civic space to the west and the transit facility on the east, and would be able to be utilized as public space for community events.

Bicycle Circulation

Recommended facilities for bicycle mobility include bike lanes on Walnut and Herr Streets, sometimes shared with transit vehicles and sometimes shared with general vehicular traffic.

Cyclists would also be able to utilize the Ludwig Alley pedestrian-bicycle way between 28th and 29th Streets.

Pedestrian Circulation

Sidewalks along Walnut Street are recommended to be a minimum of six (6) feet in width. In addition, a textured verge (edge), including landscape elements such as street trees, should be provided, so as to provide a buffer of no less than four (4) feet between the roadway and sidewalk. The overall streetscape should also include pedestrian-oriented lighting, trash receptacles, benches, and other “Main Street” elements. These should be consistent in style.

Sidewalks along the length of the south side of Herr Street should be a minimum of six (6) feet in width, with four (4) feet of landscaping between the cartway and the walkway. On the north side of Herr Street, sidewalks should be provided as far west as 28th Street (at the beginning of the East Harrisburg Cemetery). North side sidewalk widths should be no less than five (5) feet and a four-foot-wide landscape buffer from the roadway should also be present.

Unit-paver crosswalks are also recommended throughout this Priority Area. In addition, two mid-block crosswalks are recommended for west of the intersections of N. Parish Street and Brooks Alley with Walnut Street.

Penbrook Downtown

Parks and Green Spaces and Gateway Features

Several sites are identified for parks and landscaped public and private green spaces (Figure A.12). Two public green spaces are proposed to the immediate west of Brooks Alley and on both sides of Walnut Street. On the north side of Walnut Street and adjacent to a small east-west street, a civic plaza is recommended. This 0.25-acre space may serve as a venue for public gatherings. On the south side of Walnut Street, a 2,500-square-foot corner park is identified.

At the northeast corner of 28th and Herr Streets, a new multi-family residential building with private green space is proposed. Other new residential and mixed-use buildings are proposed to also have associated private outdoor space.

The geometry of streets in this area produces small residual spaces that may be used for civic features such as a community clock, fountain, or bulletin board. Two locations for such features are the northwest corner of 29th and Walnut Streets and the intersection of Penbrook Avenue with 28th and Walnut Streets.

Penbrook Downtown
Summary of Development Program

30th-to-29th and Walnut-to-Herr Block:

Total 0.41 Acres

- 5-story commercial building
  - Ground floor retail 18,000 s.f.
  - Ground level CAT transit facility for waiting and ticket purchases adjacent to 29th Street
  - Upper four (4) floors of office 72,000 s.f.

30th-to-29th and Walnut-to-Penbrook Avenue Block:

Total 0.74 Acres

- 4-story mixed use commercial building
  - Ground floor retail 16,000 s.f.
  - Upper three (3) floors of office 44,000 s.f.
  - New surface parking lot in rear 55 spaces

29th-to-Brooks, and Walnut-to-Herr Block:

Total 0.73 Acres

- 5-story mixed-use parking structure along Herr Street between 29th Street and Brooks Alley
  - Ground floor retail 25,000 s.f.
  - Upper four levels of structured municipal/CAT commuter parking 310 spaces
- 2-story commercial building
  - Ground floor retail 6,500 s.f.
  - Upper floor office 6,500 s.f.

- Conversion of Ludwig Alley into a pedestrian-oriented street along north side of proposed building.

- Potential for a small, green space/gateway feature for the northwest corner of 29th and Walnut Streets.

29th Street, Walnut Street, and Penbrook Avenue Block:

Total 0.94 Acres

- 5-story mixed-use (residential & retail) building
  - Ground floor retail 15,000 s.f.
  - Upper four (4) floors residential 40 units

- Corner park at the intersection of Penbrook Avenue and Walnut Street 0.06 acres

- On-street eastbound CAT transit shelter/stop at southwest corner of 29th and Walnut Streets.

Penbrook Downtown
Summary of Development Program

29th-to-Brooks and Booser-to-Penbrook Avenues Block:

Total 0.64 Acres

- 3-story residential building — 20 units
- Green space at rear of proposed building — 0.12 acres
- Surface parking lot behind new residential building — 40 spaces

Brooks Alley-to-28th Street and Herr Street (North side):

Total 1.61 Acres

- 5-story residential building — 58 units
- Green space for private recreational use at rear of building — 0.27 acres
- Surface parking lot behind new residential building — 66 spaces

Brooks Alley from Herr Street-to-Ludwig Alley (West side):

Total 0.22 Acres

- New 3-story mixed-use retail/residential building
  - Ground floor retail — 10,000 s.f.
  - Upper two (2) floors residential — 12 units

Brooks Alley-to-28th Street and Ludwig Alley-to-Walnut Street Block:

Total 0.63 Acres

- 2-Story Borough Hall/municipal building
  - Two (2) floors of office/public meeting space — 29,000 s.f.
- Landscaped public square — 0.25 acres

Parish Street-to-27th Street and Herr Street to Ludwig Street Block:

Total 0.83 Acres

- Six (6) new 3-story single-family attached housing units oriented to Ludwig Street — 2,800 s.f. (each)
  - Parking garage underneath each unit — 12 spaces

Penbrook Downtown
Summary of Development Program

27th Street, Walnut Street, and Penbrook Avenue and Block

Total 0.73 Acres

- 5-story mixed use retail/residential building
  - Retail on first two (2) levels 39,000 s.f.
  - Residential on top three (3) floors 40 units

- Pocket park/potential gateway feature at the intersection of Walnut Street and Penbrook Avenue/28th Street.

Penbrook Borough

Penbrook Downtown, System Plan

Base Map

Figure A.7

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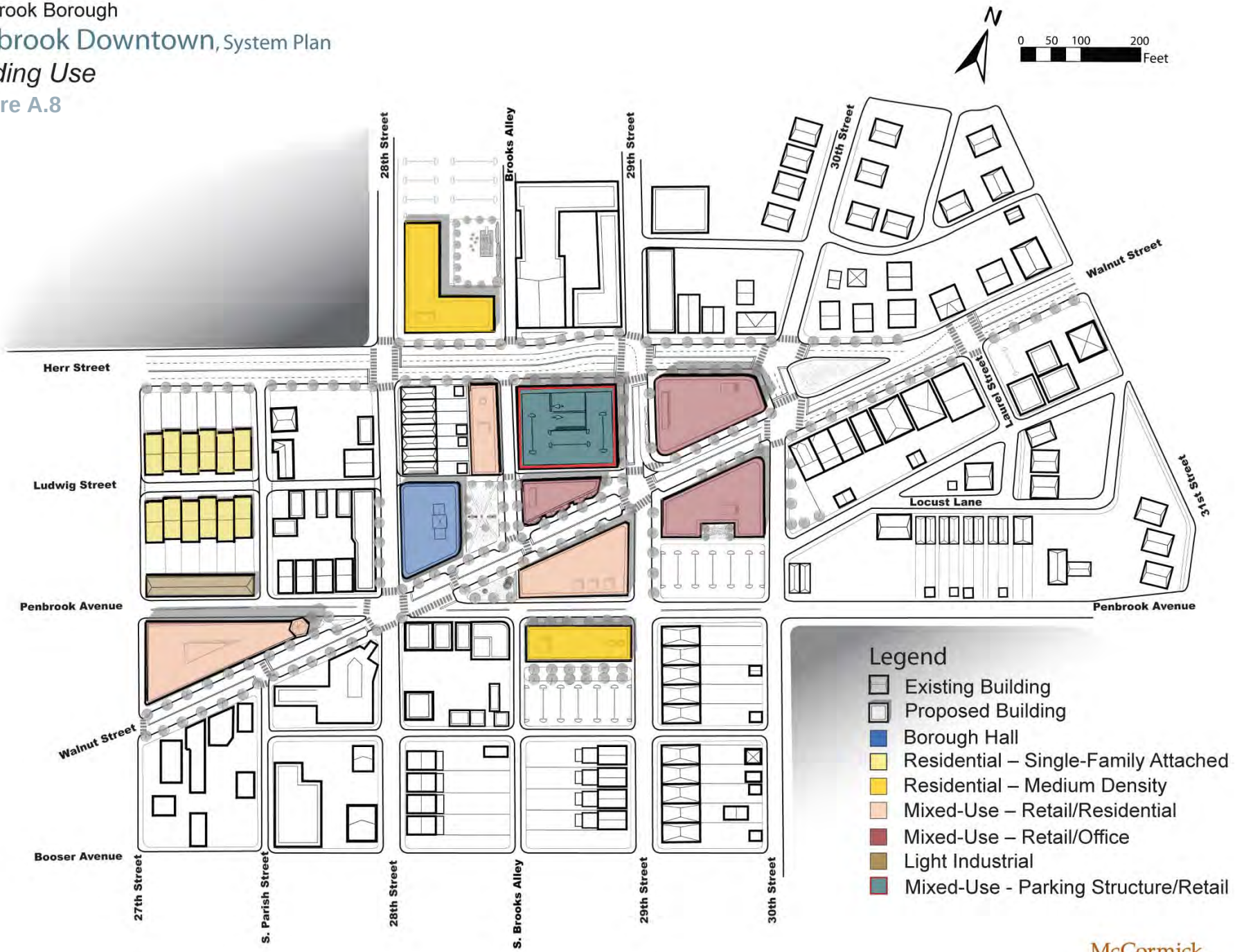
Penbrook Borough

Penbrook Downtown, System Plan

Building Use

Figure A.8



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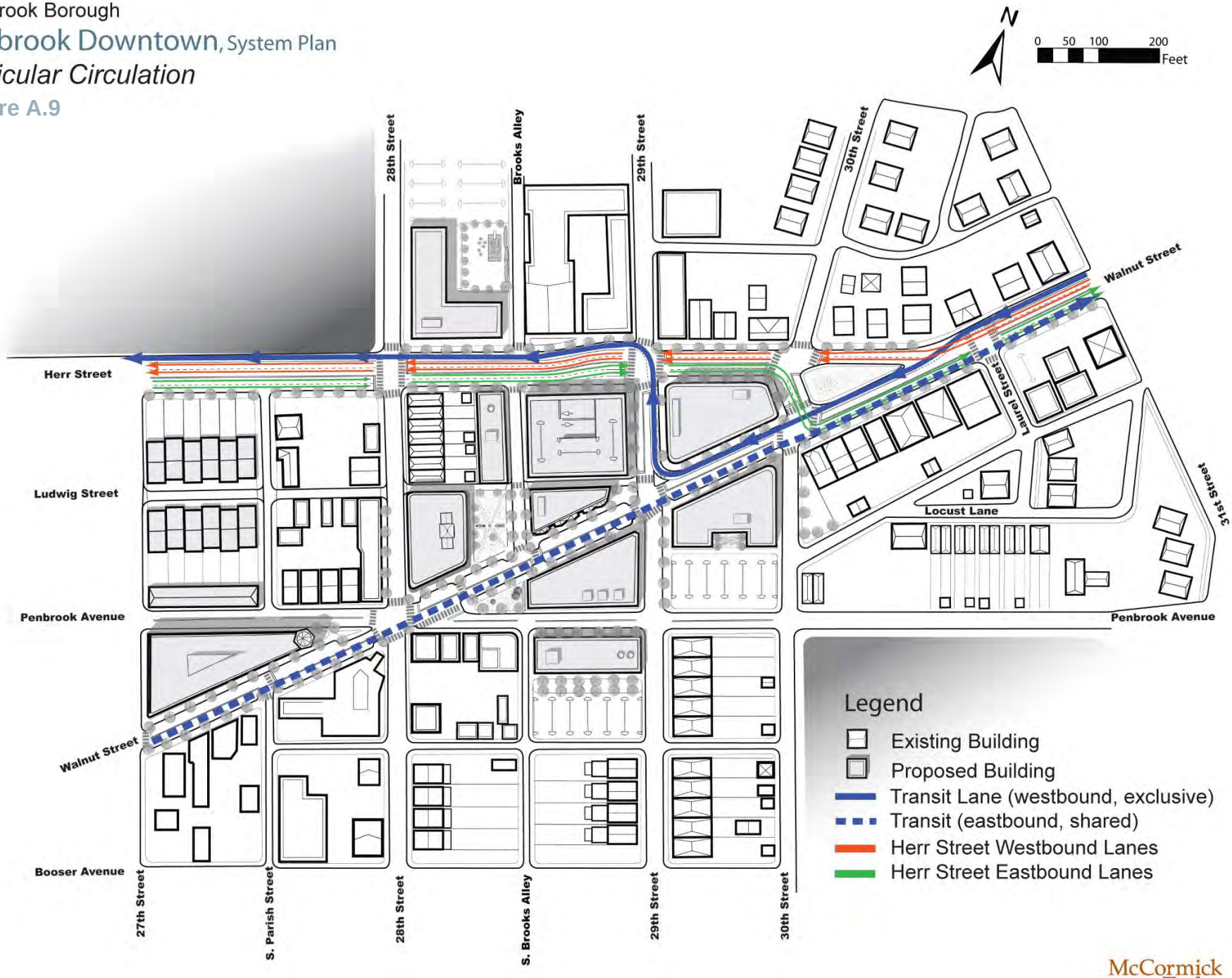
Penbrook Borough

Penbrook Downtown, System Plan

Vehicular Circulation

Figure A.9



McCormick Taylor
Engineers & Planners Since 1946

Penbrook Borough

Penbrook Downtown, System Plan

Parking

Figure A.10

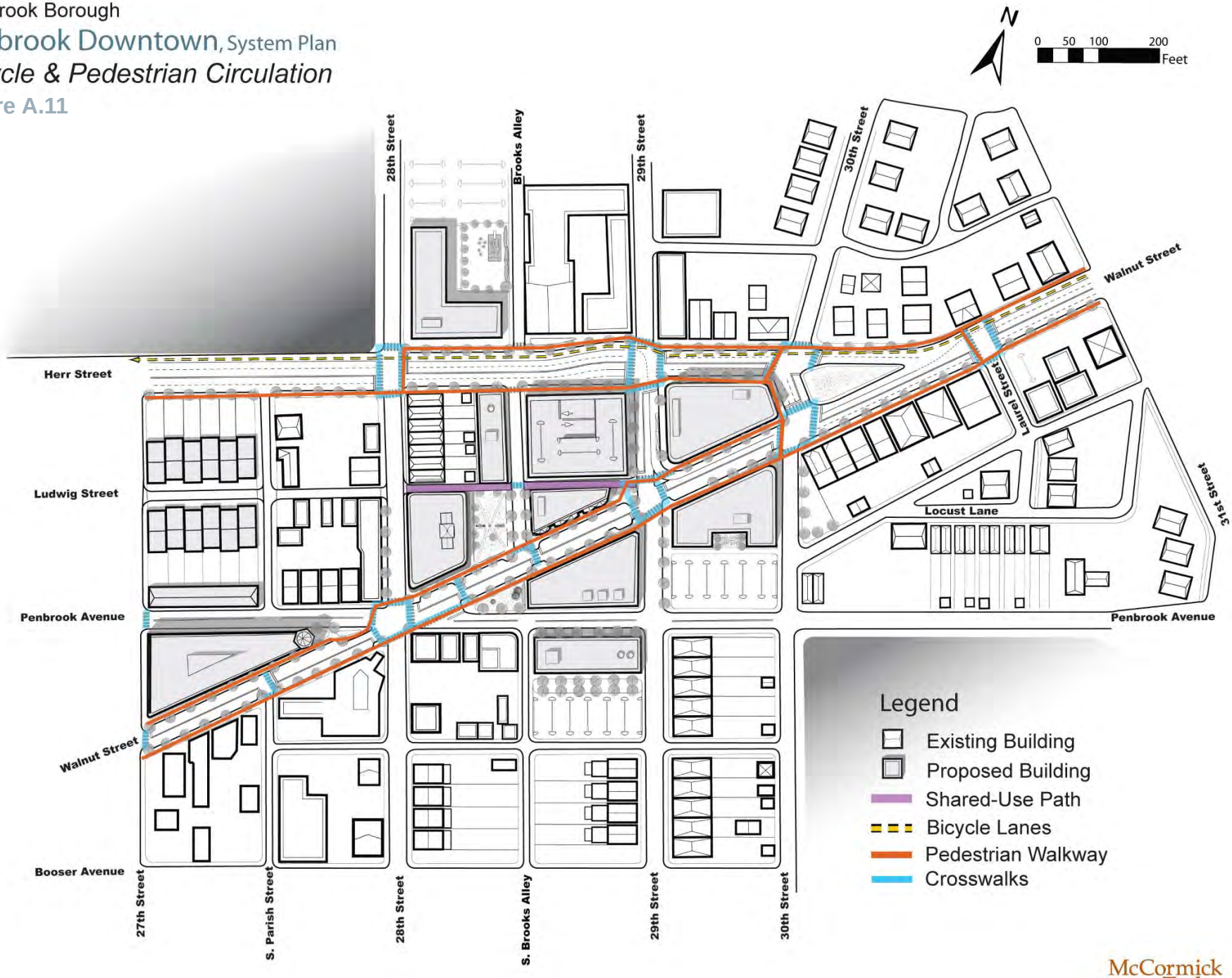
McCormick Taylor
Engineers & Planners Since 1946

Penbrook Borough

Penbrook Downtown, System Plan

Bicycle & Pedestrian Circulation

Figure A.11



McCormick Taylor
Engineers & Planners Since 1946

Penbrook Borough

Penbrook Downtown, System Plan

Parks & Green Space

Figure A.12

McCormick Taylor
Engineers & Planners Since 1946

Susquehanna Center

Township of Susquehanna

The Susquehanna Center Priority Area includes all properties north of the Walnut Street Corridor between N. 36th Street and Brookfield Road. Generally triangular in shape, this area currently exhibits a mix of highway commercial use, single-family detached housing, and vacant properties. The plan for Susquehanna Center includes multi-storied, mixed-use structures built up to Walnut Street. An active pedestrian street life is promoted through the provision of retail use along the ground floors of all structures fronting Walnut Street, with residential and office commercial uses accommodated on upper floors. A full range of green spaces is also proposed.

This location is well-served by transit, with Capital Area Transit (CAT), passing along the Walnut Street frontage. New opportunities for vehicular circulation and new parking facilities, along with pedestrian-oriented streets and bicycle paths, provide for multi-modal mobility for residents, shoppers, as well as commuters to this destination.

Building Use

Susquehanna Center includes four new buildings ranging from three (3) to six (6) stories, including a CAT park-and-ride facility (Figures A.13 and A.14). Three of these structures are proposed to contain a mix of retail with office and/or residential uses.

This location is suitable for a variety of retail and service commercial uses relevant to a mixed residential and office environment. For example, ground floor activities in these multi-story structures may include uses such as a bakery, hardware store, and pharmacy. Other kinds of commercial space, such as for professional and medical uses, is recommended to occur on higher floors.

Along the north side of the corridor the following new structures are recommended:

Between Linn Street and Brookfield Road.
0.45 acres

- 6-story, mixed-use residential/retail/office structure with 30 residential dwelling units, 20,000 square feet of retail space, and 40,000 square feet of office space.

Susquehanna Center

Between Park Street and Linn Street.
0.56 acres

- 4-level parking garage above 24,000 square feet ground floor retail commercial use (see Parking for number of spaces).

Between Fishburn Avenue and Park Street.
0.5 acres

- 5-story mixed-use (retail & residential) building to include 18,000 square feet of retail space along the ground floor, and 50 residential dwelling units.

Between Fox/North 36th and Fishburn Avenue.
0.74 acres

- 6-story mixed-use (retail & office) structure with 20,000 square feet of retail space on the ground floor and 100,000 square feet of office space on the upper five floors.

Totals:	
New Development	3.84 acres
Retail	82,000 square feet
Office	140,000 square feet
Residential	80 dwelling units

Vehicular Circulation

Transit

Capital Area Transit (CAT) already provides service along this portion of the corridor. In the Susquehanna Center Priority Area Plan, a new CAT park-and-ride facility with structured parking is proposed northwest of the Linn Street intersection. Consistent with the corridor-wide planning recommendations, designated transit lanes are indicated for this area (Figure A.15).

Roadway

The Susquehanna Center Priority Area Plan identifies additions to the existing roadway network, establishing new connections in this neighborhood. A total of four new streets are proposed, in addition to a reconfigured Walnut Street Corridor.

Corridor-wide planning recommends long-term improvements for the Walnut Street Corridor to include a eighty (80) foot cartway. The new cross-section would include a peak-hour transit/full-time bicycle lane in both directions, two travel lanes for general vehicular travel in each direction, as well as a landscaped center median/turning lane. Within a right-of-way of one hundred (100) feet, sidewalks and landscaped boulevards also proposed.

Susquehanna Center

The proposed new street network would include the following elements:

- A two-way street with one travel lane in each direction providing access to Park Street from North 36th Street at the intersection of Mobile Road. An additional travel lane southbound would also be included closest to the intersection with the Walnut Street Corridor.
- An extension of Fishburn Avenue north of the Walnut Street Corridor to intersect with the proposed Park Street connection.
- An extension of Linn Street north and west around the side and rear of the proposed CAT parking garage. This road is proposed to be four lanes.
- Installation of a forty (40) foot-wide bicycle and pedestrian way that would parallel the Walnut Street Corridor along the north side of new structures to the west of the parking garage.

Recommended road closures would include Brookfield Road, between N. 38th Street and the Walnut Street Corridor. For properties along this portion of the roadway, driveway access to N. 38th Street would be provided.

Common access to shared parking in the Susquehanna Center is intended to eliminate the need for multiple curb cuts providing access to individual businesses. Parking access routes also provide sidewalks for pedestrian movement from parking areas to retail frontages.

Susquehanna Center

Parking

Parking for the Susquehanna Center offers a full range of facilities, including on-street parking, off-street surface lots, and structured parking (Figure A.16). With this variety, both short-term and long-term parking needs are addressed.

On-street parking (with bulb-outs) is provided along both sides of portions of the Park Street extension.

Off-street parking is accommodated on two surface lots behind new buildings along the Walnut Street Corridor. The capacity of each lot ranges between fifty (50) and sixty (60) spaces. The lots are accessible via the Fishburn Avenue extension and by the bicycle and pedestrian-oriented path that runs east-west to the north of the new mixed-use structures.

The 5-story CAT park-and-ride facility has direct access from the Walnut Street corridor via Park and Linn Streets. Retail use is provided on the ground level of the facility, with four levels of structured parking above, providing approximately 275 spaces.

Bicycle & Pedestrian Circulation

Parallel to the corridor, a forty (40) foot-wide pedestrian and bicycle path is recommended for safe access from surface parking areas to new office, retail, and residential uses. This path space may also be used for locally-oriented community and neighborhood events (Figure A.17).

Bicycle Circulation

Bicycle circulation is integrated with the streets and paths of the area in various forms. The designated bicycle lane in each direction on the Walnut Street Corridor is shared with thirteen (13) foot peak-hour transit lanes. Along the recommended new street network, proposed cartway widths are generous in size to allow bicycles to share the road, with a series of traffic calming measures to enhance safety.

Pedestrian Circulation

Sidewalks along the corridor should have a minimum width of six (6) feet, with a landscaped buffer of no less than four (4) between the roadway and walkway. The overall streetscape should include

Susquehanna Center

landscaping, pedestrian-oriented lighting, and unit-paver crosswalks at each intersection.

This type of crosswalk should also be present throughout the area's recommended internal street network. Within the recommended new street network, sidewalk widths range between five (5) and ten (10) feet.

Parks & Green Space

A variety of private and public open spaces are outlined in the Susquehanna Center Plan. Street rights-of-way are landscaped with trees, grasses and/or groundcovers, particularly the Walnut Street Corridor itself (Figure A.18).

Along the northern portion of the area, a group of four public green spaces are identified as both potential outdoor retreats for employees and shoppers, as well as for recreational use by neighborhood residents. Spanning from N.36th Street to Brookfield Road, a total of 60,000 square feet or 1.4 acres of public green space is identified.

Private open space includes landscaped lands, courtyards, and semi-private outdoor space. Abutting the bicycle and pedestrian-oriented path and the westernmost new construction at N. 36th is an identified 12,000 square feet of outdoor space. The building between Fishburn Avenue and Park Street has 3,300 square feet of green space as a courtyard fronting the corridor.

Small gateway features are identified in two locations — to the immediate northeast of the transit center, as well as at the north-west corner of N. 36th Street and the Walnut Street Corridor.

Susquehanna Center
Summary of Development Program

Brookfield Road-to-Linn Street and Walnut Street Block:

Total 0.57 Acres

- Mixed use multi-tiered residential/commercial building
  - Ground floor retail 20,000 s.f.
  - Second (2) & third (3) levels of office 39,000 s.f.
  - Fourth (4) – sixth (6) levels of residential 30 units

- Public open space adjacent to new mixed use building 0.9 acres

Linn Street-to-Park Street and Walnut Street Block:

Total 1.29 Acres

- 4-story mixed use parking structure oriented to the corridor
  - Ground floor retail 24,000 s.f.
  - Upper three (3) levels of parking 275 spaces
  - On-street parking along Park Street

- Westbound CAT transit stop and shelter at northwest corner of Linn and Walnut Streets

- Eastbound CAT transit stop and shelter at southwest corner of Linn and Walnut Streets

- Proposed new street in rear, with two travel lanes in each direction, taxi pullout at northeast corner of building, and potential gateway feature.

- Public green space on north side of new street 0.54 acres

Park Street-to-Fishburn Avenue and Walnut Street Block:

Total 1.61 Acres

- 5-story, mixed use retail/residential building oriented to Walnut Street
  - Ground floor retail 18,000 s.f.
  - Upper four (4) floors residential 46 units
  - Front entrance private courtyard 0.07 acres

- New bicycle/pedestrian street in rear with landscaping

- On-street parking along Fishburn Avenue

- Off-street surface parking lot on north side of bicycle/pedestrian street 60 spaces

- Public open space for passive and active recreational use north and adjacent to off-street parking lot 0.26 acres

Susquehanna Center
Summary of Development Program

Fishburn Avenue-to-N. 36th Street and Walnut Street Block:

Total 2.08 Acres

- 6-story, mixed-use commercial building oriented to Walnut Street
  - Ground floor retail 20,000 s.f.
  - Upper five (5) floors office 100,000 s.f.
  - Semi-private courtyard in rear and adjacent to bicycle/pedestrian path 0.28 acres

- New bicycle/pedestrian street in rear of semi-private courtyard with landscaping.

- On-street parking along Fishburn Avenue.

- Off-street surface parking lot on north side of bicycle/pedestrian street 50 spaces

- Public open space for passive and active recreational use north and adjacent to off-street parking lot 0.45 acres

Susquehanna Township

Susquehanna Center, System Plan

Base Map

Figure A.13

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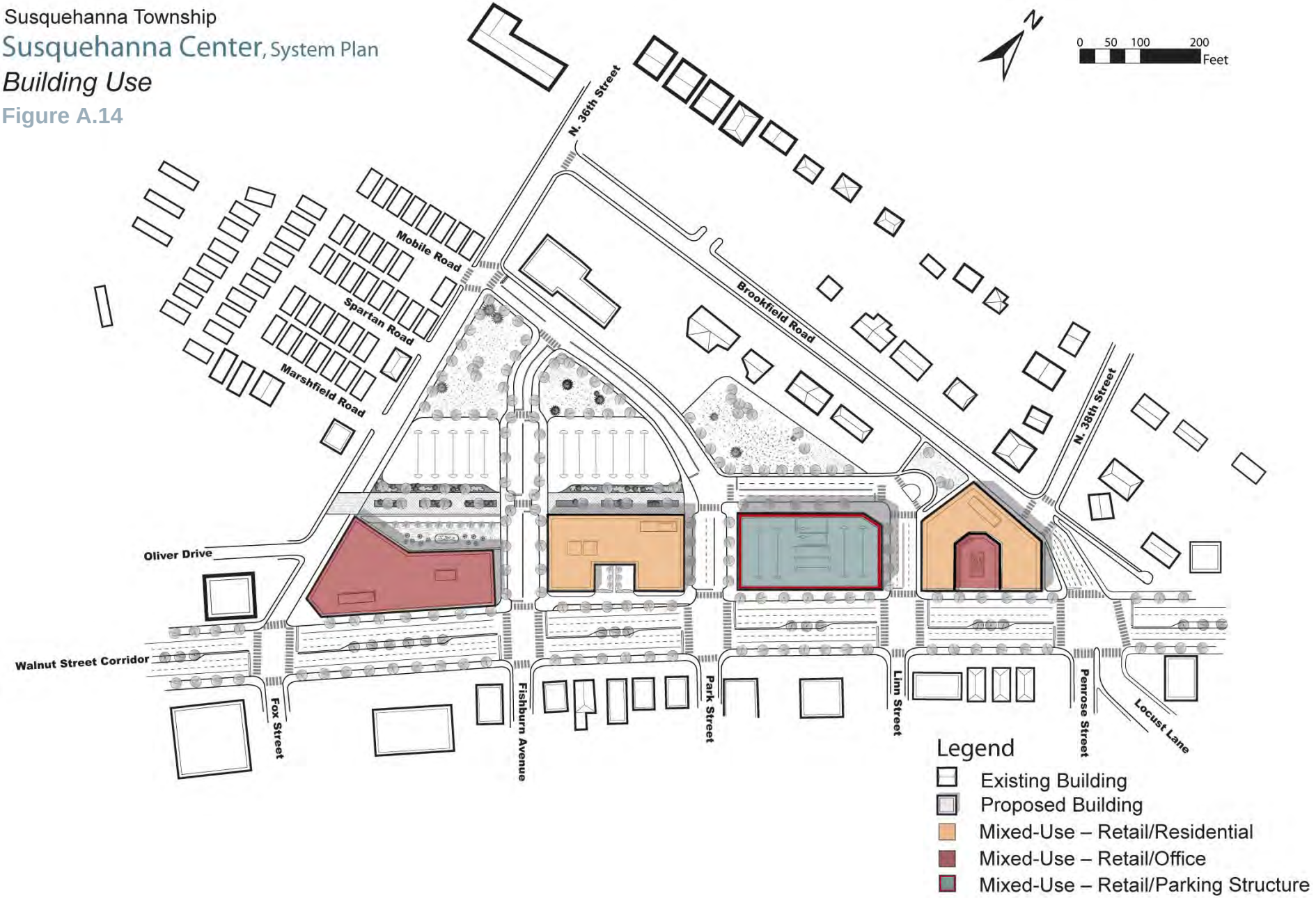
Susquehanna Township

Susquehanna Center, System Plan

Building Use

Figure A.14



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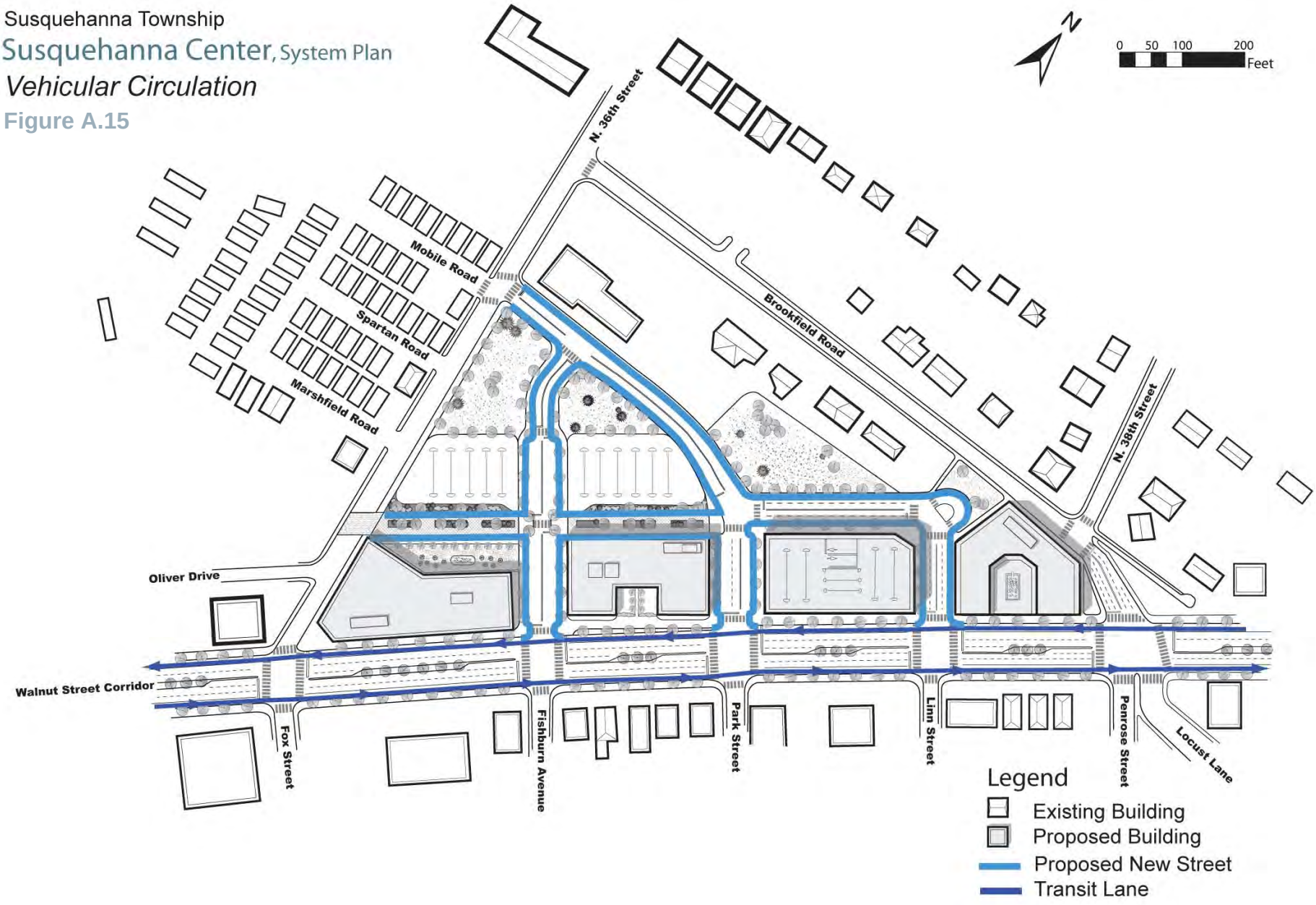
Susquehanna Township

Susquehanna Center, System Plan

Vehicular Circulation

Figure A.15



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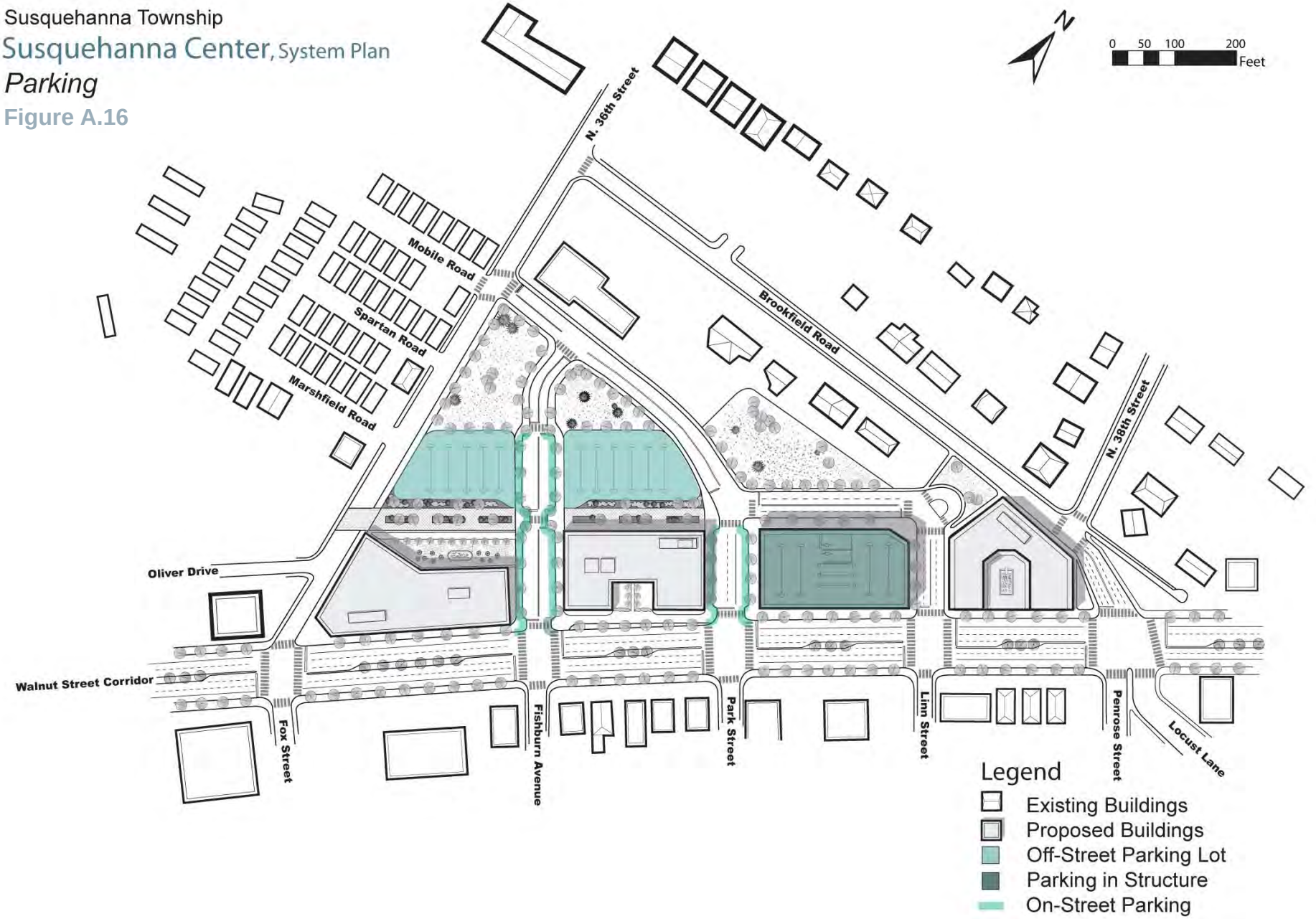
Susquehanna Township

Susquehanna Center, System Plan

Parking

Figure A.16



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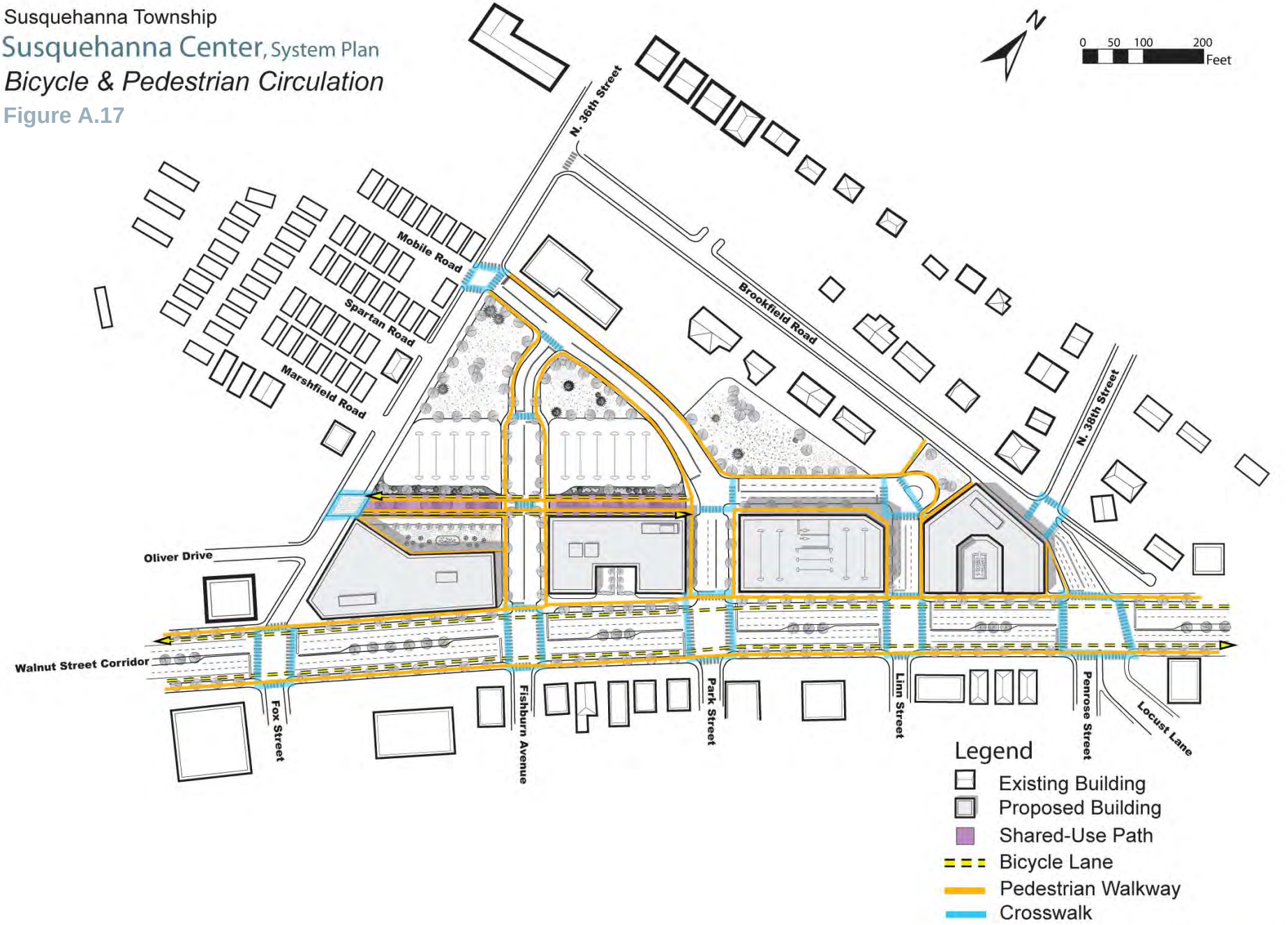
Susquehanna Township

Susquehanna Center, System Plan

Bicycle & Pedestrian Circulation

Figure A.17



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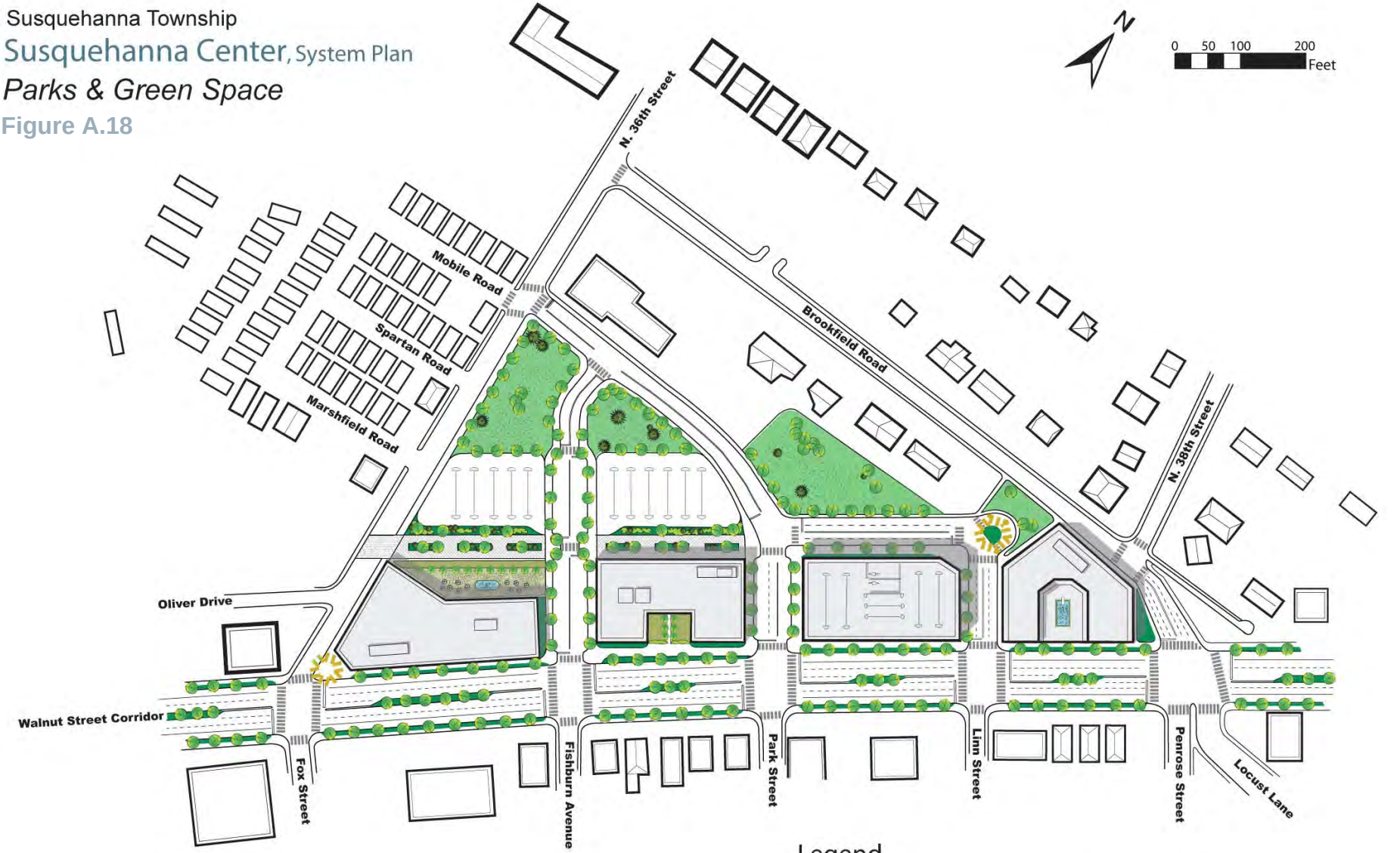
Susquehanna Township

Susquehanna Center, System Plan

Parks & Green Space

Figure A.18



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Colonial Park Station

Township of Lower Paxton

Land at the southwestern corner of the Colonial Park Mall site in Lower Paxton Township is identified for an intermodal transit center with an intercept park-and-ride parking garage. In addition, new mixed-use commercial uses, vehicular, pedestrian, and bicycle circulation routes, open space, and landscaping are proposed.

The area is bounded generally by Colonial Road to the west, the Walnut Street Corridor (Jonestown Road/US Route 22) to the south, and the existing mall and Capital Area Transit (CAT) park-and-ride lot to the north and east.

The area includes a reconfigured Colonial Road-Elmerton Avenue-US Route 22 intersection as recommended by the I-83 interchange study. The Plan for Colonial Park Station area makes special provisions to accommodate bicycles and pedestrians in this otherwise very auto-oriented territory.

Building Use

Three new structures are proposed for the southwest portion of the Colonial Park Mall site (Figure A.19). Two of these buildings are components of the transit station, while the third structure is a multi-story, mixed-use commercial building near the intersection of Miller Road and Jonestown Road/US Route 22 (Figure A.20). Recommended uses for proposed new buildings are as follows:

Between Walnut and Herr Streets and 29th and 30th Streets.
0.41 acres

- Single-story, 12,000-square-foot transit facility for patron ticket purchases and waiting area, with adjoining covered bus access/bus bay area, kiss-and-ride driveway, short-term parking lot, and public green space.

East side of Colonial Road.
1.6 acres

- 5-story, mixed-use parking structure with 50,000 square feet of retail use on the ground floor and four levels of parking on upper floors (See Parking section for number of spaces).

Colonial Park Station

Northwest corner of Jonestown Road and Miller Road.
1.9 acres

- 4-story, commercial mixed-use building providing 62,000 square feet of retail space on the ground floor and 187,000 square feet of office space on the upper three floors.

Totals:

New Development	6.3 acres
Retail	112,000 square feet
Office	187,000 square feet
Transit Service	12,000 square feet

Vehicular Circulation

The Colonial Park Station is proposed as the eastern terminus for a "rich" transit service (high frequency bus, with designated transit lanes) operating along the Walnut Street Corridor to the State Capital. Multiple bus routes would use the Colonial Park Station, as would park-and-ride patrons, taxis, shuttle services, and kiss-and-ride users.

Station Facility

The Colonial Park Station would include a single-story station building with a covered bus loading/unloading area to the east, including six shallow-saw-tooth bus bays. Along the western edge of the station building, a kiss-and-ride passenger drop-off area is accompanied by a short-term parking lot.

Access to the station for patrons and for buses is from a new east-west roadway intersecting with Colonial Road and reaching eastward to the vicinity of Berryhill Road (Figure A.21). Transit vehicles from the west would approach the facility by turning north onto Colonial Road and east onto the new east-west roadway that runs across the north side of the transit bays and immediately south of the Colonial Park Mall building. Most transit vehicles would

Colonial Park Station

leave the station and get access to Jonestown Road via the Berryhill Road intersection.

Roadways

Recommended roadway changes and additions for the Colonial Park Station area focus on access from nearby routes to the station and to the Colonial Park Mall. Recommendations include a reconfigured Jonestown Road as well as the transformation of existing parking lot driveways into a pedestrian-friendly street network, including a variety of streetscape elements.

Changes along Jonestown Road are intended to promote a safer and more multi-modal environment. Sidewalks are proposed with a minimum width of six feet and a four-foot-wide landscaped buffer between the sidewalk and roadway. The cartway, with a minimum width of eighty feet, is proposed to support the following: one shared transit lane in each direction (13 foot widths), two other travel lanes in each direction for vehicular use (10 and 11 foot widths), and one center landscaped median/turning lane (12 foot width).

The new east-west roadway intersecting with Colonial Road is proposed as a pedestrian- and bicycle-friendly street with a minimum cartway width of sixty feet. This street runs across the north side of the proposed Colonial Park Station and would support a thirteen-foot-wide eastbound shared transit lane, eastbound and westbound four-foot-wide bicycle lanes, and two general vehicular travel lanes with minimum widths of ten feet. This road follows the perimeter of the mall after crossing the intersection of the Berryhill Road entrance. East of this intersection, the road shifts northeast and its cartway is reduced to a width of forty-five feet with two travel lanes in each direction.

A second entrance to the southwest area of the mall from Jonestown Road is provided at the Miller Road intersection. This entrance drive is reconfigured to support two travel lanes in each direction with an additional right-turn lane on the southbound leg approach to Jonestown Road.

The southwestern perimeter of the Colonial Park Mall building is proposed to have a street alongside with a width of forty-five feet. Initially paralleling Colonial Road, the road would provide access for vehicles entering the mall from the King George Drive/Colonial Road intersection to the Colonial Park Station and its associated parking garage. This roadway would turn eastward at the proposed parking structure, then south to meet with the new east-west roadway adjacent to the transit facility. The entire length of the roadway supports two travel lanes in each direction with lane widths of ten feet.

Colonial Park Station

Parking

The Colonial Park Station offers both on-street and off-street parking (Figure A.22). On the west side of the station building is a sixty-space parking lot in association with a kiss-and-ride drop-off lane area.

To the north of this lot is a 5-story parking structure with retail use on the ground floor. With about 600 spaces, parking could be shared by both mall/retail shoppers and transit patrons.

On the east side of the mall, an existing surface lot with new landscaping and enhanced pedestrian access provides approximately 125 parking spaces.

Along the roadway on the north side of the proposed parking structure is on-street parking. Additional on-street spaces are identified along the north and east sides of the proposed retail/office building at the Miller Road entrance. Across the street from this structure's north side, a pullout area for emergency vehicles and/or shuttles is also provided.

Bicycle & Pedestrian Circulation

The Colonial Park Station site plan promotes all modes of mobility, including walking and biking. Sidewalks, crosswalks, bicycle lanes, and two multi-purpose trails are provided.

Bicycle Circulation

Bicycle circulation for the Colonial Park Station area recognizes the inherit limitations of the very auto-oriented Jonestown Road-Colonial Road-Elmerton Avenue setting to provide safe and convenient mobility. As shown in Figure A.23, the proposed east-west corridor bike route deviates to the north, providing mobility along multi-use trails and the new east-west roadway north of the transit facility.

Approaching from the west, cyclists would cross Interstate 83 via the Elmerton Avenue overpass. To the east of the overpass, a multi-purpose greenway trail is proposed beginning at the northeast intersection of North Arlington and Elmerton Avenues. The ten-to-twelve-foot-wide trail would parallel Elmerton Avenue adjacent to the garden apartment complex and would cross Colonial Road at its intersection with the new east-west roadway on the north side of the transit facility.

Colonial Park Station

Along this roadway, designated bicycle lanes are provided. These lanes run along both sides of the roadway and past the Colonial Park Station. Cyclists heading east would then enter onto a second multipurpose trail near the intersection of Berryhill and Jonestown Roads. This trail is a shared path with pedestrians and would take cyclists back onto the main east-west Jonestown Road corridor at the intersection of Miller and Jonestown Roads.

Pedestrian Circulation

Between the western border of Lower Paxton Township and the Miller Road-Jonestown Road intersection, pedestrian mobility is provided directly along Jonestown Road on its southeast side and internally through the Colonial Park Mall/Station site on the northwest side of Jonestown Road.

Sidewalks along the southeast side of corridor are proposed to be six feet wide, with a four-foot landscaped buffer between the roadway and walkway. Unit-paver crosswalks are provided at Colonial Road, Berryhill Road, and Miller Road for pedestrian mobility and safety across Jonestown Road.

Within the Colonial Park Station area, streetscapes include sidewalks, street trees, landscaping, and pedestrian-oriented lighting. Intersections include unit-paver crosswalks.

To the east of the Berryhill Road intersection, but still within the mall site, a multipurpose trail for pedestrians and cyclists connects the Jonestown Road corridor to the station area. On the west side of Colonial Road, a shared bike-pedestrian trail links the station area to Elmerton Avenue near its overpass of Interstate 83.

Colonial Park Station

Park and Green Space

At the southeastern corner of the intersection of King George Drive and Colonial Road, a potential site for a "gateway" feature is identified. This area contains 22,000 square feet of surrounding public green space reaching southward to the proposed parking structure.

At the northeast corner of the intersection of Colonial Road and Jonestown Road, the proposed Capital Area Transit (CAT) Colonial Park Station provides 17,500 square feet of public open space, as well as a landscaped barrier between this area and Jonestown Road.

At the Colonial Park Mall entrance to the north of the intersection of Berryhill Road and Jonestown Road, 21,500 square feet of public green space is provided to the east and adjacent to the corridor. An additional 6,000 square feet of public green space is identified to the west between the Colonial Park Station and Berryhill Road. Both green areas offer potential sites for "gateway" features such as artwork, interpretive displays, and fountains.

Additional green space is found throughout the station area, around the southern perimeter of the mall, and adjacent to Jonestown Road corridor and Jonestown Road-Colonial Road-Elmerton Avenue intersection (Figure A.24).

Colonial Park Station
Summary of Development Program

Colonial Park Station

Total 2.6 Acres

- Kiss-and-ride driveway and parking lot located on western one-third of the station site. 60 spaces
- Centrally placed, single-story station building for ticket purchases and enclosed waiting area 12,000 s.f.
- Six (6) shallow-tooth transit bays on east side of station building with overhead canopies
- Public green space surrounding western, southern, and eastern sides of the station 0.5 acres

CAT Park-and-Ride/Colonial Park Mall parking facility

Total 2.6 Acres

- 5-story, mixed-use parking structure.
  - Ground floor retail 50,000 s.f.
  - Upper four (4) levels of parking 600 spaces
  - On-street parking on road at perimeter of Colonial Park Mall building.
- New east-west roadway on north side of transit facility.
  - Two travel lanes in each direction
  - Public green space adjacent to Colonial Road 0.5 acres

"Infill" Construction

Total 2.2 acres

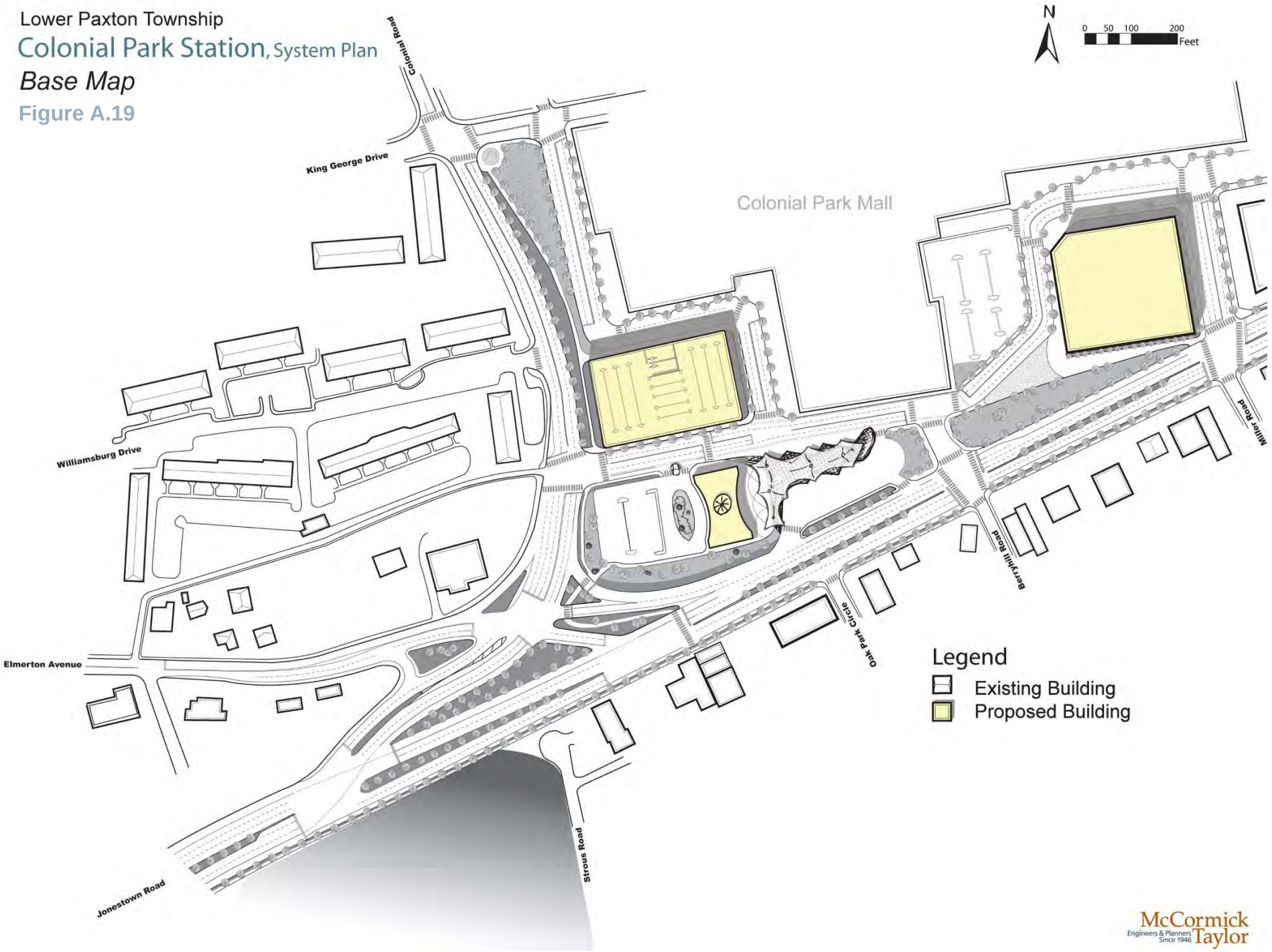
- 4-story, commercial mixed-use building at southeast mall entrance.
  - Ground floor retail 62,000 s.f.
  - Upper four (4) levels of office 187,000 s.f.
- On-street parking along the north and east sides of new building.
- Multi-purpose trail to the south side of new mixed-use commercial building.
- Public green space between multi-purpose trail and Jonestown Road corridor. 0.5 acres

Lower Paxton Township

Colonial Park Station, System Plan

Base Map

Figure A.19



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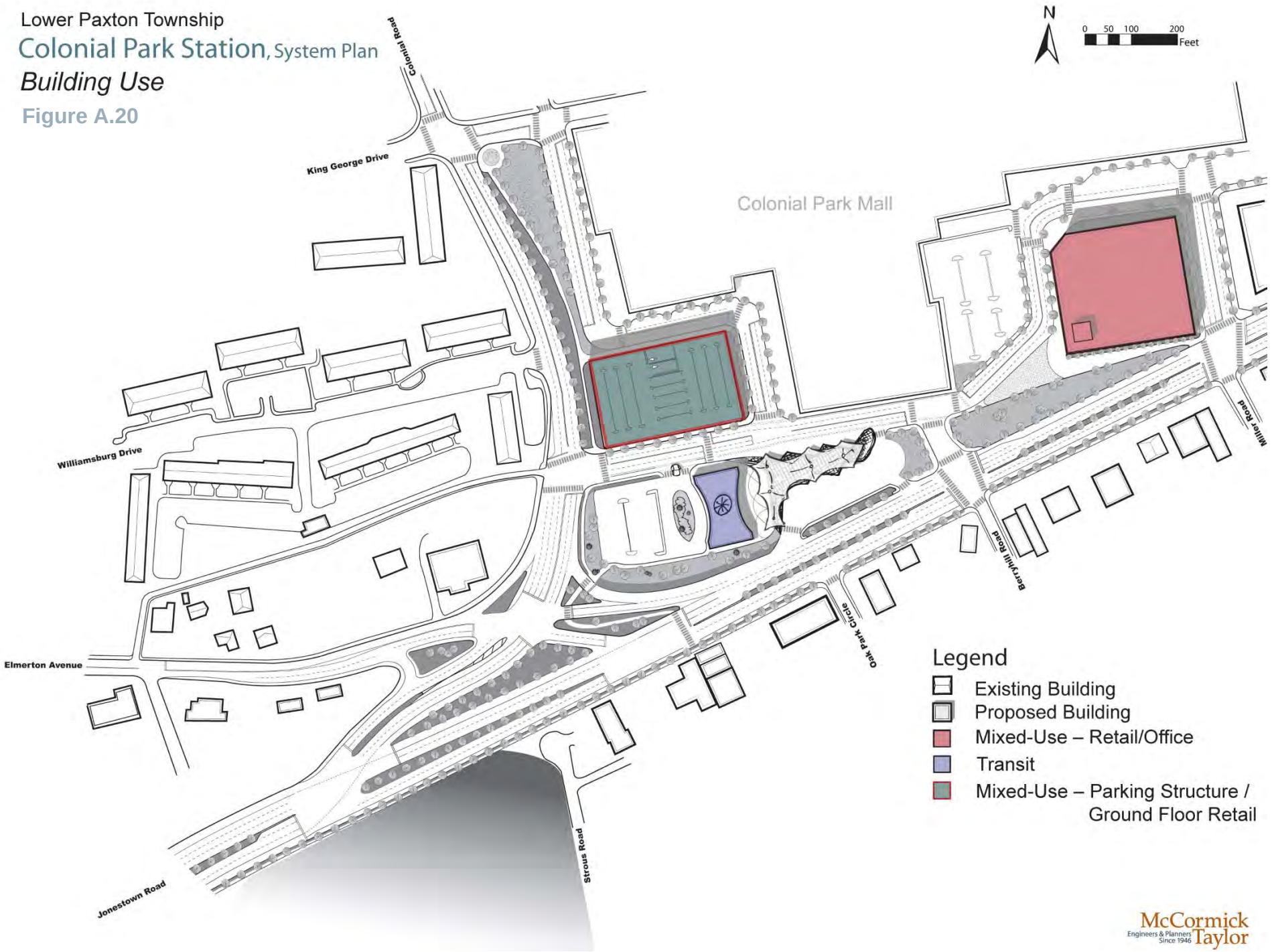
Lower Paxton Township

Colonial Park Station, System Plan

Building Use

Figure A.20



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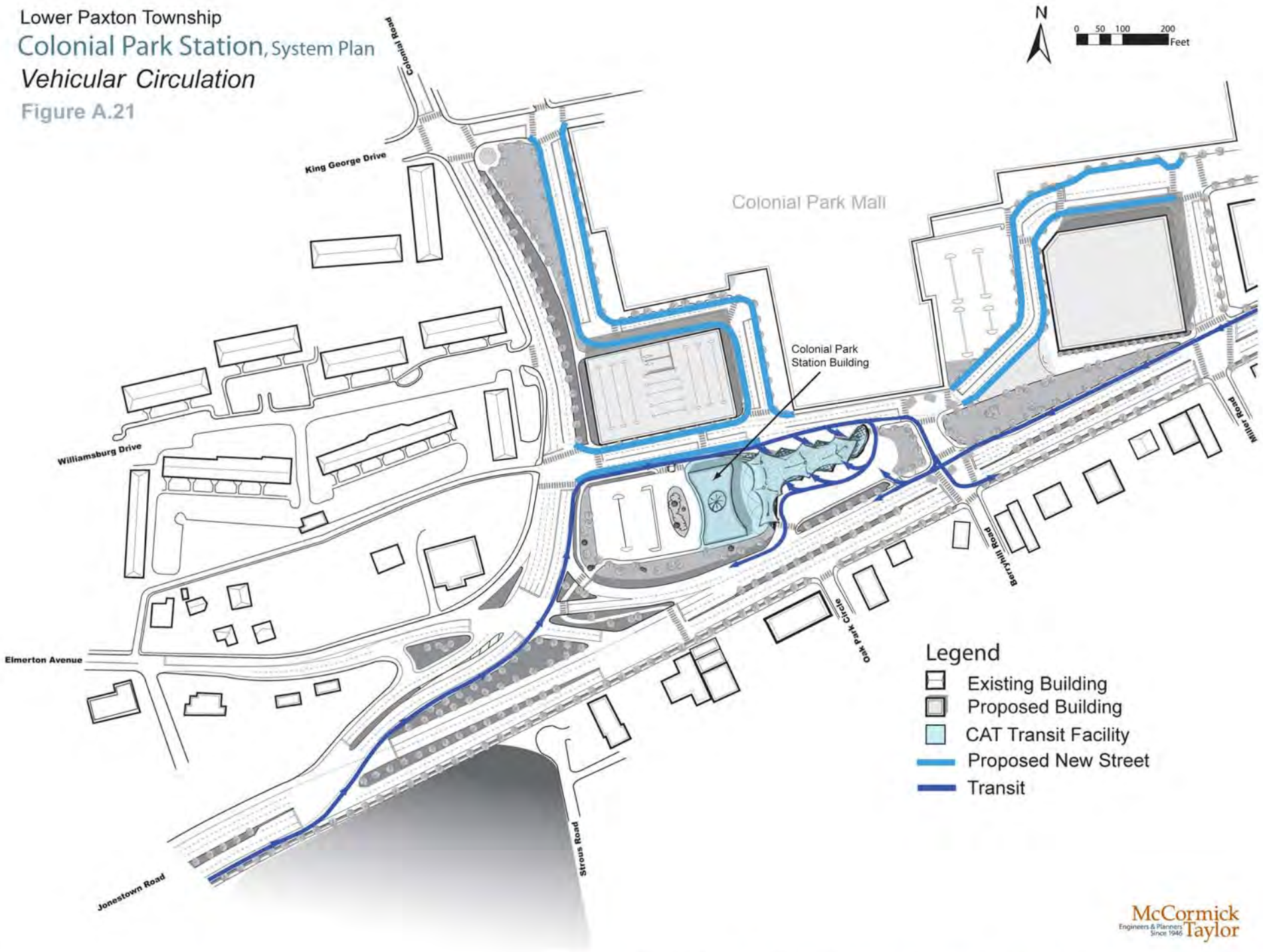
Lower Paxton Township

Colonial Park Station, System Plan

Vehicular Circulation

Figure A.21



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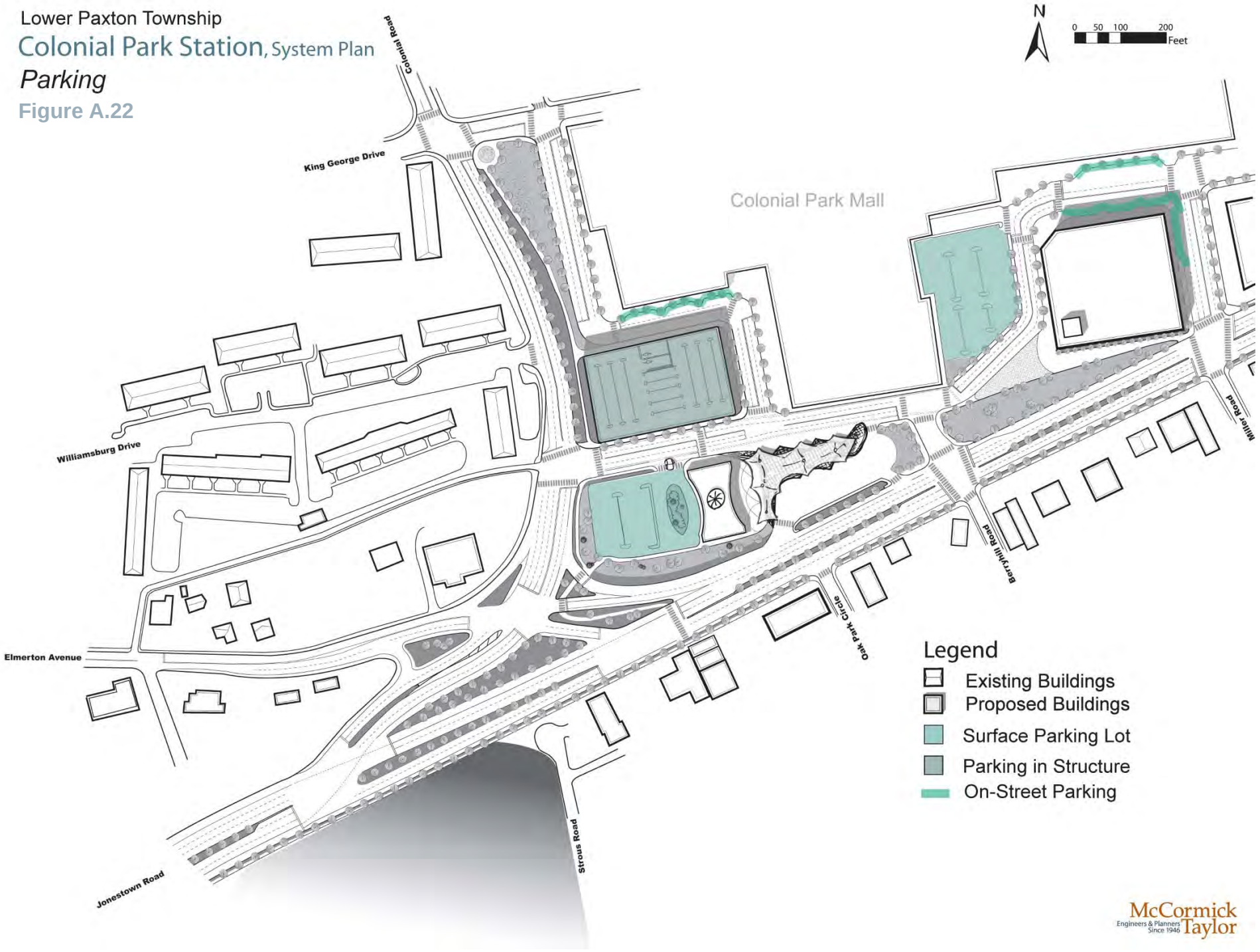
Lower Paxton Township

Colonial Park Station, System Plan

Parking

Figure A.22



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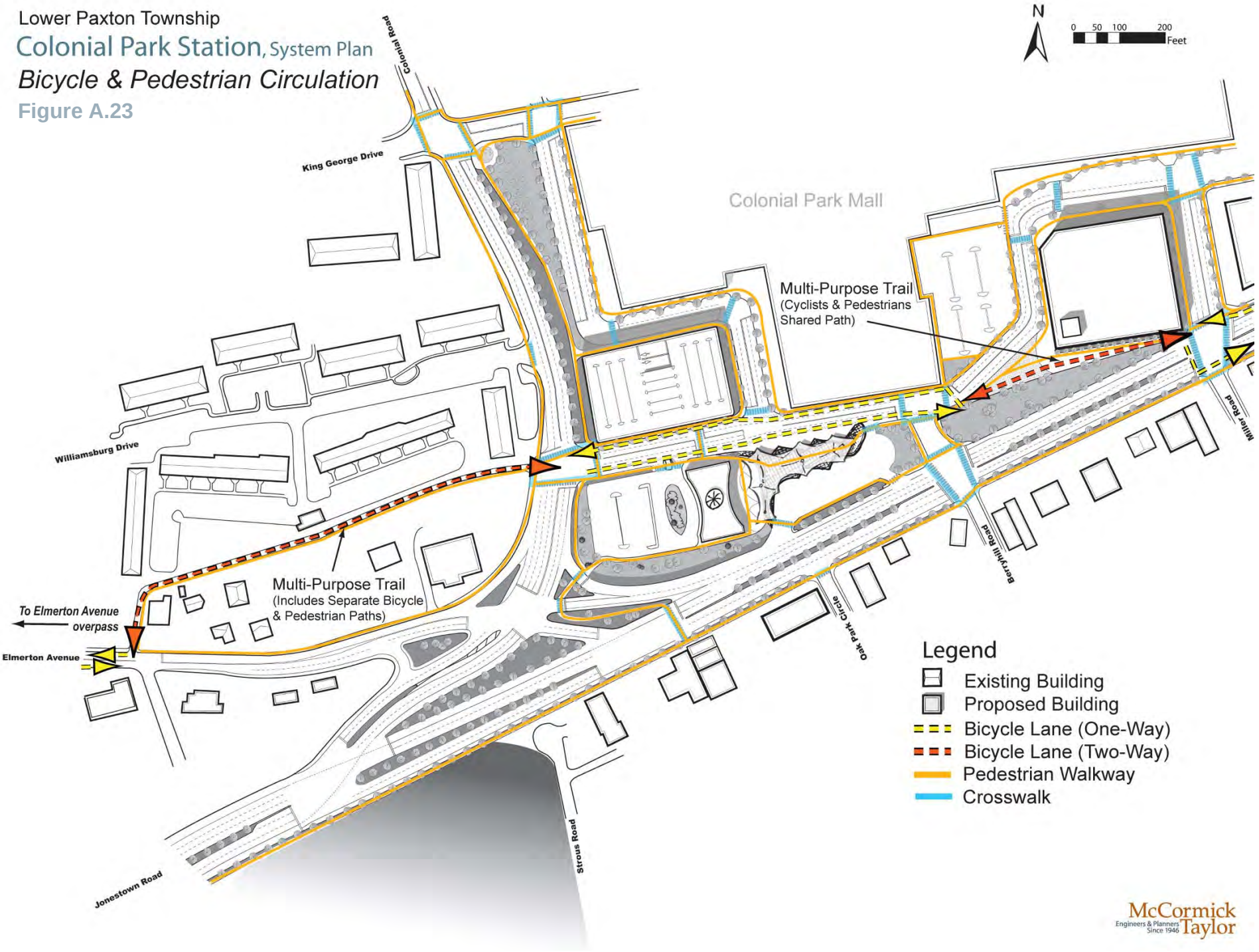
Lower Paxton Township

Colonial Park Station, System Plan

Bicycle & Pedestrian Circulation

Figure A.23



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Lower Paxton Township

Colonial Park Station, System Plan

Parks & Green Space

Figure A.24

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Order-of-Magnitude Cost Estimates:

City of Harrisburg — $4.38 mil.
State Street Priority Area

Order-of-magnitude cost estimates were made for roadway, streetscape, and intersection improvements to 3,350 feet of State Street between the Soldiers & Sailors Memorial Bridge (State and 13th Streets) on the west and the intersection of 17th Street on the east. Changes to the current cartway include resurfacing, new curbing with sidewalk bulb-outs adjacent to on-street parking, as well as installation of new wayfinding signs. Streetscape furnishings, such as trash receptacles, bus shelters, street trees, and grates, are also included. At roadway intersections, enhancements to crosswalks to make them more visible and changes traffic signal timing are additional components in the cost estimate.

Borough of Penbrook — $12.39 mil.
Penbrook Downtown Priority Area

Walnut Street — *$7.43 mil.*

Cost estimates for roadway, streetscape, and intersection improvements for 5,800 feet of Walnut Street between 27th Street and 31st include those for the reduction of two travel lanes in each direction to one travel lane in each direction and provide for resurfacing and striping of the cartway. This would also involve utility adjustments/relocations and new drainage. For pedestrian mobility, costs of widening sidewalks and providing new landscaping as well as installation of bulb-outs are in the total price. In addition, supplemental street furnishings such as street trees and planters, trash receptacles, benches, bus shelters, new lighting fixtures with banners, and wayfinding signs are included. Intersection improvements involve crosswalk, lighting, and signal timing enhancements.

Herr Street — *$4.97 mil.*

Cost estimates for widening and reconfiguring 3,850 feet of Herr Street from 27th Street to Walnut Street are approximated. Streetscape improvements include new signs and street lighting, bus shelters, trash receptacles, and a ten-foot sidewalk and boulevard along the south side of Herr Street. The overall cost figures also include crosswalk enhancements as well as utility adjustments and relocations, drainage, and new traffic signalization.

Township of Susquehanna — $4.96 mil.
Susquehanna Center Priority Area

Order-of-magnitude cost estimates for Walnut Street between its intersections with Fox Street in the west and Locust Lane/Penrose Street in the east factor roadway, streetscape, and intersection improvements over a span of 3,350 feet of the study corridor. Cartway improvements include a widening of Walnut Street to eighty feet, incorporating a twelve-foot-wide landscaped median/turning lane, utility adjustments/relocations, and new drainage. Streetscape enhancements involve new ten-foot sidewalk/boulevards on both sides of the corridor, street trees, new street lighting, bus shelters, benches, and trash receptacles. Intersection treatments contain new wayfinding signs, traffic signalization, and crosswalks.

Similar recommended improvements are expected to also occur from the Fox Street intersection west to the Penbrook Borough jurisdictional line. It is assumed, however, that for this portion of the corridor, these improvements will as part of the Progress Avenue Intersection Improvement Project and will be funded by a budget for its implementation.

Township of Lower Paxton — $17.59 mil.
Colonial Park Station Priority Area

The estimate for Lower Paxton Township is for 18,600 feet of roadway, streetscape, and intersection improvements for Jonestown Road/Allentown Boulevard (US Route 22). Between the Colonial Road and Miller Road intersections, costs include widening of US Route 22 in some areas, with twelve-foot-wide landscape median/turning lanes, utility adjustments/relocations and new drainage. Streetscape improvements include new landscaping along with new ten-foot-wide sidewalk/boulevards, improved lighting, bus shelters, benches, and trash receptacles on both sides of the corridor. Between the Elmerton Avenue overpass at Interstate 83 east to the Colonial Road entrance to Colonial Park Mall, a multipurpose trail for pedestrians and cyclists is included in these estimates. They also include enhancements to crosswalks, wayfinding signs and traffic signalization as well.

The same improvements are recommended also west of Colonial Road and across the Susquehanna Township line. For this portion of the corridor and including reconfigurations of the Colonial Road/US-Route 22 intersection, improvements are to be included as part of the budget for the Interstate 83 Interchange Improvement Project.

Order-of-Magnitude Cost Detailed Estimates - City of Harrisburg

D-407 — State Street Corridor Improvements, City of Harrisburg — Date 01/23/08

Item	Quantity	Unit of Measurement	Description of Item	Unit Price	Totals
0608-0001	---	L.S.	Mobilization	$80,000.00	$80,000.00
xxxx-xxxx	1700	S.Y.	Traffic Island Removal, incl. Sawcuttin	$55.00	$93,500.00
0609-0003	---	L.S.	Inspector's Field Office and Inspection Facilities, Type A	$50,000.00	$50,000.00
0409-xxxx	26,800	S.Y.	Superpave Wearing Crse, 1 1/2" Dp.	$7.00	$187,600.00
0409-xxxx	1,700	S.Y.	Superpave Binder Crse, 2" Dp.	$8.50	$14,450.00
0491-xxxx	25,100	S.Y.	Milling Bit. Pav't. Surface, 1 1/2" Dp.	$4.00	$100,400.00
0501-0302	1,700	S.Y.	H.E.S. Cem. Conc. Base Crse., 10" Dp	$62.00	$105,400.00
0630-0001	6,700	L.F.	Plain Cement Concrete Curb	$40.00	$268,000.00
0676-0001	3,722	S.Y.	Cement Concrete Sidewalk, Incl Rmvl.	$75.00	$279,166.67
0688-0002	1	Each	Microcomputer with Battery Backup System, Type A	$6,500.00	$6,500.00
xxxx-xxxx	40	Each	Bump Outs, Complete	$18,550.00	$742,000.00
0901-0001	-	L.S.	Maintenance and Protection of Traffic During Construction	$100,000.00	$100,000.00
0901-0205	1	Each	Changeable Message Sign	$22,000.00	$22,000.00
0901-0203	1	Each	Arrow Panel	$8,000.00	$8,000.00
0686-xxxx	---	L.S.	Construction Surveying	$25,000.00	$25,000.00
0931-xxxx	50	Each	Post Mounted Signs	$100.00	$5,000.00
9931-xxxx	24	Each	Business District Signs	$200.00	$4,800.00
9000-000x	4,032	Each	Paver Crosswalk	$125.00	$504,000.00
9000-000y	18	Each	Trash Receptacles	$2,400.00	$43,200.00
9000-000z	4	Each	Bus Shelter	$15,000.00	$60,000.00
xxxx-xxxx	---	L.S.	Selective Tree Trimming	$100,000.00	$100,000.00
xxxx-xxxx	---	L.S.	Pavement Markings, Complete	$35,400.00	$35,400.00
xxxx-xxxx	20	Each	Special Signs, Incl. Mounting	$150.00	$3,000.00
xxxx-xxxx	1,000	S.Y.	Green Buffer (Seeded Areas)	$10.00	$10,000.00
xxxx-xxxx	6	Each	Roadside Trees	$800.00	$4,800.00
xxxx-xxxx	6	Each	Tree Grates	$1,400.00	$8,400.00
xxxx-xxxx	---	L.S.	Traffic Signal Timing Change	$50,000.00	$50,000.00
xxxx-xxxx	---	L.S.	Miscellaneous Traffic Signal Work	$150,000.00	$150,000.00
xxxx-xxxx	---	L.S.	Utility Adjustment and Relocation	$200,000.00	$200,000.00
xxxx-xxxx	---	L.S.	Reset Street Lighting	$50,000.00	$50,000.00
xxxx-xxxx	100	C.Y.	Clean Earth Fill	$60.00	$6,000.00
			Subtotal:		$3,316,616.67
			Contingencies:	20%	$663,383.33
			Construction Total:		$3,980,000.00
			Construction Engineering & Inspection Contr's.	10%	$398,000.00
			Total:		**$4,378,000.00**

Table A.1

Order-of-Magnitude Detailed Cost Estimates - Borough of Penbrook (Walnut Street)

D-407 — Walnut Street Corridor Improvement: Penbrook Borough — Date 01/25/08

Alignment length: 5800 Feet, 16 int.

Freq.	Item	Quantity	Unit of Measurement	Description of Item	Unit Price	Totals
100%	0203-0001	5,030	C.Y.	Class 1 Excavation	$20.00	$100,592.59
	0608-0001	---	L.S.	Mobilization	$100,000.00	$100,000.00
	0609-0003	---	L.S.	Inspector's Field Office and Inspection Facilities, Type A	$50,000.00	$50,000.00
100%	0409-xxxx	12,889	S.Y.	Superpave Wearing Crse, 1 1/2" Dp.	$7.00	$90,222.22
	0409-xxxx	1,108	S.Y.	Superpave Binder Crse, 2" Dp.	$8.50	$9,414.22
100%	0491-xxxx	11,600	S.Y.	Milling Bit. Pav't. Surface, 1 1/2" Dp.	$4.00	$46,400.00
	0501-0302	1,108	S.Y.	H.E.S. Cem. Conc. Base Crse., 10" Dp	$62.00	$68,668.44
	0601-xxxx	835	Each	18" RCCP	$75.00	$62,625.00
	0605-xxxx	29	Each	Type C Inlets	$3,800.00	$110,200.00
	0630-0001	9,968	L.F.	Plain Cement Concrete Curb	$40.00	$398,720.00
60%	676-0001	3,987	S.Y.	Cement Concrete Sidewalk, Incl Rmvl.	$75.00	$299,040.00
30%	9676-0001	1,994	S.Y.	Cement Concrete Sidewalk, Incl Rmvl. Paver Type	$140.00	$279,104.00
	0688-0002	1	Each	Microcomputer with Battery Backup System, Type A	$6,500.00	$6,500.00
	xxxx-xxxx	64	Each	Bump Outs, Complete	$18,550.00	$1,187,200.00
	0901-0001	-	L.S.	Maintenance and Protection of Traffic During Construction	$150,000.00	$150,000.00
	0901-0205	1	Each	Changeable Message Sign	$22,000.00	$22,000.00
	0901-0203	1	Each	Arrow Panel	$8,000.00	$8,000.00
	0686-xxxx	---	L.S.	Construction Surveying	$45,000.00	$45,000.00
2%	0931-xxxx	116	Each	Post Mounted Signs	$110.00	$12,760.00
1%	9931-xxxx	58	Each	Business District Signs	$200.00	$11,600.00

Item	Quantity	Unit of Measurement	Description of Item	Unit Price	Totals
9000-000x	1,280	S.Y.	Paver Crosswalk	$125.00	$160,000.00
9000-000y	90	Each	Trash Receptacles	$2,400.00	$216,000.00
9000-000z	6	Each	Bus Shelter	$15,000.00	$90,000.00
9000-000a	100	Each	Parking Meter	$1,250.00	$125,000.00
9000-000b	36	Each	Benches	$2,500.00	$90,000.00
xxxx-xxxx	2	Each	Paver Laid Traffic Islands	$25,000.00	$50,000.00
xxxx-xxxx	---	L.S.	Miscellaneous Plaques and Signs	$25,000.00	$25,000.00
xxxx-xxxx	---	L.S.	Concrete Steps Adjustments	$25,000.00	$25,000.00
xxxx-xxxx	---	L.S.	Selective Tree Trimming	$150,000.00	$150,000.00
xxxx-xxxx	---	L.S.	Pavement Markings, Complete	$32,300.00	$32,300.00
xxxx-xxxx	36	Each	Special Signs, Incl. Mounting	$150.00	$5,400.00
xxxx-xxxx	4,984	S.Y.	Green Buffer (Seeded Areas)	$10.00	$49,840.00
xxxx-xxxx	133	Each	Roadside Trees	$800.00	$106,325.33
80% xxxx-xxxx	106	Each	Tree Grates	$1,400.00	$148,855.47
xxxx-xxxx	---	L.S.	Traffic Signal Timing Change	$75,000.00	$75,000.00
xxxx-xxxx	---	L.S.	Miscellaneous Traffic Signal Work	$150,000.00	$150,000.00
xxxx-xxxx	4	Each	New Traffic Signals, Compl. Intersectic	$85,000.00	$340,000.00
xxxx-xxxx	---	L.S.	Utility Adjustment and Relocation	$250,000.00	$250,000.00
xxxx-xxxx	64	Each	Pedestrian Signal Head (LED) with Audible Warning	$2,000.00	$128,000.00
xxxx-xxxx	58	Each	Period Lighting with Foundations	$4,500.00	$261,000.00
xxxx-xxxx	2,000	C.Y.	Clean Earth Fill	$45.00	$90,000.00
			Subtotal:		$5,625,767.28
			Contingencies:	20%	$1,125,232.72
			Construction Total:		$6,751,000.00
			Construction Engineering & Inspection Contr's.	10%	$675,100.00
			Total:		**$7,426,100.00**

Table A.2

Order-of-Magnitude Detailed Cost Estimates - Borough of Penbrook (Herr Street)

D-407 — State Street Corridor Improvements — Penbrook Borough — Herr St. Improvements — Date 01/24/08

Item	Quantity	Unit of Measurement	Description of Item	Unit Price	Totals
0201-0001	---	L.S.	Clearing & Grubbing	$15,000.00	$15,000.00
0608-0001	---	L.S.	Mobilization	$100,000.00	$100,000.00
xxxx-xxxx	23,528	S.Y.	Roadway Construction Incl. Curb & Sidewal	$76.00	$1,788,111.11
0409-xxxx	3,850	L.F.	Sawcutting Pavement	$8.50	$32,725.00
0501-0302	2,353	S.Y.	Pavement Removal	$25.00	$58,819.44
0609-0003	---	L.S.	Inspector's Field Office and Inspection Facilities, Type A	$50,000.00	$50,000.00
0601-xxxx	3,600	L.F.	Storm Sewer, Pipe	$75.00	$269,981.25
0605-xxxx	40	Each	Inlets	$4,000.00	$160,000.00
0610-0001	8,470	L.F.	Pavement Base Drain	$14.00	$118,580.00
0688-0002	1	Each	Microcomputer with Battery Backup System, Type A	$6,500.00	$6,500.00
0901-0001	-	L.S.	Maintenance and Protection of Traffic During Construction	$125,000.00	$125,000.00
0686-xxxx	---	L.S.	Construction Surveying	$60,000.00	$60,000.00
0931-xxxx	24	Each	Post Mounted Signs	$100.00	$2,400.00
9931-xxxx	12	Each	Business District Signs	$200.00	$2,400.00
9000-000y	8	Each	Trash Receptacles	$2,400.00	$19,200.00
9000-000z	2	Each	Bus Shelter	$15,000.00	$30,000.00
xxxx-xxxx	---	L.S.	Pavement Markings, Complete	$18,000.00	$18,000.00
xxxx-xxxx	50	Each	Roadside Trees	$800.00	$40,000.00
xxxx-xxxx	50	Each	Tree Grates	$1,400.00	$70,000.00
xxxx-xxxx	---	L.S.	Roadside Improvement, Landscaping	$100,000.00	$100,000.00

Item	Quantity	Unit of Measurement	Description of Item	Unit Price	Totals
xxxx-xxxx	---	L.S.	Erosion and Sediment Pollution Control	$75,000.00	$75,000.00
xxxx-xxxx	---	L.S.	Utility Adjustment and Relocation	$250,000.00	$250,000.00
xxxx-xxxx	8	Each	Fire Hydrant	$6,000.00	$46,200.00
xxxx-xxxx	---	L.S.	Highway Lighting Modifications	$100,000.00	$100,000.00
xxxx-xxxx	3	Each	Traffic Signals,Complete Intersections	$75,000.00	$225,000.00
			Subtotal:		$3,762,916.81
			Contingencies:	20%	$753,083.19
			Construction Total:		$4,516,000.00
			Construction Engineering & Inspection Contr's.	10%	$451,600.00
			Total:		**$4,967,600.00**

Table A.3

Order-of-Magnitude Detailed Cost Estimates - Township of Susquehanna

D-407 — Walnut Street Corridor Improvements: Susquehanna Township — Date 01/28/08

Alignment length: 3350 Feet (10 int.)

Freq.	Item	Quantity	Unit of Measurement	Description of Item	Unit Price	Totals
100%	0203-0001	7,779	C.Y.	Class 1 Excavation	$20.00	$155,588.89
70%	0608-0001	---	L.S.	Mobilization	$100,000.00	$100,000.00
	0609-0003	---	L.S.	Inspector's Field Office and Inspection Facilities, Type A	$50,000.00	$50,000.00
100%	0409-xxxx	26,511	S.Y.	Superpave Wearing Crse, 1 1/2" Dp.	$7.00	$185,577.78
	0409-xxxx	7,444	S.Y.	Superpave Binder Crse, 2" Dp.	$8.50	$63,277.78
100%	0491-xxxx	17,867	S.Y.	Milling Bit. Pav't. Surface, 1 1/2" Dp.	$4.00	$71,466.67
	0501-0302	7,444	S.Y.	Superpave Base Course, 12" Dp.	$45.00	$335,000.00
	0601-xxxx	651	Each	18" RCCP	$75.00	$48,843.75
	0605-xxxx	17	Each	Type C Inlets	$3,800.00	$63,650.00
	0630-0001	11,725	L.F.	Plain Cement Concrete Curb	$40.00	$469,000.00
100%	676-0001	1,633	S.Y.	Cement Concrete Sidewalk	$65.00	$106,166.67
	0688-0002	1	Each	Microcomputer with Battery Backup System, Type A	$6,500.00	$6,500.00
	0901-0001	-	L.S.	Maintenance and Protection of Traffic During Construction	$100,000.00	$100,000.00
	0901-0205	1	Each	Changeable Message Sign	$22,000.00	$22,000.00
	0901-0203	1	Each	Arrow Panel	$8,000.00	$8,000.00
	0686-xxxx	---	L.S.	Construction Surveying	$30,000.00	$30,000.00
1%	0931-xxxx	34	Each	Post Mounted Signs	$110.00	$3,685.00
0.5%	9931-xxxx	17	Each	Business District Signs	$200.00	$3,350.00
	9000-000x	1,067	S.Y.	Paver Crosswalk	$125.00	$133,333.33
	9000-000y	40	Each	Trash Receptacles	$2,400.00	$96,000.00
	9000-000z	4	Each	Bus Shelter	$15,000.00	$60,000.00
	9000-000b	28	Each	Benches	$2,500.00	$70,000.00
	xxxx-xxxx	1	Each	Paver Laid Traffic Islands	$25,000.00	$25,000.00
	xxxx-xxxx	---	L.S.	Pavement Markings, Complete	$17,400.00	$17,400.00
	xxxx-xxxx	36	Each	Special Signs, Incl. Mounting	$150.00	$5,400.00
	xxxx-xxxx	5,211	S.Y.	Green Buffer (Seeded Areas)	$10.00	$52,111.11
	xxxx-xxxx	156	Each	Roadside Trees	$800.00	$125,066.67
	xxxx-xxxx	94	Each	Tree Grates	$1,400.00	$131,320.00
	xxxx-xxxx	---	L.S.	Median Island Landscaping	$87,300.00	$87,300.00
	xxxx-xxxx	---	L.S.	Traffic Signal Timing Change	$75,000.00	$75,000.00
	xxxx-xxxx	---	L.S.	Miscellaneous Traffic Signal Work	$150,000.00	$150,000.00
	xxxx-xxxx	4	Each	New Traffic Signals, Compl. Intersecti	$85,000.00	$340,000.00
	xxxx-xxxx	---	L.S.	Utility Adjustment and Relocation	$250,000.00	$250,000.00
	xxxx-xxxx	40	Each	Pedestrian Signal Head (LED) with Audible Warning	$2,000.00	$80,000.00
	xxxx-xxxx	34	Each	Period Lighting with Foundations	$4,500.00	$150,750.00
	xxxx-xxxx	2,000	C.Y.	Clean Earth Fill	$45.00	$90,000.00

Subtotal:		$3,760,787.64
Contingencies:	20%	$752,212.36
Construction Total:		$4,513,000.00
Construction Engineering & Inspection Contr's.	10%	$451,300.00
Total:		**$4,964,300.00**

Table A.4

Order-of-Magnitude Detailed Cost Estimates - Township of Lower Paxton

D-407 — Walnut Street Corridor Improvements, Lower Paxton Township — Date 01/29/08

Alignment length: 18600 Feet, 28 int.

Freq.	Item	Quantity	Unit of Measurement	Description of Item	Unit Price	Totals
	0201-0001	---	L.S.	Clearing & Grubbing	$125,000.00	$125,000.00
100%	0203-0001	41,127	C.Y.	Class 1 Excavation	$20.00	$822,533.33
70%	0608-0001	---	L.S.	Mobilization	$200,000.00	$200,000.00
	0609-0003	---	L.S.	Inspector's Field Office and Inspection Facilities, Type A	$75,000.00	$75,000.00
100%	0409-xxxx	155,933	S.Y.	Superpave Wearing Crse, 1 1/2" Dp.	$7.00	$1,091,533.33
	0409-xxxx	41,333	S.Y.	Superpave Binder Crse, 2" Dp.	$8.50	$351,333.33
100%	0491-xxxx	103,333	S.Y.	Milling Bit. Pav't. Surface, 1 1/2" Dp.	$4.00	$413,333.33
	0501-0302	41,333	S.Y.	Superpave Base Course, 12" Dp.	$45.00	$1,860,000.00
	0601-xxxx	2,116	Each	18" RCCP	$75.00	$158,700.00
	0605-xxxx	74	Each	Type C Inlets	$3,800.00	$282,720.00
	0630-0001	49,476	L.F.	Plain Cement Concrete Curb	$38.00	$1,880,088.00
100%	676-0001	14,293	S.Y.	Cement Concrete Sidewalk	$65.00	$929,066.67
	0688-0002	1	Each	Microcomputer with Battery Backup System, Type A	$6,500.00	$6,500.00
	0901-0001	-	L.S.	Maintenance and Protection of Traffic During Construction	$175,000.00	$175,000.00
	0901-0205	1	Each	Changeable Message Sign	$22,000.00	$22,000.00
	0901-0203	1	Each	Arrow Panel	$8,000.00	$8,000.00
	0686-xxxx	---	L.S.	Construction Surveying	$50,000.00	$50,000.00
1%	0931-xxxx	186	Each	Post Mounted Signs	$110.00	$20,460.00
	9000-000x	1,280	S.Y.	Paver Crosswalk	$125.00	$160,000.00
	9000-000y	112	Each	Trash Receptacles	$2,400.00	$268,800.00
	9000-000z	21	Each	Bus Shelter	$15,000.00	$315,000.00
	9000-000b	42	Each	Benches	$2,500.00	$105,000.00
	xxxx-xxxx	6	Each	Paver Laid Traffic Islands	$25,000.00	$150,000.00
	xxxx-xxxx	---	L.S.	Pavement Markings, Complete	$29,300.00	$29,300.00
	xxxx-xxxx	74	Each	Special Signs, Incl. Mounting	$150.00	$11,160.00
	xxxx-xxxx	21,989	S.Y.	Green Buffer (Seeded Areas)	$10.00	$219,893.33
	xxxx-xxxx	330	Each	Roadside Trees	$800.00	$263,872.00
	xxxx-xxxx	198	Each	Tree Grates	$1,400.00	$277,065.60
	xxxx-xxxx	---	L.S.	Median Island Landscaping	$222,000.00	$222,000.00
	xxxx-xxxx	---	L.S.	Traffic Signal Timing Change	$75,000.00	$75,000.00
	xxxx-xxxx	---	L.S.	Miscellaneous Traffic Signal Work	$50,000.00	$50,000.00
	xxxx-xxxx	12	Each	New Traffic Signals, Compl. Intersecti	$85,000.00	$1,020,000.00
	xxxx-xxxx	---	L.S.	Utility Adjustment and Relocation	$1,000,000.00	$1,000,000.00
	xxxx-xxxx	112	Each	Pedestrian Signal Head (LED) with Audible Warning	$2,000.00	$224,000.00
	xxxx-xxxx	93	Each	Period Lighting with Foundations	$2,800.00	$260,400.00
	xxxx-xxxx	5,000	C.Y.	Clean Earth Fill	$40.00	$200,000.00
				Subtotal:		$13,322,758.93
				Contingencies:	20%	$2,664,241.07
				Construction Total:		$15,987,000.00
				Construction Engineering & Inspection Contr's.	10%	$1,598,700.00
				Total:		**$17,585,700.00**

Table A.5

Order-of-Magnitude Detailed Cost Estimates - Township of Lower Paxton

Walnut Street Corridor Improvements — 01/29/08
Lower Paxton Township
Colonial Park SUP
1050 Feet

Quantity	Unit of Measurement	Description of Item	Unit Price	Totals
---	L.S.	Clearing & Grubbing	$40,000.00	$40,000.00
1,167	C.Y.	Class 1 Excavation	$20.00	$23,333.33
---	L.S.	Mobilization	$50,000.00	$50,000.00
---	L.S.	Inspector's Field Office and Inspection Facilities, Type A	$40,000.00	$40,000.00
1,633	S.Y.	Superpave Wearing Crse, 1 1/2" Dp	$7.00	$11,433.33
1,633	S.Y.	Superpave Binder Crse, 2" Dp.	$8.50	$13,883.33
1,633	S.Y.	Superpave Base Course, 6" Dp.	$24.00	$39,200.00
200	Each	18" RCCP	$75.00	$15,000.00
4	Each	Type C Inlets	$3,800.00	$15,960.00
1	Each	Microcomputer with Battery Backup System, Type A	$6,500.00	$6,500.00
-	L.S.	Maintenance and Protection of Traffic During Construction	$10,000.00	$10,000.00
---	L.S.	Construction Surveying	$50,000.00	$50,000.00
10	Each	Post Mounted Signs	$110.00	$1,100.00
6	Each	Trash Receptacles	$2,400.00	$14,400.00
6	Each	Pet Waste Stations	$900.00	$5,400.00
2	Each	Bus Shelter	$15,000.00	$30,000.00
4	Each	Benches	$2,500.00	$10,000.00
---	L.S.	Pavement Markings, Complete	$5,000.00	$5,000.00
4	Each	Special Signs, Incl. Mounting	$150.00	$630.00
4	Each	Special Signs, Incl. Mounting	$150.00	$630.00
1,400	S.Y.	Green Buffer (Seeded Areas)	$10.00	$14,000.00
20	Each	Roadside Trees	$800.00	$16,000.00
---	L.S.	Supplemental Landscaping	$15,000.00	$15,000.00
1,050	L.F.	Fencing, Specialty	$45.00	$47,250.00
---	L.S.	Utility Adjustment and Relocation	$12,000.00	$12,000.00
10	Each	Period Lighting with Foundations	$4,500.00	$45,000.00
400	C.Y.	Clean Earth Fill	$45.00	$18,000.00
		Subtotal:		$549,090.00
		Contingencies:	20%	$109,910.00
		Construction Total:		$659,000.00
		Construction Engineering & Inspection Contr's.	10%	$65,900.00
		Total:		**$724,900.00**

Table A.6

Retail Category with NAICS Code	Walnut & Canby Streets, Penbrook: 1-Mile Radius			Walnut & Canby Streets, Penbrook: 2-Mile Radius		
	Expenditures (a)	Sales (b)	Net Demand (c)	Expenditures (a)	Sales (b)	Net Demand (c)
Total Retail Sales & Eating, Drinking Places	**198,667,650**	**134,863,009**	**63,804,641**	**601,342,076**	**1,144,004,499**	**(542,662,423)**
Motor Vehicle & Parts Dealers-441	**39,648,815**	**9,220,073**	**30,428,742**	**120,840,482**	**275,011,786**	**(154,171,304)**
Automotive Dealers-4411	32,918,853	6,423,228	26,495,625	100,613,784	244,949,905	(144,336,121)
Other Motor Vehicle Dealers-4412	2,512,308	649,352	1,862,956	7,645,040	5,220,095	2,424,945
Automotive Parts/Accsrs, Tire Stores-4413	4,217,655	2,147,493	2,070,162	12,581,658	24,841,786	(12,260,128)
Furniture & Home Furnishings Stores-442	**4,537,461**	**3,266,358**	**1,271,103**	**13,265,629**	**21,052,122**	**(7,786,493)**
Furniture Stores-4421	2,541,714	901,245	1,640,469	7,493,407	6,892,193	601,214
Home Furnishing Stores-4422	1,995,747	2,365,113	(369,366)	5,772,222	14,159,929	(8,387,707)
Electronics & Appliances Stores-443	**4,306,909**	**1,064,480**	**3,242,429**	**13,016,114**	**9,964,336**	**3,051,778**
Appliance, TVs, Electronics Stores-44311	2,723,993	1,040,067	1,683,926	8,243,570	9,699,361	(1,455,791)
Household Appliances Stores-443111	506,486	52,813	453,673	1,502,332	140,548	1,361,784
Radio, Television, Electronics Stores-443112	2,217,507	987,254	1,230,253	6,741,238	9,558,813	(2,817,575)
Computer & Software Stores-44312	1,423,615	24,414	1,399,201	4,289,776	113,477	4,176,299
Camera & Photographic Equipment Stores-44313	159,301	0	159,301	482,768	151,498	331,270
Building Material, Garden Equip Stores -444	**19,218,219**	**6,891,577**	**12,326,642**	**54,934,243**	**125,287,406**	**(70,353,163)**
Building Material & Supply Dealers-4441	17,314,123	6,191,869	11,122,254	49,425,642	118,515,719	(69,090,077)
Home Centers-44411	6,905,617	0	6,905,617	19,750,926	26,618,625	(6,867,699)
Paint & Wallpaper Stores-44412	290,257	47,759	242,498	821,971	95,326	726,645
Hardware Stores-44413	1,247,051	0	1,247,051	3,625,535	25,118,998	(21,493,463)
Other Building Materials Dealers-44419	8,871,198	6,144,110	2,727,088	25,227,210	66,682,770	(41,455,560)
Building Materials, Lumberyards-444191	2,953,654	2,095,212	858,442	8,363,797	22,739,562	(14,375,765)
Lawn, Garden Equipment, Supplies Stores-4442	1,904,096	699,709	1,204,387	5,508,601	6,771,687	(1,263,086)
Outdoor Power Equipment Stores-44421	299,723	0	299,723	850,581	1,708,111	(857,530)
Nursery & Garden Centers-44422	1,604,373	699,709	904,664	4,658,020	5,063,576	(405,556)
Food & Beverage Stores-445	**26,759,172**	**57,937,314**	**(31,178,142)**	**82,404,632**	**208,730,090**	**(126,325,458)**
Grocery Stores-4451	22,464,946	52,734,241	(30,269,295)	69,132,668	191,877,066	(122,744,398)
Supermarkets, Grocery (Ex Conv) Stores-44511	21,479,014	51,670,277	(30,191,263)	66,089,931	188,413,306	(122,323,375)
Convenience Stores-44512	985,932	1,063,965	(78,033)	3,042,737	3,463,760	(421,023)
Specialty Food Stores-4452	3,246,940	1,695,146	1,551,794	10,031,478	4,528,720	5,502,758
Beer, Wine & Liquor Stores-4453	1,047,285	3,507,927	(2,460,642)	3,240,486	12,324,303	(9,083,817)
Health & Personal Care Stores-446	**10,176,289**	**3,163,694**	**7,012,595**	**30,438,206**	**61,719,825**	**(31,281,619)**
Pharmacies & Drug Stores-44611	8,428,085	2,453,288	5,974,797	25,238,657	45,703,739	(20,465,082)
Cosmetics, Beauty Spls, Perfume Stores-44612	413,740	204,891	208,849	1,232,949	9,434,565	(8,201,616)
Optical Goods Stores-44613	564,999	505,515	59,484	1,661,591	5,306,462	(3,644,871)
Other Health & Personal Care Stores-44619	769,466	0	769,466	2,305,009	1,275,059	1,029,950
Gasoline Stations-447	**18,227,383**	**12,537,331**	**5,690,052**	**55,670,118**	**61,069,332**	**(5,399,214)**
Gasoline Stations With Conv Stores-44711	11,649,885	0	11,649,885	35,651,110	33,201,617	2,449,493
Other Gasoline Stations-44719	6,577,498	12,537,331	(5,959,833)	20,019,008	27,867,715	(7,848,707)
Clothing & Clothing Accessories Stores-448	**9,090,702**	**2,183,028**	**6,907,674**	**27,814,279**	**47,788,712**	**(19,974,433)**
Clothing Stores-4481	6,620,021	1,145,667	5,474,354	20,278,769	28,749,763	(8,470,994)
Men's Clothing Stores-44811	721,641	156,191	565,450	2,233,206	3,214,415	(981,209)
Women's Clothing Stores-44812	1,961,588	239,462	1,722,126	5,955,429	11,209,895	(5,254,466)

Retail Category with NAICS Code	Walnut & Canby Streets, Penbrook: 1-Mile Radius			Walnut & Canby Streets, Penbrook: 2-Mile Radius		
Children's, Infants' Clothing Stores-44813	328,217	0	328,217	1,038,714	0	1,038,714
Family Clothing Stores-44814	2,958,468	0	2,958,468	9,070,349	7,523,270	1,547,079
Clothing Accessories Stores-44815	151,183	36,032	115,151	457,323	474,519	(17,196)
Other Clothing Stores-44819	498,925	713,982	(215,057)	1,523,748	6,327,665	(4,803,917)
Shoe Stores-4482	1,272,969	591,727	681,242	3,940,866	11,675,563	(7,734,697)
Jewelry, Luggage, Leather Goods Stores-4483	**1,197,712**	**445,633**	**752,079**	**3,594,644**	**7,363,385**	**(3,768,741)**
Jewelry Stores-44831	1,112,301	410,264	702,037	3,344,591	7,324,579	(3,979,988)
Luggage & Leather Goods Stores-44832	85,411	35,369	50,042	250,053	38,806	211,247
Sporting Gds, Hobby, Book, Music Stores-451	**3,697,205**	**3,569,129**	**128,076**	**11,281,073**	**29,834,460**	**(18,553,387)**
Sportng Gds, Hobby, Musical Inst Stores-4511	2,562,591	2,769,766	(207,175)	7,752,708	21,321,989	(13,569,281)
Sporting Goods Stores-45111	1,297,988	663,010	634,978	3,961,098	3,579,118	381,980
Hobby, Toys & Games Stores-45112	871,597	872,071	(474)	2,613,659	15,009,968	(12,396,309)
Sew/Needlework/Piece Goods Stores-45113	196,895	1,234,685	(1,037,790)	570,971	2,730,800	(2,159,829)
Musical Instrument & Supplies Stores-45114	196,110	0	196,110	606,981	2,103	604,878
Book, Periodical & Music Stores-4512	1,134,615	799,363	335,252	3,528,365	8,512,471	(4,984,106)
Book Stores & News Dealers-45121	718,074	0	718,074	2,231,139	6,273,569	(4,042,430)
Book Stores-451211	652,850	0	652,850	2,033,908	3,185,653	(1,151,745)
News Dealers & Newsstands-451212	65,224	0	65,224	197,231	3,087,916	(2,890,685)
Prerecorded Tape, CDs, Record Stores-45122	416,541	799,363	(382,822)	1,297,226	2,238,902	(941,676)
General Merchandise Stores-452	**25,227,747**	**3,111,295**	**22,116,452**	**76,539,003**	**120,809,476**	**(44,270,473)**
Department Stores Excl Leased Depts-4521	16,874,036	1,288,003	15,586,033	51,137,548	108,416,934	(57,279,386)
Other General Merchandise Stores-4529	8,353,712	1,823,293	6,530,419	25,401,455	12,392,542	13,008,913
Warehouse Clubs & Super Stores-45291	5,475,402	0	5,475,402	16,745,367	0	16,745,367
All Other General Merchandise Stores-45299	2,878,309	1,823,293	1,055,016	8,656,088	12,392,542	(3,736,454)
Miscellaneous Store Retailers-453	**4,971,255**	**8,729,031**	**(3,757,776)**	**14,909,294**	**29,738,685**	**(14,829,391)**
Florists-4531	621,190	540,102	81,088	1,820,156	5,298,483	(3,478,327)
Office Suppls, Stationery, Gift Stores-4532	2,055,639	6,294,668	(4,239,029)	6,155,816	19,459,528	(13,303,712)
Office Supplies & Stationery Stores-45321	890,846	5,495,227	(4,604,381)	2,662,935	13,862,344	(11,199,409)
Gift, Novelty & Souvenir Stores-45322	1,164,793	799,441	365,352	3,492,882	5,597,184	(2,104,302)
Used Merchandise Stores-4533	500,811	237,128	263,683	1,514,339	1,206,412	307,927
Other Miscellaneous Store Retailers-4539	1,793,615	1,657,132	136,483	5,418,982	3,774,262	1,644,720
Non-Store Retailers-454	**15,819,589**	**2,170,129**	**13,649,460**	**47,865,440**	**61,394,951**	**(13,529,511)**
Electronic Shopping, Mail-Order Houses-4541	6,532,996	0	6,532,996	19,701,345	0	19,701,345
Vending Machine Operators-4542	1,049,016	2,170,129	(1,121,113)	3,239,802	43,079,134	(39,839,332)
Direct Selling Establishments-4543	8,237,577	0	8,237,577	24,924,293	18,315,817	6,608,476
Foodservice & Drinking Places-722	**16,986,902**	**21,019,570**	**(4,032,668)**	**52,363,563**	**91,603,320**	**(39,239,757)**
Full-Service Restaurants-7221	6,967,034	8,583,033	(1,615,999)	21,473,937	37,793,417	(16,319,480)
Limited-Service Eating Places-7222	7,449,529	9,061,538	(1,612,009)	23,016,069	41,547,319	(18,531,250)
Special Foodservices-7223	1,330,126	1,536,013	(205,887)	4,103,879	6,528,653	(2,424,774)
Drinking Places -Alcoholic Beverages-7224	1,240,213	1,838,986	(598,773)	3,769,679	5,733,931	(1,964,252)
GAFO	**48,915,664**	**19,488,959**	**29,426,705**	**148,071,914**	**248,908,633**	**(100,836,719)**

Table A.7

Retail Category with NAICS Code	State Street & Parkway Drive, Harrisburg: 1-Mile Radius			State Street & Parkway Drive, Harrisburg: 2-Mile Radius		
	Expenditures (a)	Sales (b)	Net Demand (c)	Expenditures (a)	Sales (b)	Net Demand (c)
Total Retail Sales & Eating, Drinking Places	**232,564,365**	**253,130,108**	**(20,565,743)**	**656,567,915**	**1,277,809,984**	**(621,242,069)**
Motor Vehicle & Parts Dealers-441	**45,421,857**	**47,806,120**	**(2,384,263)**	**128,275,704**	**326,900,045**	**(198,624,341)**
Automotive Dealers-4411	37,841,933	39,806,046	(1,964,113)	106,955,634	296,112,880	(189,157,246)
Other Motor Vehicle Dealers-4412	2,925,280	4,296,460	(1,371,180)	8,310,948	5,222,866	3,088,082
Automotive Parts/Accsrs, Tire Stores-4413	4,654,644	3,703,614	951,030	13,009,122	25,564,299	(12,555,177)
Furniture & Home Furnishings Stores-442	**4,912,178**	**7,055,610**	**(2,143,432)**	**13,726,990**	**23,516,928**	**(9,789,938)**
Furniture Stores-4421	2,767,203	3,737,922	(970,719)	7,754,750	8,330,548	(575,798)
Home Furnishing Stores-4422	2,144,975	3,317,688	(1,172,713)	5,972,241	15,186,380	(9,214,139)
Electronics & Appliances Stores-443	**4,831,895**	**3,135,309**	**1,696,586**	**13,887,653**	**15,239,505**	**(1,351,852)**
Appliance, TVs, Electronics Stores-44311	3,084,602	3,120,103	(35,501)	8,848,188	15,089,362	(6,241,174)
Household Appliances Stores-443111	575,785	90,351	485,434	1,618,570	235,981	1,382,589
Radio, Television, Electronics Stores-443112	2,508,816	3,029,752	(520,936)	7,229,618	14,853,381	(7,623,763)
Computer & Software Stores-44312	1,566,108	15,206	1,550,902	4,522,809	141,922	4,380,887
Camera & Photographic Equipment Stores-44313	181,185	0	181,185	516,656	8,220	508,436
Building Material, Garden Equip Stores -444	**21,259,416**	**16,012,421**	**5,246,995**	**57,383,014**	**135,957,519**	**(78,574,505)**
Building Material & Supply Dealers-4441	19,226,435	16,012,421	3,214,014	51,636,843	132,443,762	(80,806,919)
Home Centers-44411	7,576,712	3,692,128	3,884,584	20,609,939	15,406,027	5,203,912
Paint & Wallpaper Stores-44412	301,841	0	301,841	840,058	110,397	729,661
Hardware Stores-44413	1,398,450	2,783,377	(1,384,927)	3,845,995	25,553,613	(21,707,618)
Other Building Materials Dealers-44419	9,949,431	9,536,915	412,516	26,340,851	91,373,725	(65,032,874)
Building Materials, Lumberyards-444191	3,192,606	3,252,194	(59,588)	8,586,290	31,159,450	(22,573,160)
Lawn, Garden Equipment, Supplies Stores-4442	2,032,982	0	2,032,982	5,746,171	3,513,757	2,232,414
Outdoor Power Equipment Stores-44421	323,743	0	323,743	881,558	1,966,185	(1,084,627)
Nursery & Garden Centers-44422	1,709,238	0	1,709,238	4,864,613	1,547,572	3,317,041
Food & Beverage Stores-445	**33,788,934**	**90,917,419**	**(57,128,485)**	**93,986,296**	**254,685,778**	**(160,699,482)**
Grocery Stores-4451	28,358,666	86,738,702	(58,380,036)	78,832,705	235,530,862	(156,698,157)
Supermarkets, Grocery (Ex Conv) Stores-44511	27,145,082	85,376,558	(58,231,476)	75,373,854	231,012,573	(155,638,719)
Convenience Stores-44512	1,213,584	1,362,144	(148,560)	3,458,851	4,518,289	(1,059,438)
Specialty Food Stores-4452	4,211,109	1,511,606	2,699,503	11,525,337	5,457,881	6,067,456
Beer, Wine & Liquor Stores-4453	1,219,160	2,667,111	(1,447,951)	3,628,254	13,697,035	(10,068,781)
Health & Personal Care Stores-446	**11,616,647**	**12,549,301**	**(932,654)**	**33,722,384**	**56,069,243**	**(22,346,859)**
Pharmacies & Drug Stores-44611	9,634,470	7,523,647	2,110,823	28,034,579	45,062,090	(17,027,511)
Cosmetics, Beauty Spls, Perfume Stores-44612	468,062	3,409,713	(2,941,651)	1,367,121	5,638,483	(4,271,362)
Optical Goods Stores-44613	626,059	1,615,941	(989,882)	1,746,940	4,573,581	(2,826,641)
Other Health & Personal Care Stores-44619	888,056	0	888,056	2,573,743	795,089	1,778,654
Gasoline Stations-447	**21,683,912**	**8,242,350**	**13,441,562**	**61,621,890**	**42,055,100**	**19,566,790**
Gasoline Stations With Conv Stores-44711	13,924,892	5,639,484	8,285,408	39,633,112	15,667,655	23,965,457
Other Gasoline Stations-44719	7,759,020	2,602,866	5,156,154	21,988,778	26,387,445	(4,398,667)
Clothing & Clothing Accessories Stores-448	**11,191,860**	**8,888,461**	**2,303,399**	**30,652,581**	**41,910,794**	**(11,258,213)**
Clothing Stores-4481	8,275,570	5,355,392	2,920,178	22,443,881	25,346,826	(2,902,945)
Men's Clothing Stores-44811	902,945	1,711,438	(808,493)	2,493,998	3,532,770	(1,038,772)
Women's Clothing Stores-44812	2,420,761	1,365,039	1,055,722	6,518,270	8,584,841	(2,066,571)

Expenditure Potential Analysis : Allison Hill, Harrisburg City

Retail Category with NAICS Code	State Street & Parkway Drive, Harrisburg: 1-Mile Radius			State Street & Parkway Drive, Harrisburg: 2-Mile Radius		
Children's, Infants' Clothing Stores-44813	468,626	0	468,626	1,212,521	0	1,212,521
Family Clothing Stores-44814	3,690,357	1,209,323	2,481,034	10,047,579	5,912,761	4,134,818
Clothing Accessories Stores-44815	172,792	50,223	122,569	492,912	1,225,056	(732,144)
Other Clothing Stores-44819	620,089	1,019,369	(399,280)	1,678,601	6,091,399	(4,412,798)
Shoe Stores-4482	1,685,595	2,686,260	(1,000,665)	4,423,088	11,128,485	(6,705,397)
Jewelry, Luggage, Leather Goods Stores-4483	**1,230,696**	**846,809**	**383,887**	**3,785,612**	**5,435,483**	**(1,649,871)**
Jewelry Stores-44831	1,145,683	846,420	299,263	3,539,917	5,400,114	(1,860,197)
Luggage & Leather Goods Stores-44832	85,013	389	84,624	245,695	35,369	210,326
Sporting Gds, Hobby, Book, Music Stores-451	**4,316,305**	**3,718,086**	**598,219**	**12,313,849**	**30,172,772**	**(17,858,923)**
Sportng Gds, Hobby, Musical Inst Stores-4511	3,013,016	1,414,031	1,598,985	8,401,581	20,196,147	(11,794,566)
Sporting Goods Stores-45111	1,561,244	160,979	1,400,265	4,356,325	2,501,008	1,855,317
Hobby, Toys & Games Stores-45112	1,019,007	1,253,052	(234,045)	2,814,176	14,964,339	(12,150,163)
Sew/Needlework/Piece Goods Stores-45113	207,875	0	207,875	578,525	2,730,800	(2,152,275)
Musical Instrument & Supplies Stores-45114	224,890	0	224,890	652,555	0	652,555
Book, Periodical & Music Stores-4512	1,303,290	2,304,055	(1,000,765)	3,912,268	9,976,625	(6,064,357)
Book Stores & News Dealers-45121	796,064	1,661,081	(865,017)	2,463,491	7,831,909	(5,368,418)
Book Stores-451211	723,426	0	723,426	2,244,521	2,104,318	140,203
News Dealers & Newsstands-451212	72,639	1,661,081	(1,588,442)	218,970	5,727,590	(5,508,620)
Prerecorded Tape, CDs, Record Stores-45122	507,225	642,975	(135,750)	1,448,777	2,144,716	(695,939)
General Merchandise Stores-452	**30,316,593**	**33,088,343**	**(2,771,750)**	**84,383,180**	**120,318,744**	**(35,935,564)**
Department Stores Excl Leased Depts-4521	20,257,639	24,850,907	(4,593,268)	56,203,095	107,525,624	(51,322,529)
Other General Merchandise Stores-4529	10,058,954	8,237,436	1,821,518	28,180,085	12,793,120	15,386,965
Warehouse Clubs & Super Stores-45291	6,737,842	0	6,737,842	18,784,457	0	18,784,457
All Other General Merchandise Stores-45299	3,321,112	8,237,436	(4,916,324)	9,395,628	12,793,120	(3,397,492)
Miscellaneous Store Retailers-453	**5,397,816**	**3,415,375**	**1,982,441**	**15,907,545**	**30,246,711**	**(14,339,166)**
Florists-4531	672,683	0	672,683	1,920,303	5,783,085	(3,862,782)
Office Supplis, Stationery, Gift Stores-4532	2,136,030	875,710	1,260,320	6,470,025	18,302,441	(11,832,416)
Office Supplies & Stationery Stores-45321	914,590	0	914,590	2,782,168	12,153,999	(9,371,831)
Gift, Novelty & Souvenir Stores-45322	1,221,440	875,710	345,730	3,687,857	6,148,442	(2,460,585)
Used Merchandise Stores-4533	564,345	612,883	(48,538)	1,626,895	2,393,583	(766,688)
Other Miscellaneous Store Retailers-4539	2,024,758	1,926,782	97,976	5,890,322	3,767,601	2,122,721
Non-Store Retailers-454	**18,802,902**	**3,037,888**	**15,765,014**	**53,268,998**	**73,342,185**	**(20,073,187)**
Electronic Shopping, Mail-Order Houses-4541	7,381,542	0	7,381,542	21,209,598	0	21,209,598
Vending Machine Operators-4542	1,318,022	3,037,888	(1,719,866)	3,685,605	47,183,295	(43,497,690)
Direct Selling Establishments-4543	10,103,339	0	10,103,339	28,373,796	26,158,890	2,214,906
Foodservice & Drinking Places-722	**19,024,048**	**15,263,427**	**3,760,621**	**57,437,830**	**127,394,660**	**(69,956,830)**
Full-Service Restaurants-7221	7,778,928	1,810,009	5,968,919	23,540,247	44,549,534	(21,009,287)
Limited-Service Eating Places-7222	8,513,493	9,553,799	(1,040,306)	25,347,947	53,493,578	(28,145,631)
Special Foodservices-7223	1,517,545	1,930,024	(412,479)	4,515,651	11,372,807	(6,857,156)
Drinking Places -Alcoholic Beverages-7224	1,214,081	1,969,595	(755,514)	4,033,986	17,978,742	(13,944,756)
GAFO	**57,704,861**	**56,761,519**	**943,342**	**161,434,278**	**249,461,185**	**(88,026,907)**

Table A.8

Roadway Network Description

State Street (S.R. 3014) is a 4-lane state roadway classified as a principal arterial with an average daily traffic volume of approximately 22,000 vehicles per day within the study area. State Street is comprised of 12-foot travel lanes and a 12-foot center left-turn lane with on-street parking lanes on each side of 8 feet. Pavement markings include a single yellow and dashed yellow centerline, white turn-lane dividing lines, and dashed white lane dividing lines. The posted speed limit along State Street is 35 miles per hour within the study area. Heavy vehicle percentages along State Street in the study area were observed to be approximately 2%.

Walnut Street (S.R. 3014) is a 4-lane state roadway classified as a principal arterial with an average daily traffic volume of approximately 22,000 vehicles per day between Parkway Drive and Canby Street. Average daily traffic volumes are approximately 36,000 vehicles per day between Canby Street and Herr Street. Walnut Street is comprised of two 10-foot travel lanes with 10-foot on-street parking lanes on each side of Walnut Street. Parking is restricted during peak travel periods to provide an additional travel lane in each direction. Pavement markings include a double yellow centerline, white turn-lane dividing lines, and dashed white lane dividing lines. The posted speed limit along Walnut Street is 25 miles per hour within the Borough of Penbrook and 35 miles per hour in the rest of the study area. Heavy vehicle percentages along Walnut Street in the study area were observed to be approximately 2%.

Walnut Street (S.R. 0022) is a 4-lane state roadway classified as a principal arterial with an average daily traffic volume of approximately 30,000 vehicles per day between Herr Street and Progress Avenue. Walnut Street is comprised of 10-foot travel lanes. Pavement markings include a double yellow centerline and dashed white lane dividing lines. The posted speed limit along Walnut Street is 35 miles per hour within the study area. Heavy vehicle percentages along Walnut Street in the study area were observed to be approximately 2%.

Herr Street (S.R. 3018) is a 2-lane state roadway classified as a principal arterial with an average daily traffic volume of approximately 14,000 vehicles per day and a heavy vehicle percentage of 3% between Seventh Street and Cameron Street. Average daily traffic volumes are approximately 8,100 vehicles per day between Cameron Street and Arsenal Boulevard with a heavy vehicle percentage of 8%. Herr Street is comprised of 11-foot travel lanes. There is an additional eastbound lane between Cameron Street and North Seventeenth Street. This additional lane ends prior to North Fifteenth Street. Parking is permitted on the south side of the street between North Seventeenth Street and Arsenal Boulevard. Pavement markings include a double yellow centerline, solid white turn lane lines, and solid white edge lines. The posted speed limit along Herr Street is 35 miles per hour within the study area.

Herr Street (S.R. 0022) is a 2-lane state roadway classified as a principal arterial with an average daily traffic volume of approximately 12,200 vehicles per day with a heavy vehicle percentage of 6% between Arsenal Boulevard and Canby Street. Average daily traffic volumes are approximately 8,900 vehicles per day between Canby

Street and Walnut Street with a heavy vehicle percentage of 3%. Herr Street is comprised of 11-foot travel lanes. Parking is permitted on the south side of Herr Street between Twentieth Street and Twenty-Seventh Street and on the north side. Parking is also permitted between Twenty-Eighth Street and Thirtieth Street on the north and south side. Pavement markings include a double yellow centerline, solid white turn lane lines, and solid white edge lines. The posted speed limit along Herr Street is 35 miles per hour within the study area.

North Seventh Street (S.R. 3018) is a 4-lane divided state roadway classified as a principal arterial with an average daily traffic volume of approximately 14,500 vehicles per day within the study area. North Seventh Street is comprised of 12-foot travel lanes. Pavement markings include a single yellow centerline on either side of the concrete median, solid white turn lane lines, and solid white edge lines. The posted speed limit along North Seventh Street is 25 miles per hour within the study area. Heavy vehicle percentages along North Seventh Street in the study area were observed to be approximately 7%.

Cameron Street (S.R. 0230) is a 4-lane state roadway classified as a principal arterial with an average daily traffic volume of approximately 35,000 vehicles per day north of Herr Street and an average daily traffic volume of approximately 28,500 vehicles per day south of Herr Street. Cameron Street is comprised of 11-foot travel lanes. Pavement markings include a double yellow centerline and solid white turn lane lines. The posted speed limit along Cameron Street is 35 miles per hour within the study area. Heavy vehicle percentages along Cameron Street in the study area were observed to be approximately 8% north of Herr Street and 10% south of Herr Street.

Edgemont Road (T 318) is a 2-lane township roadway classified as a minor arterial with an average daily traffic volume of approximately 4,000 vehicles per day within the study area. Edgemont Road is comprised of 12-foot travel lanes. Pavement markings include a double yellow centerline, solid white turn lane lines, and solid white edge lines. The posted speed limit along Edgemont Road is 25 miles per hour within the study area. Heavy vehicle percentages along Edgemont Road in the study area were observed to be approximately 6%.

North Thirteenth Street (S.R. 3028) is a 2-lane state roadway classified as a minor arterial north of State Street with an average daily traffic volume of approximately 5,000 vehicles per day. Thirteenth Street is a 2-lane city roadway classified as a minor arterial south of State Street with an average daily traffic volume of approximately 8,500 vehicles per day. North Thirteenth Street is comprised of 10-foot travel lanes. Pavement markings include a double yellow centerline and solid white turn lane lines. The posted speed limit along North Thirteenth Street is 35 miles per hour north of State Street and 25 miles per hour south of State Street. Heavy vehicle percentages along North Thirteenth Street in the study area were observed to be approximately 3% north of State Street and 5% south of State Street.

North Fifteenth Street is a 2-lane city roadway classified as a local road with an average daily traffic volume of approximately 2,000 vehicles per day within the study area. North Fifteenth Street is comprised of 15-foot travel lanes. Pavement markings include a double yellow centerline. The posted speed limit along North Fifteenth Street is 25 miles per hour within the study area. Heavy vehicle percentages along North Fifteenth Street in the study area were observed to be approximately 2%.

North Seventeenth Street is a 2-lane city roadway classified as a minor arterial with an average daily traffic volume of approximately 16,500 vehicles per day near its intersection with State Street and an average daily traffic volume of approximately 4,000 vehicles per day near its intersection with Herr Street. North Seventeenth Street is comprised of 12-foot travel lanes. Pavement markings include a double yellow centerline. The posted speed limit along North Seventeenth Street is 25 miles per hour within the study area. Heavy vehicle percentages along North Seventeenth Street in the study area were observed to be approximately 5%.

North Eighteenth Street is a 1-lane one-way city roadway classified as a local road with an average daily traffic volume of approximately 1,500 vehicles per day within the study area. North Eighteenth Street is comprised of a 10-foot travel lane. There are no pavement markings. The posted speed limit along North Eighteenth Street is 25 miles per hour within the study area. Heavy vehicle percentages along North Eighteenth Street in the study area were observed to be approximately 11%.

Parkway Drive is a 2-lane township roadway classified as a local road with an average daily traffic volume of approximately 2,500 vehicles per day within the study area. Parkway Drive is comprised of 10-foot travel lanes with bicycle only lanes on both sides of Parkway Drive. Pavement markings include a double yellow centerline, solid white turn lane lines and solid white edge lines. The posted speed limit along Parkway Drive is 25 miles per hour within the study area. Heavy vehicle percentages along Parkway Drive in the study area were observed to be approximately 3%.

Canby Street (S.R. 3020) is a 2-lane state roadway classified as a minor arterial with an average daily traffic volume of approximately 4,000 vehicles per day north of Walnut Street and an average daily traffic volume of approximately 6,500 vehicles per day south of Walnut Street. Canby Street is comprised of 10-foot travel lanes. Pavement markings include a double yellow centerline, solid white turn lane lines and solid white edge lines. The posted speed limit along Canby Street is 35 miles per hour within the study area. Heavy vehicle percentages along Canby Street in the study area were observed to be approximately 5%.

Twenty-Eighth Street (S.R. 3013) is a 2-lane state roadway classified as a minor arterial with an average daily traffic volume of approximately 2,500 vehicles per day north of Walnut Street and an average daily traffic volume of approximately 6,000 vehicles per day south of Walnut Street. Twenty-Eighth Street is comprised of 10-foot travel lanes. Pavement markings include a double yellow centerline, solid white turn lane lines and solid white edge lines. The

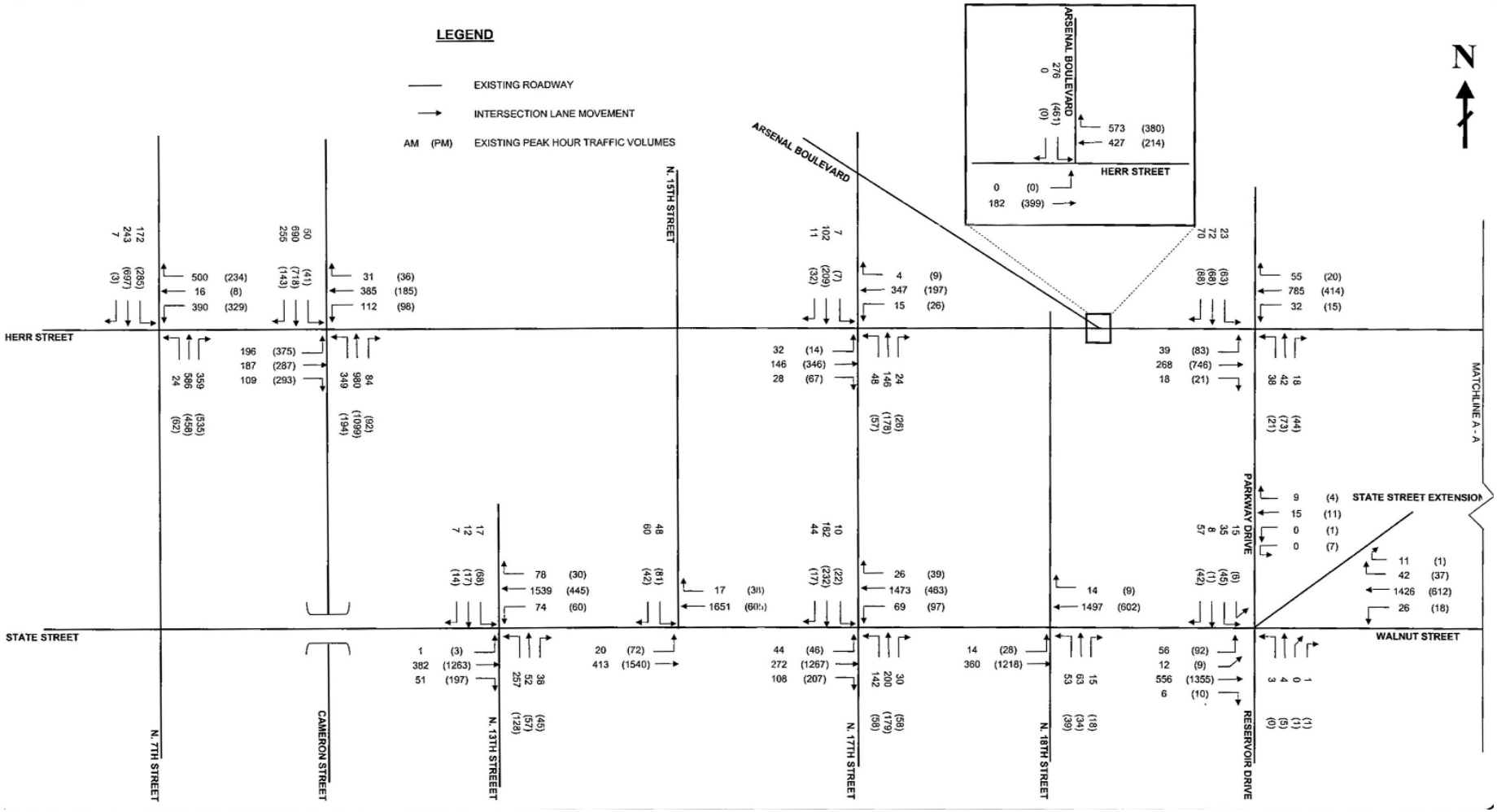
posted speed limit along Twenty-Eighth Street is 35 miles per hour within the study area. Heavy vehicle percentages along Twenty-Eighth Street in the study area were observed to be approximately 5%.

Thirtieth Street is a 1-lane one-way roadway classified as a local road with an average daily traffic volume of approximately 230 vehicles per day within the study area. Thirtieth Street is comprised of a 12-foot travel lane. There are no pavement markings. The posted speed limit along Thirtieth Street is 25 miles per hour within the study area. Heavy vehicle percentages along Thirtieth Street in the study area were observed to be approximately 2%.

Progress Avenue (S.R. 3015) is a 2-lane state roadway classified as a minor arterial with an average daily traffic volume of approximately 18,000 vehicles per day north of Walnut Street and an average daily traffic volume of 14,000 vehicles per day south of Walnut Street. Progress Avenue is comprised of 10-foot travel lanes. Pavement markings include a double yellow centerline, solid white turn lane lines and solid white edge lines.

The posted speed limit along Progress Avenue is 35 miles per hour within the study area. Heavy vehicle percentages along Progress Avenue in the study area were observed to be approximately 5%.

Average daily traffic volumes provided in the above discussion were obtained from PENNDOT traffic volume maps, and the roadway classifications were similarly found using PENNDOT functional classification maps. When PENNDOT information was unavailable, the daily traffic volumes were estimated from the turning movement counts. The existing intersection geometry and traffic control can be found in Figure 2A and Figure 2B.



Existing Traffic Volume

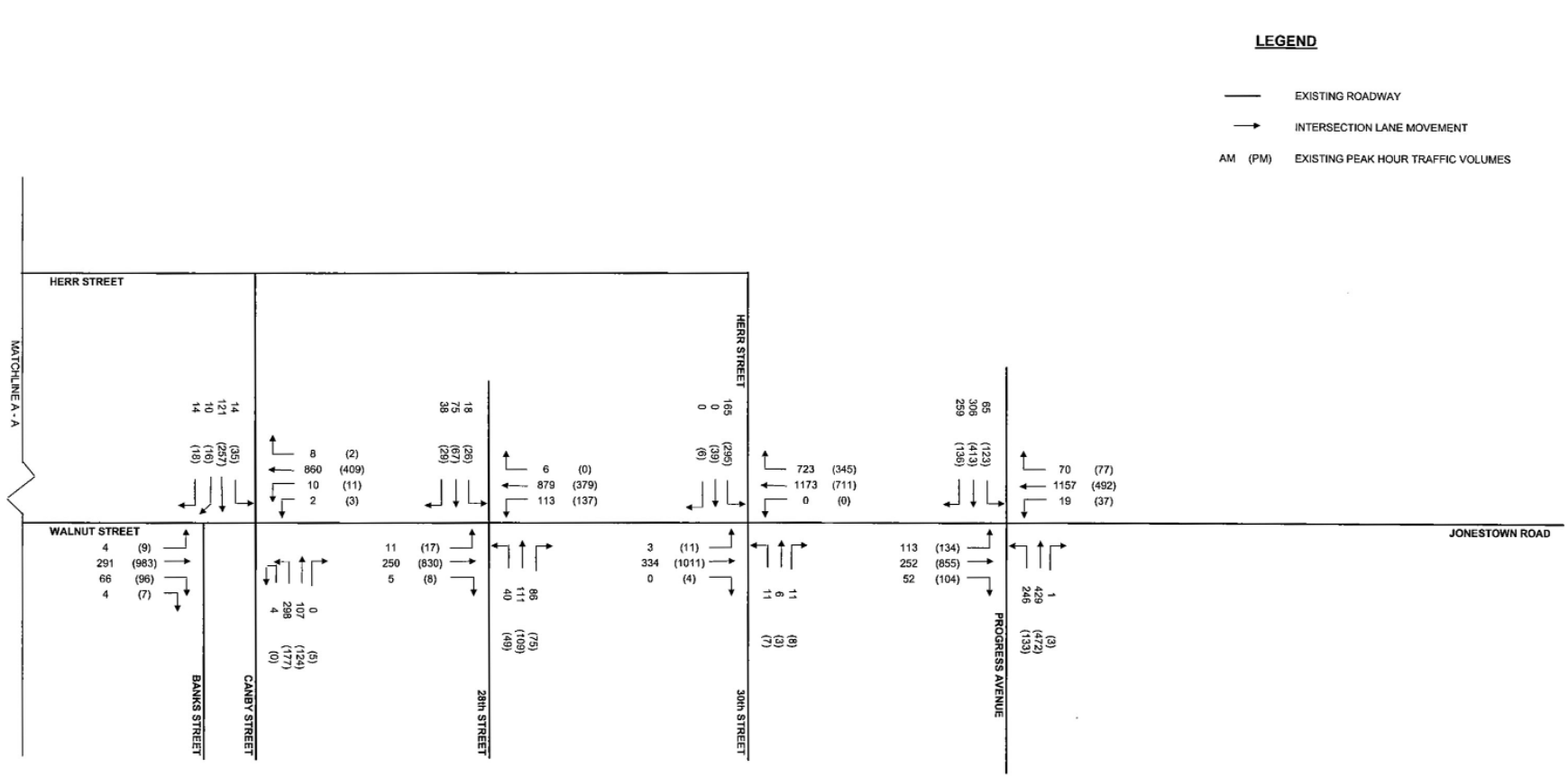
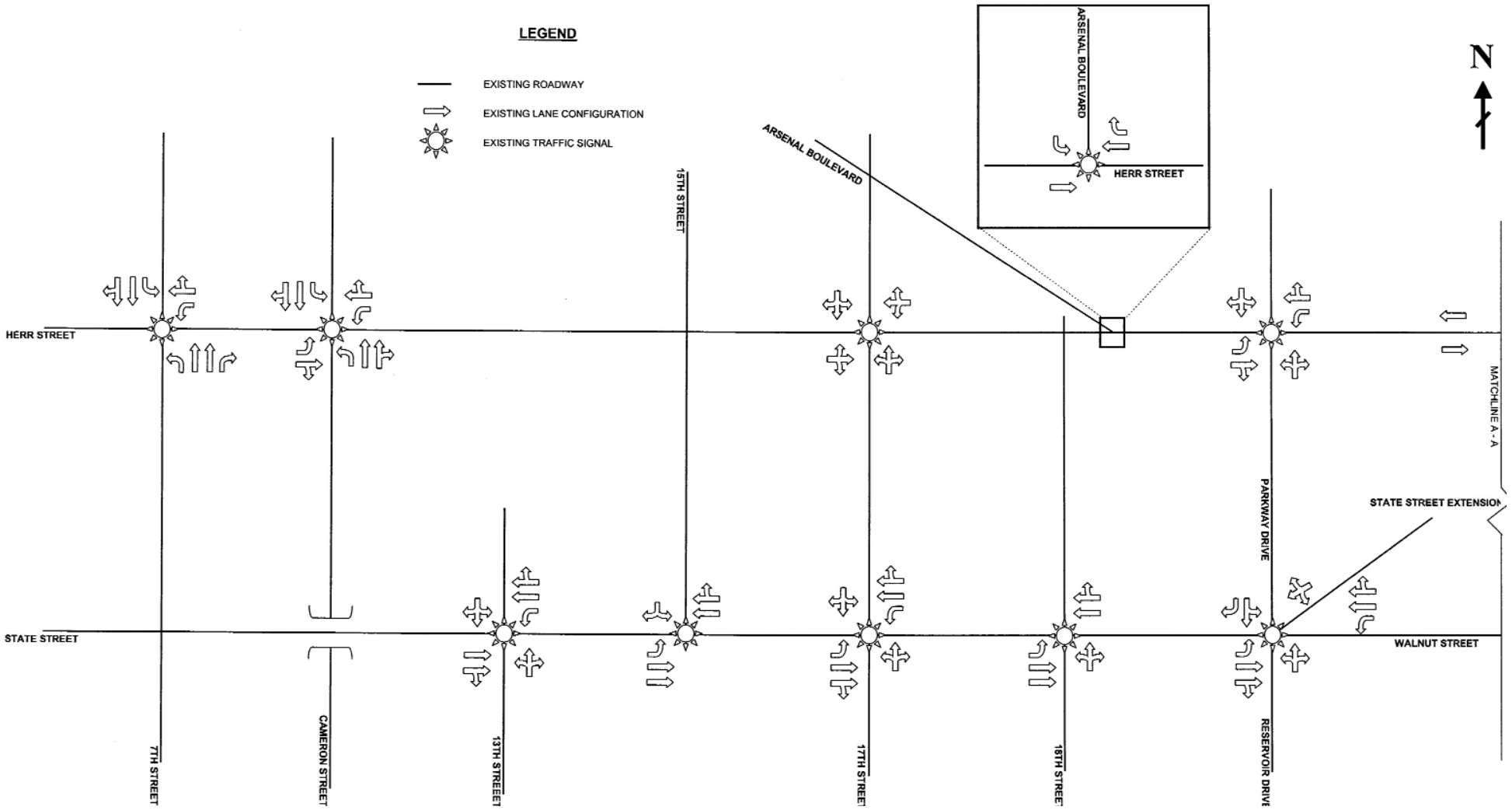

LEGEND
EXISTING ROADWAY
INTERSECTION LANE MOVEMENT
AM (PM) EXISTING PEAK HOUR TRAFFIC VOLUMES
N
MATCHLINE A - A
HERR STREET
WALNUT STREET
JONESTOWN ROAD
BANKS STREET
CANBY STREET
28th STREET
30th STREET
PROGRESS AVENUE
4 (9)
291 (983)
66 (96)
4 (7)
14 121 10 14
(35) (257) (16) (18)
8 860 10 2
(2) (409) (11) (3)
0 107 298 4
(5) (124) (177) (0)
18 75 38
(28) (67) (20)
11 250 5
(17) (830) (8)
6 879 113
(0) (379) (137)
86 111 40
(75) (109) (49)
165 0 0
(295) (39) (6)
3 334 0
(11) (1011) (4)
723 1173 0
(345) (711) (0)
11 6 11
(8) (3) (7)
65 309 259
(123) (413) (136)
113 252 52
(134) (855) (104)
70 1157 19
(77) (492) (37)
1 429 246
(3) (472) (133)

Figure A.25



Existing Lane Configuration and Traffic Control

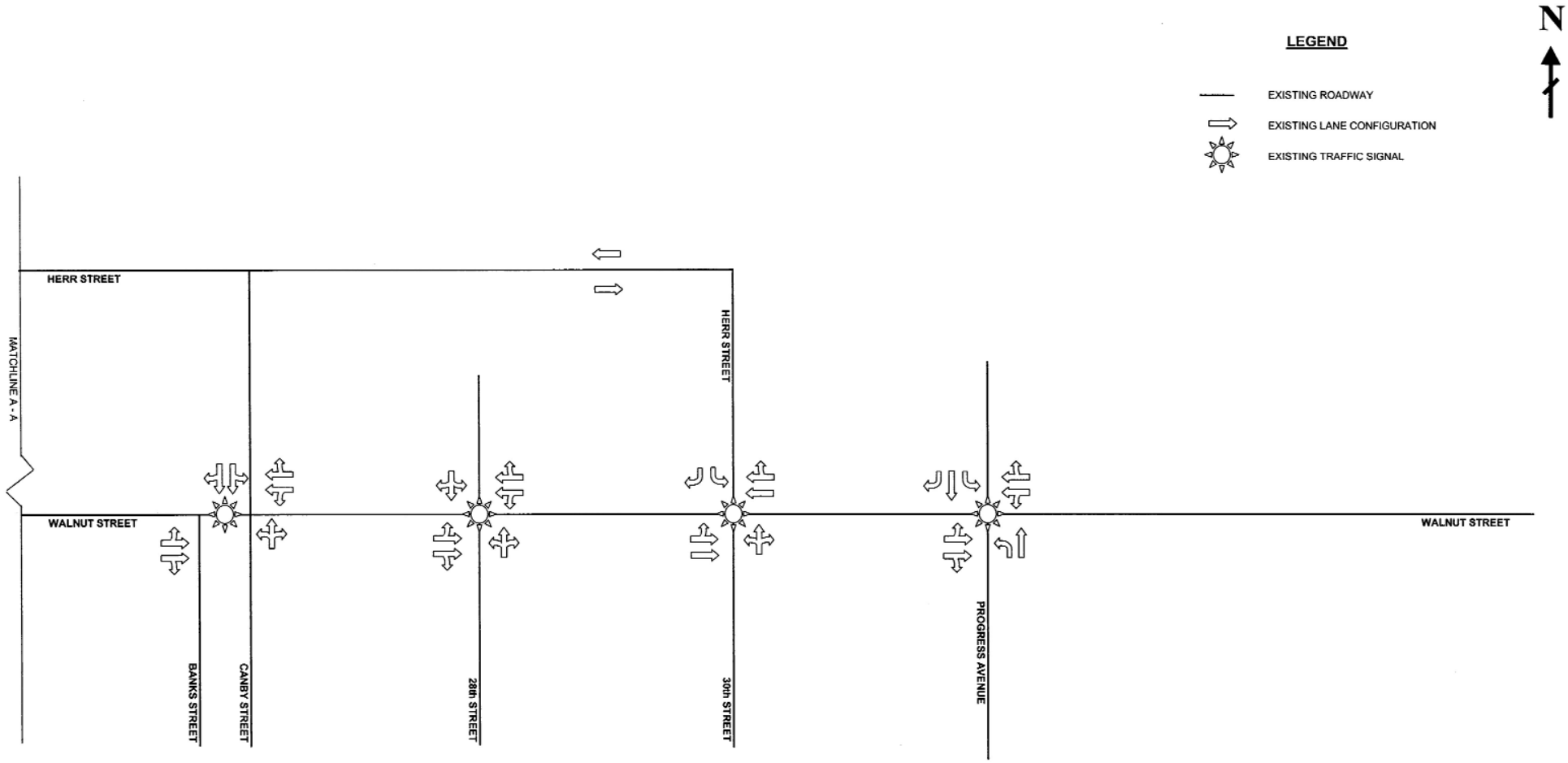
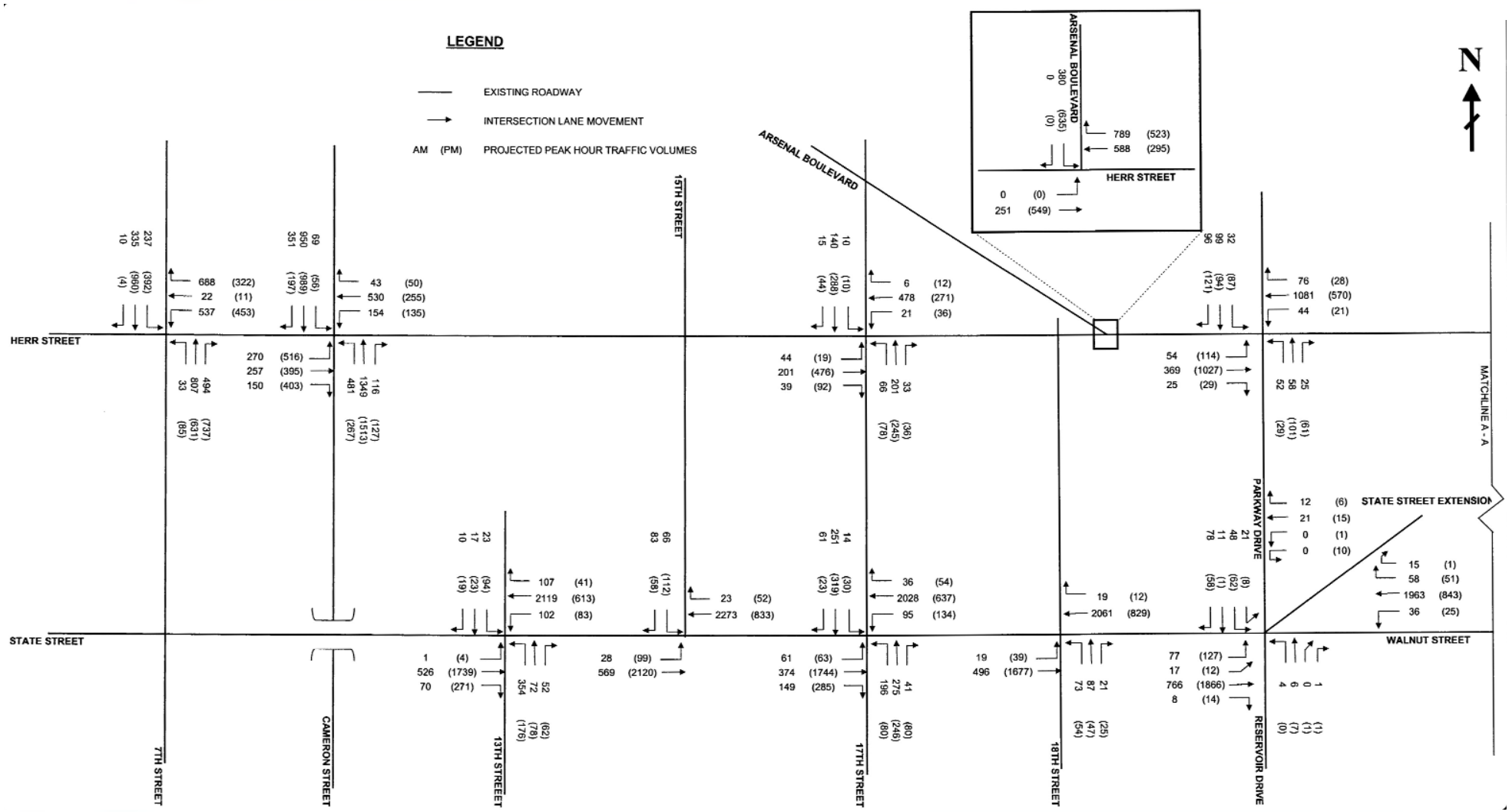
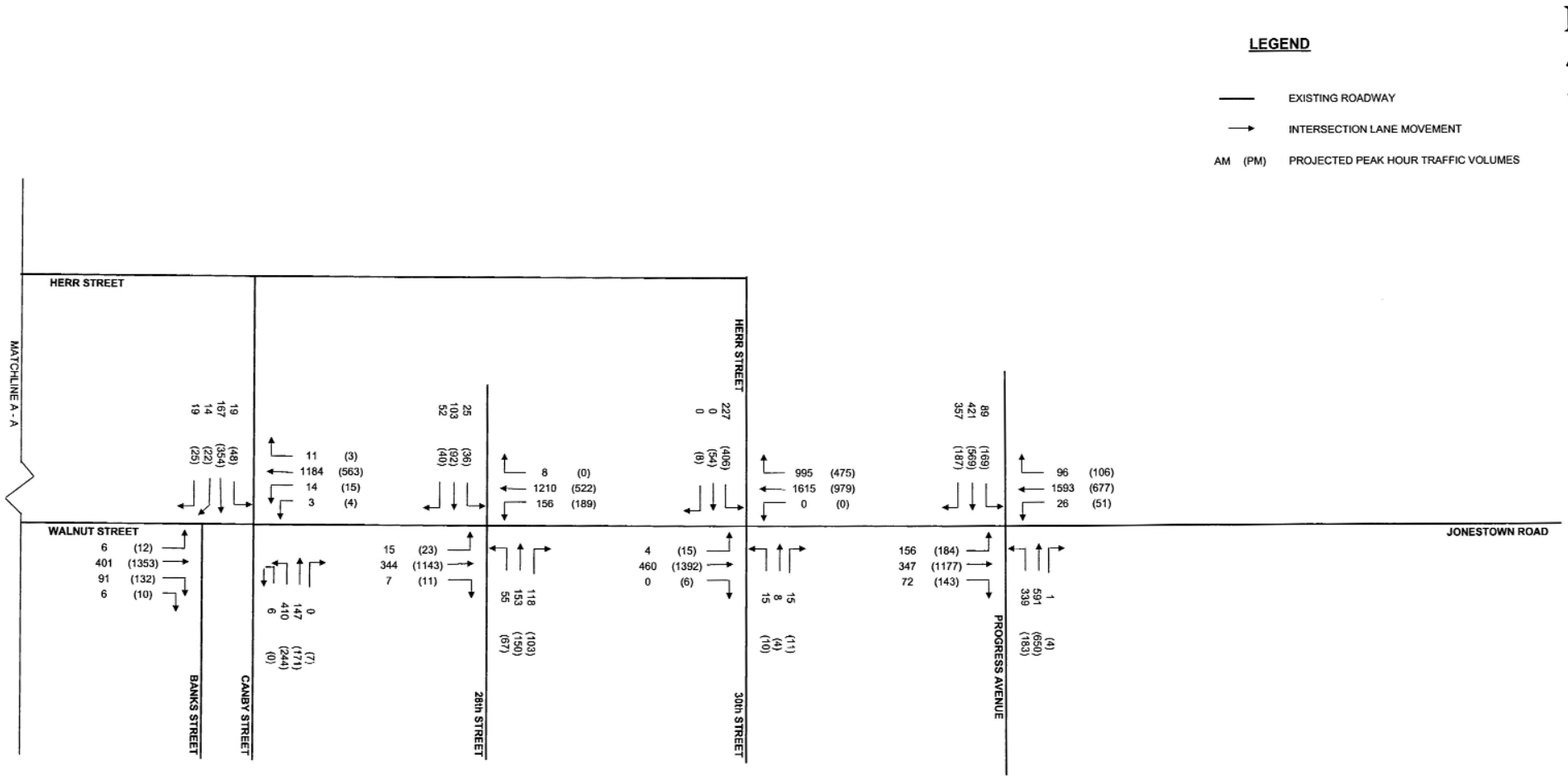

N
LEGEND
EXISTING ROADWAY
EXISTING LANE CONFIGURATION
EXISTING TRAFFIC SIGNAL
HERR STREET
HERR STREET
MATCHLINE A - A
WALNUT STREET
WALNUT STREET
BANKS STREET
CANBY STREET
28th STREET
30th STREET
PROGRESS AVENUE

Figure A.26



2028 Traffic Volumes No Build Condition


N
LEGEND
EXISTING ROADWAY
INTERSECTION LANE MOVEMENT
AM (PM) PROJECTED PEAK HOUR TRAFFIC VOLUMES
HERR STREET
MATCHLINE A - A
WALNUT STREET
JONESTOWN ROAD
BANKS STREET
CANBY STREET
28th STREET
30th STREET
PROGRESS AVENUE
6 (12)
401 (1353)
91 (132)
6 (10)
19 167 14 19
(48) (354) (22) (25)
11 1184 14 3
(3) (563) (15) (4)
25 103 52
(36) (92) (40)
15 344 7
(23) (1143) (11)
8 1210 156
(0) (522) (189)
227 0 0
(406) (54) (8)
4 460 0
(15) (1392) (6)
995 1615 0
(475) (979) (0)
15 8 15
(11) (4) (10)
89 421 357
(169) (569) (187)
156 347 72
(184) (1177) (143)
96 1593 26
(106) (677) (51)
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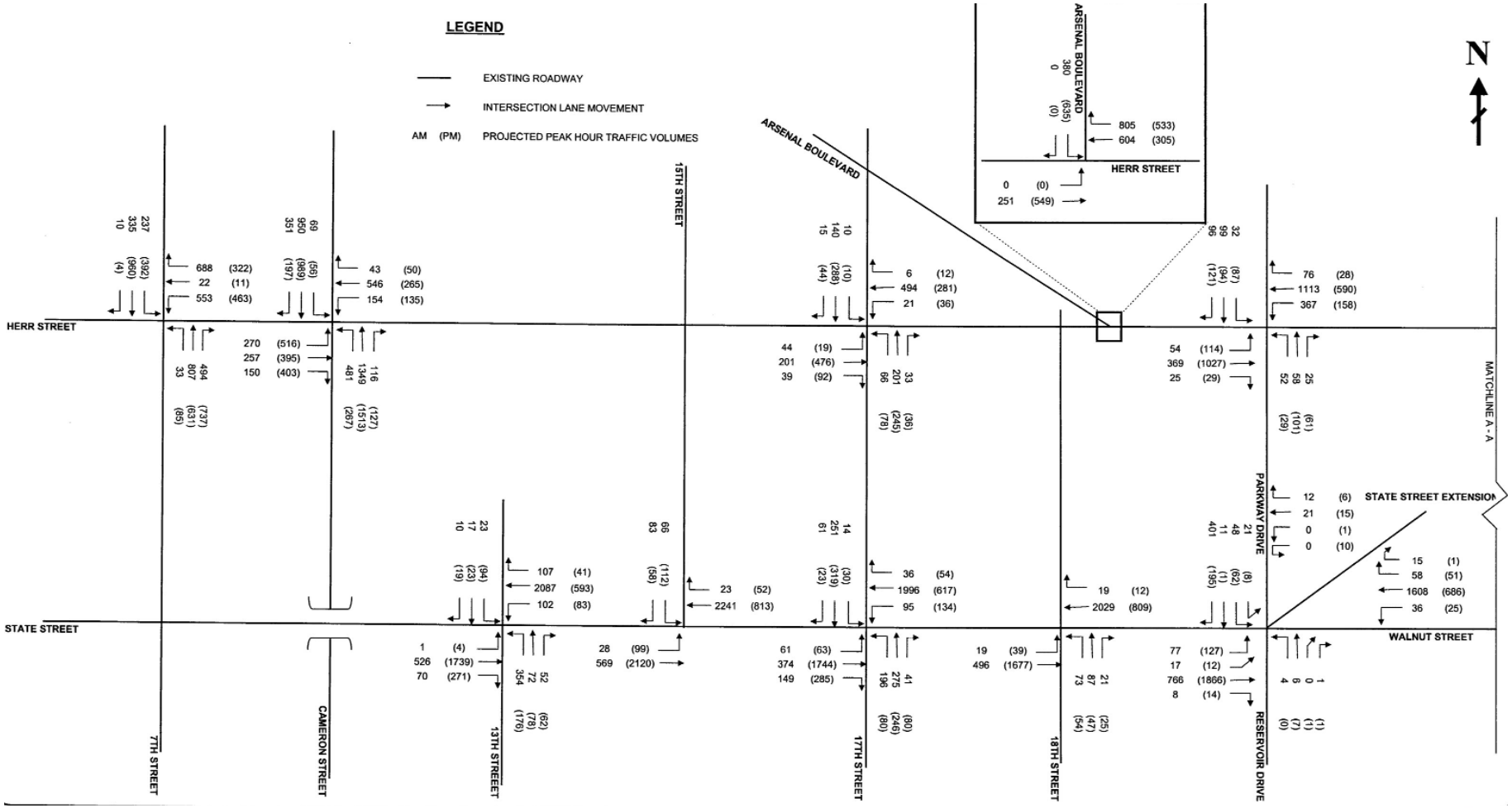
0 147 410 6
(7) (171) (244) (0)
118 153 55
(103) (150) (67)

Figure A.27



2028 Traffic Volumes For Interim Improvements

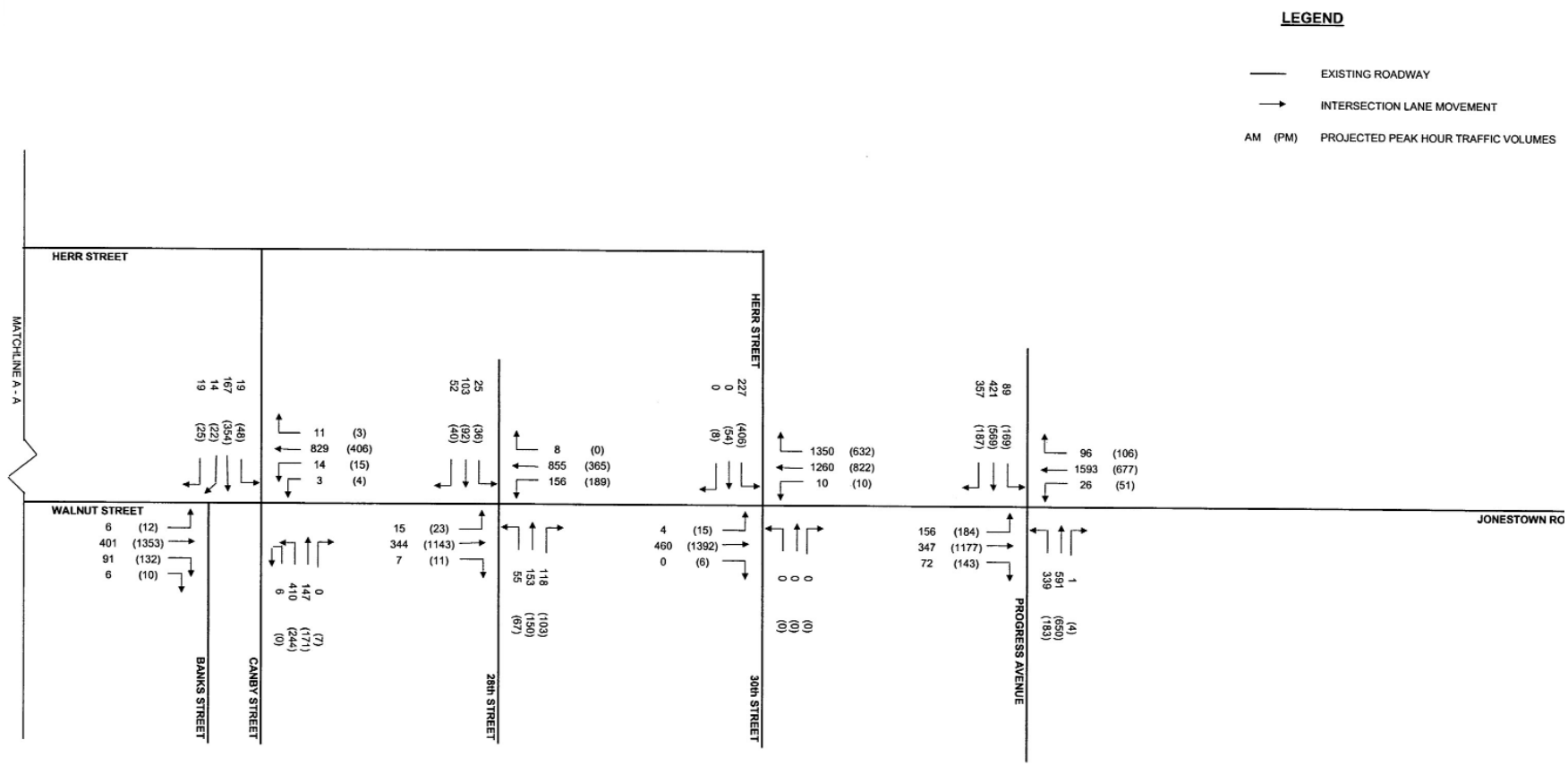

LEGEND
EXISTING ROADWAY
INTERSECTION LANE MOVEMENT
AM (PM) PROJECTED PEAK HOUR TRAFFIC VOLUMES
MATCHLINE A - A
HERR STREET
WALNUT STREET
BANKS STREET
CANBY STREET
28th STREET
30th STREET
PROGRESS AVENUE
JONESTOWN RO

Figure A.28

Parking

A survey of the existing on-street parking spaces was conducted. Since there are no pavement markings for parking spaces, the distance between intersections was measured and then divided by 20 feet, which is the minimum amount of space for parallel parking spaces according to the MUTCD. The spaces most likely to be impacted by the study are the on-street parking spaces between Twenty-Third Street and Thirtieth Street on the Walnut Street corridor and the on-street parking spaces on the Herr Street corridor. A summary of the parking spaces can be found in Table A.2.

Corridor	Location on Street	Estimated Number of Spots Impacted by the Interim Improvements
Herr Street	**From Seventh Street to Fifteenth Street**	
	Northside	No Parking
	Southside	
	Total	
	From Fifteenth Street to Arsenal Boulevard	
	Northside	+/- 0
	Southside	+/- 0
	Total	**+/- 0**
	From Twentieth Street to Thirtieth Street/Walnut Street	
	Northside	-15
	Southside	-58
	Total	**-73**
Total on Herr Street		**-73**
Walnut Street	**From Thirteenth Street to Parkway Drive**	
	Northside	+/- 0
	Southside	+/- 0
	Total	**+/- 0**
	From Parkway Drive to Twenty-Third Street	
	Northside	No Parking
	Southside	
	Total	
	From Twenty-Third Street to Herr Street/Thirtieth Street	
	Northside	-13 / +72*
	Southside	-72
	Total	**-85 / +72***
	From Herr Street/Thirtieth Street to Progress Avenue	
	Northside	No Parking
	Southside	
	Total	
Total on Walnut Street		**-85 / +72***

* On the northside of Walnut Street, some parking spaces will be lost to improvements such as pedestrian bulb outs. However, the positive number represents the number of spaces permanently gained and not restricted during peak hours.

Table A.9

Corridor	Location on Street	Estimated Number of Spots Impacted by the Long Term Improvements
Walnut Street	**From Thirteenth Street to Parkway Drive**	
	Northside	+/- 0
	Southside	+/- 0
	Total	**+/- 0**
	From Parkway Drive to Twenty-Third Street	
	Northside	No Parking
	Southside	
	Total	
	From Twenty-Third Street to Herr Street/Thirtieth Street	
	Northside	-13 / +72*
	Southside	-11/ +61*
	Total	**-24 / +133***
	From Herr Street/Thirtieth Street to Progress Avenue	
	Northside	No Parking
	Southside	
	Total	
Total on Walnut Street		**-24 / +133***

* On Walnut Street, some parking spaces will be lost to improvements such as pedestrian bulb outs. However, the positive number represents the number of spaces permanently gained and not restricted during peak hours.

Table A.10

Estimated Number of Gained/Lost Parking Spots : Penbrook Borough - Short & Long Term

Interim Vehicular Mobility Improvements

It was found that 73 parking spaces on Herr Street would be impacted by the additional of a westbound through lane. A majority of those impacted are located on the south side of Herr Street and provide parking for businesses and residences. The parking sports impacted on the north side of Herr Street were mostly in the vicinity of St. Margaret Mary's School.

It was found that 72 parking spaces on Walnut Street would be impacted by restricting the parking on the south side of Walnut Street to permanently accommodate a second eastbound through lane. On the north side, it is estimated that 15% of the parking spots will be impacted to accommodate improvements such as pedestrian bulb outs and bull pull outs. The remaining 72 parking spaces will become permanent parking spaces.

Long-Term Vehicular Mobility Improvements

It is not anticipated that there will be any additional parking impacts to the Herr Street corridor with the long term improvements. With the concept in the preliminary stage, it is too soon to tell if any or how many parking spaces will be provided on Herr Street. On street parking should be provided if the proposed housing on the south side of Herr Street does not provide parking facilities for the units.

On Walnut Street, it is estimated that 15% of the parking spots will be impacted to accommodate improvements such as pedestrian bulb outs and bull pull outs. It was found that 61 parking spaces on the south side will become permanent parking spaces in addition to the interim improvements on the north side that create 72 permanent parking spaces. Table 5 provides a summary of parking spaces impacted on Walnut Street by the long term improvements.

Estimated Number of Gained/Lost Parking Spots : Penbrook Borough - Short & Long Term

US 22 and Progress Avenue Intersection Design Study Highlights

Project Description

The intersection of Progress Avenue and SR 0022 (Walnut Street) located in Susquehanna Township; Dauphin County, Pennsylvania has exhibited unacceptable operating conditions and a clear accident trend for many years. The intersection also has severe problems with queuing, capacity, and delays. The intersection is located at the convergence of two principle arterials providing access to the City of Harrisburg.

The proposed project scope is geometric improvements, widening and overlay to the signalized intersection of Walnut Street (State Route 0022) and Progress Avenue (State Route 3015) northeast of Harrisburg, in Susquehanna Township, Dauphin County PA. The improvements to the intersection are being proposed to reduce congestion, accidents, and provide safer operations.

Project Purpose and Need

Harrisburg and the surrounding suburban area, in particular Susquehanna Township north and east of the City, has experienced substantial and rapid growth over the last 10 years. In addition to the overall growth in the area, development has increased along the Walnut Street and Progress Avenue corridors. The increased use of these highways for access and for commuting has severely affected the operational characteristics at the intersection of these two arterial roadways, especially during the peak hours ("rush hours"). The congestion and safety issues at this intersection have been documented in previous studies, one conducted for Susquehanna Township and a second conducted by the Pennsylvania Department of Transportation (PENNDOT).

A capacity analysis was conducted in February 2006 to estimate the maximum number of vehicles that can be safely accommodated by the intersection and to measure the operational characteristics without physical improvements to the intersection. Current traffic volumes, and volumes projected to 2028, were applied to the maximum capacity of the intersection and the results were measured by the use of Levels of Service (LOS). Six Levels of Service are defined for a facility and are given a letter designation, from A to F, with LOS A representing the best operating conditions and a LOS F representing an intersection or intersection movement operating at an overcapacity scenario. Generally, LOS D or better is considered acceptable for existing or urban intersections. The analysis shows that the operational conditions for nearly all lanes for many of the time periods, without physical improvements to the intersection, has already or will deteriorate to unacceptable levels.

Accident History information from the PENNDOT, Bureau of Highway of Safety, for the period 1999 through 2004, excluding the year 2002, was examined. It shows 29 reported crashes within the intersection. The analysis concluded that congestion played a role in a majority of the crashes. The number and type of crashes on Walnut Street indicates that conditions could be improved with the addition of separate turn lanes.

The purpose and need of this project is to provide geometric improvements, widen, and overlay the intersection of Progress Avenue and SR 0022 (Walnut Street) located in Susquehanna Township; Dauphin County, Pennsylvania. The intersection is

located at the convergence of two principle arterials providing access to the City of Harrisburg. The traffic volumes associated with the convergence of the two principle arterials and the competing nature of the traffic volumes require an in depth look at unconventional solutions to the traffic issues. This project will look at the possible application of unconventional type intersections such as but not limited to Continuous Flow Intersections, Single Point Urban Interchange and a Jughandle Intersection.

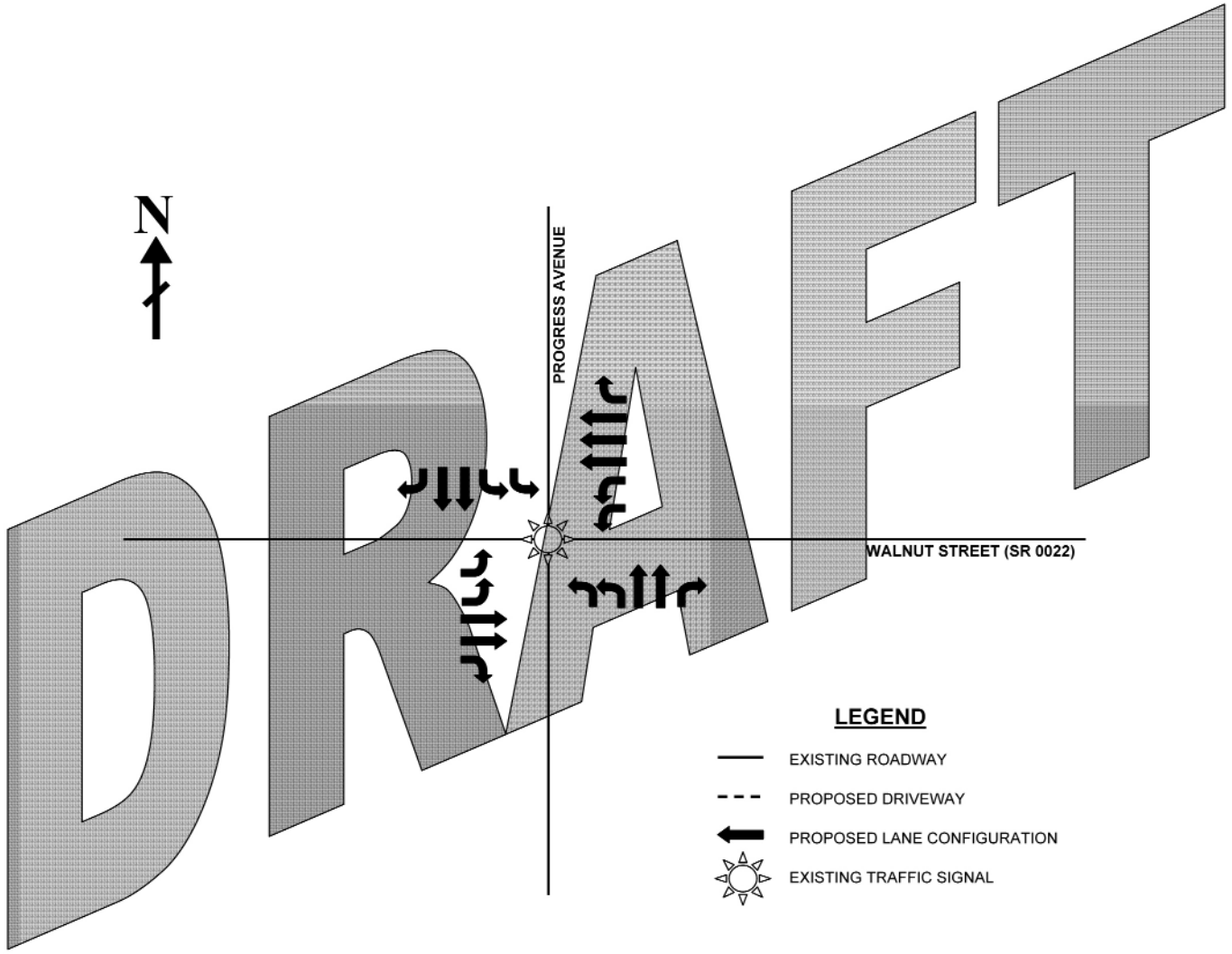
The project purpose and needs are to maximize the Level of Service improvements at the intersection of Progress Avenue and SR 0022, without adversely affecting the downstream municipalities (Penbrook Borough). Provide an acceptable level of service of LOS D or better for the horizon year of 2028.

Alternatives Evaluated

Conventional Intersection- This is the simplest alternative and formed the basis for comparison with unconventional alternatives. The improvements associated with this alternative included left and right turn lanes as well as additional through lanes to increase the capacity of the intersection. The intersection will continue to control the progression to the downstream signals. The addition of lanes is a standard improvement that is applicable to all intersections and typically accepted by the general public. Refer to Figure A.1 for the anticipated geometric layout of the Conventional Intersection.

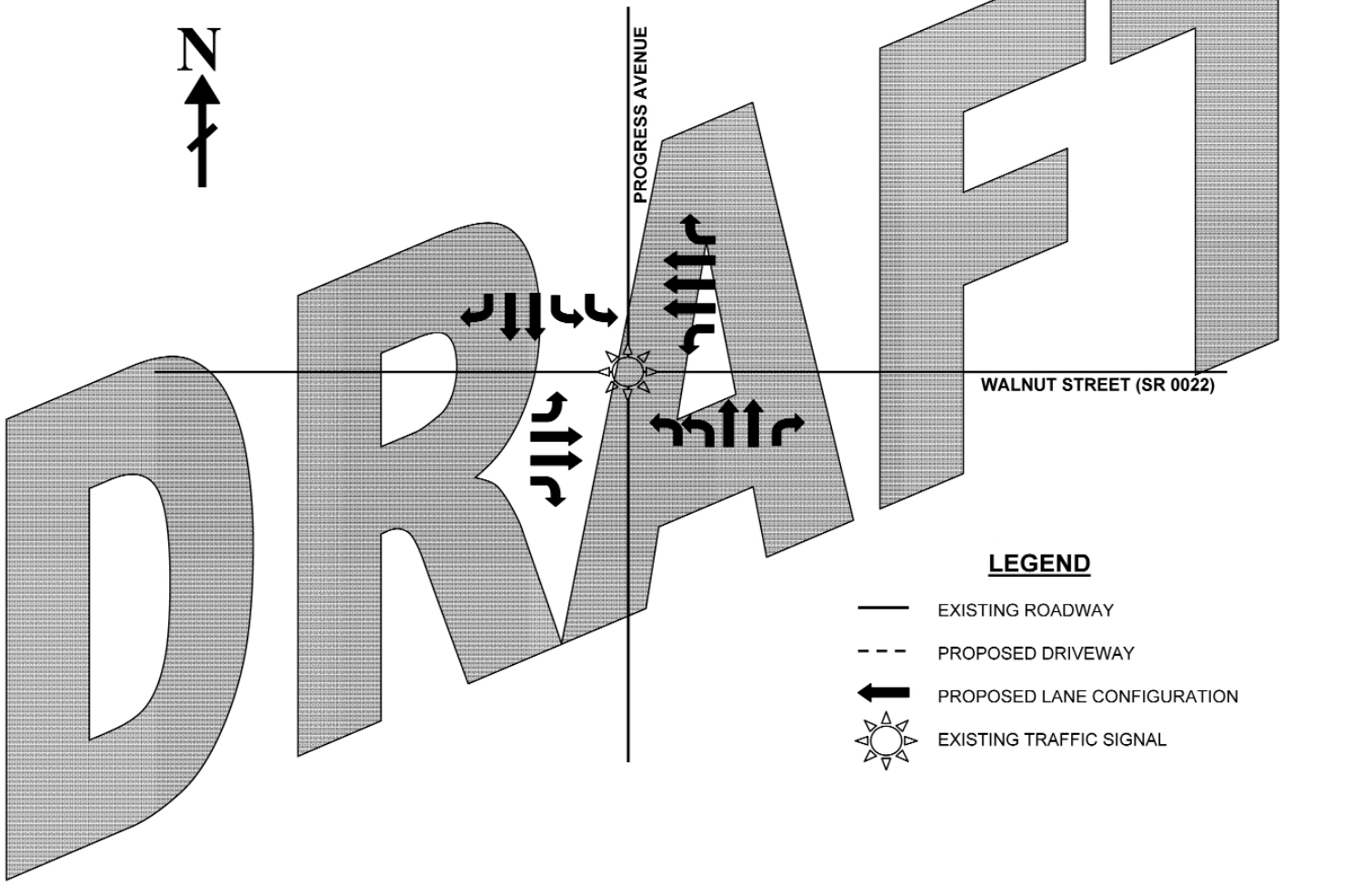
Right-Sized Conventional Intersection- It was requested by PENNDOT that the Conventional Intersection alternative be investigated with a right-sizing process. The goal of the right-sizing process was to provide an intersection that operated at an acceptable level of service (LOS D) while minimizing improvement expenditures. The initial improvements used for the Conventional Intersection were based on the recommendations of the Gannett Fleming feasibility study dated October 2002. Auxiliary and through lanes were added to achieve the best possible level of service. Through the right-sizing process, the dual left turn lanes on Walnut Street were removed. Refer to Figure A.2 for the anticipated geometric layout of the Right-Sized Conventional Intersection.

Jughandle with Continuous Green T- This alternative is a modified Jughandle, which will utilize Walnut Street's existing intersections with 32nd Street and 34th Street and connect to Progress Avenue via Oliver Drive and George Street. Since 32nd Street and 34th Street would intersect Walnut Street as T-intersections, implementing Continuous Green T would greatly add to the capacity of the intersections and aid eastbound traffic flow. Moving the left turn movements from the main intersection will greatly aid the intersection. This reduces traffic delay from vehicles using the intersection. Still operating as a signalized intersection, it will control progression to the downstream signals. Refer to Figure A.3 for the anticipated geometric layout of the Jughandle with Continuous Green T.



US 22 and Progress Avenue Conventional Intersection

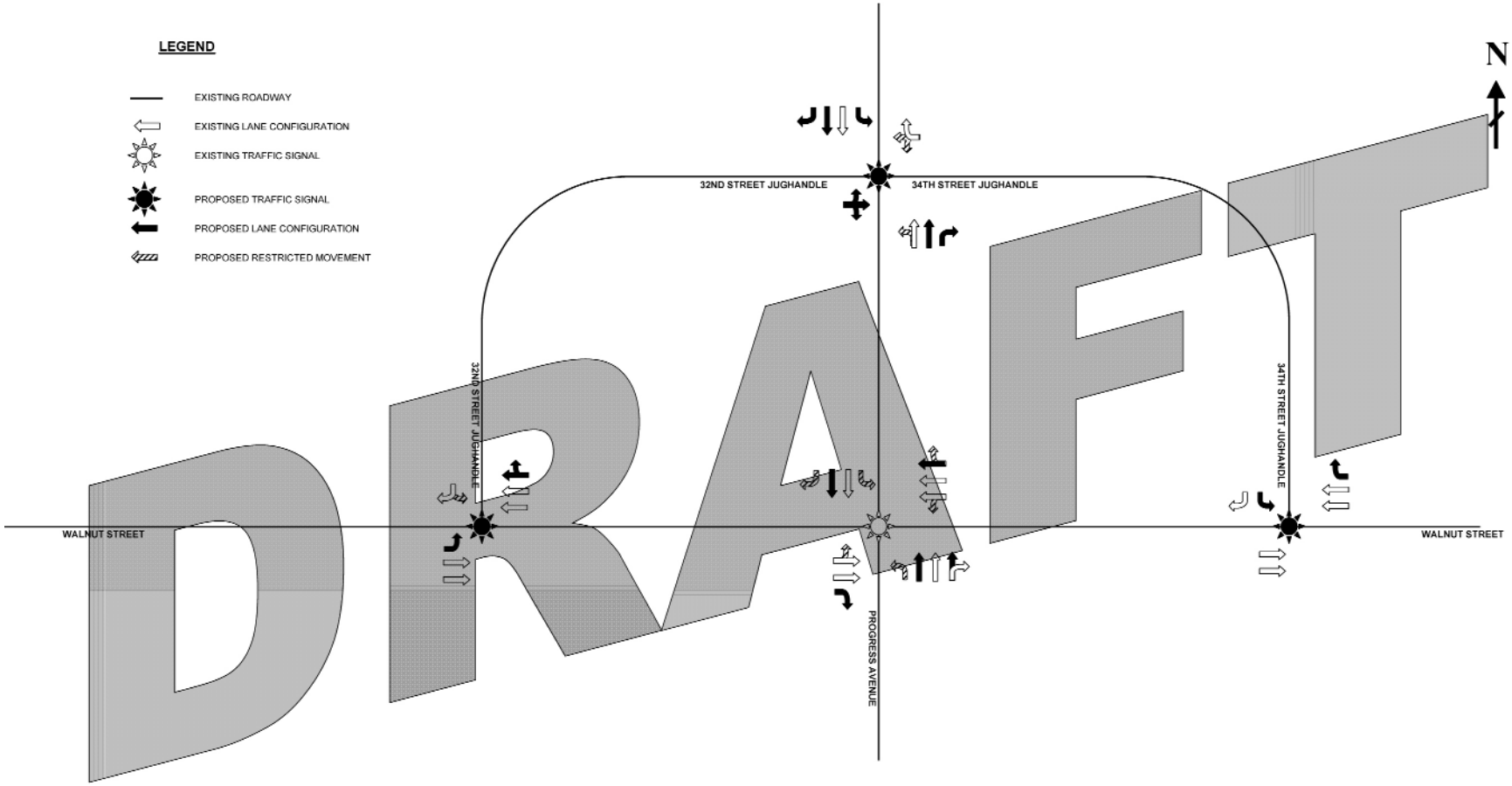
Figure A.29



US 22 and Progress Avenue Right-Sized Conventional Intersection Figure A.30

US 22 and Progress Avenue Intersection Alternatives - Compatibility with the Recommendations of the Walnut Street Corridor Redevelopment Planning Study

Determining which of the three intersection alternatives if any, is consistent with the corridor-wide vision included in the Walnut Street Corridor Redevelopment Planning Study requires the application of criteria that focus primarily upon pedestrian mobility. Intersection size (number of lanes) is a critical factor with respect to a pedestrian's sense of security, so designs with fewer lanes at the intersection would be generally favored. Both *Conventional* and *Right-Sized Conventional* intersections would not be supportive of pedestrian movement, as they require a large intersection width. The *Jughandle with Continuous Green T* alternative presents opportunities to provide fewer lanes in the intersection by diverting a portion of vehicular traffic onto 34th and 32nd Streets. This creates a main intersection width that is relatively compatible with foot traffic. However, it is important to note that 34th and 32nd Streets would require "pedestrian-friendly"measures at their intersections with Walnut Street. These measures would include clearly marked crosswalks, traffic signals with pedestrian phases, as well as relatively tight turning radii for vehicles entering or leaving the Walnut Street Corridor from either streets. Similar pedestrian-friendly measures would also be needed at the primary Progress Avenue and Walnut Street intersection.



US 22 and Progress Avenue Jughandle with Continuous Green T — Figure A.31