



URBAN REDEVELOPMENT PLAN

Planning Studio A

ABSTRACT

Reimagining an existing site in downtown West Chester, PA in a way that better suits the needs of the community.

Master's in urban and Regional Planning
Candidates: Don Edmonds, Mark Davie,
Mahmood Sheikh, Patricia Quinn

Quinn, Patricia
PLN 505

Ch. 1 Introduction

Executive summary and table of contents

1. About the studio and its goals/our goals.
2. Lit reviews
3. Intro to the East End neighborhood (mention transition from industrial to residential). Working class roots

Ch.2 Local and county comp plans

1. Market-Gay Street Corridor Section
2. Goals/Values about walkability

Ch.3 Site Characteristics

1. Overview
2. Opportunities and Constraints / Environmental Concerns

Ch. 4 Neighborhood data

1. Infographics and Maps
2. Demographics

Ch.5 Community Engagement

1. Methods
2. Results and Discussion

Ch.6 Chosen Development Plan

1. Connections between our idea/data/stakeholder input
2. Streetscaping Possibilities
3. References
4. Literature Review

Introduction

1. About the Studio and its goals

In the fall of 2021, West Chester University of Pennsylvania held a planning studio for aspiring urban and regional planners. For this studio, a site was chosen, within the borough of West Chester. The site contains 13 parcels, owned by different people and organizations. The goal for the studio was to redesign the site in a way that highlights the strengths of the site, considers equity, economy, and sustainability, and meets the needs of area residents and businesses. To reach these goals, the students first researched what makes a place more desirable and more livable. Eleven articles and case studies were used to better understand downtown revitalization and the goals that the county and borough held in their comprehensive plans. Next, the students walked the east-end neighborhood with a local guide to understand its strengths, weaknesses, and its history.

2. To learn more about the development process and the goals of local stakeholders, students read twelve papers and case studies. From these documents, students learned previous successes and failures of redevelopment projects, cautionary tales about equity and racial biases, and best practices in site development. To read some of the literature reviews, see the addendum at the bottom of this report.

Literature reviews to prepare for development

Case studies of downtown revitalization efforts- some successes and some failures

Histories of inequality

Site design and environmental considerations

Brownfields

Parking considerations

Gentrification



3. Introduction to the East End Neighborhood

Located between East Miner Street, South Adams Street and East Market Street is West Chester's East End. One of the borough's historic neighborhoods, the East End contains some of West Chester's most notable landmarks and cultural heritage sites, such as the Charles A. Melton Center, Bethel AME Church, Magnolia House Hotel, and Mud row. It's also where much of the borough's public housing is located.

The East End has held a special place in the hearts of many of West Chester's residents, and, in particular, its African American community. Over the decades, however, the East End has gradually begun to show signs of deterioration, with brownfields cropping up, some older buildings in need of repair and litter covering the sidewalks. At the same time, the area has also been experiencing some gentrification, with newer and more expensive apartments creeping into the neighborhood. If left unchecked, these things could displace all or most of the original low-income occupiers and change the whole social character of the neighborhood. There are, however, ways in which urban planners can prevent those things from happening while revitalizing the East End.



<https://www.youtube.com/watch?v=NGj-MtXiCHQ>

Video tour of the East End

CHAPTER 2 Local and County Comprehensive Plans

Focus Area Four: Future Enhancement Areas

Four enhancement areas have been identified in this plan. These areas are suitable for more significant, larger-scale redevelopment in the coming years. These areas are unique and hold potential to generate considerable activity and create impacts on the entire Borough. It is important to ensure that future change in each of these areas is managed carefully to strategically enhance the Borough. These areas need to be carefully planned to harness the positive economic and social benefits, while mitigating negative impacts such as traffic, noise, stormwater and other negative environmental impacts.

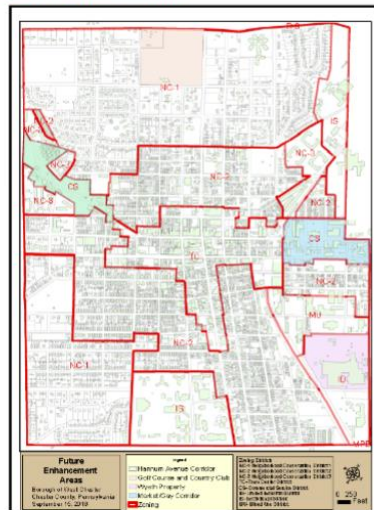
Future enhancement areas include:

- The Market/Gay corridor at the eastern gateway to the Borough;
- The Hannum Avenue corridor at the western gateway to the Borough;
- The Wyeth Property, and;
- The Golf Course.

General recommendations are provided to guide planning and policy development to manage future change in these areas, but each enhancement area should be the subject of a detailed strategic master plan that more thoroughly assesses development and redevelopment alternatives and presents a detailed strategic area plan to guide future development. Planning for each of these areas needs to be done with a coordinated approach. Interconnections between the enhancement areas and other parts of the Borough, including the Downtown and the University need to be considered. Additionally, environmental, economic, social and fiscal impacts from any new development on

neighboring areas and the rest of the Borough should be assessed in the planning process.

Map 5 Future Enhancement Areas



A comprehensive plan is a guiding document used by counties and municipalities nationwide to outline unique characteristics of and formally declare goals for their communities. They are usually written by planners and are intended for use by varying government departments but also to be easily read and understood by citizens. They often include maps and demographic data and are updated every five to twenty years.

The Borough of West Chester drafted its current comprehensive plan in the years leading to its adoption in 2016. Five target areas are identified: Community & Economic Vitality; Environmental Sustainability; Preservation of Historic Character; Future Enhancement; and partnership with West Chester University. Each of these subject areas can be addressed in a proposal for the Market/Adams/Gay/Worthington block (MAGW).

Special consideration for the interaction of housing and business will need to be addressed in the proposed redevelopment of the MAGW. A mix of national chain and local businesses sit on the MAGW block. The borough cites a vague maximum threshold for off-campus student housing in the borough and a new affordable housing complex is in construction opposite Market Street using HUD LIHTC funding. There were previously no grocery stores within walking distance of the MAGW. However, the new West Chester Co-Op seeks to explore options for providing affordable local solutions for food in the borough.

Goose Creek, a tributary of Chester Creek, runs under the MAGW parcels. Following the events of Hurricane Ida elsewhere in Chester County and the Delaware Valley, attention has turned to flood mitigation strategies. In the past, the interaction of water and environmental justice has been one of contention. This is indicated just meters away from the MAGW lots on Cedar Alley.

Often, municipalities will have amended, supplemental, or separate comprehensive plans for specific subject areas and individual neighborhoods. The Borough's Historic and Architectural Review Board (HARB) has issued its own guidelines for compatibility with the borough's downtown. While the MAGW falls outside of the HARB delineation on a map, this guide will likely prove useful in establishing context for potential improvements to the MAGW. West Chester's neighborhoods are home to buildings of the Italianate, Federal, Second Empire, and many other styles. The HARB guidelines provide examples of roofing, bricking, coloring, trim, and scale styles appropriate for the borough. Even if the proposed redevelopment is not perfectly in tune with these guidelines, they are certainly worth consideration.

The MAGW falls under the Market/Gay improvement corridor, one of four such improvement districts outlined in the 2016 plan. According to the plan, these areas have the greatest potential in the Borough to generate more social, economic, and environmental possibilities. Most direct recommendations from the Borough are traffic- and density-related. A study of the improvement of bicycle and pedestrian environment on the two thoroughfares would be welcome and necessary as part of the redevelopment efforts. Any improvements made to these streets should be extended to the blocks west of the MAGW as well.

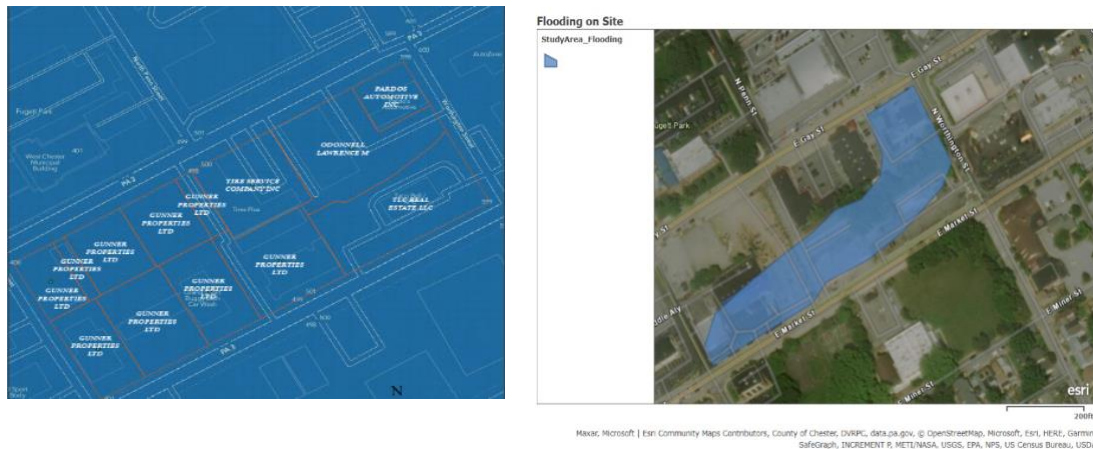
Lastly, the very nature of these proposals to the MAGW would at least partially fulfil the last goal area of the plan. Many in the borough may be hesitant to allow any amount of off-campus student housing in this area, but open space or commercial activity that would be friendly to students or even just faculty and staff of the university who reside in the borough may be welcome.

Chapter 3 : Site Characteristics

1. Overview

The existing site is composed of 13 oddly shaped parcels facing Gay Street and Market Street to the north and south, with Worthington and Adams streets to the east and west, respectively. These parcels are currently occupied by four auto repair shops with different specialties, a car wash, an equipment rental, a medical facility, a combination fast food restaurant, a storage lot that is mostly dirt and gravel, a pizza chain restaurant, a pharmacy, and a fitness center. The site also contains a small creek that is surrounded by trees and other vegetation in the areas that it is exposed to light. The rest of this creek has been funneled underground. Half of the site is in a flood plain, so flooding concerns would have to be addressed in any development plan. The

presence of automotive and car wash businesses raises concerns about ground pollutants as well.



2. Opportunities and Constraints/Environmental Concerns

The small stream on-site poses a constraint in that it will have to be carefully enclosed and built over or built around. Another concern is that this stream is a part of the flooding concerns on the site, although putting the stream underground is not likely to change flooding risk, as many adjacent lots have flooding issues as well.

This site is in FEMA flood zone AE and a special flood hazard area. Special flood hazard areas are defined as an area that will be inundated by the flood event having a 1-percent chance of being equaled or exceeded in any given year. This 1-percent annual chance of flooding is also referred to as the base flood or 100-year flood.

Another constraint of the site is that it may be a brownfield and needs environmental remediation. If the site has been contaminated by fluids involved in auto repair, the likely remediation would be excavation and dredging, which removes contaminated soil from the site. If the site has been used to dispose of hazardous materials, it would need supervision from the EPA to remediate the site. The excavation process could either involve removing the soil, treating it, and returning it or removing the contaminated soil and replacing it with uncontaminated soil. One of the concerns with brownfield sites is that it is exceedingly difficult to determine cost and timelines. Having a stream that runs through the site further complicates remediation as the creek bed and buffers may also need remediation. The EPA makes specific recommendations for brownfield redevelopment which may guide how the site is developed.

The existence of the stream creates an opportunity to daylight the rest of the stream and create a larger vegetative buffer around it so that more rainwater could be absorbed, and flooding could be more controlled on site. EPA Brownfield Recommendations

Pre-development stage:

- Conduct due diligence. What areas on the site could be omitting chemicals? What businesses were previously on the site? What do the property records show?

- Conduct analysis. Test soil and water. Map areas where remediation is necessary. Conduct feasibility studies and financial calculations to determine if the project is viable and include allowable space uses outlined in the zoning. Conduct a market assessment to identify possible redevelopment uses.
- Develop the Pro Forma agreement for the purchase of the property- in this case it would be an agreement between buyer and seller outlining who would be responsible for environmental remediation or if costs would be shared. Negotiate contract terms.
- Identify sources of funding. Many traditional banks are hesitant to give loans for redevelopment of brownfield sites. Some of the lots on the site have recently been sold with bank financing, meaning that 1. the bank in question may be willing to fund brownfield redevelopment, or, 2. The site has been tested for contamination and came back negative for hazardous pollutants. Search for local, state, or federal government programs that offer tax credits, loans, incentives or abatements, bonds, subsidies or grants.
- Build a redevelopment plan and create a plan to engage the community. Start community engagement after a plan is created. Community support will be important.
- Acquire environmental insurance. Both pollution liability insurance and environmental site liability insurance may be purchased by developers. Pollution liability insurance can provide protection for both the buyer and the seller of the property.

Development stage:

- Obtain permits and necessary approvals.
- Conduct the necessary environmental cleanup and site preparation activities. The amount of analysis performed in the previous stage will affect how quickly and precisely the remediation happens.
- Complete development of the site. Continue with normal site development now that environmental remediation is complete. Be sure to reengage the community when development is complete to keep that "community buy-in" created in the pre-development stage.

Financial Solvency

Value per Acre

Property taxes comprise a sizable portion of a municipality's budget. Therefore, it is important to understand which parcels generate the most economic activity with respect to their size. If we only looked at a parcel's total tax assessment, then large parcels would most likely be valued higher simply due to their size. However, land is a valuable resource, and the parcels that can produce the most value for their size should be valued as such.

Value per Acre

$(\text{Total Assessed Value})/(\text{Acreage})$

Can see that wealth is concentrated in West Chester's downtown, which is what you'd expect. Even though the parcel sizes here are small, they generate a significant of tax revenue.

The map displays the geographic distribution of value per acre in West Chester. The downtown core, outlined in red, is characterized by a high density of small, dark green parcels, signifying high assessed value per acre. This area is bounded by Taylor Mill Rd to the north, W Strasburg Rd to the south, and Hillsdale Rd to the west. Outside the downtown area, the map shows larger, lighter green parcels, indicating a lower value per acre. Key landmarks such as the Greenmount Cemetery and the Government Services Center are also visible. The map includes labels for various streets including Taylor Mill Rd, W Strasburg Rd, Hillsdale Rd, W Miner St, Roslyn Av, Snyder Av, Montgomery Av, Garfield, Lincoln Av, and Chatwood.

Value per Acre

$(\text{Total Assessed Value})/(\text{Acreage})$

Can see that wealth is concentrated in West Chester's downtown, which is what you'd expect. Even though the parcel sizes here are small, they generate a significant of tax revenue.

The map displays the geographic distribution of value per acre in West Chester. The downtown core, outlined in red, is characterized by a high density of small, dark green parcels, signifying high assessed value per acre. This area is bounded by Taylor Mill Rd to the north, W Strasburg Rd to the south, and Hillsdale Rd to the west. Outside the downtown area, the map shows larger, lighter green parcels, indicating a lower value per acre. Key landmarks such as the Greenmount Cemetery and the Government Services Center are also visible. The map includes labels for various streets including Taylor Mill Rd, W Strasburg Rd, Hillsdale Rd, W Miner St, Roslyn Av, Snyder Av, Montgomery Av, Garfield, Lincoln Av, and Chatwood.

Value per Acre
(Total Assessed Value)/(Acreage)

Can see that wealth is concentrated in West Chester's downtown, which is what you'd expect. Even though the parcel sizes here are small, they generate a significant of tax revenue.

The map displays the assessed value per acre for various parcels in West Chester, Ohio. The downtown area, outlined in red, is characterized by a high density of small, dark green parcels, signifying high value per acre. This area is surrounded by larger, lighter green parcels, indicating lower value density. The map includes labels for streets such as Taylor Mill Rd, Montgomery Av, Lincoln Av, and Snyder Av, as well as landmarks like Greenmount Cemetery and Snyder Av. The overall trend shows that wealth is concentrated in the downtown area, which is consistent with expectations for urban centers.

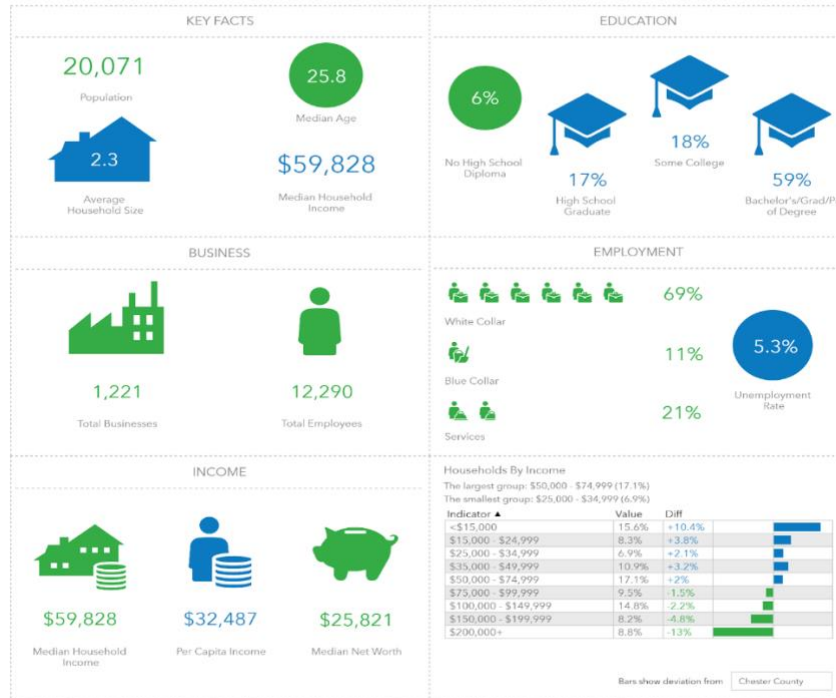
Chapter 4

Neighborhood Data :Infographics and Maps

Key Facts

16 Block Groups
420293026001 (420293026.001) et al.
Geography: Block Group

Prepared by Esri



This infographic contains data provided by Esri, Esri and Data Axle. The vintage of the data is 2021, 2026.

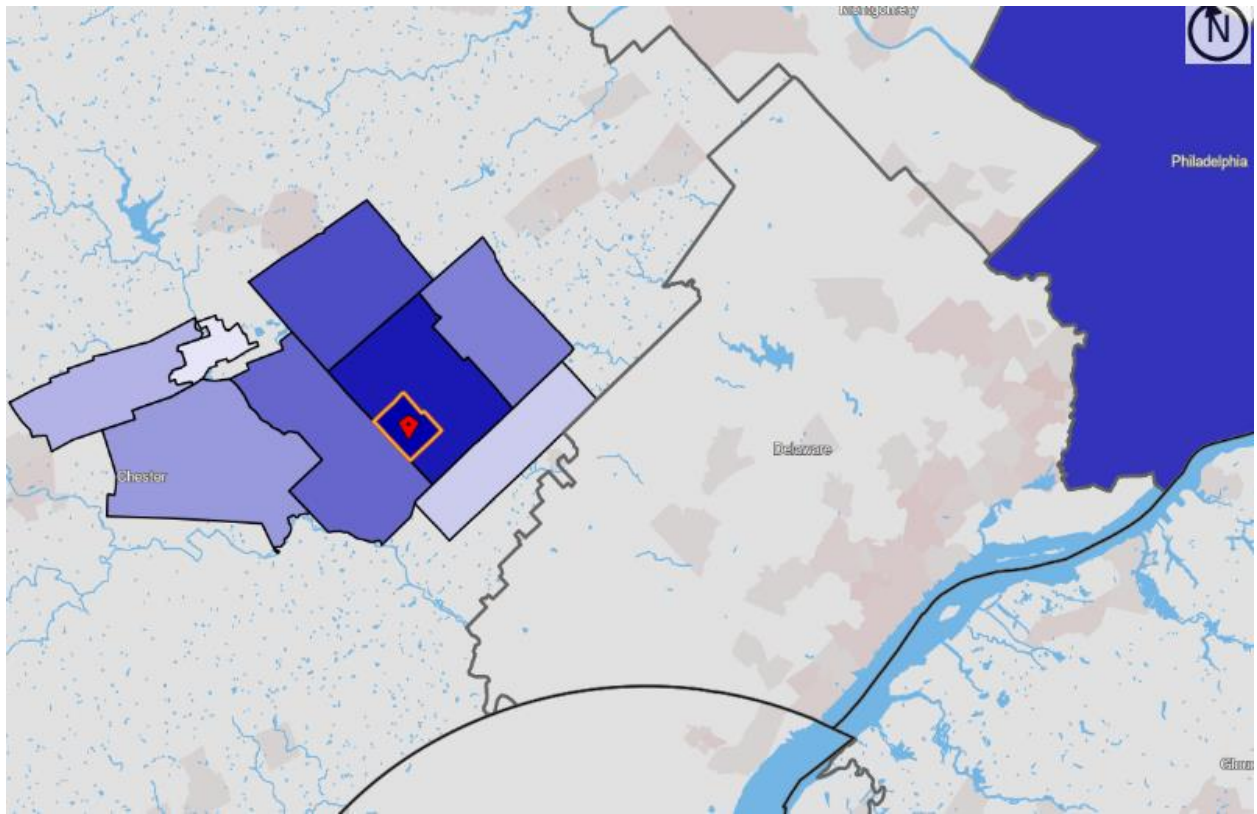
© 2021 Esri

Source: This infographic contains data provided by Esri, Esri and Data Axle. The vintage of the data is 2021, 2026, 2021.

©2021 Esri

Page 1 of 1

October 10, 2021



Commuting patterns of adults commuting to the borough of West Chester. The Site is in the Commercial Services District. The Site is in the Commercial Services District.

§ 112-310 CS Commercial Service District

The Commercial Service District is designed to accommodate commercial uses which are highway oriented and are located on the outskirts of the Town Center District along Strasburg Road, Downingtown Pike, Hannum Avenue and Market and Gay Streets east of the Historic (overlay) District. The CS District is designed to provide uses which are readily accessible by and directly related to vehicular traffic, such as automotive service stations, automotive parts stores, automotive sales and service facilities, fast-food restaurants and the like. As such, the district regulations require off-street parking to accommodate the users of this highway-oriented environment. The district is also designed to provide areas for adult entertainment uses along a public highway that are not in the same neighborhoods or in close proximity to residential areas, schools or churches. The district shall also allow for a Unified Mixed-Use Development on parcels that have frontage on Market Street, Gay Street, Strasburg Road, Downingtown Pike, or Hannum Avenue, within the CS Commercial Service District, where meeting specific criteria to support Affordable Housing in combination with community facilities and/or neighborhood amenities.

USES

See §112-304 for Permitted Uses

DIMENSIONAL REQUIREMENTS

Lot Area, minimum	7,500 square feet
Lot Width, minimum	75 feet
Build-to line/front yard	10 feet from curb
Side yard, minimum	existing adjacent, 5 feet minimum
Rear yard, minimum	10 feet
Height, minimum/maximum	35/45 feet
Impervious coverage, maximum	85%
Building coverage, maximum	60%

Design Standards

- 1) Whenever a CS District abuts a residential district, a buffer planting strip shall be installed along any *abutting* side or rear lot line. The buffer planting strip shall be a minimum of eight feet in width. Whenever opaque fencing or walls of four to six feet in height are used, the width of the buffer planting strip may be reduced to four feet.
- 2) Separation requirement for sexually oriented businesses. A sexually oriented business shall not be located within 400 feet of another sexually oriented business, church, synagogue, mosque, temple or building which is used primarily for religious worship and related religious activities, a public or private school, child day-care center or public park. The distance between the two uses shall be measured by the shortest distance between the lot on which the proposed sexually oriented business will be located and the lot or lots which contain the uses identified hereinabove. **[Added 3-18-2009 by Ord. No. 2-2009]**

The space uses described in the zoning district (automobile-centered uses) fit the current site perfectly but could better serve the community.

1. Demographics



esri

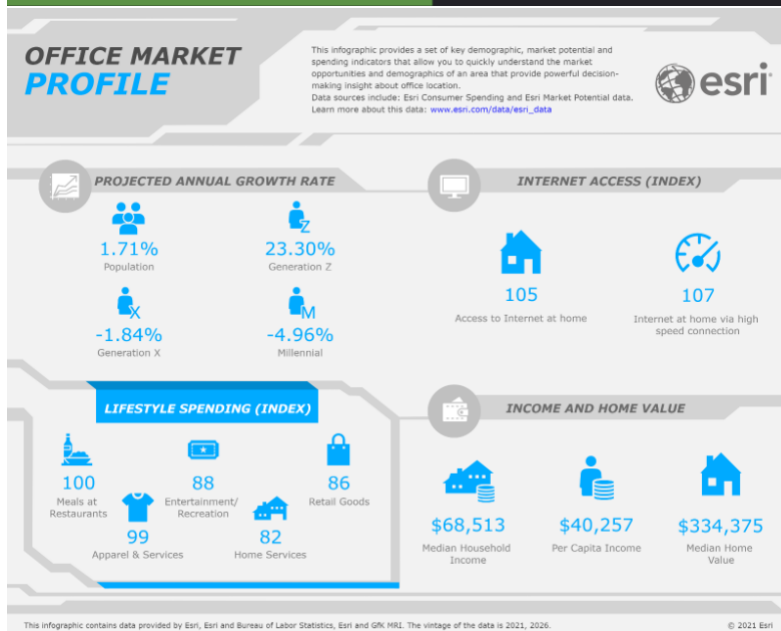
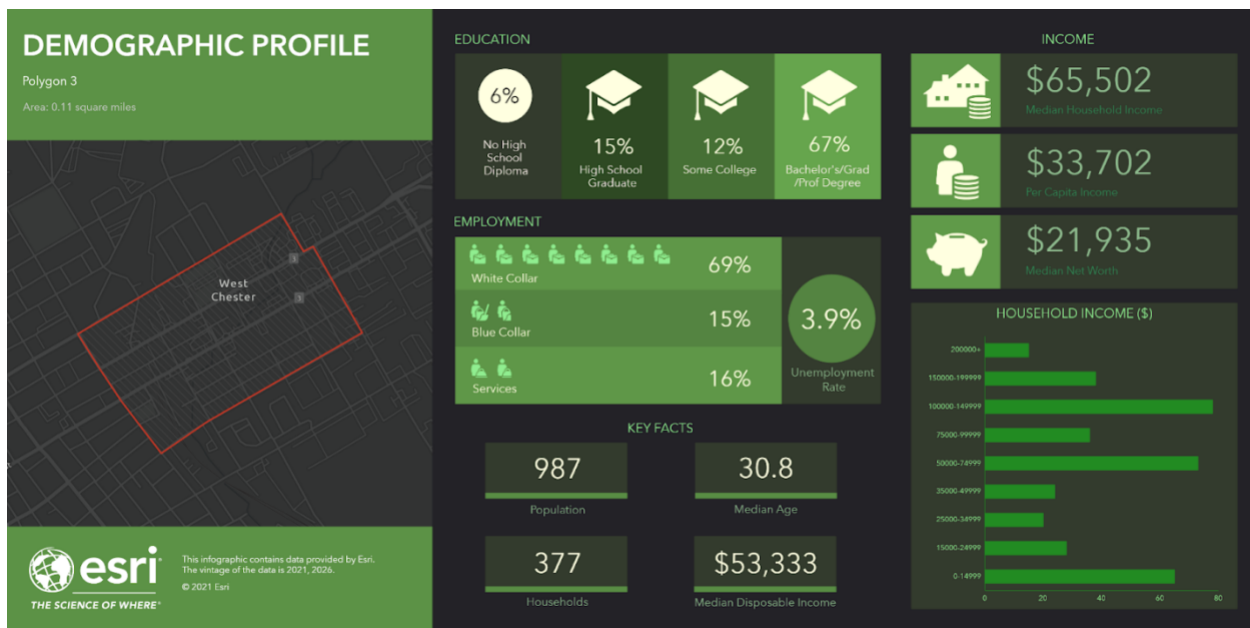
Tapestry Segmentation Area Profile

50 E Gay St, West Chester, Pennsylvania, 19380
Drive Time: 5 minute radius

Prepared by Esri
Latitude: 39.96347
Longitude: -75.59716

Top Twenty Tapestry Segments

Rank	Tapestry Segment	2021 Households		2021 U.S. Households		Index
		Percent	Cumulative Percent	Percent	Cumulative Percent	
1	Metro Renters (3B)	18.4%	18.4%	1.7%	1.7%	1069
2	College Towns (14B)	14.4%	32.7%	1.0%	2.7%	1,500
3	In Style (5B)	11.8%	44.5%	2.2%	4.9%	526
4	Emerald City (8B)	11.7%	56.2%	1.4%	6.3%	827
5	Metro Fusion (11C)	10.0%	66.2%	1.4%	7.7%	712
	Subtotal	66.3%		7.7%		
6	Bright Young Professionals (8C)	7.7%	73.9%	2.3%	10.0%	341
7	Dorms to Diplomas (14C)	7.1%	81.0%	0.5%	10.5%	1,385
8	Savvy Suburbanites (1D)	7.0%	88.0%	3.0%	13.5%	237
9	Set to Impress (11D)	4.3%	92.3%	1.4%	14.9%	308
10	Fresh Ambitions (13D)	3.3%	95.6%	0.6%	15.5%	526
	Subtotal	29.4%		7.8%		
11	Laptops and Lattes (3A)	2.6%	98.2%	1.1%	16.6%	245
12	Urban Chic (2A)	1.1%	99.3%	1.3%	17.9%	85
13	Golden Years (9B)	0.6%	99.9%	1.3%	19.2%	42
14	Professional Pride (1B)	0.1%	100.0%	1.6%	20.8%	9
	Subtotal	4.4%		5.3%		



CHAPTER 5

Community engagement

A survey and flyers were created for collecting data from residents living in the East End. This survey came in both a written form and a digital form with a QR code. A separate survey was created asking students which questions they thought should be included in the survey, and the questions for the final draft of the survey were created in the studio using survey123 in ArcGIS Online. Initially, the students were not sure what kind of questions should be put into the survey, as well as how they should be designed for the digital survey. They would settle on making questions that asked people what they thought were the East End's most significant needs in order of most important, second most important,

and third most important, as well as whether they needed to leave the borough for any of these needs, and questions asking about personal information (age range, occupation, education etc). For the design of the online survey, the students decided to incorporate several drop-down and multiple-choice options, as well as options to type in answers. Multiple

The students then travelled to the East End to distribute flyers and conduct surveys.

East End Community Survey

This survey has been created by students from West Chester University as part of an urban planning design class that aims to redesign the Market St. Gay St. corridor between Adams St. and Worthington St., as shown below. Any data collected is anonymous and will be used to guide the student's final project design. Participants are welcome to submit their email at the end of the survey to receive a follow-up link to the final project.

Ranking Development Ideas

Please put a #1 in the box to the left of the good/service/activity you would most like to see on the site shown below, a #2 for your second choice, and a #3 for your third choice. Only three choices are needed.



- ☐ Employment Opportunities
- ☐ Housing
- ☐ Park
- ☐ Grocery Store
- ☐ Child Care
- ☐ Restaurants/Dining Out
- ☐ Family Friendly Entertainment
- ☐ Commuting
- ☐ Other _____

How Do You Access the Borough's Businesses or Services?

Choose all that apply

- ☐ Public Transportation
- ☐ Walking
- ☐ Biking
- ☐ Car
- ☐ Other _____

Are You Currently Employed? ☐ YES ☐ NO

If YES, What Industry Do You Work In? _____

What Goods/Services/Activities Do You Leave West Chester for?

Choose all that apply

☐ Groceries	☐ Parks/Recreation
☐ Entertainment	☐ Shopping
☐ Child Care	☐ Education
☐ Medical Services	☐ Other _____

How Many People Live in Your Household?

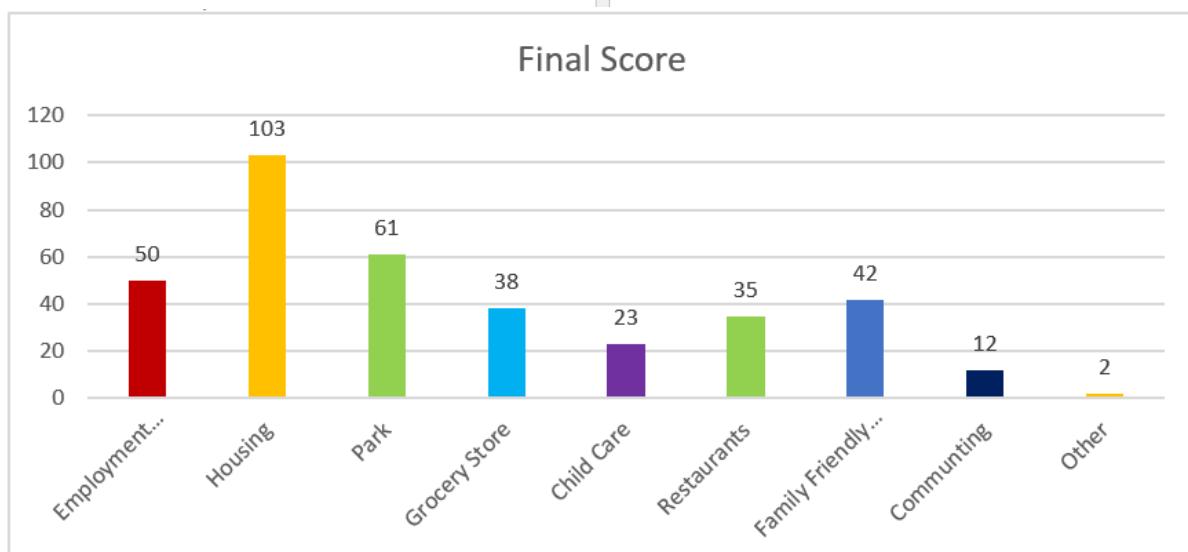
☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 5+

What Age are You? _____

Interested in how the project turns out? Leave us an email address if you would like to be updated: _____



For an online version, scan the QR code with your phone's camera



CHAPTER 6

The proposal, models, input from survey respondents

1. The proposed model contains flexible retail/restaurant/office spaces, urban green space, a rock gym, and considerations for flooding including first-floor parking and a retaining wall. It was considered that the Melton Center's new housing development across the street may affect the way that residents view the housing need, so we also took that into consideration. The site development respects existing zoning and honors the desires of the survey respondents. The proposed development also aligns with West Chester borough's 2016 Comprehensive Plan by helping provide a strong and stable economy through adding businesses that create more jobs than those already on site. The plan also addresses this 2016 by adding walkability and traffic calming measures, making the neighborhood more vibrant. The proposed development also addresses the concerns over stormwater expressed in both the Chester County Landscapes 3 plan and the borough plan. Equity concerns have been addressed in this proposal by providing more grocery and fast-casual options with suggested businesses for this site like Zoe's Kitchen, Kimberton Whole Foods or Aldi/Lidl, and other healthy and affordable options and giving more green space options for people to enjoy. We addressed the economy in the proposed site by adding businesses and services that will add local jobs to the borough. This could lead to Melton Center residents receiving new employment that they may not need a car to get to. The environment was addressed on our site by adding more green space that can absorb stormwater. This added green space is larger than normal as most buildings are built over parking instead of having an open lot next to a building.

2. Streetscaping Possibilities

The area being reevaluated for potential redevelopment is located between two busy thoroughfares, the opposing directions of travel of Pennsylvania Route 3. Pre-pandemic, inbound traffic to downtown West Chester surpassed outbound traffic. Gay Street, carrying Route 3 westbound served over 19,000 vehicles per day. Market Street, the eastbound counterpart carrying traffic out of the borough, served 16,500 vehicles per day ([PennDOT](#), [DVRPC](#)). The lots selected for study are additionally bound by Adams Street to the west and Worthington Street to the east. Pre-pandemic traffic counts additionally suggest that nearly 2,000 vehicles travel on this one-block section of Adams Street during peak weekday commuting hours (7 to 9am and 2 to 6pm). A similar number is reported for the corresponding block of Worthington Street, which carries only southbound traffic, while Adams Street carries traffic in both directions. The posted speed limit for Gay and Market streets is 35 miles per hour.

The creation of a pedestrian-friendly environment has been identified as a goal of the proposed redevelopment. In addition to the amenities that will be provided by the businesses and other uses of the "new" block, including public space and incorporation of green infrastructure, pedestrians must feel safe in accessing this block. "Eye-catching" features are not sufficient to provide a draw for pedestrians, especially as this area finds itself disjointed from the "core" of dense and iconic Gay Street a few blocks

away. Several tools exist to slow traffic speeds and increase the number of pedestrian-friendly spaces in this part of the borough, particularly for Market Street.

As previously stated, the posted speed limit of both Market and Gay streets is 35 miles per hour. Studies suggest a traveling speed of no more than 25 creates the most comfortable walking environment in urban areas. 20's Plenty, a United Kingdom-based campaign centered on reducing speed limits has been embraced by planners and child safety advocates in North America. Drivers' fields of vision are greatly increased as speed is decreased, and the braking time required of vehicles traveling at the proposed 20 miles per hour is nearly a quarter of that which is required of vehicles traveling at 40 miles per hour. Reducing the speed limit is a concrete step not without benefits and requires planning for the borough to petition PennDOT for the change to be made on a state highway. Reducing drivers' speeds, however, is a different task that requires more creativity. Motorists leaving the borough on Market Street are likely eager to leave the slow downtown with on-street parking and a high volume of pedestrians for the US 202 expressway and other destinations. Motorists are likely to travel at speeds of 40 miles per hour or more for these reasons but also because the roadway as it is engineered makes traveling at these speeds seem "safe" or "not *that* dangerous" by comparison to driving in the heart of the borough. PennDOT crash records list three pedestrian incidents on this section of Market Street and one on Gay Street between 2011 and 2020. The three Market Street incidents all occurred in daylight and clear weather conditions. PennDOT has a record of additional pedestrian incidents further east on Market and Gay streets near the Wawa gas station where motorists travel at even higher speeds exiting and entering US 202.

Market Street at this block contains two travel lanes with shoulders but the roadway itself is approximately 40 feet wide (50 including sidewalks). This is an extreme amount of allowed space that facilitates high speeds. Typical recommendations include reducing the number of lanes in urban streets. The most common is the "road diet" method of converting a four-lane, two-way street to a three-lane street with a central shared turning lane and using the saved space for a different, usually speed-reducing, purpose (eg. a bike lane or on-street parking). While one-way streets are not ideal for the purpose of reducing speeds - PennDOT crash data contains record of one fatal pedestrian incident on Market Street where it contains three travel lanes at the intersection with Church Street - more success has been found in one-way streets in communities with short and dense blocks. West Chester, as an older East Coast town, meets this criterion. No space-creation measures are needed, as the wide roadway allows for some creativity. Market and Gay streets contain lane widths of 12 feet, which theoretically allows for highway-level speeds, as that is considered the minimum width for Interstate lanes. The National Association of City Transportation Officials (NACTO) , as well as the Institute of Transportation Engineers (ITE), recommends 10-foot widths for urban lanes.

To blend the two - reduction of speeds and creation of a comfortable walking environment - best practices point toward a barrier. The introduction of on-street parking creates a physical barrier while throwing a lifeline to businesses, spurring foot traffic, and encouraging visitors to stay (Figure 1, 2). Restaurants in the post-pandemic age in particular benefit from shielding as part of their outdoor

seating arrangements. Parallel parking is traditional, but the space allows for angled parking. Rear “back-in” angled parking is safest, but traditional front angled parking will suffice. In maintaining a six-foot sidewalk from the existing “outside” edges (the north sidewalk of Gay Street and the south sidewalk of Market Street), two 10-foot travel lanes and a 14-foot (perpendicular) allowance for angled parking on the opposing side of each street would be ideal. In the case of Market Street, no on-street parking is needed for the south side of the street, as the new Melton Center apartments have off-street parking provided and the goal is to create foot traffic within the proposed redevelopment on the north side of the street. The same is true of Gay Street, as off-street parking exists for Borough Hall on the north side of the street as well as the Gay Street Plaza shopping center. Ironically, the off-street parking of the latter is in the form of a line of angled parking parallel to Gay Street with a raised sidewalk separating the two. Future improvements could include “flipping” this arrangement such that it butts directly onto Gay Street and integrating the environment into that of the proposed redevelopment.



Figure 1. Proposed rendering for Market Street with angled parking to act as a traffic barrier for pedestrians.



Figure 2. Rendering demonstrating the benefit of angled parking as a barrier for outdoor dining experiences

Daylighting Goose Creek provides another opportunity to activate this space and accommodate pedestrian-friendly activities (Figure 3). Engineering the hydrologic grading of the site to allow a small lake and including trees, benches, and tables would provide some much-needed public green space. Daylighting the creek, as well as integrating more green space, increases the capacity of this area to absorb precipitation, thus mitigating future flood events.



Figure 3. A rendering of a newly implemented public green space with a daylit Goose Creek in the background

The proposed design addressed the need indicated in the results of the survey for a local grocery store. As noted above, this area is prone to frequent flooding and therefore any new structure must be resilient to that hazard. Having the grocery store on the second floor and parking on the first floor would ensure that in the case of a flood event, no damage to the structure or private property would occur (Figure 4).



Figure 4. Proposed grocery store with first-story parking to mitigate damage from flooding

The survey also noted the demand for family-friendly activities. Many of the Borough's recreational options are heavily influenced by the prevalence of college students and thus oriented toward alcohol-related activities. To provide recreational opportunities open for the whole family, the proposed site includes an indoor rock-climbing gym (Figure 5 and 6). Indoor rock-climbing is a great community building sport that stimulates physical exercise and social interaction.



Figure 5. Front rendering of the proposed indoor rock-climbing gym



Figure 6. Back rendering of the proposed indoor rock-climbing gym

Finally, the proposal included office spaces to accommodate businesses looking to establish their offices in this newly redeveloped area. Figure 7 demonstrates the four-story office building with first-story parking to also mitigate against flooding from the exposed Goose Creek.



Figure 7. Proposed office space with first-story parking to mitigate against damage from flooding

REFERENCES

- <https://streetmix.net/-/1671626>
- <https://nacto.org/publication/urban-street-design-guide/intersection-design-elements/crosswalks-and-crossings/midblock-crosswalks/>
- <https://nacto.org/publication/urban-street-design-guide/intersections/intersections-of-major-and-minor-streets/>
- <https://www.montgomerycountymd.gov/DOT-PedSafety/Resources/Images/20isPlenty/Speed%20Limit%20Graphs.jpg>
- Bartman, A.; Spijkers, W. and Hess, M. "Street Environment, Driving Speed and Field of Vision" Vision in Vehicles III (1991).
- AASHTO Green Book - A Policy on Geometric Design of Highways and Streets, 7th Edition. American Association of State and Highway Transportation Officials, 2018.
- DVRPC. 2020. *Delaware Valley Regional Planning Commission Travel Monitor*. November. Accessed December 2021. <https://dvrpc.org/webmaps/trafficcounts/>.
- Pennsylvania Department of Transportation. 2020. "Chester County AADT." *Traffic Volume Maps*. June. Accessed December 2021. https://gis.penndot.gov/BPR_PDF_FILES/MAPS/Traffic/Traffic_Volume/County_Maps/Chester_tv.pdf.
- Pennsylvania Department of Transportation. 2021. "County Crash Statistics 2001-2020." *Pennsylvania Crash Information Tool*. Accessed December 2021.
- Chester County. *Landscapes 3 Chester County Comprehensive Plan*. Chester County Planning Commission Board. 2018.
- Edlund, L., Machado, C., & Sviatschi, M. M. (2015). *Gentrification and the rising returns to skill* (No. w21729). National Bureau of Economic Research.
- Ehlenz, Meagan M., Deirdre Pfeiffer, and Genevieve Pearthree. "Downtown revitalization in the era of millennials: how developer perceptions of millennial market demands are shaping urban landscapes." *Urban Geography* 41, no. 1 (2020): 79-102.
- Ehrenhalt, Alan. *The great inversion and the future of the American city*. Vintage, 2012.
- Ellen, I. G., Horn, K. M., & Reed, D. (2019). Has falling crime invited gentrification?. *Journal of Housing Economics*. 46.
- Giusti, Cecilia, and Clarice Maraschin. "Downtown revitalization and urban space: A case study in downtown Bryan, Texas." *Cities* 60 (2017): 50-63.
- Lynch, Kevin, Kevin R. Lynch, and Gary Hack. *Site planning*. MIT press, 1984.
- Malsin, S. (2020). Unveiling the "Trojan Horses" of Gentrification: Studies of Legal Strategies to Combat

Research and Literature

Research was the foundation of the development decisions made for the site. First, we looked at the stated goals of the borough and county. The Borough of West Chester compiled a combined Comprehensive Plan and Urban Center Plan in 2016 with the help of the Chester County Planning Commission. The borough's plan included input from residents, stakeholders, and elected officials (West Chester Borough, 2016). The stated goal of the plan is for West Chester to retain the qualities that make people want to live, work, and play there while accommodating future change in the best possible way (West Chester Borough, 2016). This idea of a community having the assets and character that make people want to live, work and play there was echoed throughout many of the readings. West Chester has a sense of place stemming in part from its historic assets, and this is given as a reason why people and businesses are attracted to the borough (West Chester Borough, 2016). Downtown revitalization goes hand in hand with the idea of live, work, play by keeping residents from spending their time and money outside of the city, and downtowns pose a unique opportunity to create unique places that not only keep residents but draw in outsiders. West Chester's vision statement for their plan includes protecting historic assets and character while building a resilient future as a vibrant, walkable town with a healthy and stable economy (West Chester Borough, 2016). West Chester Borough cites neighborhood enhancement in the form of upgrading infrastructure including utilities, stormwater and wastewater lines, adding owner occupied and affordable housing, and strengthening the downtown for business interests and pedestrian use (West Chester Borough, 2016). The Chester County Comprehensive Plans lists some other markers of healthy community growth: affordable housing built, housing diversity, access to non-residential development activity, urban center prosperity, and workforce development progress (Chester County 2018).

Equity Considerations in Planning

The planning profession has a history that makes some people wary of it even after decades of improvements in community engagement and measures to create more equitable and sustainable communities. The University of Richmond partnered with other institutions and scholars to create a site called Mapping Inequality. Within this site is a tool to view a redlining map of a city close to you so that the practice of redlining is not only better understood, but so that this dark history is not forgotten. The process of redlining usually included maps of neighborhoods with grades for desirability (University of Richmond, n.d.). These maps were created by appraisers who used the racial and cultural values of a community in order to determine its economic value (University of Richmond, n.d.). These maps were used as a tool in deciding risks associated with granting mortgages by the HOLC, FHA, VA, and US Housing Authority (University of Richmond, n.d.). Because these maps favored neighborhoods where

native-born whites lived, immigrants and minorities were robbed of the opportunity to gain generational wealth (University of Richmond, n.d.). Other tools like restrictive covenants were used to keep white neighborhoods homogeneous and therefore protect property values for those that lived there (University of Richmond, n.d.). These practices kept the suburbs segregated and were not deemed illegal until the Fair Housing Act was passed in 1968 (University of Richmond, n.d.). Later federal programs were used to revitalize the city urban centers that were traditionally inhabited by lower income and minority families as redlining kept them from attaining home ownership in the suburbs (University of Richmond, n.d.). Programs like community development block grants, tax credits for historic preservation and low-income housing did little to slow the flow of human capital, jobs, and money out of the urban cores and into the suburbs (Ehlenz, Pfeiffer, and Pearthree, 2020). West Chester Borough's downtown revitalization plan includes adding affordable housing to a goal, and it should be considered to rectify any previous damage done by redlining and to keep West Chester diverse. West Chester's downtown revitalization plan was completed with equity in mind and utilized the opinion of stakeholders in the community. Often surveys and interviews are used in community engagement for planning.

Interview Design and Methodology

Qualitative interviews are a way to obtain data about what community leaders and stakeholders deem necessary or wish to see in their community. Turner's article outlining qualitative interview design is helpful in providing a roadmap to engage all community stakeholders for more equitable planning outcomes. The three formats outlined in Turner's article are the informal conversational interview, the general interview guide approach, and the standardized open-ended interview (Turner, 2010). The first of these, the informal format, involves a spontaneous generation of questions by the interviewer in order to maintain a casual interview where the person being interviewed feels comfortable enough to hold a candid conversation (Turner, 2010). This flexible format is viewed by many researchers as unreliable because the inconsistency in questioning leads to difficulties in coding the data (Turner, 2010). The second format, the general interview guide approach, is more structured but still flexible (Turner, 2010). The questions are predetermined but wording is different depending on the researcher who is conducting the interview (Turner, 2020). Some researchers find fault with this approach because some participants may not answer the questions the same way because they were posed differently by the interviewer (Turner, 2010). The last format Turner suggests is the standardized open-ended interview. This format style is much more structured compared to the other two formats. Participants in this style of interview are always asked identical questions, but they are open-ended so that the researcher may ask some follow up questions for more detail (Turner, 2010). Due to the open-ended nature of the questions, it can be difficult for researchers to extract common themes or codes within the data (Turner, 2010). Turner's closing suggestions for conducting qualitative interviews is to perform detailed preparation for the interview with good research questions, choose a place to conduct the

interviews that is private and comfortable, and test the interview on a control group before it is formally conducted (Turner, 2010).

Gentrification

Urban redevelopment can spur concerns about gentrification. Gentrification happens when centrally located, often low-income divested neighborhoods become populated by the white and middle class, often pushing out residents of color (Rodda, 2020). Due to financial constraints, these gentrifiers cannot move into well-established urban neighborhoods, so they purchase homes in neighborhoods that they believe will appreciate (Rodda, 2020). Often people think of young white “hipsters” when they think of gentrifiers and the financial difficulties that young people face while entering the workforce, often strapped with student loans in an era of stagnant wages with economic recession not far in the past, push young professionals searching for prosperity to traditionally lower income neighborhoods for a chance at gaining financial stability (Rodda, 2020). The emergency of labor flexibility is cited by Rodda (2020), Uyttebrouck (2020), Ehlenz, Pfeiffer, and Pearthree (2020), as a driver for the live, work, play dynamic that young professionals are looking for in a community. Rodda points to employers’ expectations that workers be flexible and mobile, especially in the early stages of their careers as a reason for an uptick in smaller housing and an overall decrease in housing standards in modern urban revitalization plans (Rodda, 2020). New development can be a catalyst for improved public services, but also for raised rents (Rodda, 2020). Raised rents can pose an issue for existing residents. Those moving out of a gentrified area are disproportionately poor, renters, and nonwhite (Rodda, 2020). Rodda believes that many times, urban renewal, redlining, and predatory loans force people out of their neighborhoods before gentrification takes place (Rodda, 2020). Pressure on existing residents to leave also comes in the form of new businesses and services that do not cater to the same appetites and culture (Rodda, 2020).

Downtown Revitalization and Millennials

In several of the writings, childless households and overwhelmingly, millennials are behind modern downtown revitalization (Ehlenz, Pfeiffer, and Pearthree, 2019 and 2020, Uttenbrouck, 2020). As previously mentioned, this group is a mix of individuals who joined the workforce just after a major economic recession and people who have more recently joined the workforce. Younger millennials now have an added layer of complication amid the economic ramifications and workforce changes brought upon by the COVID 19 pandemic. Ehlenz, Pfeiffer, and Pearthree researched millennial market trends as they pertained to the revitalization efforts in Phoenix, AZ and Houston, TX. Both cities studied were car dependent with low density sprawl, vacant parcels and parking lots (Ehlenz, Pfeiffer, and Pearthree, 2019). While other cities around the country experienced growth, Phoenix and Houston were in decline (Ehlenz, Pfeiffer, and Pearthree, 2019). To combat decline, parking and vacant lots were reimagined into

housing, retail, restaurants, and other amenities to appeal to younger professionals (Ehlenz, Pfeiffer, and Pearthree, 2019). Areas within the downtown area were made more walkable so that residents could access more amenities on foot (Ehlenz, Pfeiffer, and Pearthree, 2019). Uyttebrouck approaches the influx of young professionals moving into the urban core from a European lens. The popular live, work, play ideal of a community is not just an American theme. Uyttebrouck points to a shift in the labor market to a more flexible model amid global structural changes as a contributor to the influx of young professionals to downtown areas (Uyttebrouck, 2020). Cities around the globe are witnessing the emergence of “third places” where professionals can enjoy themselves outside of work and home (Uyttebrouck, 2020). These places are the play part of the live, work, play ideal. Cities are also seeing the emergence of developments that mix housing and economic activities, which make having that third place to distance yourself from the stress of work and other responsibilities more important (Uyttebrouck, 2020). Flexibility in housing also exists for the young professional as many opt to live in shared housing, giving them an economic advantage over lower income families who live in downtown areas (Uyttebrouck, 2020). When young professionals start to cluster in a neighborhood, developers, agents and city officials take notice (Rodda, 2020). This can spur development on empty lots and deteriorated properties (Rodda, 2020). In their 2019 publication, *inventing what millennials want downtown*, Ehlenz, Pfeiffer, and Pearthree argue that millennials prefer to live in walkable, amenity-rich neighborhoods that have access to multimodal transportation (Ehlenz, Pfeiffer, and Pearthree, 2019). Millennials also have preferences toward authentic (and sometimes historic) homes, an indoor/outdoor lifestyle, flexibility, constant connectivity, an integrated social consciousness, diversity, and public transit (Ehlenz, Pfeiffer, and Pearthree, 2019). Ehlenz and colleagues also note that millennials desire amenities like movie theatres, pools, and pet grooming near amenity rich housing in city centers (Ehlenz, Pfeiffer, and Pearthree, 2019). Many of these desires crowd out low-income households, yielding less of the diversity they are said to desire in a neighborhood (Ehlenz, Pfeiffer, and Pearthree, 2019). Less millennials are likely to be married themselves, which gives them more housing options (Ehlenz, Pfeiffer, and Pearthree, 2019). Just as the influx of millennials could mean less diversity, the goal of building housing to attract millennials could lead to overdevelopment and more homogeneous and less authentic housing choices, which could in the end drive millennials away (Ehlenz, Pfeiffer, and Pearthree, 2019). In their research of downtown Phoenix and Houston, Ehlenz, Pfeiffer, and Pearthree found that housing was built in the downtown areas that was more diverse than anywhere else in either the city or suburbs (Ehlenz, Pfeiffer, and Pearthree, 2019). They also found that in response to the perceived desires of millennials, developers were creating flexible, authentic, and socially conscious housing that reflected the inside/outside lifestyle and connectivity demands of millennials (Ehlenz, Pfeiffer, and Pearthree, 2019). This new downtown housing in Phoenix and Houston was more likely to be for rent than older housing in the same area (Ehlenz, Pfeiffer, and Pearthree, 2019). More multifamily rentals were built to attract millennials, imploring sustainable practices like adaptive reuse, modern design, and historic preservation on unique sites (Ehlenz, Pfeiffer, and Pearthree, 2019). Restaurants and entertainment venues popped up

along with the housing developments, and the neighborhood was personalized with art and murals, creating a more developed sense of place in downtown Phoenix and Houston (Ehlenz, Pfeiffer, and Pearthree, 2019). The inside/outside lifestyle mentioned in these articles reflect millennials' desire to have access to nearby parks over having a yard, and sharing amenities like a pool, gym, game court, or bbq area (Ehlenz, Pfeiffer, and Pearthree, 2019). This lifestyle allows them to spend more time outside of their homes and socializing with friends and neighbors, which builds a stronger sense of community in these downtown neighborhoods (Ehlenz, Pfeiffer, and Pearthree, 2019). Millennials are championing their desire to have the opposite of what the baby boomer generation pioneered- less time in the car and more social interactions outside of the home. Developers and cities are taking a financial risk by catering so specifically to millennials because as they age, they may also decide to have children, which may change their desire to live downtown as suburbs offer more space and good schools (Ehlenz, Pfeiffer, and Pearthree, 2019). This bet on millennials may also be a bet that generation z will also want to live downtown for the amenities and flexibility it offers (Ehlenz, Pfeiffer, and Pearthree, 2019).

Findings from a Case Study in Bryan, Texas

Bryan, Texas is a small city in central Texas just outside of College Station, where Texas A&M University resides. Giusti and Maraschin studied the downtown revitalization efforts in Bryan to understand what works and what does not work in downtown revitalization. In 2001, a comprehensive downtown master plan was created for Bryan, Texas (Giusti & Maraschin, 2017). The goal was to create a space where people wanted to live, work, and play (Giusti & Maraschin, 2017). Some of the actionable goals of the downtown plan were to conduct streetscape improvements, historic restoration of assets, infill development, incentives to attract ground-floor activities, revisions to existing zoning, and an increase in marketing and special events (Giusti & Maraschin, 2017). Most of downtown Bryan was populated with families, most of whom (73%) had no formal education past high school (Giusti & Maraschin, 2017). Bryan's downtown was also unique in that the population was majority Hispanic, followed by African American as the next largest racial group (Giusti & Maraschin, 2017). The improvements made to Bryan did not have the results desired by city officials. Land values downtown did rise, but many of those parcels are public property (Giusti & Maraschin, 2017). During this time, the downtown decreased its share of businesses compared to the growth nearby areas were experiencing (Giusti & Maraschin, 2017). Giusti and Maraschin found that most benefits were due to landscape improvements and marketing initiatives (Giusti & Maraschin, 2017). They also found that the 5 major problems in confronting downtown development were: attracting new development, attracting people to the downtown on evenings and weekends, competition from discount stores and suburban malls keeping people from choosing downtown as a shopping destination, the existence of vacant or underused retail space, and parking (Giusti & Maraschin, 2017). Indicators of a healthy downtown outlined by Giusti and Maraschin include population, property values, housing, business activity, and to a lesser extent, changes in tax base, real property investment, office space occupancy, number of

businesses, population density, residential population by income, and employment by industry classification (Giusti & Maraschin, 2017).

Using GIS to Solve Downtown Development Concerns

Geographic information systems are a valuable tool in many fields of work and study. Two papers in the readings used GIS for concerns related to downtown revitalization. The first paper used GIS in determining the parking needs of downtown areas. The author, Gribb, utilized the 3D functions in GIS to attribute different land uses to different floors within buildings, since different businesses may have different parking needs (Gribb, 2015). Gribb identified nine strategies for downtown revitalization: historic preservation, downtown housing, waterfront development with nightlife, new office development, pedestrian improvements, tourism, traffic circulation changes, main street approach, parking facilities and a convention center (Gribb, 2015). These strategies are the most complex and expensive of any of the strategies proposed for downtown development in the readings. Gribb also concludes that the most successful areas have a university campus nearby, are a seat of government, and have historical character (Gribb, 2015). West Chester holds all these assets. Gribb used GIS to discover that the downtown studies had 38% of residential units with no assigned parking and the closest public parking to those units was more than one and a half blocks away (Gribb, 2015). Gribb outlined three simple strategies to provide parking downtown: implementing the use of shared spaces, business lease parking, and on-street permitting (Gribb, 2015). Another paper utilized a GIS indexing scheme for brownfield redevelopment. Chrysochoou and others pointed to some of the hurdles in redeveloping brownfield sites. The high cost of cleanup along with insufficient funding resources and financial liability make brownfield redevelopment an undesirable prospect for some developers (Chrysochoou et. al, 2012). In their research, GIS was used to identify potential brownfield sites and determine which sites should be investigated further, and then designing the appropriate remediation measures for that site (Chrysochoou et. al, 2012). After those determinations were made, appropriate land use plans were created, and risk assessments were drawn (Chrysochoou et. al, 2012).

How Craft Beer aids in Downtown Revitalization

Two articles assigned related to how craft beer can aid in downtown redevelopment. The article by Nilsson, Wartell, and Reid aimed to show if there was any connection between craft breweries and crime increases. Many craft breweries have been in economically depressed areas and have helped improve those neighborhoods (Nilsson, Wartell, and Reid, 2020). These breweries provide many positive things to the neighborhood such as physical improvements of the spaces they occupy, increased neighborhood activity, and increased presence of people on the street (Nilsson, Wartell, and Reid, 2020). Some of the more negative contributions by craft breweries include an increase in drunk people (Nilsson, Wartell, and Reid, 2020). Their study concluded that overall, the presence of craft breweries did not contribute to an increase in crime (Nilsson, Wartell, and Reid, 2020). One outlier in their research is that breweries in commercial areas did experience higher volumes of crime (Nilsson, Wartell, and Reid, 2020).

One important factor in the research is the finding that the characteristics of the bar were more important than the personalities of the patrons, meaning that if patrons thought that fighting on premises was acceptable, there was likely to be fighting on premises (Nilsson, Wartell, and Reid, 2020). The other paper about craft breweries took a dive into how they often move into unwanted spaces like warehouses, and promote the area's culture and heritage (Feeney, 2017). Pennsylvania has a long history of brewing beer, and as of 2014, PA ranks number two nationally in craft beer, just behind California (Feeney, 2017). Craft beer provides a \$4.6 Billion economic impact on the state (Feeney, 2017). These breweries often reuse existing structures like old warehouses and industrial buildings from the mid 1800's to the early 1900's (Feeney, 2017). As a part of the steel belt, Pennsylvania has many empty warehouses and factories to spare for adaptive reuse, especially one like craft brewing.