2020

LANE AVENUE

CORRIDOR FRAMEWORK PLAN

City of Upper Arlington, Ohio

ACKNOWLEDGMENTS

Thank you to the steering committee members, stakeholders, and community members who invested their time and expertise in the creation of this Corridor Framework plan for Lane Avenue in the City of Upper Arlington.

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INTRODUCTION

01 INTRODUCTION

LANE AVENUE CORRIDOR STUDY

About the Plan

The Lane Avenue corridor is the City's most rapidly evolving commercial district. This transformation has enhanced the area's vibrancy and appeal, providing new dining, retail, housing and service options, along with the community's first hotel. As the area has changed, the City has implemented measures to address parking and traffic concerns, provide transitional buffers from the commercial district into adjoining residential neighborhoods, and to enhance pedestrian and bicycle access where possible.

With new developments already underway and on the horizon, combined with pressures of a growing region, the Lane Avenue Planning Study was initiated to help the City better understand the impacts of future growth and put in place a framework to guide this growth.

The Lane Avenue Planning Study included:

- A detailed review of pertinent guiding documents, such as the Master Plan, Unified Development Ordinance, past studies, and survey data;
- Development of streetscape standards to enhance the district, with a focus on pedestrian activity, accessibility, outdoor dining, and opportunities for public art and public gathering spaces;
- Recommendations for modifying the City's Planned Mixed Use District regulations for the Lane Avenue district;
- A comprehensive traffic evaluation of Lane Avenue, from Riverside Drive to State Route 315, which included current and projected traffic counts and development of a phased approach to congestion mitigation and parking requirements; and
- Three phases of citizen engagement, which provided opportunities for residents to learn about the significance of the business district for Upper Arlington's future and an opportunity to provide input on what they believe should be priority considerations.

FIGURE 1: Diagram of Study Area

Project Purpose

The framework plan is intended to serve as a guide for the corridor and create a holistic vision for the future. To accomplish this, there were several goals identified for the project. These goals helped define the project direction and focus efforts. The following were the project goals (listed in no particular order).

1

ALIGN MARKET OPPORTUNITIES WITH COMMUNITY PERSPECTIVES.

Ensure recommendations align with both the realities of the market today and with the community's desired character for Lane Avenue.

2

GROW THE LOCAL ECONOMY.

Through strategic regulations and placemaking strategies, help grow the local economy.

3

CREATE AND DEFINE THE CHARACTER.

Identify and infuse unique character elements into Lane Avenue to support it as a special district within the City.

4

PLAN FOR A DYNAMIC STREETSCAPE.

Create a consistent and dynamic streetscape that activates the public realm and connects people to streets and places.

5

CONSIDER TRAFFIC IMPACTS.

Consider existing and projected traffic capacity along Lane Avenue in order to support safe and efficient travel.

6

REFINE THE UNIFIED DEVELOPMENT ORDINANCE.

Update and revise the Unified Development Ordinance to guide the character and growth of developments in the Lane Avenue Planned Mixed Use District.

7

DETERMINE THE ROLE OF THE CORRIDOR.

Through public engagement and analysis, determine whether Lane Avenue is the "downtown" of Upper Arlington or a unique commercial district within the City.

THE LANE THEATER was a major attraction for locals in the 1950's. Today the site is home to the Shops on Lane (Don O'Brien, Flickr).

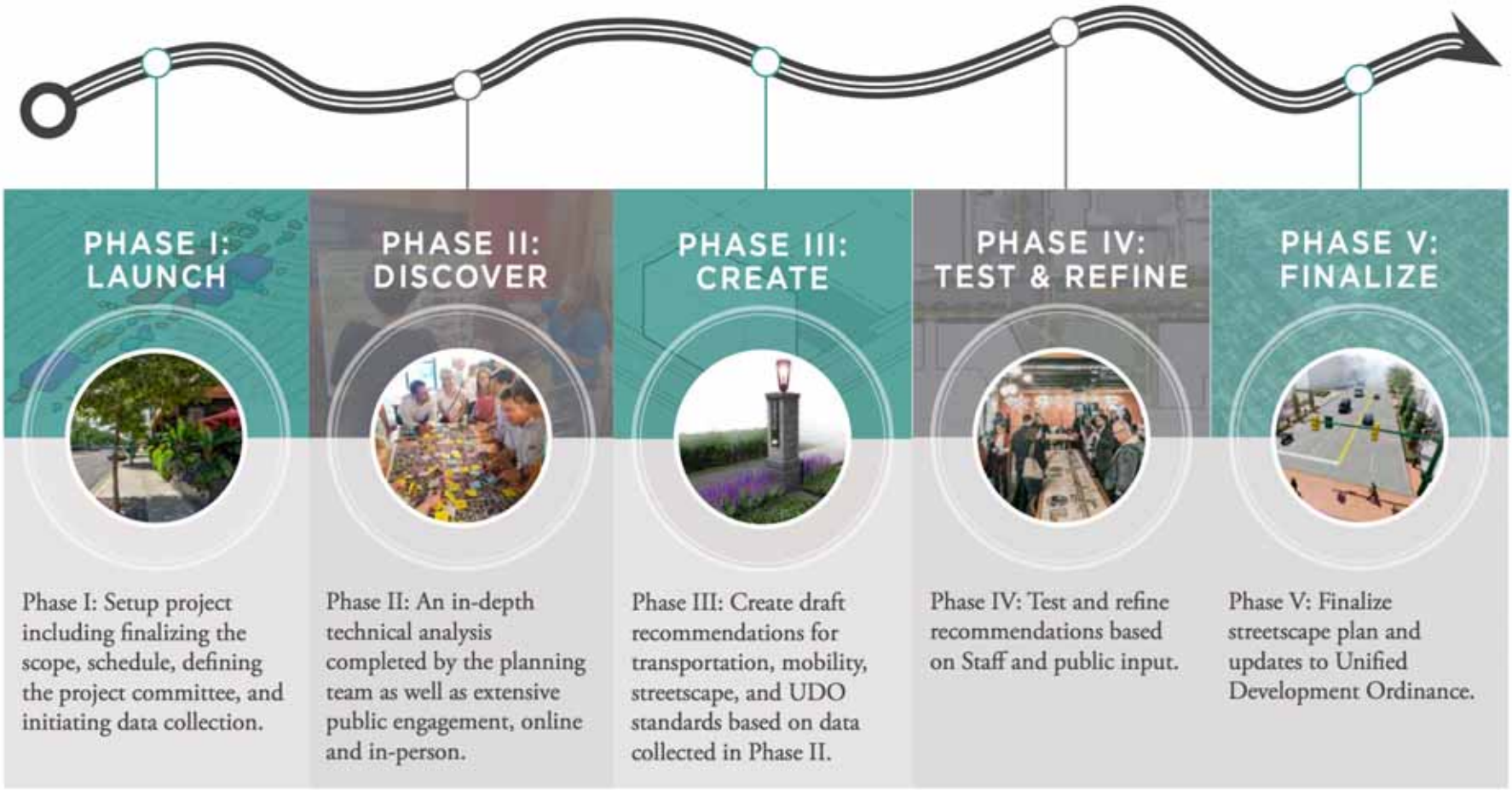
A BRIEF HISTORY OF THE CORRIDOR

Lane Avenue is a prominent corridor and east-west connector in the City. It offers direct access to S.R. 315 and the Ohio State University and connects to all of the City's key north-south streets including U.S. 33, Northwest Boulevard, North Star Road, and Kenny Road. Historically, Lane Avenue has also served as a dividing line between the original 1913 settlement of the City, located south of Lane, and the post World War II housing development, located north of Lane. Over the decades, the proximity of Lane Avenue to these neighborhoods has resulted in benefits, where the neighborhoods have supported commercial uses along the corridor. However, there have also been conflicts between the neighborhoods and the commercial corridor as development has occurred.

More recently, the corridor has experienced significant growth including redevelopment of sites into multi-story mixed use developments, a hotel, and major renovations of some existing properties. There has also been new attention turned to the role of the corridor within the community, with many showing support for Lane Avenue as a unique, downtown district that is walkable and is a place for the community to gather.

PROJECT PROCESS

Developing the Lane Avenue Study involved an fourteen-month process where the planning team periodically met with City Staff and the public to help guide and inform the Plan. The project process is shown below. This generalized diagram shows the parties involved, the process steps, and the results from each step.



WHO WAS INVOLVED

City Leadership and Staff

With Lane Avenue rapidly evolving and transforming, City Council and Staff recognized an opportunity to analyze and evaluate current changes in the district and create a framework that would support the desired future of the district for the local community. This led to the creation of the Lane Avenue Planning Study. City Staff was integral in the planning process and assisted in outreach and engagement efforts to effectively gather members of the public and the local business community to be involved in the process.

Community

The public was invited to participate in several in-person meetings and events as well as provide input online through two surveys. At these events and through the online survey hundreds of community members provided input for the Plan. Throughout the process, the City also hosted a project page for the study that included information about the process and project updates. A more detailed explanation of public meeting activities and key take-aways are shared in Chapter 2.

Developers and Area Stakeholders

Bringing important perspectives to the conversation around the future of Lane Avenue, the team held interviews and focus groups with developers and area stakeholders, including the City of Columbus and The Ohio State University.

Consultant Team

OHM Advisors was retained to guide the planning process and provide the technical expertise for the streetscape and code recommendations. OHM Advisors is an integrated engineering, architecture, and planning firm, specializing in community development and urban design. As part of the team, Gibbs Planning Group, an urban planning and real estate advisory consultant, performed a market analysis and research case study. Lanham Engineering performed a traffic analysis for the corridor.

FIGURE 2: Activities During Public Engagement

HOW TO USE THIS FRAMEWORK PLAN

The Lane Avenue Corridor Framework Plan is a guiding document for the corridor over the next five to ten years. It is the culmination of a community-wide process to identify what are important elements to support for the area and identify key recommendations for the future of the corridor.

The Plan is intended to serve as a guide for the City, private entities, and local residents to work collaboratively to realize the vision of the Plan. Although this Plan and the concepts have been created with extensive input and review from the community and several stakeholders, it is meant to be flexible to accommodate for future opportunities and constraints that may arise. The following offers guidance on how each entity should use the Plan.

City

City Staff, including each department and administrator, should be cognizant of the contents of the Plan when preparing annual work programs, budgets, capital improvement plans, and economic incentives. As future plans are updated, the concepts and recommendations within the Framework Plan should be appropriately incorporated. This Plan should also be used as a tool to communicate with the general public and the development community on the desired vision for the Lane Avenue corridor and the implementation efforts necessary to achieve that vision.

Other Public Entities

Adjacent city, county, and institutional organizations should familiarize themselves with the Plan and appropriately align their planning and funding effots within the area to collaboratively support the recommendations. These public entities should seek opportunities where there are shared common goals between an organization and the planning efforts that can help implement this Plan.

Private Entities

Private property owners and developers are integral in carrying out the vision of this Plan. This is because their individual projects and developments along the corridor can come together to greatly impact the overall character and vibrancy of the district. Private entities should use the Plan as guidance for their own individual projects and as a starting point for talking with City Staff and the community.

Upper Arlington Community

The Lane Avenue Corridor Framework Plan is meant to unify the community around a vision for the public and private realm within the corridor. The community was integral in the creation of this Plan and will also be very important in implementation efforts. The community, including residents and business owners, should continue to support and encourage implementation of this Plan by local leadership.

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02

CREATING THE FRAMEWORK

02 CREATING THE FRAMEWORK

OVERVIEW

Creating the framework for the future of the Lane Avenue corridor included gathering and assessing both the intuitive knowledge of the community as well as technical insights including a market analysis, case study research, streetscape assessment, and code assessment. These pieces, which are summarized in this chapter, created the direction for Lane Avenue.

COMMUNITY PERSPECTIVES

The Corridor Framework Plan was intended to reflect the desires of the local community. To help accomplish this, residents had an opportunity to learn about the project and provide feedback at several points during the process. This intuitive knowledge helped guide recommendations and influenced the design direction.

Engagement was organized into three rounds: listening and learning; testing and refining; and finalize. Each round provided opportunity for in-person engagement where participants learned about project updates, saw the latest evolution of recommendations, and provided feedback on those recommendations. There were also two online surveys as part of the process that resulted in hundreds of responses. The following is a summary of engagement while full results are shared in the appendix.

PHASE I: LISTENING AND LEARNING

Community Meeting 1

COhatch, September 18th (60+ people)

Participants listened to a brief presentation about the project and then had an opportunity to visit seven stations to provide feedback on what they envisioned for the future of Lane Avenue. They also noted areas of concern or interest, as well as provided input on priorities for mobility, streetscape, architecture, and branding elements. **An online version of the activities was dispersed and garnered nearly 1,900 responses.**

Focus Group Interviews

COhatch, September 25th (6 meetings)

Neighboring communities and developers in the area were invited to participate with direct input from the following: City of Columbus, Crawford Hoying, Daimler, KRG, RPT Realty and The Ohio State University. The planning team conducted interviews with the focus groups to gain insight into existing plans for the nearby area and opportunities to improve the regulations and process for development.

Community Pop-Ups

Crimson Cup and Whole Foods, September 26th (70+ people)

To capture feedback from participants who may not typically attend public meetings, the planning team setup activity stations (a condensed version of the public meeting stations) at Crimson Cup and Whole Foods.

The community was **ENGAGED IN THREE PHASES** through public meetings, pop-ups at local businesses, and online.

PHASE II: TESTING AND REFINING

Community Meeting 2

Municipal Building, December 12th (40+ people)

To keep the community informed on the process, participants were updated about the project including an overview of feedback received and the direction of future recommendations. Participants were also able to provide feedback on initial concepts. **An online version of activities garnered over 1,100 responses.**

PHASE III: FINALIZE

Focus Groups 2

COhatch and Municipal Bldg., February 12th (10+ people)

In two separate meetings with area developers and neighborhood residents, the planning team unveiled final recommendations and solicited feedback from the groups.

Community Meeting 3

COhatch, February 13th (60+ people)

During the last public meeting, participants were given an overview of the project and then time to explore the final recommendations including an updated streetscape, gateway and neighborhood threshold concepts, and code recommendations.

ENGAGEMENT KEY FINDINGS

Phase I: Listening and Learning

During Phase I of the engagement process, meetings and activities were focused on reaching and engaging people interested in the future of Lane Avenue. Activities generated feedback on what people's vision for Lane Avenue was and what was most important to them moving forward. The following were key findings from the process that were used to inform recommendations.

- **Identity/Character.** While participants were conflicted on the identity of Lane Avenue (old vs. new), there was a consensus for traditional, timeless, and durable building materials, as well as modern and contemporary designs using traditional materials.
- **Outdoor Dining/Gathering Spaces.** People showed a desire for places along Lane Avenue for outdoor dining and informal gathering.
- **Walkability.** The community was aligned on the need to improve the walkability and safety of Lane Avenue.
- **Traffic/Congestion.** Traffic flow along Lane Avenue was a major concern, especially as redevelopment continues.
- **Bikeability.** Although bicycle safety was a concern now, there was support for bike amenities and connections.
- **Downtown.** Many viewed Lane Avenue as the downtown of Upper Arlington and/or a significant mixed use district that offers a live, work, play environment.
- **Boundaries and Buffers.** There was a need to clearly define the perimeter of the commercial district and adequately buffer development and traffic from residential neighborhoods.
- **Consistent Building Character.** There was a desire for building architecture and design being consistent and complementary throughout the corridor, with distinct massing and timeless character.
- **Signage with Natural Materials.** Traditional signage with stone, brick, metal, and other natural materials was preferred.

Phase II: Testing and Refining

Phase II of the engagement process was focused on testing initial concepts and recommendations, so recommendations for the gateways, neighborhood thresholds, streetscape elements, and code recommendations could be refined to best reflect the aspirations of the community.

- **Gateway Elements.** Residents tended to prefer a contemporary design that incorporates traditional elements, with integrated lighting features.
- **Neighborhood Threshold.** Most residents preferred the stone neighborhood threshold.
- **Streetscape.** There was a preference for integrating landscaping and soft elements in the streetscape. Supporting outdoor dining and activity was also desired.
- **Lane Avenue PMUD.** The feedback from the public showed support for the updates to the Lane Avenue PMUD.

Phase III: Finalizing

During Phase III of the engagement process, preferred design concepts including gateways and neighborhood thresholds, as well as major code updates were presented to the community. The proposed streetscape plan was also finalized and presented along with selective virtual reality perspectives revealing the proposed streetscape renderings.

> *"I WANT TO FEEL SAFE AND WELCOMED, WHETHER WALKING MY DOG AT 9PM AND SEEING DINERS AND PEOPLE EATING ICE CREAM – OR AT 4 IN THE AFTERNOON."*
>
> --Public meeting participant

A note about the following market analysis

Since the time of the completion of the market studies in late 2019, the unanticipated occurrence of COVID-19 with its attendant economic impact will obviously affect forward looking projections contained in the studies, the extent of which cannot be predicted at this time.

MARKET INSIGHTS

As part of the corridor study, market studies were completed for the area to assess the potential of future retail, hotels, and housing. As a city, Upper Arlington is experiencing tremendous growth. Its primary trade area is home to roughly 60,000 people and 25,000 households with a $119,400 average annual household income. Many trade area residents are gainfully employed and the median age is 38.9 years – 3.8 years above the County average. An impressive 75.7 percent of the trade area's residents over the age of 25 have a four-year college degree and 56.8 percent of households earn over $75,000 per year.

Retail/Restaurant

The retail feasibility analysis was conducted to determine how much and what types of retail and restaurants are supportable within the Lane Avenue corridor through 2024. The study found that the corridor can support up to 190,000 additional square feet (sf) of retail and restaurant development which could generate as much as $70.2 million in annual sales by 2024. This new commercial development could include 40 to 45 new retail stores totaling 155,000 sf and 12 to 15 new restaurants totaling 35,000 sf. The supportable new businesses include department stores, grocery, general merchandise stores, full-service restaurants, pharmacy and hardware. The Lane Avenue district could potentially support considerably more new retail and restaurant development as the proposed Ohio State University West Campus research center is completed.

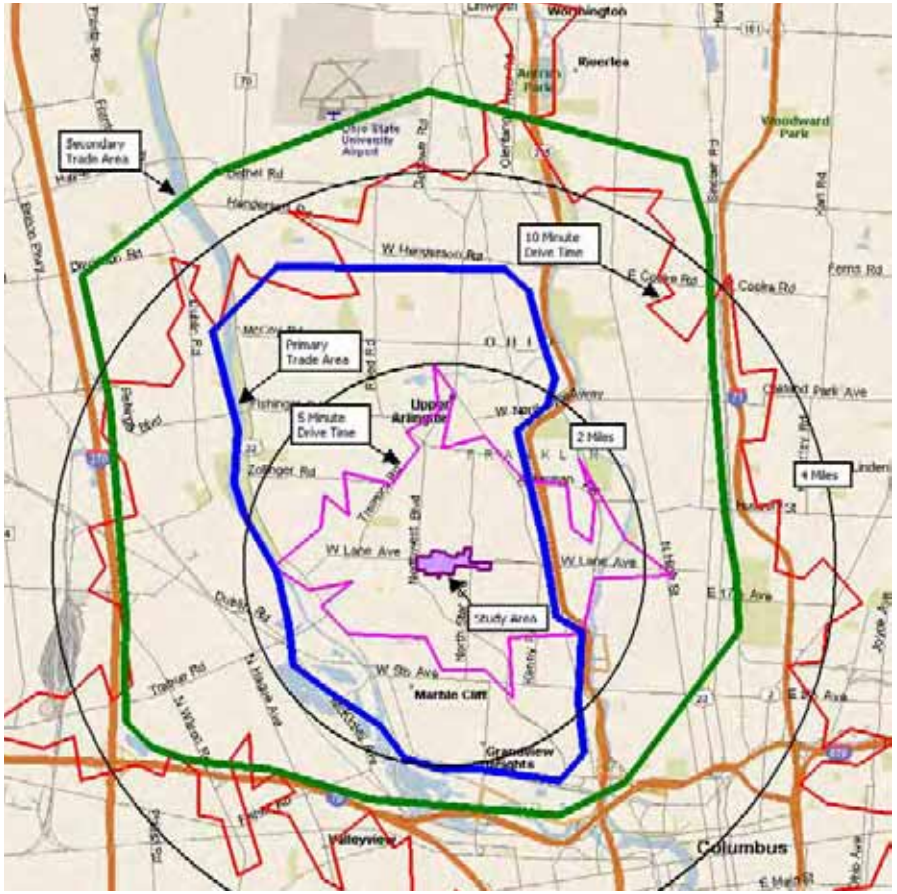


FIGURE 1: Study Area and its Proximity Diagram

Office

The study also included an analysis of office market opportunities. It found that the Lane Avenue corridor area would be able to support up to 220,000 square feet (sf) of additional professional office development. By 2024, the positive impact of continued employment growth in the region could help the total office development potential reach 260,000 sf of professional and local-serving office. This demand is in addition to the office space that will be included in the forthcoming Arlington Gateway and Lane II developments.

In addition, the Lane Avenue district as part of the overall area-of-influence could potentially support up to one million square feet of new office development seeking proximity to the proposed Ohio State University West Campus research center, if it is fully implemented as planned. However, this amount of new office space would likely require building densities, heights and public parking structures that may not be realistic by the City or community.

Demand and attainable capture are likely highest for two- and three-story professional office buildings with small to medium sized floorplates targeted to professional tenants in healthcare, wellness, finance and related technical professions. The potentially walkable mixed-use town center approach to overall project design could be a competitive advantage for the Lane Avenue corridor over its more conventionally suburban competitors.

Proximity to The Ohio State University and the OH-315 and I-70 highway interchange may allow the office market potential to exceed projections by attracting significant regional tenants. Upper Arlington is also strong in terms of proximity to stable and growing residential neighborhoods; An achievable source of both customers and tenants. Professional Class-A or 4-5 Star office development in the Lane Avenue corridor may potentially achieve triple-net annual rents up to $26 to $28 per sf by 2024 while local-serving office rent potential could range up to $18 to $22 per sf (in constant 2019 dollars).

The under representation of Upper Arlington in the regional office market and the notably low vacancy rate for office space suggest there is the potential for considerable pent-up demand for new office which could be captured in the Lane Avenue corridor study area.

Hotel

When analyzing hotel feasibility, the Lane Avenue corridor study area has the potential to support an additional upscale class, limited-service hotel of 100 to 120 rooms-keys by 2024. By 2024, due to employment and residential growth in the area, there is also the potential for an additional 250 to 300 keys of full-service hotel development. The full-service hotels' amenities should include a well-appointed lobby and common area, approximately 8,000 sf to 12,000 sf of meeting and conference space, indoor pool and whirlpool and a business center and fitness center. This demand is in addition to the hotel that will be included in the forthcoming Lane II development. The hotel demand could potentially be significantly greater if the Lane Avenue corridor and/or the proposed Ohio State University West Campus research center were developed as a walkable mixed-use center similar to Easton Town Center or the Short North area.

By 2024, the potential average daily room rate (ADR) for the new upscale class limited-service hotel could increase up to 5 percent from current rates. The full-service hotel may capture a 30 percent increase in ADR, offering average daily room rates reaching up to $150 to $180 (in constant 2019 dollars, not adjusted for inflation). Estimated occupancy rates for the new hotel developments is 75 to 80 percent.

Residential

Residential market opportunity was also analyzed as part of this study. The study found that the Lane Avenue corridor area would be able to support up to 420 new residential units ranging from for-sale townhomes and cottage homes to multi-family or mixed-use buildings containing for-rent lofts and upscale apartments. Unit sizes could range from 400 sf apartments to 2,000 sf homes. This demand is in addition to the residential units that will be included in the forthcoming Arlington Gateway and Lane II developments. It is plausible that the Lane Avenue district could potentially support considerably more new multi-family for-sale and rental residential development as the proposed Ohio State University West Campus research center is completed.

The Lane Avenue corridor is situated in a bustling and highly sought after area of Upper Arlington. The City of Upper Arlington currently has an estimated 15,200 housing units; 75.0 percent of the units are owner-occupied; 21.1 percent are renter-occupied, and the vacancy rate is 3.9 percent. The median home value is $380,100 and the median age of homes is 61 years. Moreover, 84.2 percent of the current housing stock are single-family homes, while 15.8 percent are multi-family.

If new residential development is built to industry standards and offers an amenitized and walkable urban setting, the new for-sale single-family units could potentially be offered at an average base price of up to $280 per sf. Furthermore, the rental units could potentially be offered at an average monthly rent of up to $2.20 per sf/month with average base rents of as much as $2.10 per sf/month for studios and up to $2,300 per month for upscale

three-bedroom apartments.

In addition to upscale apartments, this study recommended soft lofts, townhomes, live-work units, and cottage homes. Soft lofts are built from the ground up to incorporate loft-like features that usually include high ceilings, exposed concrete or ductwork and oversized windows. Townhomes are single-family dwellings with at least two floors that share a wall with another house. Some townhomes are developed as Live-Work units that usually combine a shop, studio or office at ground level and a single residential unit above. Finally, cottage homes are small detached single-family homes that are frequently grouped in clusters around small squares.

The residential market potential for the Lane Avenue corridor could be broken down as follows for optimum market position:

- **120 - 140 Soft Lofts** with base units ranging from 400 sf studio units to 900 sf two-bedroom units in two- to five-story buildings with or without retail or amenities occupying the ground floor. The buildings should be developed to offer open floor plans, high ceilings, desirable daylighting, and where possible, indoor-outdoor space.
- **150 - 170 Upscale Apartments** with average base units ranging from 700 sf one-bedroom units to 1,150 sf three-bedroom units located in multi-family buildings. These dwellings may be distinguished from competition with premium kitchen finishes and appliances and generous master bedrooms with walk-in closets.
- **60 - 80 Townhomes & Live-Works** with average base models ranging from 1,100 sf two-bedroom units to 1,800 sf three-bedroom units arranged in clusters of four- to eight units along walkable streets with street trees and parallel on-street parking. Units would include open floor plans, one- or two-car attached or detached garages and moderate upscale amenities. A targeted portion could be developed as Live-Work units with a 500 to 750 sf first floor, street front accessible suite that could be used as a professional office, small retail shop or exercise/entertainment space.
- **20 - 30 Cottage Homes** ranging from 1,000 sf two-bedroom to 2,000 sf four-bedroom homes on 2,500 sf to 4,000 sf lots. Cottage homes can serve as an effective density transition by avoiding street facing driveways in favor of alley-serviced garages or shared parking. Desirable for their limited yards (and less maintenance), the homes should have generous porches and patios. Cottages may also be clustered around a shared courtyard.

CASE STUDIES

Several projects were evaluated to help inform recommendations for zoning and land use within the Lane Avenue corridor. These areas, listed below have summary findings in the appendix.

- Bayshore Town Center - Glenview Wisonsin
- Columbia Pike - Arlington, Virginia
- Bethesda Row - Bethesda, Maryland
- Silver Spring, Maryland
- Rockville Town Center - Rockville, Maryland

THE COLUMBIA PIKE area consists of a blend of single family homes alongside new mixed use development.

Retail

Retail Store

155,000 SF / 40-45 NEW STORES

including department stores, grocery, general merchandise stores, full-service restaurants, pharmacy, and hardware

Restaurants

35,000 SF / 12-15 NEW RESTAURANTS

Office

Local-Serving

UP TO 120,000 SF

UP TO 260,000 SF COMBINED

Class A 4-5 Star

UP TO 200,000 SF

potential to support up to ONE MILLION square feet of office seeking proximity to the proposed Ohio State University West Campus research center, if fully implemented as planned

Hotel

Limited Service

100-120 KEYS

Full Service

250-300 KEYS

including a well-appointed lobby and common area, approx. 8,000-12,000 sf of meeting and conference space, indoor pool and whirlpool and a business center and fitness center

Residential

Soft Loft

120-140 UNITS

ranging from 400 sf studio units to 900 sf 2 bedroom units in 2-5 story buildings

Upscale Apartment

150-170 UNITS

ranging from 700 sf 1 bedroom units to 1,150 sf 3 bedroom units located in multi-family buildings

Townhomes & Live-Works

60-80 UNITS

ranging from 1,100 sf 2 bedroom units to 1,800 sf 3 bedroom units arranged in clusters of 4-8 units

Cottage Homes

20-30 UNITS

ranging from 1,000 sf 2 bedroom to 2,000 sf 4 bedroom homes on 2,500 sf to 4,000 sf lots

TRAFFIC ANALYSIS

A traffic analysis was conducted to evaluate the impact of future development in the corridor. The study included future trip generation and distribution, a no-build and future build capacity analysis, safety analysis, multi-modal analysis, and future parking needs analysis. Future data was based on a hypothetical development model that studied physical capacity of various properties to redevelop within the corridor.

Conclusions

The traffic study concluded that under the modeled development scenario, future development could add 400 morning trips and 1,430 afternoon vehicle trips. The existing lane configuration is the minimum needed for future traffic volumes. Problem areas with development are the same as exist today, and most are outside of Upper Arlington's city limits, such as at Kenny Road and S.R. 315 and within City of Columbus jurisdiction. The Ohio State University west-campus development along with the Northwest Corridor Study recommend improvements to relieve congestion and improve traffic flow. The Lane Avenue study further evaluates potential strategies for improvements, such as side-street turn lanes, restriping on Lane Avenue, and signal phasing changes.

Through these conclusions, the Lane Avenue streetscape design was limited to work within the existing curb locations. Pedestrian improvements are recommended to include safety strategies at street crossings, such as signal timing and pedestrian striping. Development plans in the district will need to include evaluation of and solutions for structured and shared parking.

2030 PM No-Build*: West-bound with 2 though-lanes and no permanent parking lane

2030 PM No-Build*: West-bound with 1 though-lane and 1 permanent parking lane

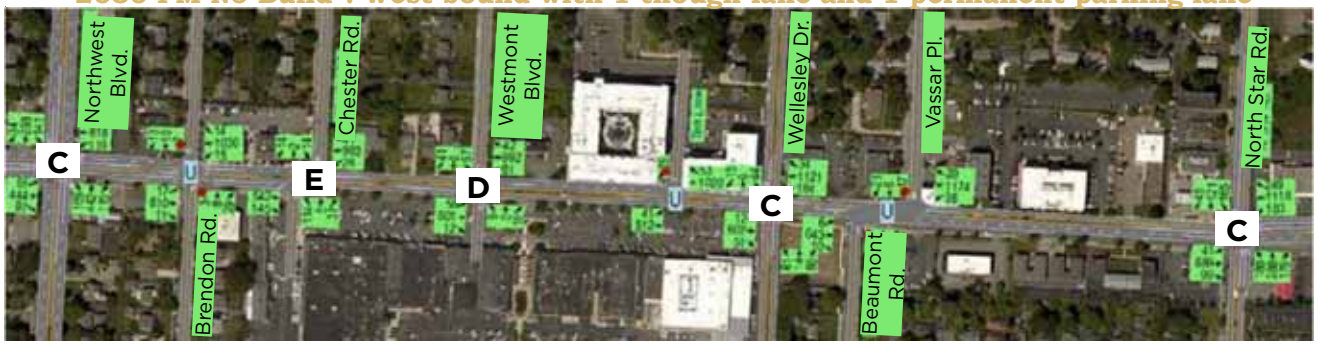


FIGURE 2: Level of Service Comparison Diagram

* No-build: this study ignores future development within the PMUD and applies only anticipated peripheral growth.

ON-STREET PARKING EVALUATION

On-street parking improves the pesdestrian experience by slowing traffic, providing convenient parking to retail, and providing a physical barrier beteeen pedestrians and moving vehicles. However, for Lane Avenue, the traffic function must balance with the pedestrian function.

This study evaluated the ability to make on-street parking permanent on the west-bound side. Ignoring future development within the PMUD, applying only "peripheral" growth, the results indicate a reduction in level of service at key intersections.

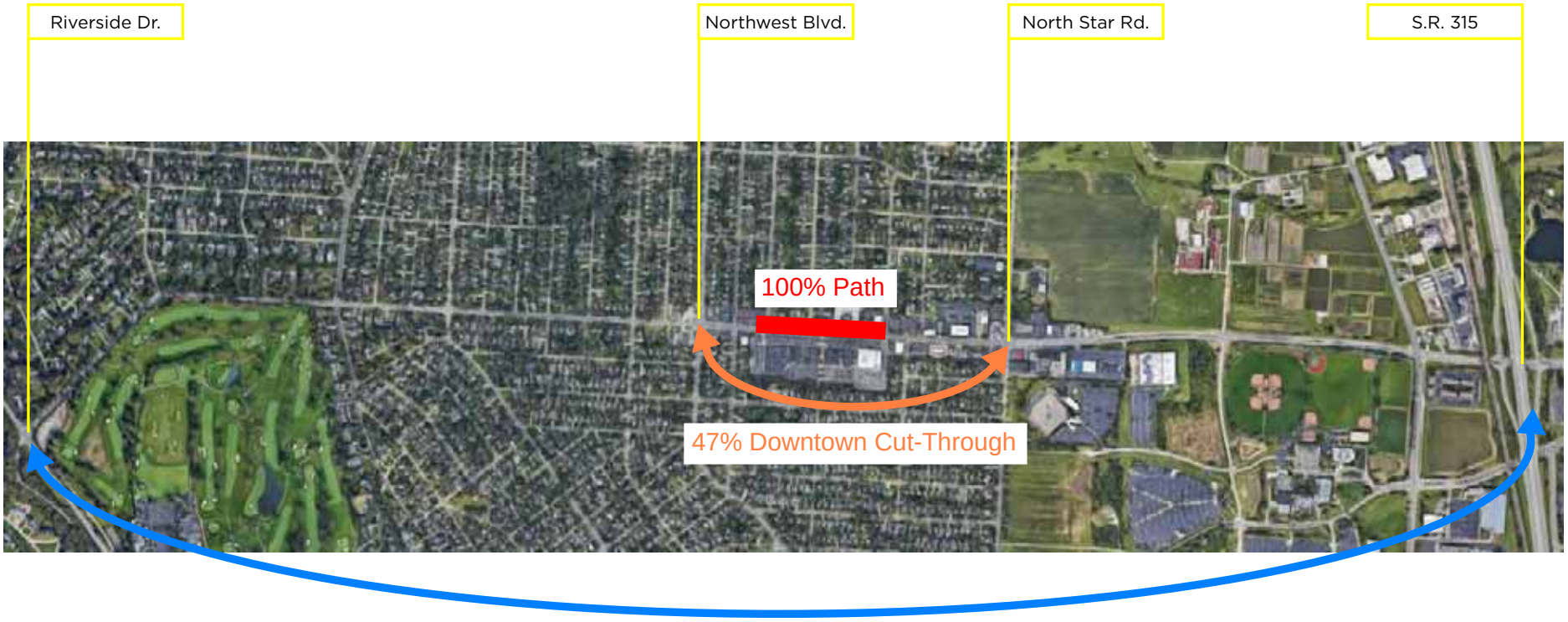


FIGURE 3: Cut-Through Traffic Diagram

CUT-THROUGH TRAFFIC EVALUATION

Of the vehicles that passed through the portion of road marked in red as the 100% path, 47% passed through Northwest Boulevard and North Star Road, meaning 53% either originated or ended the trip within this area. 17% passed through Riverside Drive and SR 315, meaning 83% of that traffic originated or ended the trip within this area.

This demonstrates that a majority of trips through this District are of local origins and destinations, and not using Lane Avenue as a cut-through from Riverside Drive to SR 315.

STREETSCAPE ANALYSIS

In recent years, the Lane Avenue corridor has benefited from new growth and development, including both private development and improvements to the streetscape and roadway. While these recent developments have dramatically changed the character of the Lane Avenue corridor, there is an opportunity to continue to improve and create a cohesive pattern in both the public and private realm. The planning team evaluated and assessed the existing streetscape using a variety of methods including site visits, a walking audit, photo documentation of existing building facades and frontages, and computer-based modeling and analysis, among other efforts.

The following are key findings of what is currently working within the streetscape and what may need to be improved.

Streetscape Assessment Key Findings

Trend toward consistent palette of light poles, furnishings, and street trees.

Consistent application of crosswalks but could be improved to enhance safety and comfort.

Intent to activate frontage zones (outdoor dining).

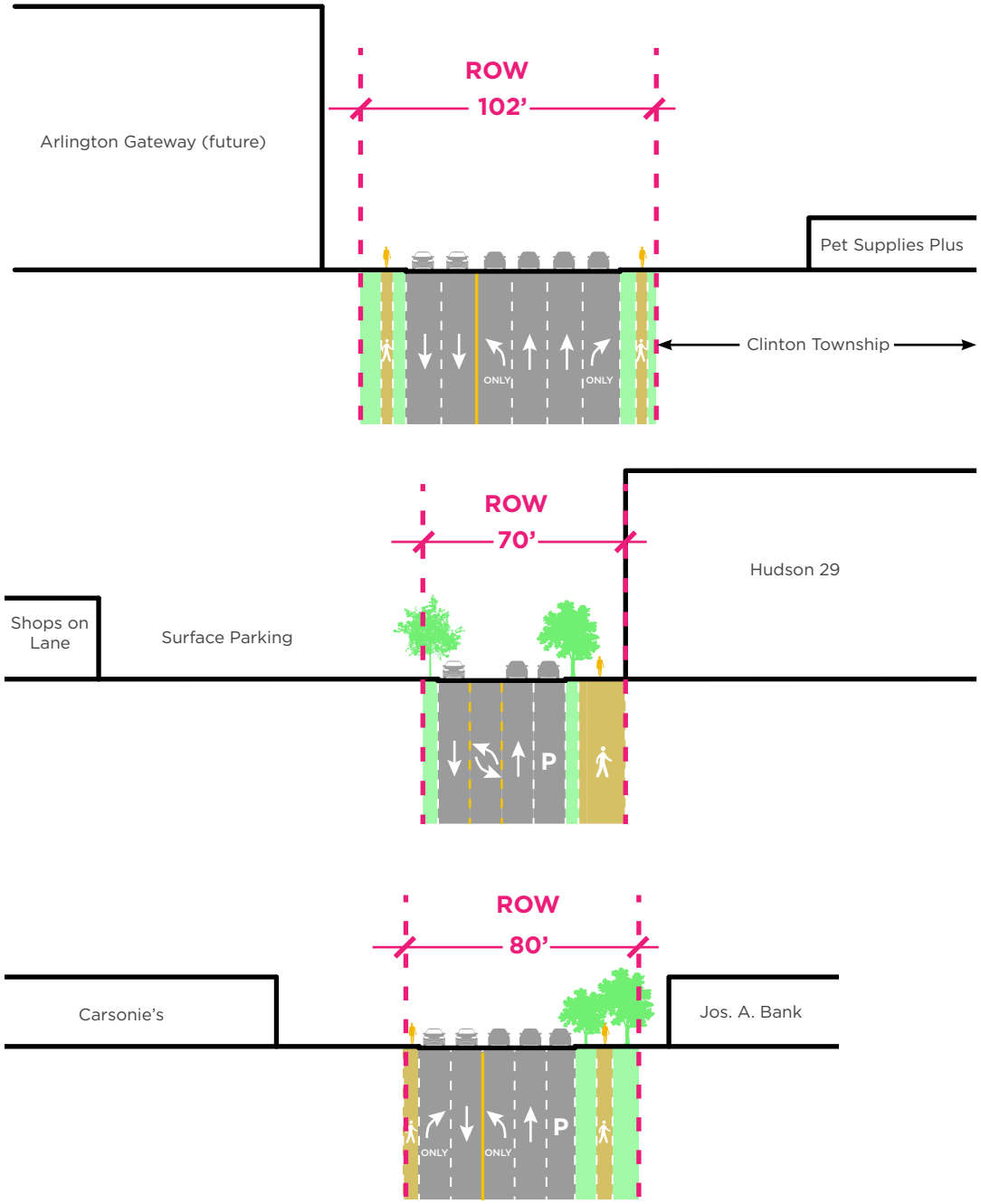
Private developments maintain quality landscaping.

Varying right-of-way limits ability to provide a consistent streetscape.

Future Arlington Gateway Site.

Shops on Lane frontage.

Arlington Commons Site.



Varying right-of-way limits ability to provide a consistent streetscape.

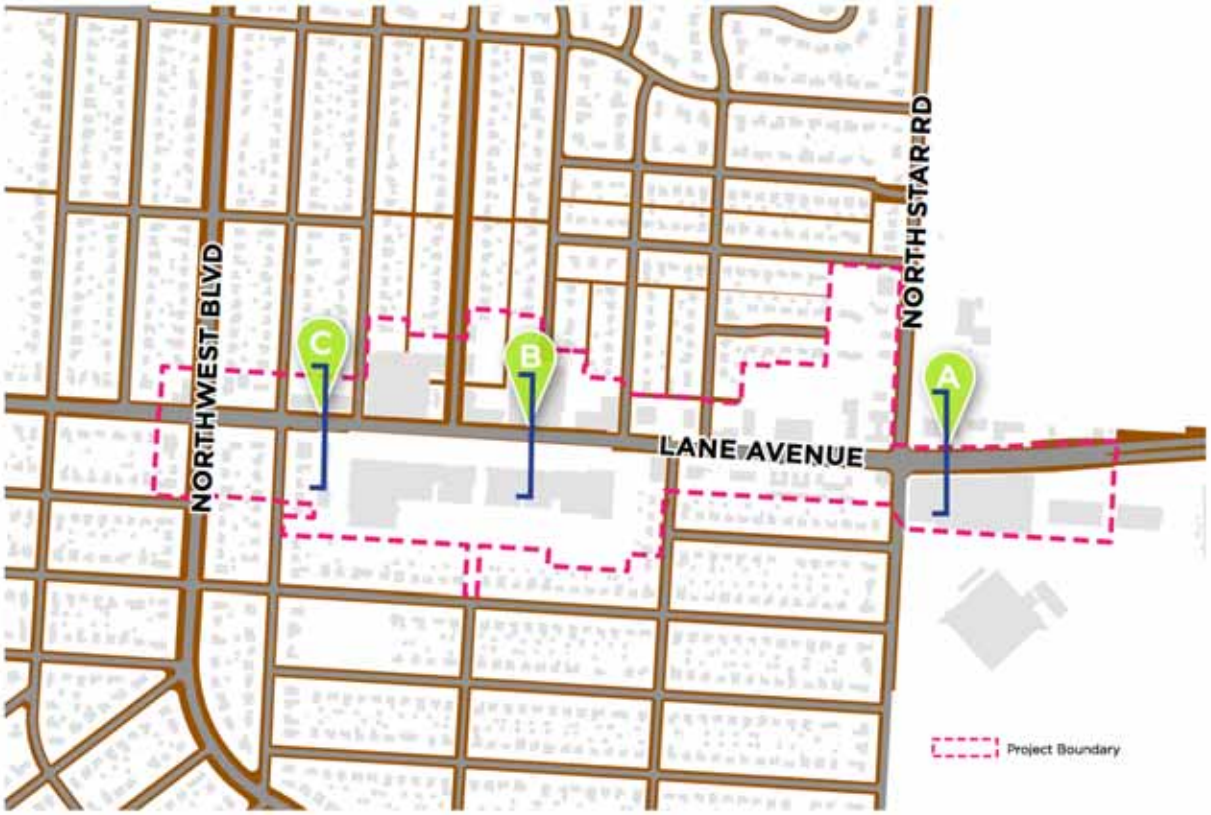


FIGURE 4: Existing Right-of-Way Diagram

Varying tree lawn and lighting application.

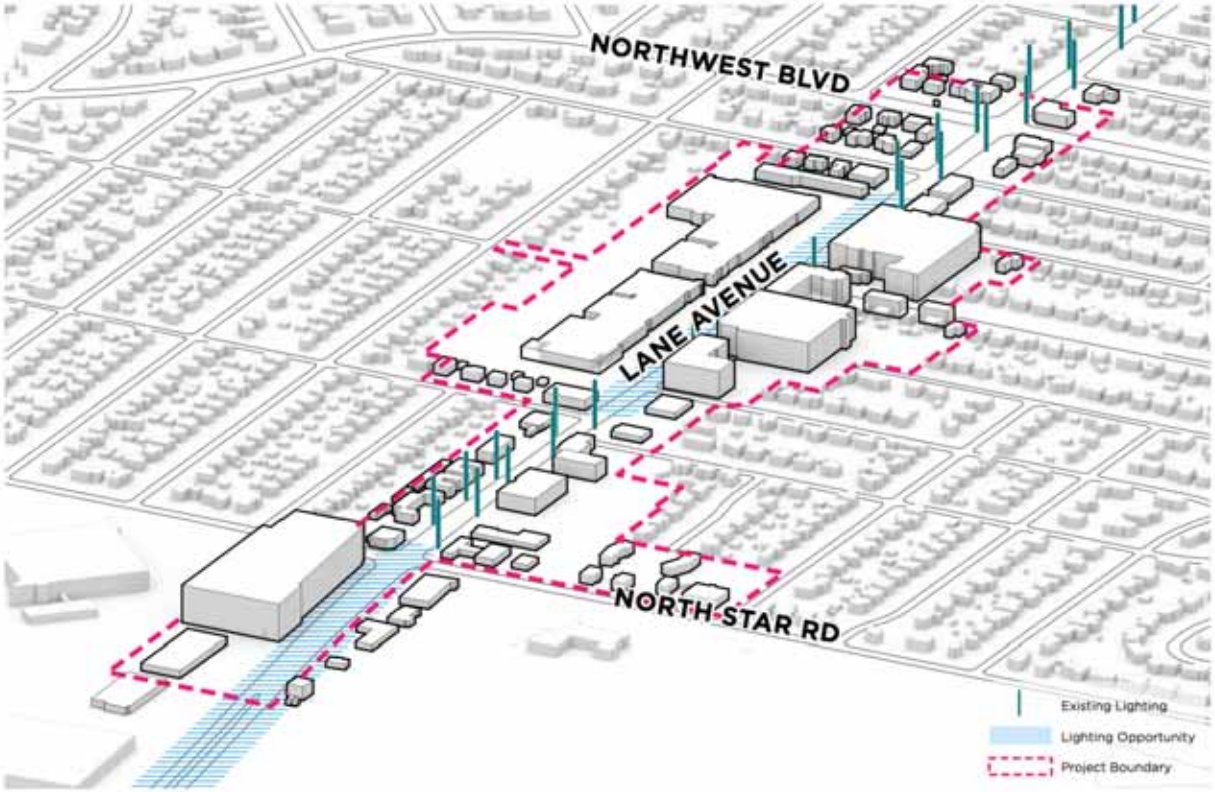


FIGURE 5: Existing Tree Lawn and Lighting Diagram

No bike infrastructure or mass transit stop along the corridor, but CoGo station and many kids on bikes were observed.

CoGo station in front of La Chatelaine.

One of the few bike racks along the corridor.

Kids biking on sidewalks.

Incomplete sidewalk network along the corridor and on side streets and varying sidewalk widths.

FIGURE 6: Existing Sidewalk Diagram

Missing sidewalk in front of Shops on Lane Avenue.

Missing sidewalk entering the corridor from neighborhood.

Missing sidewalk entering the corridor from West Campus.

Missing sidewalk on east side of North Star Road.

Missing sidewalk entering the corridor from neighborhood.

Missing sidewalk in front of Shops on Lane Avenue.

Varying application of signal treatments and branding elements along the corridor.

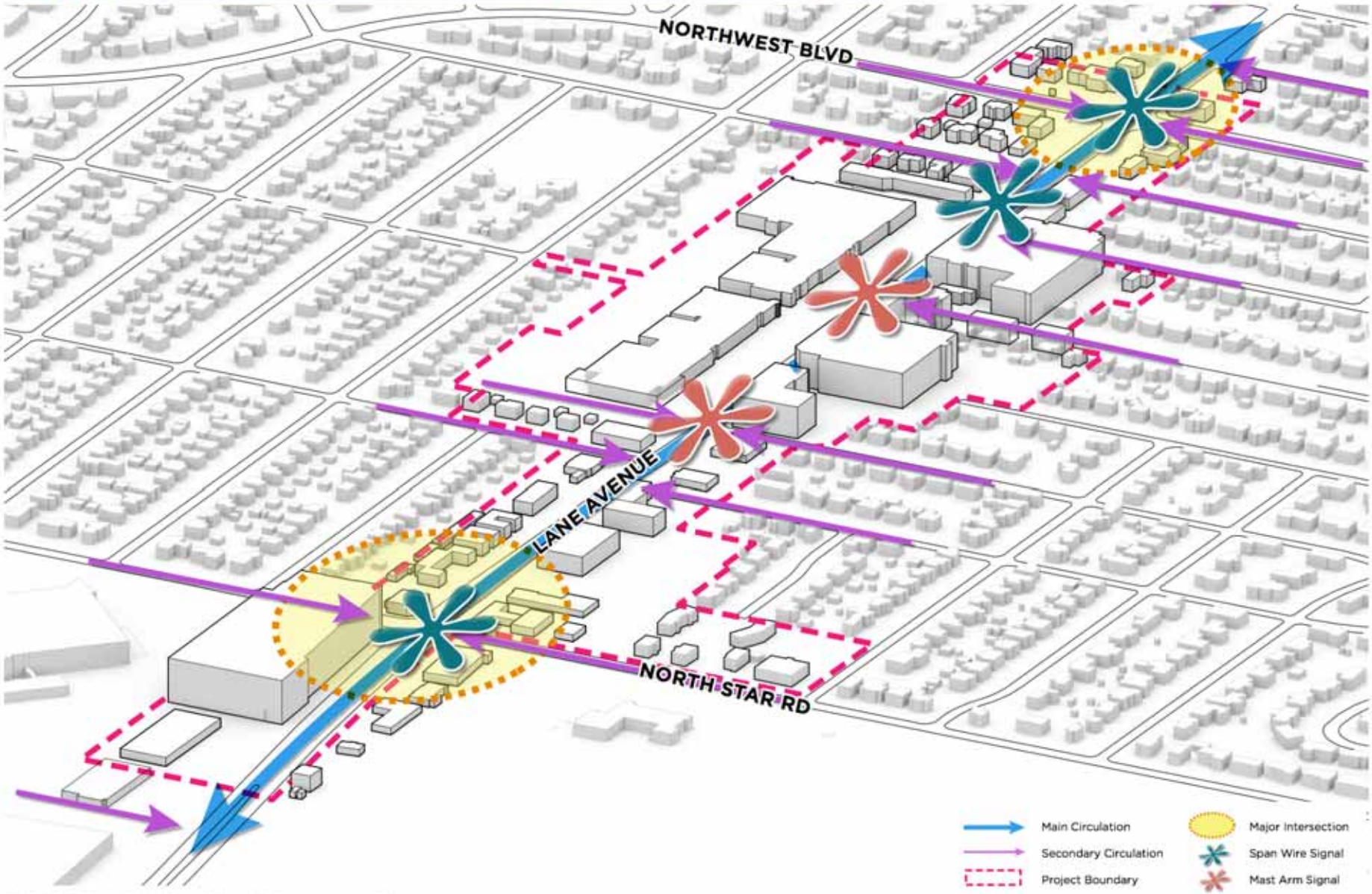


FIGURE 7: Existing Signal Treatment Diagram

Parking is not effectively and consistently screened from street view.

Lack of district gateway feature for branding and identity.

At intersection of North Star and Lane Ave

At intersection of Wellesley Dr and Lane Ave

At intersection of Northwest Blvd and Lane Ave

SETTING THE DIRECTION - STREETSCAPE

After integrating both feedback from the public and the findings from the streetscape assessment, the following directional elements were identified for the public realm.

- Maintain and build on existing street tree application, species, and grates;
- Build on existing crosswalk infrastructure and plan for aesthetic enhancements (e.g. pavers);
- Continue to require high quality landscaping for private developments and build a consistent theme that complements the public realm aesthetic;
- Continue to promote access management and, where feasible, require shared access and parking;
- Build on existing light and furniture furnishings, maintaining a black and green color scheme;
- Create setbacks that will create a consistent streetscape condition and allow for quality design. The goal would be at least 100 feet of right-of-way to achieve the desired roadway, landscape zone, pedestrian travel zone and frontage zone;
- Create a consistent sidewalk network on Lane Ave and extend the network north/south into adjoining neighborhoods;
- Develop a set a series typologies for how to develop the frontage zone;
- Create a consistent lighting standard for fixtures and application for public and private developments;
- Develop standards for the application of bike infrastructure;
- Develop a gateway and branding strategy for the corridor and integrate into streetscape standards;
- Develop a series of creative solutions to manage grade changes, where present in the study area;
- Enhance standards for parking lot screening;
- Develop standards for integrating pedestrian signage in the corridor; and
- Create a Designated Outdoor Refreshment Area (DORA), which is a designated public area where alcoholic beverages can legally be consumed.

URBAN FORM ANALYSIS

As development has occurred along the corridor, the Unified Development Ordinance including the Articles of "Zoning Districts and Use Standards" and "Design Guidelines," among other sections, have impacted the character and pattern of development. While the current framework has been successful in supporting the desired character in some respects, there was an opportunity to reassess the desired vision for the area as well as the regulatory framework that can support that vision. An in-depth review of the current regulatory framework and how it impacted the built environment was performed to assess potential areas for change.

The following are key findings from the regulatory assessment.

- **Opportunity to update the vision.** Conventional thinking about how zoning shapes the built environment and in turn the public realm, has advanced considerably since the UDO's adoption and the most recent Master Plan Update. It has been over 17 years since the original UDO was adopted and six years since the Master Plan was updated. Consumer markets and public preferences have changed and both have had a profound impact on the built environment, especially community centers and main streets like Lane Avenue. Retail in bricks and mortar form is no longer the only source of purchasing consumer goods. The public is seeking places that offer more of a mix of retail, office and residential uses.
- **Ability to focus on public realm.** The corridor has evolved one project at a time, with varied responses to the PMUD standards and the Design Guidelines. Emphasis was initially placed on mixing uses and siting buildings forward toward the street with parking behind, which are all parts of the private realm. The public realm, to include the street (from curb-to curb), the sidewalk, and the frontage were treated lightly, if at all. Sidewalks have been improved on a project-by project basis, with some remaining sections measuring five feet or less in width. But one of the most important contributors to an active street that was only generally addressed is the building frontage, the 3-4-foot zone immediately in front of the building that provides a 3-4-foot transition from the public realm to the private realm.
- **Define development incentives.** Quite often, development regulations meant to improve public space can be onerous to private development without some sort of incentive. The code was established to allow for taller buildings in order to account for the additional requirements of open space, mixed-uses, forward building frontages.
- **Guidelines in lieu of specific development standards.** The current UDO is established as design guidelines, which can be open to interpretation. Alternatively, standards and guidelines working together can improve how the elements are implemented.
- **Ability to create a graphically rich code.** Illustrations within the current UDO were included to support the development regulations and provide a shorthand way for applicants to visualize the desired development pattern, form, and character that the community desired. This can be continued in a more diagrammatic form.
- **Need to ensure the current zoning application review procedures are working as intended.** In the original UDO, a very deliberate attempt was made to streamline the development review process. Time is money to the development community so, as a result, a Technical Review Committee was formed and codified as part of the regulations in order to allow Staff - Development, Fire, Police and Public Service Department representatives - to meet and discuss code compliance early in the application review process. Before the UDO, approvals for most zoning permits went through the Board of Zoning and Planning(BZAP) and some went through Council as well. Today, "minor permits" are reviewed subject to certain criteria by Staff, saving considerable time and reducing the case backlog for the BZAP and Council.

Varying frontage treatment, including setback depths, building facade, landscape zone and pedestrian entrances.

Buildings that are heavy traffic generators and have a high frontage rating are more likely to encourage walking. Those that are heavy traffic generators and that have low frontage ratings will likely encourage driving, as opposed to walking.

FIGURE 8: Existing Frontage Rating and Traffic Generation Diagram

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03

THE FRAMEWORK PLAN

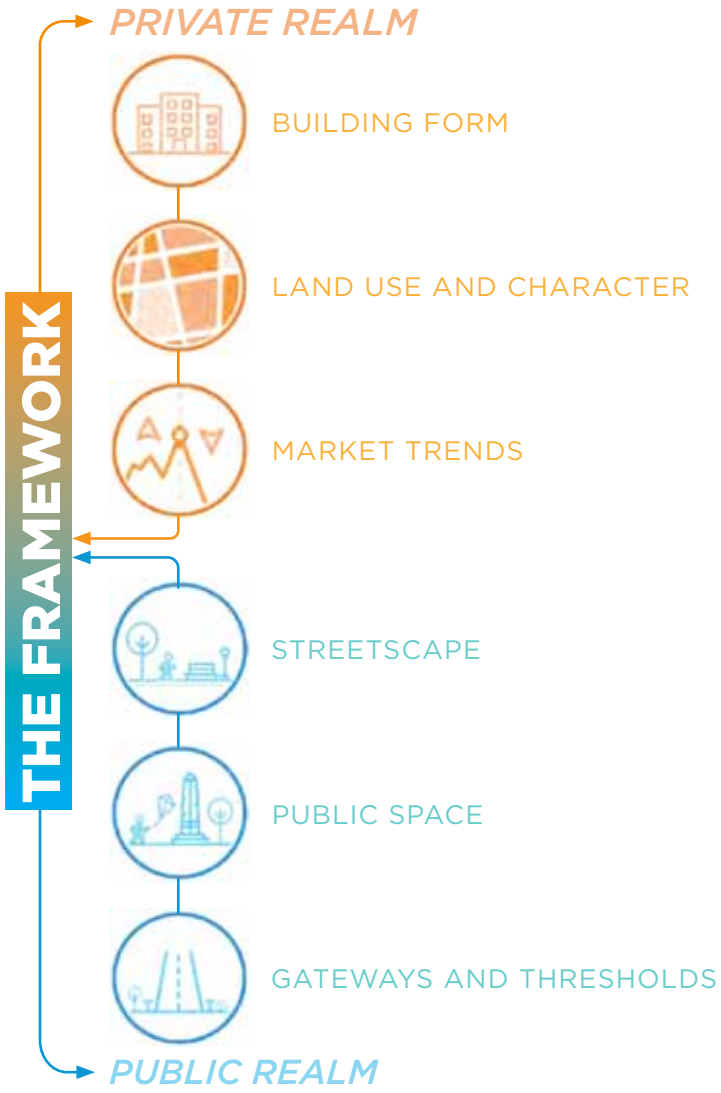
03 THE FRAMEWORK PLAN

THE VISION

This chapter synthesizes the long-term objectives and community wants and desires into a cogent, progressive and actionable Framework Plan for Lane Avenue. The Framework is composed of a series of layers, which engage the active urban systems along the corridor. When leveraged collectively, the long-term impact of individual actions can be amplified to maximize impact and longevity for both public and private sectors.

Land held publicly presents the most readily available elements to engage in corridor visioning. This includes the mobility, infrastructure and placemaking components of the public streetscape. The Framework Plan provides strategies for the public realm that balance an efficient and connected street network with the creation of a sense of place and establishment of Lane Avenue as a unique regional destination.

Outcomes for private property can be less certain due to market factors which fluctuate and change in real time. The Framework provides private realm strategies which influence building form and land use in order to drive walkability and compounding economic investment. These tools are developed explicitly for Lane Avenue to ensure future development is community-centric and reflects the unique character of Upper Arlington.



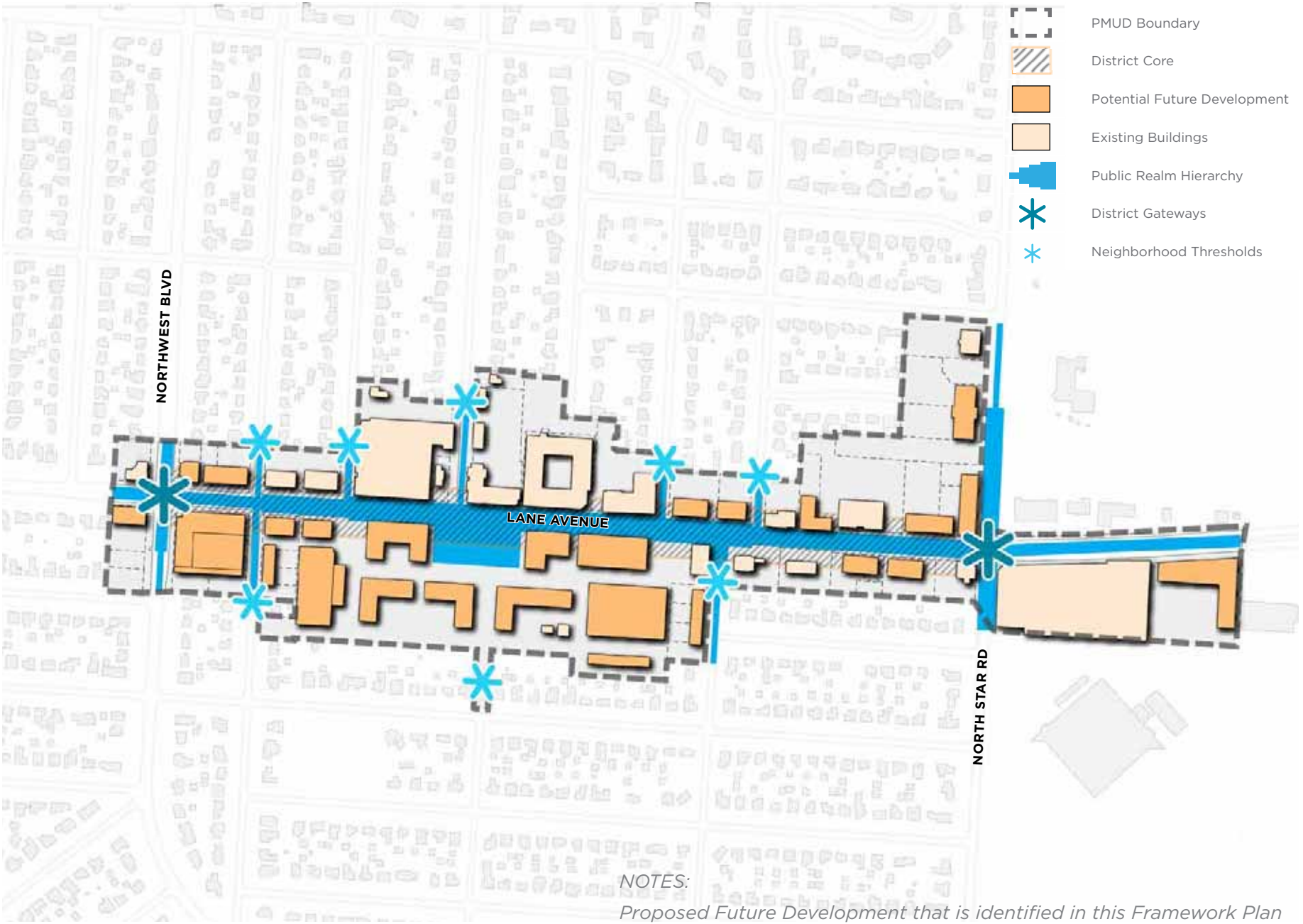


FIGURE 1: Framework Diagram

NOTES:

Proposed Future Development that is identified in this Framework Plan is based on existing conditions analysis, market study, and desired urban forms. The illustration is conceptual for the purposes of this study and is not indicative of any currently proposed development.

PRIVATE REALM

Future Potential Development Sites (10-year Projection)

Over the past several years, the Lane Avenue corridor has experienced redevelopment and large building renovations on many sites. Given market conditions, this is expected to continue. To help assess how this change may occur, the build-out diagram (See Figure 2) depicts a vision for what future development could look like within the district over the next 10+ years. Note that potential future developments are coneptual, based on what could be proposed in the future based on the PMUD code.

In the diagram, pink shaded buildings show potential redevelopments. These sites were selected in consideration of many factors including parcel ownership, marketability of parcels, and the built year of the site's structure. The analysis was also performed based on findings from the market analysis, projected trends, and the impacts from the Ohio State West Campus expansion.

It is recognized that this vision is long-term and many sites in their current building form are likely to remain the same for the foreseeable future.

FIGURE 2: Example Build-Out Scenario

NOTES:

Proposed Future Development that is identified in this Framework Plan is based on existing conditions analysis, market study, and desired urban forms. The illustration is conceptual for the purposes of this study and is not indicative of any currently proposed development.

Future Development and Walkability

To be a truly walkable district, many components must harmoniously come together in both the public and private realm. People must not only have the ability to safely and efficiently walk to nearby destinations, but it must also be an enjoyable and comfortable walk. While Lane Avenue has some of these elements, it is a unique district within the City that has the potential to support an even more vibrant and walkable environment.

As seen in Figure 3, the corridor is connected to nearby neighborhoods, both north and south of Lane Avenue. However, to improve the pedestrian experience and enhance mobility, sidewalk improvements are part of this Framework.

Building form and function along Lane Avenue also plays a major role in walkability. As sites redevelop, buildings are intended to front Lane Avenue with main entrances and amenities situated along the corridor and parking located to the side or rear of buildings. Building frontages are intended to be visually interesting. Structured parking along the corridor is intended to be lined with retail or residential units to support ground level activities and avoid a blank garage frontage. These elements increase accessibility and enhance vibrancy along the corridor for pedestrians.

FIGURE 3: Pedestrian Shed and Five-Minute Walk Diagram

FIGURE 4: An Example of a Walkable Street: Castro Valley Boulevard in Castro Valley, California.

Land Use Mix and the Market

Although future development will be market driven, Figure 5, Future Land Use in Build-Out Scenario, shows a potential mix of land use based on the market and trends within the region. This diagram should be used as a guide when development opportunities arise.

The primarily expected land use along the corridor is anticipated to be mixed-use with the intention to transform the corridor into a vibrant and dynamic environment. Retail and commercial activities would be centered on the ground level, while offices or residential units would be located on the upper floors. In the heart of the corridor, a central open space, defined by proposed buildings would be envisioned to provide new opportunities for recreation and community events.

The illustrated future development plan provides approximately 480 new residential units, 390,000 gross square feet of retail and 540,000 gross square feet of office space. The total gross square feet of new building space would be a 57% increase from the existing condition.

LANE AVENUE STUDY AREA

	Total # of Units - Residential	Total Building SF - Retail	Total Building SF - Office	Total SF
Existing	201	449,218	148,990	598,208
Future	481	391,586	544,374	936,441
% Change	+139%	-13%	+265%	+57%

OSU WEST CAMPUS

	Total - R&D SF	Total - Employees
Future (10 years)	3 MIL	--
Future (Build Out)	5-9 MIL	20,000

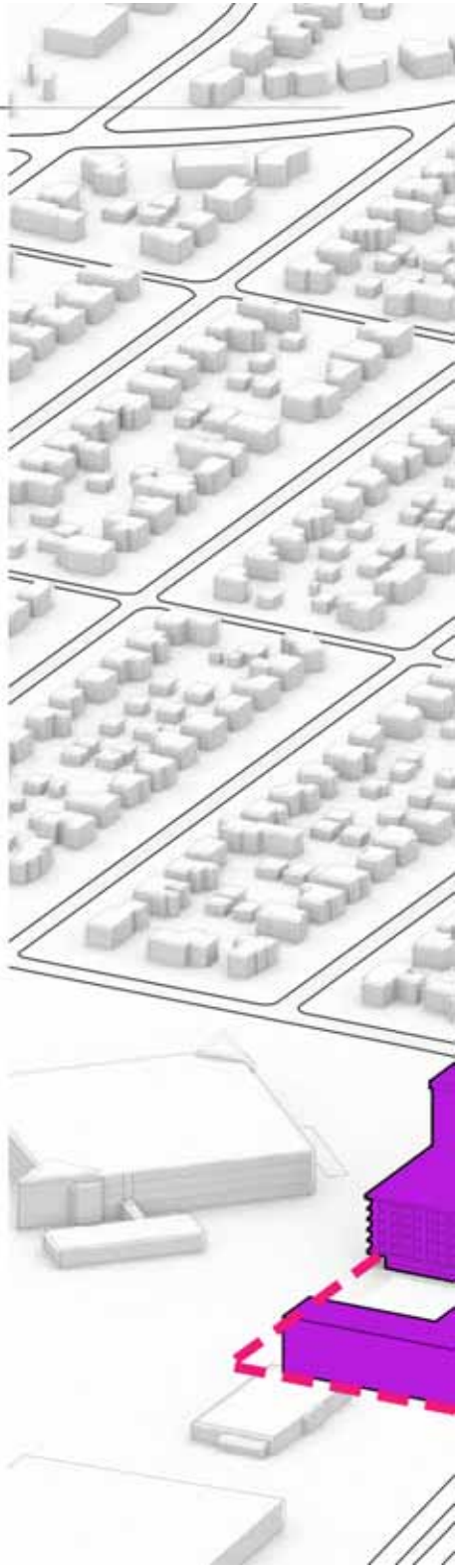


FIGURE 5: Future Land Use in Build-Out Scenario


NORTHWEST BLVD
LANE AVENUE
NORTH STAR RD

PUBLIC REALM

Overall Vision

Alongside strategies to leverage private development, this Framework articulates the future vision of the corridor and includes recommendations to more closely align the public realm with desired outcomes. The Framework approaches the public right-of-way as a contiguous public space and articulates a cohesive character throughout the corridor, while also concentrating on the creation of a signature public space and branding of the district through gateways and neighborhood thresholds.

As the interface between public and private realms, the streetscape has the ability to create an experience unique to the Lane Avenue district. The corridor not only facilitates vehicular and pedestrian travel, but can promote walkability, patronage of local business and foster community gathering. This is achieved through an intentional design that fosters a sense of place and improves the physical, social, and economic qualities of the corridor. This Framework identifies standards for design of the public realm and, as new development or redevelopment occurs, streetscape standards should be integrated as part of construction.

Streetscape Network

Hierarchy

The vision for the corridor incites a new hierarchy between Lane Avenue and connecting neighborhood streets. This is achieved through streetscape geometry and material selection. Primary streets or major thoroughfares support higher traffic volumes, while secondary or neighborhood streets, support local travel. Lane Avenue is the major primary street within the district with North Star Road and Northwest Boulevard also serving as major thoroughfares. The remaining local streets are considered as secondary streets.

Typology Network

This Framework proposes a series of streetscape typologies which align with the PMUD subdistricts. This leverages strategies for both public and private realms and reinforce the character and function of the Lane Avenue district. This allows each sub-district to tailor recommendations to existing condition and future developments and create a unified yet dynamic corridor experience.

The streetscape typologies include:

- East Gateway streetscape typology (page 43);
- Corridor streetscape typology (page 45);
- Center streetscape typology (page 45);
- Neighborhood streetscape typology (page 47);
- West Gateway streetscape typology (page 49).

DESIGN PRINCIPLES

The streetscape concept was designed to promote a series of principles and elements to enhance pedestrian safety and activate the public realm. The following principles informed the corridor vision:

- Promote a space which is unique to Upper Arlington;
- Create a cogent corridor design with a consistent character;
- Prioritize pedestrian travel and activity;
- Mediate relationship between commercial corridor and residential streets; and
- Procure opportunities for green infrastructure.

FIGURE 6: Street Hierarchy Diagram

FIGURE 7: Proposed Streetscape Typology Network Diagram

Typology Configuration

Typologies contain three distinct zones which facilitate efficient pedestrian travel while providing areas and amenities to increase pedestrian comfort and safety. These zones are as follows:

Amenity/Landscape Zone
This zone includes brick pavers, street trees, landscaping and amenities required for a functional, safe and vibrant street. This keeps obstructions out of the pedestrian travel zone, such as street trees, signs, parking meters, street lights, trash cans, benches and bike racks.

Pedestrian Travel Zone
This zone is fundamentally for the unobstructed flow of pedestrian traffic and includes concrete sidewalk. This Framework proposes widths that are suitable to accommodate ample pedestrian traffic and street-level activities at building frontage. Widths are reduced on secondary streets to transition to existing sidewalks in adjacent neighborhoods.

Building Frontage Zone
This zone facilitates building functions, extending indoor activity into the street. This could be used for outdoor dining, planters or display of merchandise. The variation in width aligns with desired character and land uses proposed for each subdistrict.

East Gateway

The East Gateway, located at the entrance to Upper Arlington from Lane Avenue, incorporates elements from the proposed Arlington Gateway project to create a public realm that will support pedestrian activity while also providing a perceived barrier from vehicle traffic along the corridor. Specific features of the East Gateway streetscape typology include:

- A 7.5 foot landscape zone, which measured from the back of the curb, is intended to create a buffer between active pedestrian walking area and high-volume vehicular traffic;
- An 8 foor unobstructed pedestrian travel lane; and
- An 8 foot minimum frontage zone which creates space for outdoor displays, planting, cafes or outdoor seating.

FIGURE 8: Proposed East Gateway Typology Locations

DESIGN GOALS

- Incorporate proposed streetscape model by Gateway project.
- Create a frontage zone that allows for outdoor dining.
- Create an enlarged landscape zone to buffer from high traffic volumes.

FIGURE 9: Existing Condition near North Star Road, Looking West

FIGURE 10: Proposed East Gateway Streetscape Typology Section

Corridor & Center

This is the dominant typology throughout the corridor which extends from east and west gateways and unifies the Corridor and Gateway subdistricts. It is meant to support a high level of activity for pedestrians and business patrons. Specific features of this streetscape typology include:

- A 5 foot landscape zone, which measured from the back of the curb, shall match existing tree grate application;
- An 8 foot unobstructed pedestrian travel zone on primary streets and a 6' unobstructed travel zone on secondary streets; and
- A 6 foot minimum frontage zone.

FIGURE 11: Proposed Corridor and Center Typology Locations

DESIGN GOALS

- Utilize current streetscape model at Hudson 29 and Hilton. However, existing frontage zones encroach on travel zone.
- Ensure frontage zone allows for outdoor dining.
- Match landscape zone to existing tree grate dimensions, style, and spacing.

FIGURE 12: Existing Condition near Vassar Place, Looking West

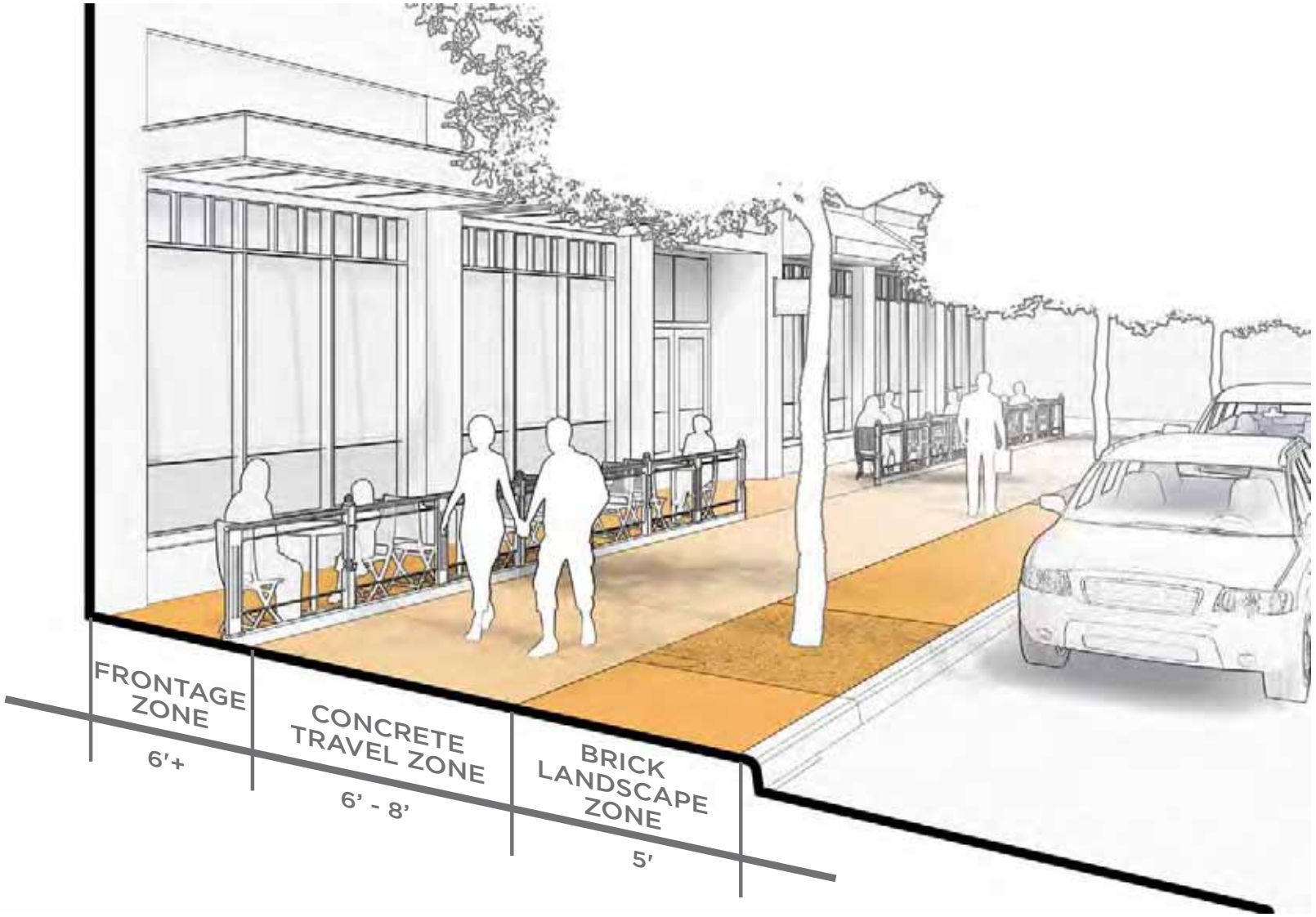


FIGURE 13: Proposed Corridor and Center Streetscape Typology Section

Neighborhood

The Neighborhood streetscape typology is meant to create a transition between the primarily commercial activity on Lane Avenue and the adjacent neighborhoods. While the streetscape can support the character of the neighborhoods, it can also help to signalize to visitors they are entering a different area and may need to change their behavior (e.g. reduce travel speed). Specific features of the Neighborhood streetscape typology include:

- A 5 foot landscape zone with turf;
- A 6 foot unobstructed pedestrian travel zone; and
- A 6 foot minimum frontage zone with landscape plantings.

FIGURE 14: Proposed Neighborhood Typology Locations

DESIGN GOALS

- Typology should be applied on residential/office/live-work uses.
- Create a buffered frontage to transition from commercial street scale to neighborhoods.
- Utilize a turf landscape zone to support residential character.

FIGURE 15: Existing Condition at Brandon Road, Looking South

FIGURE 16: Proposed Neighborhood Streetscape Typology Section

West Gateway

This streetscape typology is meant to provide a transition between the Lane Avenue mixed-use commercial district and residential neighborhoods to the west. This typology also contains a distinct feature to signalize the entry into the district. Specific features of the West Gateway streetscape typology include:

- A 5 foot landscape zone which, measured from the back of the curb, shall match existing tree grate application;
- An 8 foot unobstructed pedestrian travel zone on primary streets and a 6' unobstructed pedestrian travel zone on secondary streets; and
- A 2 foot minimum frontage zone.

FIGURE 17: Proposed West Gateway Typology Locations

DESIGN GOALS

- Support a shallow frontage zone to transition from commercial street scale to residential.
- Utilize existing tree grates and spacing in the Landscape Zone.
- Create outdoor seating in the landscape zone.

FIGURE 18: Existing Condition at Northwest Boulevard, Looking West

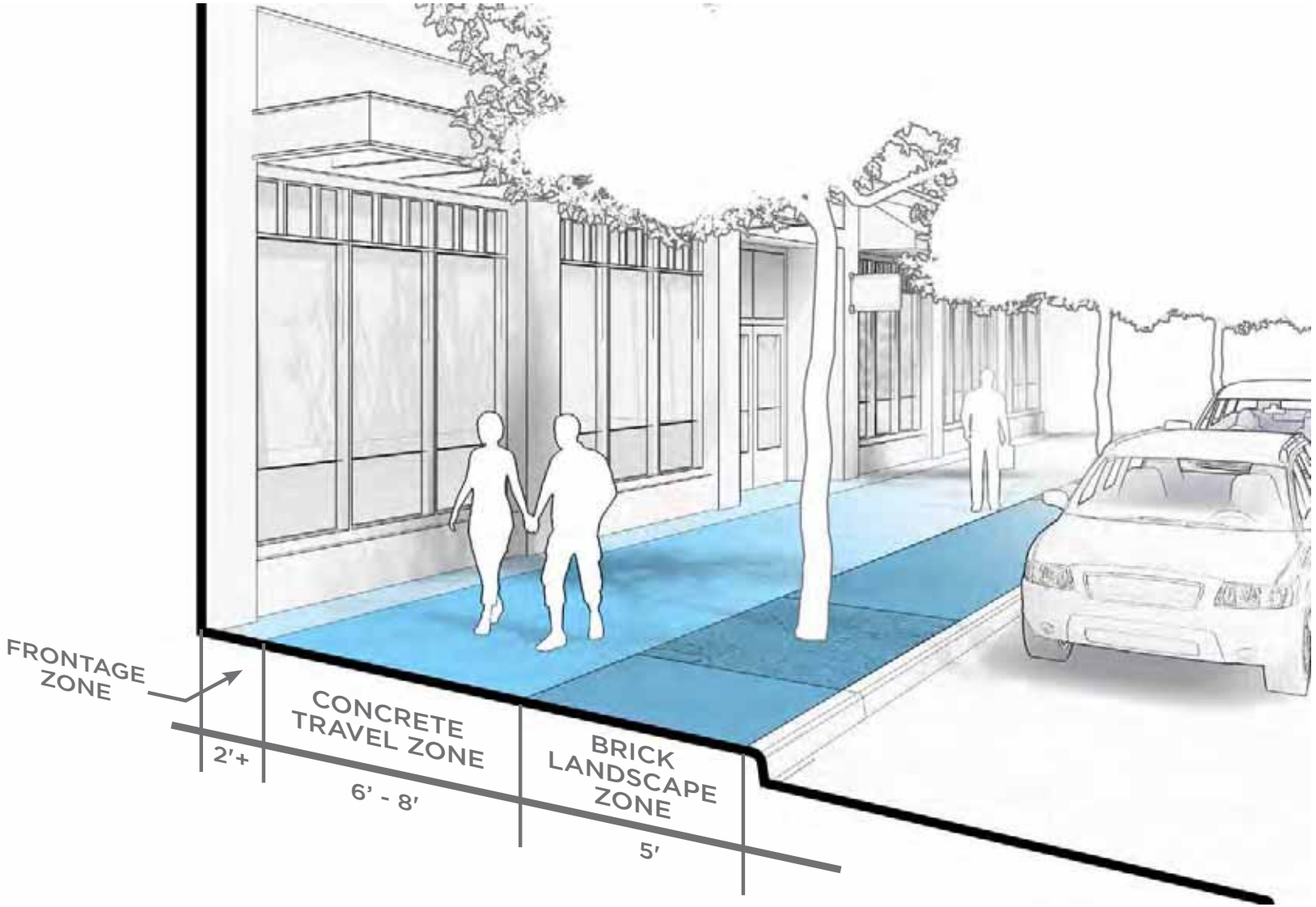


FIGURE 19: Proposed West Gateway Streetscape Typology Section

CREATIVE LIGHTING provides unique opportunity to activate the landscape during the night hours, promoting walkability.

LANDSCAPE DESIGN should be in a traditional palette, applied in a contemporary way.

TRADITIONAL BUILDING MATERIALS (stone, brick, etc.) to create contemporary profile and modern aesthetic.

TRADITIONAL MATERIALS used in both raw and refined formats.

Streetscape Design and Character

Overview

Currently, the streetscape configuration and character along Lane Avenue is disjointed. Although there have been instances and steps taken to promote walkability, the lack of standardized streetscape design has resulted in encumbered travel zones and in some cases, lack of pedestrian connectivity. With this in mind, the primary driver for the streetscape design is to incite a consistent character and configuration for the corridor's full length, defining sidewalk zones and features which provide the foundation for a vibrant and active public realm.

The Corridor

As illustrated in the streetscape typologies, the Framework aligns sidewalk configurations with sub-districts to create a consistent yet varied experience. The use of brick pavers within the amenity zone will foster an identity which is unique to the Lane Avenue district. Additionally, proper construction detailing could incorporate permeable pavers and stormwater infiltration into the amenity zone and integrate into a corridor-wide green stormwater management system.

The streetscape design minimizes the number of curb cuts and driveways to provide traffic calming and reduce potential conflicts between pedestrians and vehicles. Non-peak hour on-street parking on the north side of Lane Avenue remains from Vassar Place to Brandon Road.

Bike racks should be included throughout the corridor, providing necessary bike amenities to encourage non-motorized transportation. Proposed locations include the corner of North Star Road and Lane Avenue, the corner of Vassar Place and Lane Avenue, the central open space, and the corner of Northwest Boulevard and Lane Avenue.

Pedestrian lighting should match the standard fixtures in place along Lane Avenue and should be located within the landscape zone at regular intervals. Other street furniture, such as benches, planter pots and trash receptacles should also be consistent throughout the corridor.

Intersections

Defined crosswalks with decorative paving, accent bands and ADA compliant ramps are proposed at all intersections. A reduction in corner turning radius reduces vehicular speeds, shortens crossing distances and increases pedestrian safety. Additional study should be conducted to determine the feasibility of tightening corner radii.

Emulating the gateway features, bio-retention planters are proposed at all intersections along Lane Avenue. Special treatment at all intersections will announce pedestrian crossings more clearly and introduce hierarchy to the streetscape design. Additionally, streetscape planters provide opportunities for green infrastructure. Bio-retention planters are recommended to be planted with ornamental grasses, shrubs, perennials and groundcover in order to maintain a clear sight distance for vehicular traffic. With the exception of the East and West Gateways, planters do not contain street trees. Plant species should be suitable for an urban stormwater application.

FIGURE 20: Proposed Streetscape Plan

Street Trees

A healthy and consistent tree canopy will have a dramatic impact on pedestrian walkability and traffic speed control. Trees are located within the landscape zone and spaced 25 foot on center throughout the corridor. While some existing trees do not follow this spacing, maintaining regularity will reinforce the consistency and character of the corridor. While removal and replacement of existing trees is not always desired, the final design will be reviewed by the City Forester to keep existing trees, where possible. Detailed corridor design should determine an acceptable plant list with trees that are suited for urban pollution and related challenges. The amenity zone can be designed to allow stormwater infiltration through the use of permeable pavers.

TREE ROOT MANAGEMENT

Urban conditions are difficult for trees due to the high level of compacted soil. Intentional streetscape design and detailing can improve the survivability of trees. Two options to consider are:

Sand-Based Structural Soil allows soil to be compacted to a high level, while also making water, oxygen, and organic matter available to tree roots.

Structural Soil Cells are plastic grids which transfer loads of the sidewalk through the grid to compacted earth below. Within these grids is uncompacted planting soil, allowing tree roots to have an ideal growing environment. This is the preferred option. However, material and installation is significantly more costly than structural soil.

Typical Streetscape Plan

The image below illustrates an integration of vision objectives and physical design. This design is schematic in nature and next steps to advance the corridor vision is to generate a Design Development package with standard layouts, materials, and specifications for construction.

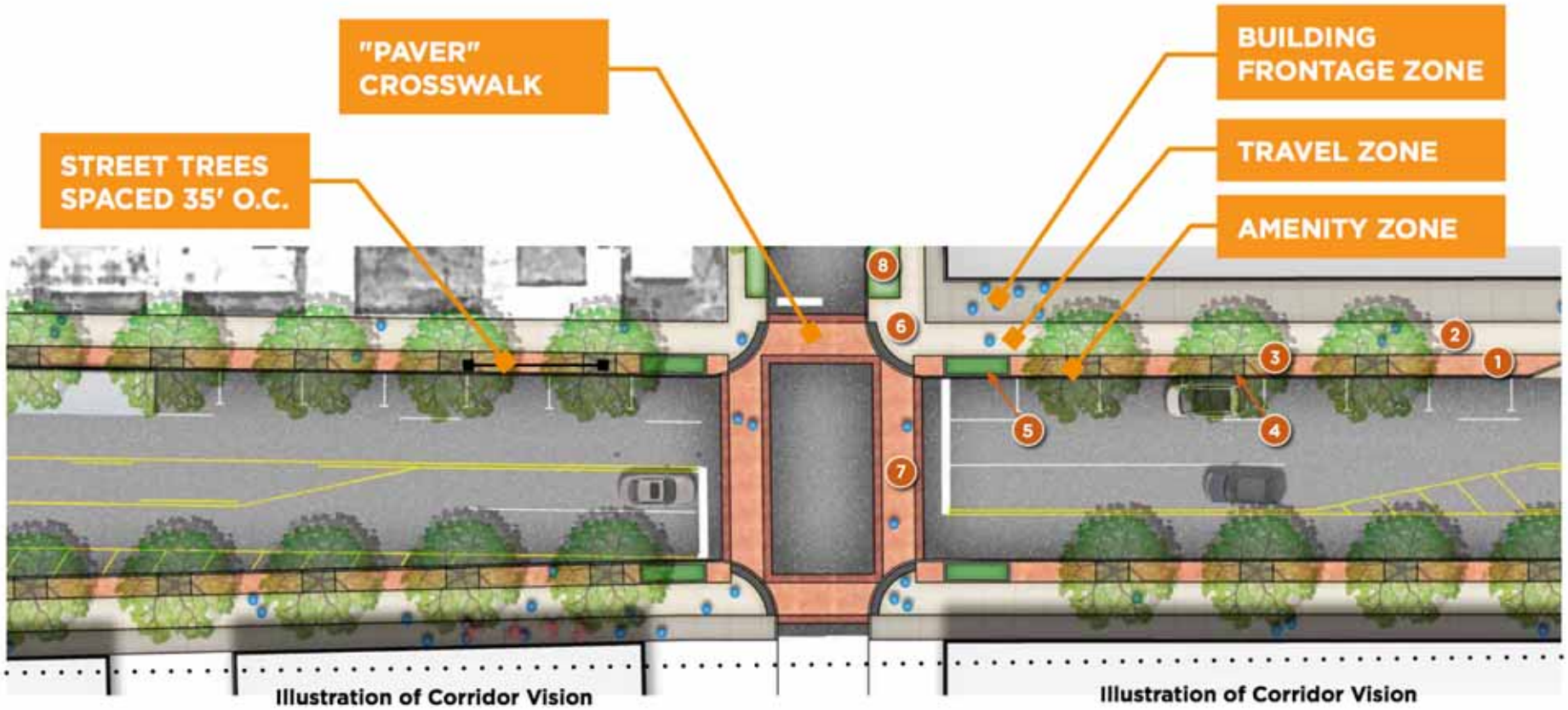


FIGURE 21: Proposed Typical Streetscape Plan

Signature Public Space

Fostering a vibrant and active street is multifaceted. and the addition of a signature public space will solidify the Lane Avenue district as a community and regional destination for public life. The Shops on Lane parcel is significant in size and its potential redevelopment presents the unique opportunity to realize this signature public space. Concepts within the Framework are wholly schematic in nature. However, the following tenets should guide planning and implementation of this park:

- Park should be highly visible from Lane Avenue;
- Programming should be diverse, accommodating a variety of age groups;
- Programming should be multi-seasonal to promote year-round activation;
- Park edges should be reinforced by activated building frontages which should integrate into park design and programming;
- Buildings should orient windows towards park, promoting perceived and real safety, known as 'eyes on the street';
- Park construction should utilize material palette for the Lane Avenue district to promote a cohesive character;
- Design and construction should utilize sustainable and resilient design practices, including native and adapted plantings, green stormwater infrastructure, and sustainable management practices; and
- The park should be consist of required private open space aggregated so that it is approximately 0.5 to one acre in size.

FIGURE 22: Conceptual Public Space, Looking East on Lane Avenue

FIGURE 23: Conceptual Public Space Plan

District Gateways

The vision for the corridor includes a series of thresholds which define the limits of the district, including district gateways and neighborhood thresholds. The goal of the gateway concept was to enhance the sense of place and signal the boundary of the Planned Mixed-Use District.

Potential gateway locations include two major intersections, one at the intersection of Lane Avenue and North Star Road and the other at the intersection of Lane Avenue and Northwest Boulevard. The proposed gateway concept includes bio-retention planters, decorative railings around the planter edges, and decorative lighting. It uniquely incorporates artful landscape elements and functional streetscape components, such as green infrastructure.

FIGURE 24: Proposed Gateway Locations

DESIGN GOALS

- Create unique district and define limits.
- Improve circulation and pedestrian safety.
- Work within confines of existing conditions.

FIGURE 25: Existing Condition Looking West on Lane Avenue

FIGURE 26: Proposed Gateways at North Star Road, Looking West

FIGURE 27: Proposed Gateways at North Star Road, Looking East

FIGURE 28: Proposed Gateways at North Star Road, Looking West

FIGURE 29: Proposed Gateway Day View

FIGURE 30: Proposed Gateway Night View

Neighborhood Thresholds

The neighborhood threshold concept seeks to extend the material palette from the gateway concept while seamlessly blending into the neighborhood characteristics. Although the proposed neighborhood threshold locations are approximated and design will depend on the unique local conditions of each location. The intent is to provide an immediate threshold experience when entering the Planned Mixed-Use District.

Durable and traditional materials, such as limestone, are incorporated into the concept design, which complements the existing neighborhood character. Accent lighting and a branding banner are also two important design elements that will contribute to the sense of the place.

FIGURE 31: Proposed Threshold Locations

DESIGN GOALS

- Create unique district and define limits.
- Improve circulation and pedestrian safety.
- Work within confines of existing conditions.

FIGURE 32: Existing Condition at Brandon Road, Looking North

FIGURE 33: Proposed Neighborhood Threshold

FIGURE 34: Design Elements of Proposed Neighborhood Threshold

FIGURE 35: Alternative Proposed Neighborhood Threshold (where right of way width allows or is able to be obtained)

FIGURE 36: Design Elements of Alternative Proposed Neighborhood Threshold

CONCEPTUAL DESIGN

- The illustration is conceptual for the purposes of this study and is not indicative of any currently proposed development.

FIGURE 37: Conceptual Streetscape Rendering at East Gateway Sub-District and 360 view QR code. To view a 3D rendering of Lane Avenue at this location, please scan or take a photo of the QR code.

CONCEPTUAL DESIGN

- The illustration is conceptual for the purposes of this study and is not indicative of any currently proposed development.

FIGURE 38: Proposed Streetscape Rendering at Corridor Sub-District and 360 view QR code. To view a 3D rendering of Lane Avenue at this location, please scan or take a photo of the QR code.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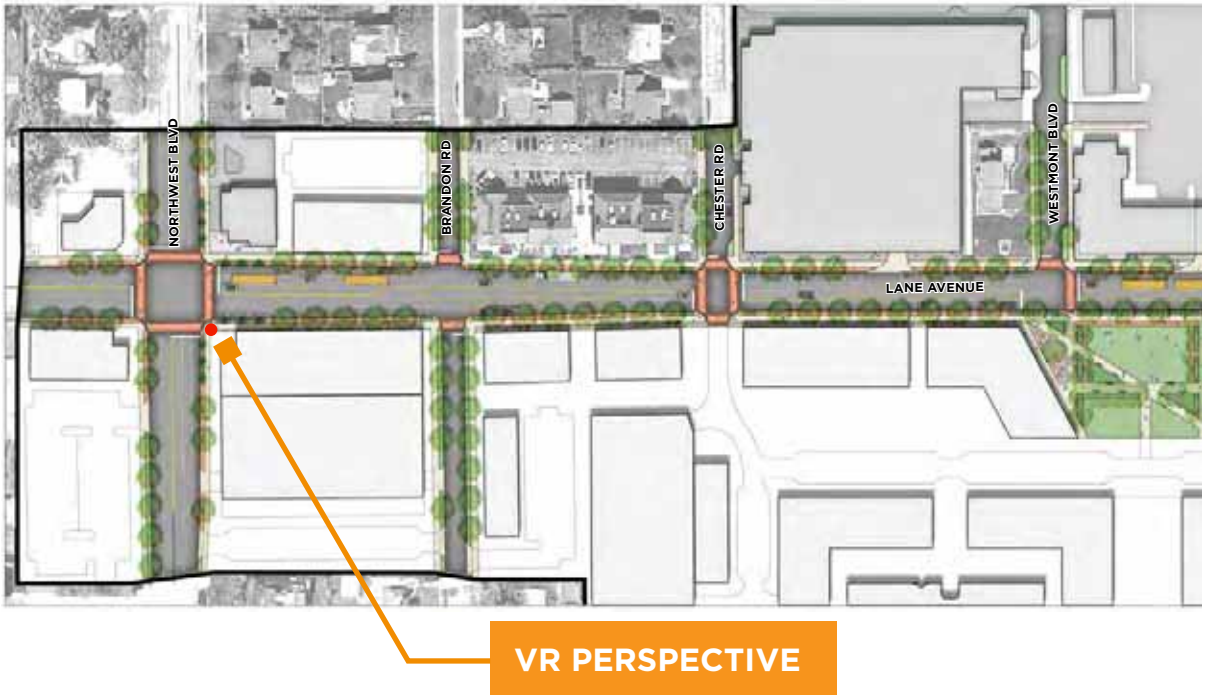
CONCEPTUAL DESIGN

- The illustration is conceptual for the purposes of this study and is not indicative of any currently proposed development.

FIGURE 39: Proposed Streetscape Rendering at Center Sub-District and 360 view QR code. To view a 3D rendering of Lane Avenue at this location, please scan or take a photo of the QR code.



CONCEPTUAL DESIGN

- The illustration is conceptual for the purposes of this study and is not indicative of any currently proposed development.

FIGURE 40: Proposed Streetscape Rendering at West Gateway Sub-District and 360 view QR code. To view a 3D rendering of Lane Avenue at this location, please scan or take a photo of the QR code.

IMPLEMENTING THE VISION

Setting the Direction - Emphasizing Urban Form

The Lane Avenue Planned Mixed Use District (PMUD) is the major framework that guides the regulatory standards of development along the corridor. Over the years, the PMUD has been successful at regulating many elements of development to achieve a desirable form and function of buildings. However, there are aspects of the code that may need to be adjusted or modified to support the community's vision for the corridor. This includes a variety of elements impacting both the public and private realm.

Given the public's desire for a dynamic, walkable district and the potential areas of improvement that arose from the regulatory assessment, the following recommendations were identified for the Lane Avenue corridor.

- **Develop a renewed vision for the corridor that, among other things, places the needs of people who walk, bike, and ride transit over those who drive.** Active transportation – walking, biking, and riding transit, is the preferred method of travel in areas aspiring to be more vibrant and physical attractive places. Specific standards need to be developed that not only address deficiencies in the street and along the sidewalks, but include provisions for making each building frontage a vibrant, interstitial space between the building and the pedestrian zone along the sidewalk. Accommodations should be made for those who walk, bike and use transit. Achieving these objectives requires a code organized especially around them.
- **Create form-based standards that are calibrated to the Lane Avenue corridor.** These standards could include frontage types, building types, open space types, street and streetscape recommendations, parking, landscape standards, and architectural standards.
- **Incorporate incentives or tradeoffs that benefit the community as well as the developer/applicant.** Zoning incentives to provide green infrastructure in return for additional lot coverage or increased building height are just a few ways regulations can be used to achieve community development objectives and complement other, non-regulatory incentives (e.g. financial).
- **Modify Design Guidelines (Article 7, Unified Development Ordinance), where appropriate, to measurable development standards.** There are basic form elements that should be regulated with standards – frontage, streetscape, building placement, and parking placement standards, etc. Other elements – landscaping and architecture – are not as essential to ensuring that "urban form" is created and could remain as guidelines if they

FIGURE 41: Using Urban Form to Shape Safe and Attractive Public Space

are adequately illustrated.

- **Graphically illustrate development standards to help ensure intended regulatory outcome.** Graphics within the PMUD should go beyond illustrations to demonstrate how the development standards are applied. This includes cross sections of buildings and streets accompanied by plan drawings showing how buildings and parking are to be placed on a lot for both corner and midblock situations.
- **Consider adding third party design review for all PMUD's, like recently adopted in residential guidelines.** Because design standards and guidelines often involve discretionary decisions, some administrators or boards seek advice from consultants who are architects, landscape architects, or urban designers. Some communities have a standing list of design professionals with on-call contracts vetted through a normal selection process available to provide assistance. If a conflict is perceived, a list of approved consultants serves as a fallback to choose from. This can be especially helpful for communities who sometimes do not have the staff resources or time to perform a detailed review.
- **Review planning and zoning department application forms and submittal checklists, plan review schedule, procedures and review participants to ensure it is providing a thorough, timely response to development approval requests.**

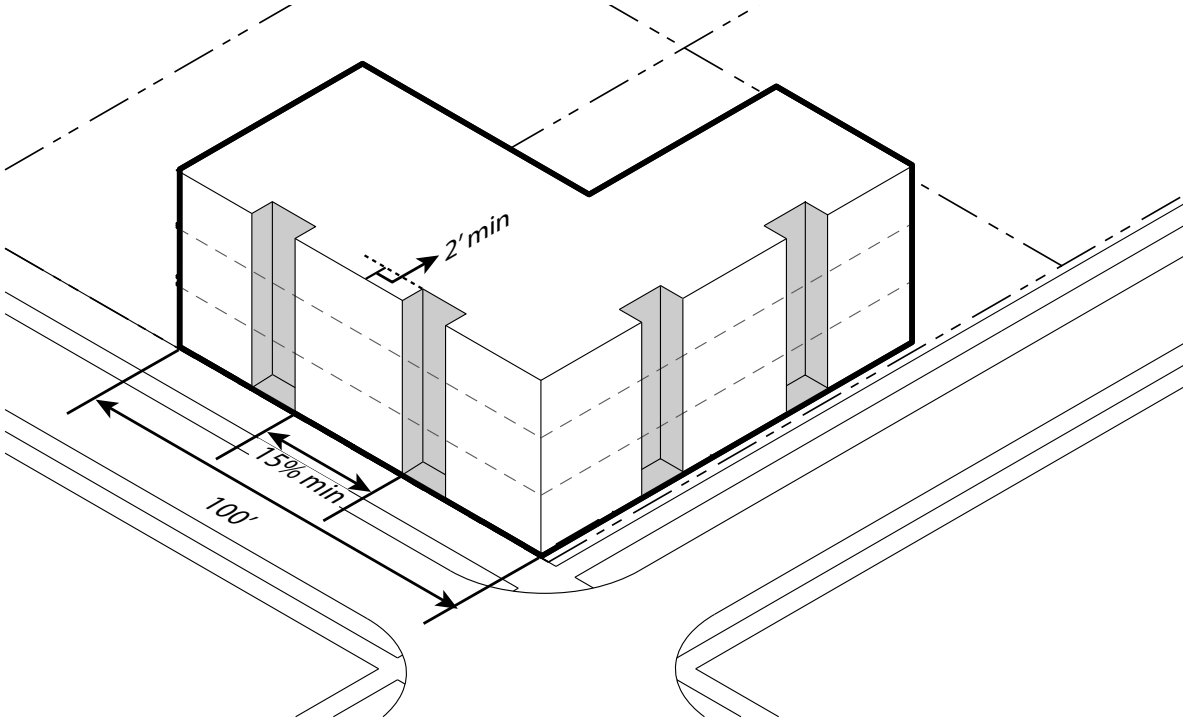


FIGURE 42: An Example of How to Illustrate the Variation in Depth and Width of Building Facades

In order to accomplish these desired outcomes, the current Lane Avenue PMUD was transformed from a set of general guidelines for improving the form and character of development to a set of specifically prescribed standards for creating an attractive and vibrant place for pubic gathering.

Lane Avenue Planned Mixed-Use District - Regulatory Framework

The revised Lane Avenue PMUD is made-up of two components of the built environment: the private realm, which covers all privately owned land and improvements, and the public realm, which includes everything in the public right-of-way. Both of these "realms" along the corridor are subdivided into five context areas or sub-disrticts. Each context area is defined by its unique characteristics, such as block size, lot size, lot depth and width, and location relative to the surrounding residential neighborhood. Elements of both the private (building types, building frontage types) and public realm (open space and streetscape types) are assigned to each context area based on the overall vision for the corridor and its compatibility with the surrounding area (e.g. lower building height and increased setback adjacent to single-family residential properties). The following describes the intent behind each context area. Figure 44 includes a streetscape type recommended for a particular context area. Figures 45, 46, and 47 give examples of building, frontage, and open space typologies used in the Lane Avenue PMUD. See the appendix for a more graphic depiction of each context area.

East Gateway

Intent: To reinforce and enhance the downtown urban core and provide the highest-intensity, vibrant, compact, and walkable urban environment. Encourage a variety of building types with active pedestrian street facades and a diverse range of uses supported by active ground floor frontages. A wide range of regional center appropriate uses, including employment, retail, services, civic, or public uses should also be encouraged.

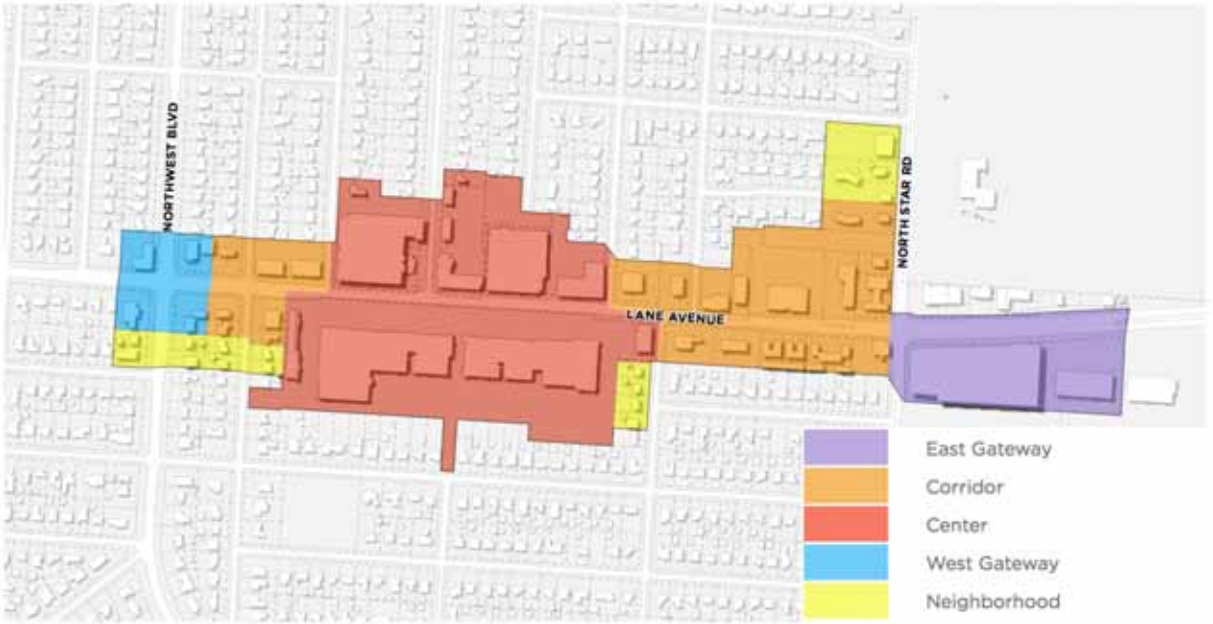


FIGURE 43: Proposed Sub-Districts Diagram

Corridor

Intent: To enhance the City's existing corridors so that over time they will become more walkable and serve multiple districts with a diverse range of commercial, retail, service, and office uses. Building types should include small to large footprint buildings wih moderate-intensity. This zone also supports public transportation hubs.

Center

Intent: To reinforce a vibrant, compact, walkable, urban center that serves the community and the overall region with a diverse range of uses in a variety of building types with active pedestrian street facades on multiple frontages.

Neighborhood

Intent: To reinforce established neighborhoods in walkable urban areas. Neighborhoods will evolve through the use of small-to-medium building footprints and medium intensity building types to achieve a compact urban form that accommodates a variety of urban housing choices. This zone also supports public transportation alternatives.

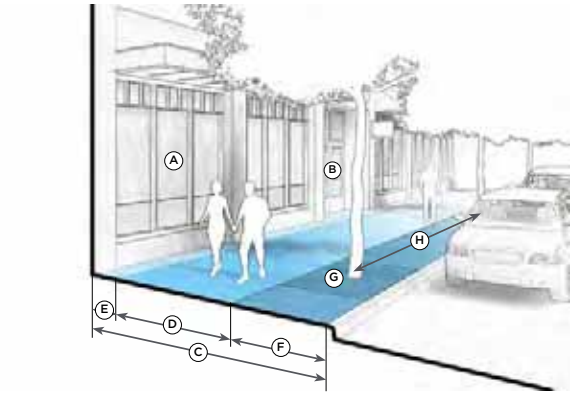
West Gateway

Intent: To provide walkable, urban neighborhoods with a variety of urban housing choices in small to large footprint, medium-intensity building types that support and are within short walking distance of neighborhood-serving commercial and service uses. This zone also supports public transportation alternatives.

WEST GATEWAY SUB DISTRICT

LANE AVENUE PLANNED MIXED-USE DISTRICT

(7) **Public Realm.**



FENESTRATION		
A	Ground story	70" min Front Facade, 40% min Corner Side Facade
	Upper story	25% min Front and Corner Facade
	Blank wall length	10% max Front Facade, 20% max Corner Facade

STORY HEIGHT		
	Finished Ground Floor Level	1.50' min / NA max
	Ground Floor Story Height	24' max
	Upper Floors Story Height	12' max

PEDESTRIAN ACCESS		
B	Entrance Facing Primary Street	Required

SETBACK		
C	Primary Street	15' min / 25' max
	Secondary Street	15' min / 20' max

SIDEWALK AND FRONTAGE ZONE		
D	Primary Street Clear Pedestrian Zone	8' min
	Secondary Street Clear Pedestrian Zone	6' min
E	Primary Street Frontage Zone	2' min
	Secondary Street Frontage Zone	2' min

STREET TREE / FURNITURE ZONE		
F	Street Tree / Furniture Zone Depth	
	Primary Street	5'
	Secondary Street	5'
G	Street Tree Planting Type	
	Primary Street	Tree grate connected with structural soil or suspended pavement
	Secondary Street	Tree grate connected with structural soil or suspended pavement
H	Tree Spacing	25' or consistent with nearby existing spacing

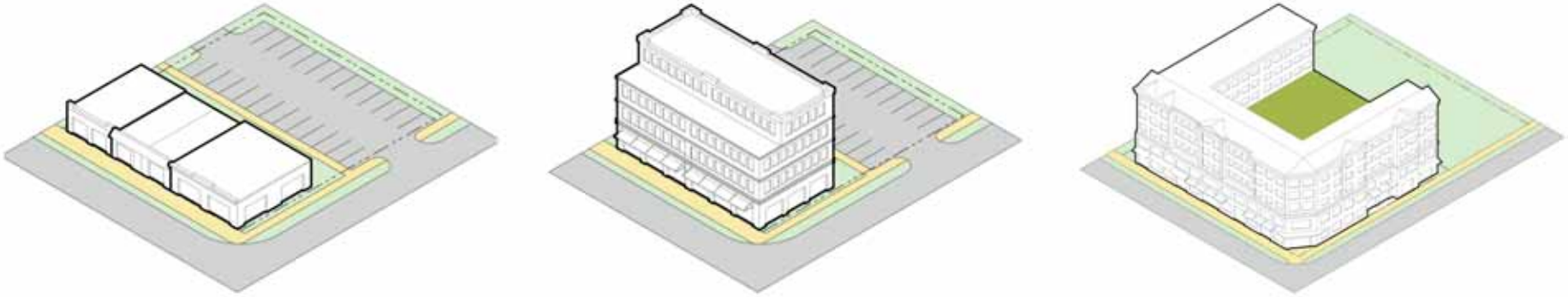
FRONTAGE ALLOWED		
	Patio	Shopfront

Lane Avenue PMUD

DRAFT

FIGURE 44: Streetscape Type within the Public Realm in West Gateway Sub-district

FIGURE 45: Lane Avenue PMUD Building Typology Examples

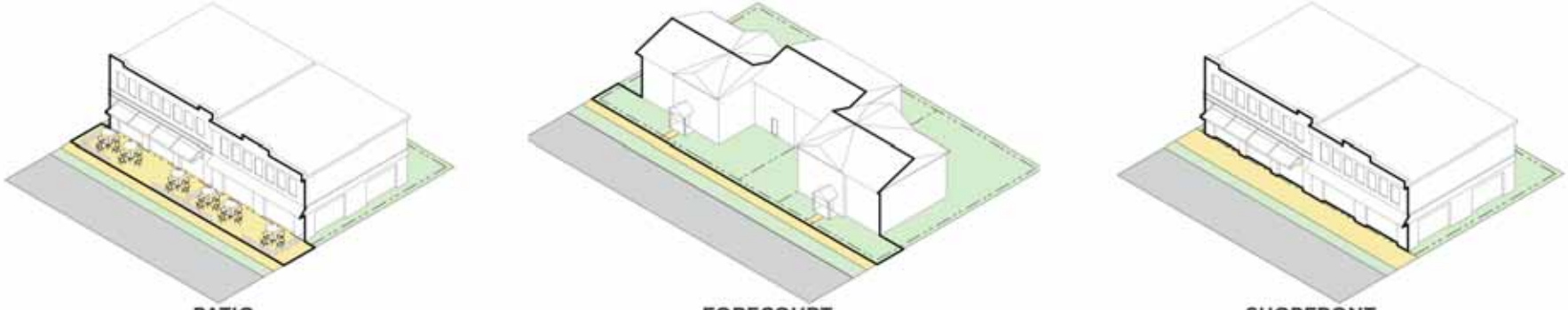


SMALL FLEX BUILDING

STEP-BACK BUILDING

ROOFTOP COURTYARD

FIGURE 46: Lane Avenue PMUD Frontage Typology Examples



PATIO

FORECOURT

SHOPFRONT

FIGURE 47: Lane Avenue PMUD Open Space Typology Examples

SQUARE

GREENWAY AND TRAIL

PARK

Opportunity Sites

The Framework Plan identifies several key sites as opportunity sites that can serve as catalysts for future development. These sites were carefully studied and have great potential to shape the built form and character of the corridor.

FIGURE 48: Potential Opportunity Sites Diagram

1. With the Gateway project potentially underway and Ohio State West Campus expansion planned, this site possesses great opportunities for future development and establishes a critical connection between West Campus and Upper Arlington. Currently, it is used as a retail center with a parking lot in front. Sidewalks are absent, which creates an uninviting environment for pedestrians.
2. This site is located at the eastern entrance to the City from Lane Avenue. There is great potential to consolidate the existing curb-cuts and envision a more dense and intense development.
3. This site is currently occupied by one story retail buildings with suburban appeal. When opportunities rise, a multi-story building with a mix of uses should be considered for this location.
4. This site is The Shops on Lane Avenue and is a retail shopping center with a mix of stores. The anchor stores contribute to a great number of vehicular trips but limited pedestrian traffic. Given its central location and the parcel size, there is potential to transform this site into a more compact and urban environment, with well-defined building forms and pedestrian-oriented uses.
5. This site is currently occupied by one-story buildings with retail and office uses, and will be Ohio State Bank in a short term until parcel assemblage. Approximately half of the site is used for surface parking. When opportunities rise, multi-story lower density development should be considered to align with the surrounding neighborhood.
6. Located in the West Gateway Sub-District, this site could be well-suited to support lower density development which should be designed to be compatible with the surrounding neighborhood and create a more seamless transition.

Streetscape Implementation

With Lane Avenue's rapid development and densification, Upper Arlington is in a prime position to leverage corridor investment from both public and private sectors to realize the streetscape vision. Each parcel has been analyzed and reviewed to understand whether it currently has a development project in the pipeline, is projected to redevelop within the near future, or is anticipated to remain as is. Three potential improvement catalysts have been identified, including:

1. **Development Improvement** - These properties are projected to redevelop within the near future. Adoption of the streetscape standards will mandate implementation of the corridor vision as part of building construction.
2. **Capital Improvement** - These properties are projected to remain in their current state without significant building improvement. In order to advance the corridor vision, these frontages should be implemented as capital improvements from the City. Where right-of-way is limited in size, easements should be considered to allow cohesive streetscape improvement.
3. **Public Private Partnership** - Through partnerships between the City and private property owners, the responsibility for a better public realm is shared. A collaborative approach should be used in order to fund, implement, and maintain the improvements. This is a suitable strategy for projects that have progressed through design and/or construction and adoption of new standards would create a hardship on the developments.

Potential Funding Sources

Improvements should include an exhaustive search for potential funding mechanisms to cover or share in the costs of improvements. Such sources may include:

- Special Improvement District (SID)
- Tax Increment Financing District (TIF)
- CDBG Block Grant program
- State and Federal grants and loans, including those related to transportation, mobility, utilities/ infrastructure, and downtown redevelopment.

FIGURE 49: Proposed Streetscape Improvement Catalyst Diagram

Implementation Matrix

The table on this page provides a list of plan implementation priorities. Since funding options or other opportunities may change over time, this implementation matrix should be evaluated periodically as needed.

The implementation matrix identifies a potential timeline based on feasibility and priority, including immediate-term, near-term, mid term and long-term and can be used to guide the City's 10-Year Capital Improvements program for the Lane Avenue area. In the meantime, it indicates potential partners, such as public agencies, stakeholders, and organizations.

ACTIONS	IMMEDIATE-TERM	NEAR-TERM	MID	LONG-TERM	POTENTIAL FUNDING SOURCES	POTENTIAL PARTNERS
Adoption of the Revised Lane Ave PMUD	●				--	--
Improvements to Lane Ave Streetscape		●			City, Developers	Developers
Improvements to North Star Rd and Northwest Blvd Streetscape			●		City, Developers	Developers
Improvements to Neighborhood Streets Streetscape				●	City, Developers	Private Land Owners, Neighborhood Organizations
Improvements to Intersections		●			City	Developers
Improvements to Gateways			●		City	Developers
Improvements to Thresholds at Key Locations			●		City	Private Land Owners, Neighborhood Organizations
Dedication and Improvements to Open Space				●	City, Developers	Businesses, Developers, Private Land Owners
Improvements to Roadway Infrastructure		●			City	Developers
Development of Parking Facility				●	City, Developers	Businesses, Developers

FIGURE 50: Implementation Matrix

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04

APPENDIX

04 APPENDIX

APPENDIX TABLE OF CONTENT

10.16.19 | **LANE AVENUE PLANNING STUDY**
Community Engagement Memo

Community Engagement - Round 1

OVERVIEW

As the City's most rapidly evolving commercial district, the Lane Avenue Planning Study has been initiated to help the City better understand the impacts of future growth and put in place a framework to guide this growth in a way that best benefits the community. The study includes two phases of citizen engagement, providing opportunities for residents to learn about the significance of the business district for Upper Arlington's future and to provide input on what they believe should be priority considerations.

The first round of public engagement recently concluded. This memorandum includes all results from the public engagement as well as key findings that will inform future phases of the study.

ENGAGEMENT EVENTS

The Lane Avenue Planning Study is intended to reflect the desires of the local community. To help accomplish this, the first round of engagement provided a variety of opportunities to participate in order to increase convenience and accessibility for those interested in the study. Events included an Open House, pop-up meetings at Crimson Cup and Whole Foods located on Lane Avenue, focus groups with local stakeholders, and an online survey.

ENGAGEMENT BY THE NUMBERS

60+ people	**Open House**	(9/18)
6 meetings	**Focus Group Meetings**	(9/25)
70+ people	**Pop-Up Meetings**	(9/26)
1,887 respondents	**Online Survey**	(10/1-10/13)

Appendix A. Engagement Memo

KEY FINDINGS - COMMUNITY ENGAGEMENT

- Identity/Character. While participants were conflicted on the identity of Lane Avenue (old vs. new), there was a consensus for traditional, timeless, and durable building materials.
- Outdoor Dining/Gathering Spaces. People desire places along Lane Avenue for outdoor dining and informal gathering.
- Walkability. The community is aligned on the need to improve the walkability and safety of Lane Avenue.
- Traffic/Congestion. Traffic flow along Lane Avenue is a major concern, especially as redevelopment continues.
- Bikeability. Although bicycle safety is a concern now, there is support for bike amenities and connections.
- Downtown. Many view Lane Avenue as the downtown of Upper Arlington and/or a significant mixed use district that offers a live, work, play environment.
- Boundaries and Buffers. There is a need to clearly define the perimeter of the commercial district and adequately buffer development and traffic from residential neighborhoods.
- Consistent Building Character. Building architecture and design should be consistent and complementary throughout the corridor, with distinct massing and timeless character.
- Signage with Natural Materials. Traditional signage with stone, brick, metal, and other natural materials is preferred.

COMMUNITY ENGAGEMENT ACTIVITIES

Seven activities were available at the Open House and many of these stations were replicated for the Pop-Ups and online survey, where feasible. The stations assessed thoughts, preferences, and values on topics related to streetscape, development, and transportation. On the following pages, complete results from all round one engagement are shared. Stations included:

- Future Wall*
- Big Map Table
- Rating Station*
- "This or That?" Station*
- Streetscape Elements Board*
- Branding and Wayfinding Preference
- Building Character Preference

*A version of these stations was available at the Pop-Ups and for the online survey.

Note about hand-writen and online comments: All comments are provided as-is and have not been corrected for spelling errors. Some information, such as names, emails and inappropriate language has been redacted.

Community Engagement - Round One

"A place to be around other people."

--Participant's vision for Lane Ave

Appendix A. Engagement Memo

1A. What do you want Lane Ave to be in the future?

Open House

- Interactive building designs that allow residents to frequent assorted businesses. IE. The opposite of the hotel that was built. It's a wall on Lane and not interactive.
- A gathering place for residents. (1)
- A cohesive development w/ street friendly design and landscaping. (2)
- With safe/easy walking. (1)
- A mixed use development that people work, live, + play, that also invite visitors. A downtown UA feel. Eating, walking, gathering. Lots of restaurants, fun stores, lots of art. (1)
- A place to be around other people.
- A safe and inviting neighborhood for residents and visitors.
- Energy efficient buildings – solar, wind, etc.
- The look of Old Arlington – walking space, plantings, variety. (1)
- No tax abatements for developers. (6)
- Town center / vibrant.
- Safe from traffic. (1)
- I want to feel safe + welcomed, whether walking my dog at 9pm and seeing diners and people eating ice cream – or at 4 in the afternoon – make me feel like "all are welcome here." (1)
- An outdoor Wi-Fi network for the kids / teens.
- Pet friendly.
- Someplace we want to go and spend our $ in US (dining/shops)
- More business variety!
- Keep existing UA zoning – don't tear down any more homes. (4)
- Branden -> NW, N side of street, mirror style of wine bistro (1)
- Income generator through a rich mix of vulture, space, design, and mixed use.
- A few years ago, sewage spilled into people's yards and into my neighbor's basement. (corner of North Star + Cardiff) It came from the Pizza Hut on that corner this is now being developed. The sewer lines need to be upgraded! (2)
- Maybe a mini Short North or Grandview Ave? (1) (No 2)

Pop-Ups

- More EV charging stations
- Efficient traffic flow! (2)
- ADA (Wheel chair) friendly ramps (No bumps)
- No more banks (1)
- More walkable (4)
- Gathering places (1)
- New builds in the style of UA homes
- More bike-able (2)
- More character in buildings on Lane – No more boxes!
- Kid friendly (1)
- Keep existing building heights/skyline! (1)
- Develop better parking multi-level – space too valuable
- Walkable – 25 mph – parking in front of Lane Ave & turn into public space
- Bikeable – UA has a grand opportunity to be grand
- Cycling on Lane is aggravating

- Safer for pedestrians + cars (humans)
- Walkable to restaurants
- Connectivity from neighborhoods to Lane (walk +bike)
- Town Center / Gathering
- Street Music / Busking
- We use the Mt Holyoke Gate all the time!!
- Scioto Mile – Kalamazoo; ped only on car limited street
- Community should be pedestrian Focused, not car focused b/c of neighborhoods
- Green public space, walker's paradise
- Enjoyable outdoor dining – not exposed to 35 mph traffic & noise

Online Survey Responses to this question are included at the end of this memo.

1B. What needs to happen to achieve your future vision for Lane Ave?

Open House

- Non-motorized prioritization
- "Stay UA" -> Create model for our elders to utilize/shop safely (5)
- I love density of Lane
- Traffic control west of Northwest
- It has to maintain protection for the existing neighborhood- north of lane needs not be a parking lot. (1)
- Need some notification of how far new development cuts into neighborhoods.
- Cooperation w/ the owners of Lane Ave. Shopping Center.
- More brick – less concrete. (2)
- Fewer overhead wires. (7)
- Sidewalks/crossings. (1)
- Sidewalk from N. Star to 315 & OSU for concerts and assorted games and activities
- Trees, concealed parking (adequate), pedestrian friendly (7)
- More trees and greenspace (5)
- Water feature (1)
- Remove all home on lane Ave. NW Blvd. -> N Star
- Beautiful night lighting (2)
- Do not deflect traffic to residential streets. (2)

Appendix A. Engagement Memo

- Stop tearing down homes / keep existing lines & don't let city staff/council rezone (2)
- Well done mixed use / good lighting & landscaping
- Crosswalks, smart plans for traffic flow & building placement that keep pedestrians safe (2)
- Traffic control into residential areas (Lane Ave other streets)(1)
- More one floor living – apartments or condos – walk to shops, restaurants. It needs to be easily accessed by all of UA (2)
- No more brick boxes (as architecture "style")
- Road diet to 33
- Pedestrian medians
- Traffic Planning including surrounding roads – don't create cut throughs!

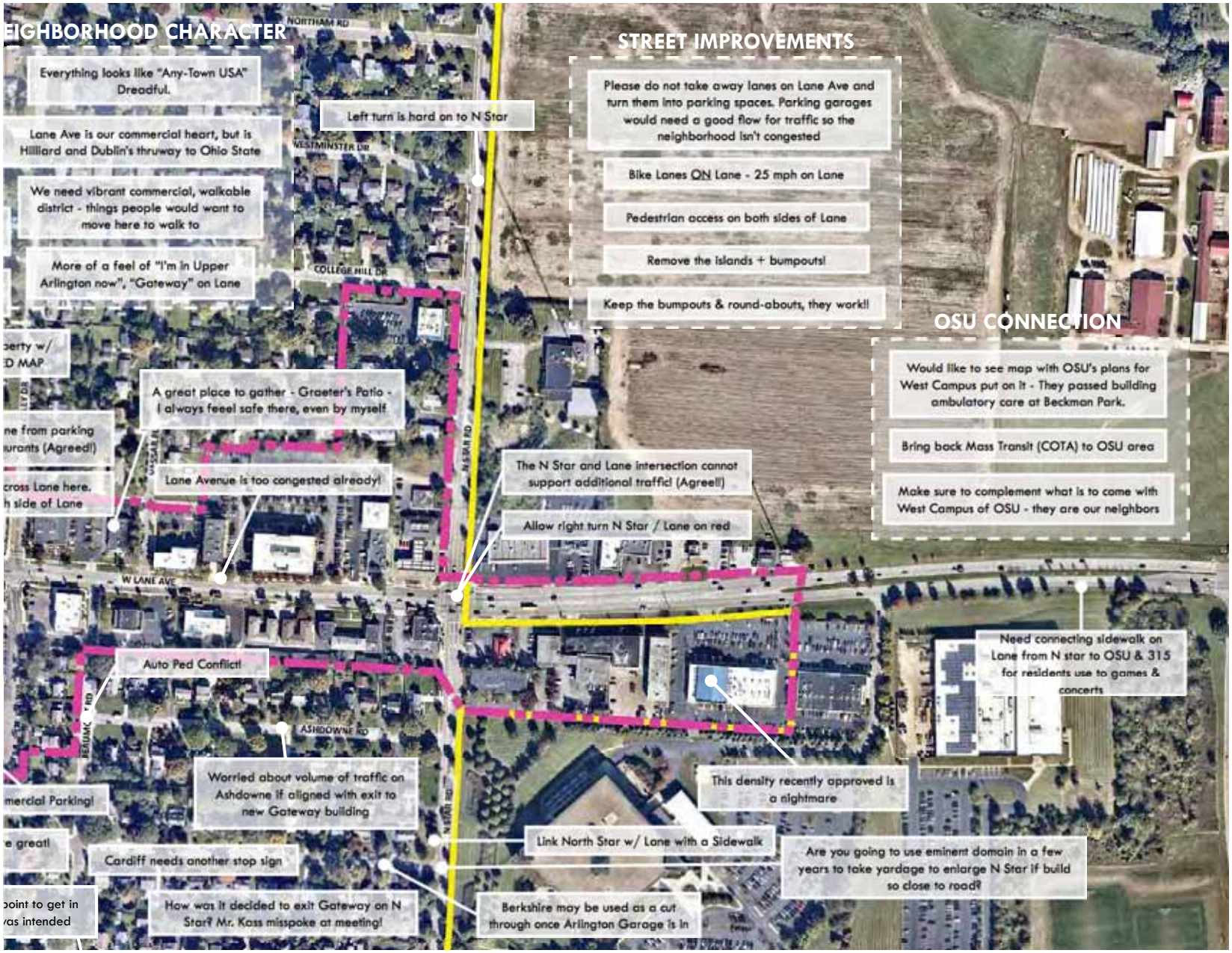
Pop-Ups

- Stop using tax $ to subsidize your favorite businesses
- Crosswalks + wider sidewalks
- Stop tearing down homes! (2)
- Use existing zones – no new zones *keep existing rezoning (3)
- Green spaces (2)
- Bike lanes, racks (3)
- Repaved Lane Ave
- Fewer zoning laws
- More crosswalks – push buttons – lower speed (1)
- Bike respect – signs – sharrows
- Mass traffic – decongestion – pedestrian friendly – more small, unique biz/ entertainment (1)
- Make connections to Lane from neighborhoods (biking) (1)
- More restaurants & entertainment (1)
- Bike-friendly lanes (traffic currently too heavy/fast)
- Neighborhood commission
- Make parking behind "The Lane" more known – signage
- Dedicated bike lane
- Crosswalks!!
- More public parking – Also* accommodate employees
- Green initiative: storm water, building performance
- Similar high density corridors: 3rd street promenade, Santa Monica – Bridge Park – High Street, Worthington – Los Olas Blvd – Lincoln Ave, Miami Beach
- Add mass transit
- Make Lane Ave bike-friendly
- Limit # of accesses into mall to encourage use of rear parking
- Pedestrian crossing, flashing warning sign
- Eco-friendly waste Management
- Outdoor patios not in parking lot
- 25 mph from Tremont East
- Improved bike environment – minimize the cars on the street
- Better &more street crossings –more pedestrian focus- car = inconvenience
- Lower speed limit
- Recycling

Online Survey Responses to this question are included at the end of this memo.


2. Have a suggestion or something to share about Lane Ave? Please place a post-it on the map to leave a comment.
ZONING APPREHENSION
Keep the lines the where they are
Don't tear down our houses
Keep the lines the where they are! Don't let staff allow them to move
Keep Lane Ave as boundary
STOP moving the lines!
Maintain zoning boundary as is!
STREETSCAPE CHARACTER
Remove slated sidewalks that abut the street, not safe!
Add bar stoplights. No wires (Yes) (Yes)
Safer crosswalks for walking, biking
Wide sidewalks | Consistent Treeline (Yes)
Leave Brandon Houses alone
Have specific zoning laws for developers for future UA projects
UA should inform neighbors if developers are buying in this area
Leave our houses alone (No rezoning)
Parking on both sides of N Andover Rd
Bike Lanes from Tremont to Northwest
Fix the Chester Light, almost never turns green!
This traffic light is so frustrating (Yes!)
Remove 2 story houses @ SW corner + Westmont + Lane Ave
25 mph from Tremont to N star (Yes!)
Ban large truck thru-traffic on Lane (Yes!) (Yes!) (No!)
Get rid of this bump in the road by Jack Siebert's
Need safe ways to cross Lane here. Crosswalks on south side of Lane
Ban Trucks from using Lane!
Make this a 4-way stop
Open this as an exit/entrance like it was designed in the 80's
Add more pedestrian-friendly cut-throughs like here. These help lead pedestrians to the corridor
Dont open this up to vehicular traffic
Make this a 3 way stop. More stop signs on Berkshire
W LANE AVE
WILSHIRE DR
BERKSHIRE RD
CHATFIELD RD

Appendix A. Engagement Memo



Community Engagement - Round One

3. What's your current experience on Lane Ave? Select a rating for each question to let us know.

RANK	QUESTION	AVERAGE
1	How safe do you feel walking in the area?	3.59
2	How important is it to have outdoor dining areas?	3.50
3	How important is it to drive without delay along Lane Ave?	3.36
4	How important is it to have a park or public gathering space in the area?	2.69
5	How easy is it to find parking in the area?	2.51
6	How safe do you feel biking in the area?	2.03
7	How often do you walk in the area?	1.92
8	How often do you bike in the area?	0.97
9	How often would you use transit (bus) to get to and from the area if it was available?	0.88
10	How often do you use ride sharing (Uber, Lyft) to get to the area?	0.56

Gray denotes feedback was received at only the Open House and the online survey.

Pink denotes feedback was received at the Open House, online survey, and Pop-Ups.

How often do you walk in the area?

0	1	2	3	4	5
886	9	289	287	6	445

Very Infrequently *"I do not walk."*

Moderately Frequent *"Sometimes I walk."*

Very Frequently *"I walk all the time!"*

How safe do you feel walking in the area?

0	1	2	3	4	5
137	5	398	392	28	960

Very Unsafe *"I do not feel safe"*

Moderately Safe *"I feel fairly safe."*

Very Safe *"I feel completely safe."*

How often do you bike in the area?

0	1	2	3	4	5
1347	4	172	178	4	188

Very Infrequently *"I do not bike."*

Moderately Frequent *"Sometimes I bike."*

Very Frequently *"I bike all the time!"*

How safe do you feel biking in the area?

0	1	2	3	4	5
640	27	402	407	3	317

Very Unsafe *"I do not feel safe"*

Moderately Safe *"I feel fairly safe."*

Very Safe *"I feel completely safe."*

Appendix A. Engagement Memo

How often would you use transit (bus) to get to and from the area if it was available?

0	1	2	3	4	5
1156	279	159	205	77	31
Never *"I would not use transit."*	**Very Rarely** *"About once every 6 months."*	**Rarely** *"About once every 3 months."*	**Occasionally** *"About once a month."*	**Frequently** *"About once a week."*	**Very Frequently** *"About once a day."*

How easy is it to find parking in the area?

0	1	2	3	4	5
317	1	618	618	11	321
Very Difficult - *"I have a very difficult time parking.*		**Moderately Easy -** *"I can find parking but it takes effort."*			**Very Easy -** *"I can always, easily find parking."*

How often do you use ride sharing (Uber, Lyft) to get to the area?

0	1	2	3	4	5
1336	280	109	141	31	4
Never *"I would not use transit."*	**Very Rarely** *"About once every 6 months."*	**Rarely** *"About once every 3 months."*	**Occasionally** *"About once a month."*	**Frequently** *"About once a week."*	**Very Frequently** *"About once a day."*

How important is it to have a park or public gathering space in the area?

0	1	2	3	4	5
495	5	388	399	24	633
Very Unimportant *"This is not at all important."*		**Moderately Important** *"This is somewhat important"*			**Very Important** *"This is extremely important!"*

How important is it to drive without delay along Lane Ave?

0	1	2	3	4	5
218	9	398	394	11	869
Very Unimportant *"This is not at all important."*		**Moderately Important** *"This is somewhat important"*			**Very Important** *"This is extremely important!"*

How important is it to have outdoor dining areas?

0	1	2	3	4	5
239	0	344	349	25	1007
Very Unimportant *"This is not at all important."*		**Moderately Important** *"This is somewhat important"*			**Very Important** *"This is extremely important!"*

4. For each question, share what is most important to you.

Which of the following conditions do you value more for Lane Avenue?

Efficient vehicular traffic flow	**Safer pedestrian experience**	**Surface Parking**	**Structured parking with community gathering space**
THIS? 1,059	907 THAT?	THIS? 669	1,266 THAT?
A place that serves as the downtown of Upper Arlington with community gathering space	**A general mixed-use corridor**	**Buildings with similar styles or character**	**Varying buildings with indistinct styles or charcter**
THIS? 1,011	938 THAT?	THIS? 1,097	836 THAT?

Gray denotes feedback was received at only the Open House and the online survey.

Pink denotes feedback was received at the Open House, online survey, and Pop-Ups.

Appendix A. Engagement Memo

Which of the following conditions do you value more for Lane Avenue?


Outdoor dining with enclosure

Would you like to see more outdoor dining/ seating?

YES!	NO..
1,485	2

Do you prefer this type of outdoor dining?

YES!	NO.
722	1,153


Outdoor dining without enclosure

Do you prefer this type of outdoor dining?

YES!	NO..
1,446	435

Do you prefer this type of outdoor dining?

YES!	NO..
1,127	764


Outdoor dining next to street

Do you prefer this type of signage style?

YES	NO.
1,701	182

Do you prefer this type of signage style?

YES!	NO.
1,247	632

Do you prefer this type of signage style?

YES	NO.
1,006	881

Community Engagement - Round One

5. Which following streetscape elements are most important to you? Please select SIX elements.

RANK	STREETSCAPE ELEMENT	OPEN HOUSE VOTES	POP-UP VOTES	ONLINE SURVEY	TOTAL VOTES
1	STREET LIGHTING	26	32	1,351	1,409
2	STREET TREES	27	40	1,294	1,361
3	SIDEWALK DINING/SEATING	23	33	1,191	1,247
4	ENHANCED CROSSWALKS	33	25	1,187	1,245
5	PARKING LOT BUFFERS	27	18	820	865
6	TRASH RECEPTACLES	9	13	824	846
7	BASKETS	15	11	772	798
8	BENCHES	24	7	662	693
9	PLANTER POTS	17	12	648	677
10	PUBLIC ART	16	21	617	654
11	SIGNAGE/WAYFINDING	8	4	493	505
12	NON-MOTORIZED INFRASTRUCTURE	10	6	323	339
13	GATEWAYS	17	6	159	182
14	BUMP OUTS	2	13	154	169
15	OTHERS	3	14	128	145
16	BANNERS	2	0	126	128

Appendix A. Engagement Memo

Top Streetscape Elements

1. Street Lighting


4. Enhanced crosswalk


2. Street Trees


5. Parking Lot buffers

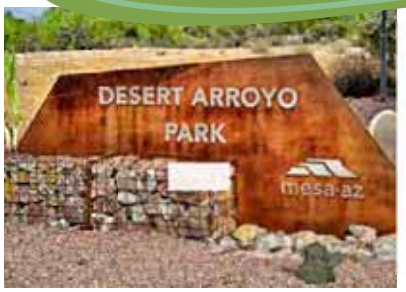


3. Sidewalk dining / seating


6. Trash Receptacles


6. What is your preferred character for branding and wayfinding signage for Lane Ave?

Pink denotes top three preferred signage types.

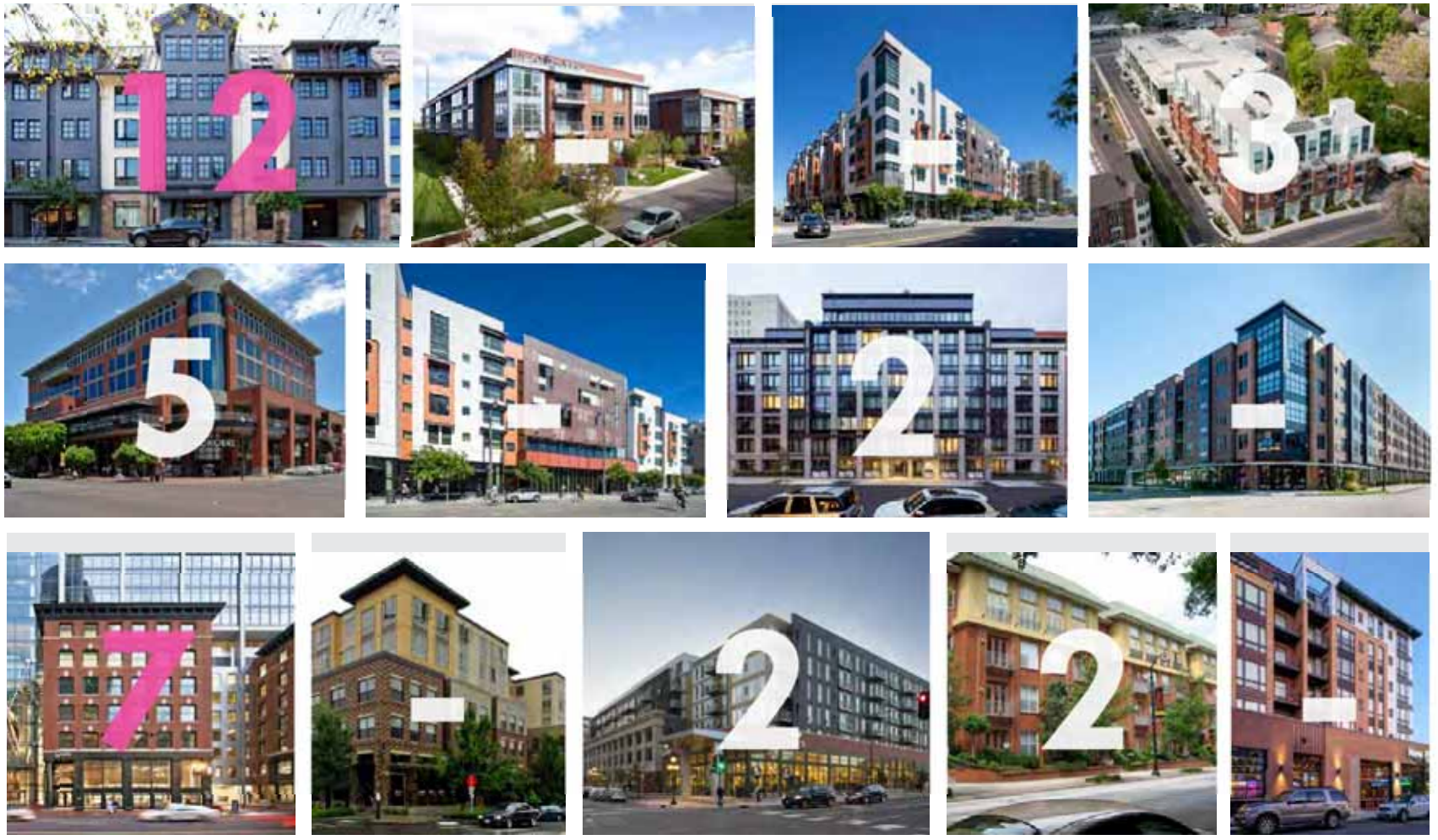


Appendix A. Engagement Memo

7. What is your preferred building character for Lane Ave? Use a dot to show buildings that you really like (building heights not applicable).

Pink denotes top three preferred character types.

Appendix A. Engagement Memo



Appendix B. Market Studies

Office Market Studies

INTRODUCTION

Figure 1: *Aerial photo of the Lane Avenue corridor study area. The study area has the potential to support up to 260,000 sf of additional office development by 2024.*

Executive Summary

This study finds that the Lane Avenue corridor study area has the potential to currently support up to 220,000 square feet (sf) of additional professional office development. By 2024, the positive impact of continued employment growth in the region could help the total office development potential reach 260,000 sf of professional and local-serving office. This demand is in addition to the office space that will be included in the forthcoming Arlington Gateway and Lane II developments. In addition, the Lane Avenue district could be potentially support up to one million square feet of new office development seeking proximity to the proposed The Ohio State University West Campus research center, if it is fully implemented as planned. However, this amount of new office space would likely require building densities, heights and public parking structures that may not be realistic by the City or community.

Demand and attainable capture are likely highest for two- and three-story professional office buildings with small to medium sized floorplates targeted to professional tenants in healthcare,

wellness, finance and related technical professions. The potentially walkable mixed-use town center approach to overall project design could be a competitive advantage for the Lane Avenue corridor over its more conventionally suburban competitors.

Proximity to The Ohio State University and the OH-315 and I-70 highway interchange may allow the office market potential to exceed projections by attracting significant regional tenants. Upper Arlington is also strong in terms of proximity to stable and growing residential neighborhoods; An achievable source of both customers and tenants. Professional Class-A or 4-5 Star office development in the Lane Avenue Corridor may potentially achieve triple-net annual rents up to $26 to $28 per sf by 2024 while local-serving office rent potential could range up to $18 to $22 per sf (in constant 2019 dollars).

The under representation of Upper Arlington in the regional office market and the notably low vacancy rate for office space suggest there is the potential for considerable pent-up demand for new office which could be captured in the Lane Avenue corridor study area.

Background

As part of the Lane Avenue corridor study, Gibbs Planning Group, Inc. (GPG) has been retained by OHM Advisors as a subconsultant to conduct a office market potential analysis to determine how much office development may be supportable within the study area. The Lane Avenue corridor study area is in the city of Upper Arlington, located to the immediate west of both the City of Columbus and The Ohio State University. To expand commercial uses, Upper Arlington is undertaking redevelopment of existing sites through projects such as the Golden Bear Redevelopment, Arlington Gateway and First Community Village. Additionally, the city has begun to study development along Lane Avenue. This analysis is intended to provide an understanding of the office market potential of the Lane Avenue Corridor, situated in south Upper Arlington, by 2024.

The proximity to The Ohio State University and other major destinations and employers in Columbus is anticipated to be a major advantage over other locations in the market. The Ohio State University's plans to expand its West Campus into an "innovation district", which lies directly east of the study area, could significantly impact the demand for office development. Planned developments include a 340,000 square-foot medical facility, and 270,000 square-foot interdisciplinary research facility, and a 270,000 square-foot energy innovation center. Additionally, the school envisions this district to be organized around a central main street with cafes, restaurants, offices and housing. It should be noted that this district would be developed over decades and at this early point the ultimate number, type, size and quality of its tenants remains unknown. This office market study is based on existing demand and does not include this expansion of The Ohio State University campus. However, if the West Campus district becomes an exceptional mixed-use destination, it could impact the amount of office development ultimately supportable in the Lane Avenue corridor study area.

This analysis considers current market conditions and trends to estimate a potential office demand for the study area, given its site characteristics and competitive position. Due to the preliminary nature of the analysis, estimates and recommendations shown here focus on a 2024 time horizon.

Appendix B. Market Studies

Office Market Studies

Figure 2: *OSU plans future mixed-use development along Lane Avenue (left) including an interdisciplinary research facility (right). (Source: OSU)*

Methodology

Fundamental demand for office space in an area is a function of the level of employment across a broader surrounding market area. Certain industry sectors, such as finance, professional services and information will need nearly all employees to be working in offices, while firms in other industries may require relatively little office real estate. Projected job growth in office-intensive sectors is the primary predictor of future office demand. In areas where demand for office space is already higher than can be accommodated by existing office inventories (as evidenced by low vacancy rates and rising rents) there may also be pent-up demand for immediate construction.

The present analysis begins with a discussion of the context locale, evaluated in terms of a variety of factors influencing office development suitability. Local and regional demographic and economic factors likely to affect the current and future office market are collected, including specific competitive supply conditions such as occupancy, rents, construction activity and absorption. Planned and proposed office projects in the area are then discussed.

After describing the existing market, a variety of sources are used to arrive at reasonable projections for growth in market area employment. With these forecasts, office sector penetration and space needs per employee are compared to determine the demand for new office space across the identified market area (including any pent-up demand). Informed by past trends, the subject study area evaluation and intelligence gathered on planned and proposed projects, this study arrives at a range of office absorption that can be reasonably attained at the study area by 2024.

Data sources used in the above analysis include publicly-available governmental sources such as the U.S. Census, Bureau of Labor Statistics, State of Ohio Labor Market Information, subscription demographic and commercial real estate data providers ESRI and Costar, as well as other published and on-line commercial real estate brokerage statistics.

Employment

The potential for additional office space in the study area is, in part, driven by employment growth. The City of Upper Arlington has a 2019 employment base of 17,660 workers, of which

approximately 15,300 are white collar workers. By 2024, employment is projected to grow overall in Upper Arlington, with around 830 additional office jobs.

It is also important to consider employment growth in the broader area which may be able to increase Upper Arlington's share of county and regional office employment. There are presently 650,000 workers in Franklin County, which is expected to grow by 88,300 workers by 2024. Office employment could account for the majority of growth with an estimated 42,000 new office workers expected in the county. The leading categories of office employment growth include health care and social assistance, educational services, professional, retail trade, scientific and tech services and real estate, rental and leasing.

Upper Arlington Market Area Employment Growth

Industry	Upper Arlington			Franklin County			Columbus MSA		
	2019	2024	+/-	2019	2024	+/-	2019	2024	+/-
Agriculture, Forestry, Fishing, Hunting & Mining	50	40	(10)	1,420	1,340	(80)	5,770	5,570	(200)
Transportation, Warehousing & Utilities	580	850	270	36,130	48,570	12,440	54,570	66,560	11,990
Construction	640	1030	390	25,910	28,060	2,150	49,300	54,090	4,790
Manufacturing	880	820	(60)	49,970	58,660	8,690	94,500	104,770	10,270
Wholesale Trade	480	510	30	18,880	19,350	470	30,660	32,460	1,800
Retail Trade	1,210	1,080	(130)	78,580	85,200	6,620	122,860	132,370	9,510
Information	300	210	(90)	15,200	15,720	520	21,840	22,800	960
Finance, Insurance, Real Estate, Rental & Leasing	1820	1,720	(100)	64,700	71,150	6,450	98,020	107,840	9,820
Professional, Scientific, Tech Services, Administrative, Support, Waste Management & Remediation Services	3,060	2,300	(760)	80,230	93,510	13,280	114,880	131,140	16,260
Education Services, Health Care & Social Assistance	6,250	7,830	1,580	158,620	180,410	21,790	242,940	271,920	28,980
Arts, Entertainment, Recreation, Accommodation & Food Services	970	990	20	64,310	78,680	14,370	92,490	108,380	15,890
Other Services	630	420	(210)	27,450	30,160	2,710	42,470	45,380	2,910
Public Administration	730	800	70	28,630	27,560	(1,070)	48,130	47,840	(290)
Total	**17,660**	**18,600**	**1,000**	**650,030**	**738,370**	**88,340**	**1,018,430**	**1,131,120**	**112,690**

Table 1: *Employment is projected to grow overall in Upper Arlington, offsetting the shrinking in some sectors. Growth in the county and MSA should also strengthen office demand in Upper Arlington (Source: ESRI, State of Ohio Labor Market Information).*

Demographics

Underlying demographic trends directly and indirectly impact new office potential – a growing population suggests continued demand for local services and a strong workforce appeals to firms who rely on filling open positions with talented workers. Upper Arlington is presently home to 36,100 residents living in 14,600 households. By 2024, the population is projected to grow to 37,300 residents in 15,000 households for annual growth rates of 0.65 percent and 0.63 percent, respectively. The growth rates in Upper Arlington are higher than the state figures, but slightly below the projected growth rates in Franklin County and in the Columbus MSA.

Office Market Studies

The median household income in Upper Arlington is $107,500 while the average household income is $150,900, demonstrating the impact of high-income earning households. Overall, 69 percent of households earn more than $75,000 per year. These income characteristics are notably higher than the region and state, indicating a favorable market for local serving offices providing services to these more financially robust households.

Well over two-thirds of Upper Arlington's working age adults are employed in white-collar professions. Approximately two-thirds of adults have earned a bachelor's degree or higher. These figures are associated with a favorable unemployment rate of just 2.7 percent. Each of these statistics exceed the figures noted in the comparison geographies. This further suggests that the underlying workforce could help attract professional office tenants to the study area. Similarly, business owners living in Upper Arlington but with office locations elsewhere may take advantage of the opportunity to locate closer to home.

Upper Arlington Market Area Demographic Comparison				
Category	**Upper Arlington**	**Franklin County**	**Columbus MSA**	**Ohio**
2019 Population	**36,100**	1,302,000	2,109,200	11,805,000
2024 Population	**37,300**	1,375,300	2,223,600	11,955,900
2019-24 Annual Population Growth Rate	**0.65%**	1.10%	1.06%	0.25%
2019 Households	**14,600**	532,000	828,300	4,729,700
2024 Households	**15,000**	562,400	873,700	4,798,400
2019-24 Annual Households Growth Rate	**0.63%**	1.12%	1.07%	0.29%
2019 Average HH Income	**$150,900**	$80,700	$85,300	$75,500
2024 Average HH Income	**$161,800**	$91,400	$96,300	$85,900
2019 Median HH Income	**$107,500**	$59,700	$63,000	$55,000
2024 Median HH Income	**$113,100**	$67,700	$72,500	$61,800
2019 HH Income $75K+	**69%**	40%	43%	37%
2019 Education Level, Bachelor's Degree or Higher	**77%**	40%	37%	28%
2019 Average Commute	**20.3 min**	21.8 min	23.7 min	23.4 min
2019 Employment, Occupation White Collar	**87.2%**	66.1%	64.9%	59.1%
2019 Employment, Occupation Services	**8%**	17.5%	16.9%	17.8%
2019 Employment, Occupation Blue Collar	**4.9%**	16.4%	18.1%	23%
2019 Unemployment Rate	**2.7%**	4.3%	3.9%	4.4%

Table 2: *Upper Arlington demonstrates strong incomes and a stable population. (Source: US Census, ESRI, US BLS)*

Upper Arlington/Grandview Office Submarket

The Upper Arlington/Grandview submarket has a healthy office demand, being bolstered by the overall health of the Columbus economy, and The Ohio State University and Nationwide's expansion into the area. The submarket stretches northwest from the Arena District in Columbus along the Scioto River up to McCoy Road on the north, bordered by OH-315 on the east and passing through Ohio State University's west campus. Outside of Nationwide, healthy demand in the submarket has vacancies at record lows, leading to strong rent growth. Space is predominantly

1- and 2-Star (2.1 million sf), with 1.9 million sf of 3-Star and 1.8 million of 4- and 5- star. Overall, office space is at a 4.1 vacancy rate, with a 3 percent growth in rent over the past year. The Upper Arlington/Grandview submarket has an inventory of 17 buildings, totaling 1.5 million sf.

Demand is positive in the submarket with 143,000 sf of net absorption in the past 12 months, the highest point since the market peaked in 2017. Vacancy presently sits just above 4 percent, the lowest point in the history of the submarket since 2000. The lowest vacancy rates are found in the submarket's limited 4- and 5-Star inventory (0.5 percent) and the highest rates are in the 1- and 2-Star space (9.5 percent).

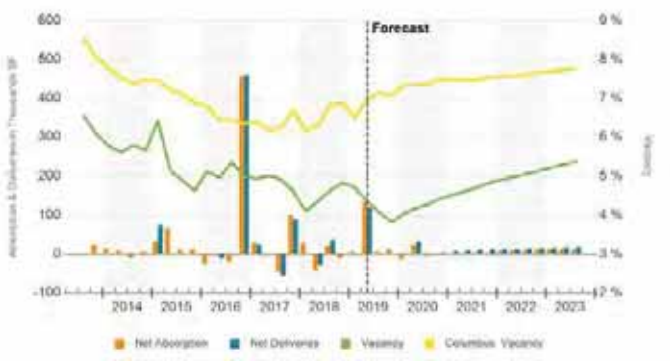


Figure 3: *Vacancy rates in the market and submarket remain near historic lows.*

Nationwide is the dominant user of office space in the submarket, occupying 20 percent of all available office space. While this is mostly in downtown Columbus, Nationwide's presence as a major corporation ripples into the Upper Arlington/Grandview submarket. The company relocated 3,600 employees into Grandview Heights, where they have constructed more than 500,000 sf of space. Demand from other entities, including The Ohio State University, has kept vacancies near record lows for several years. Absorption is close to 140,000 sf, and many leases this quarter were for small spaces less than 10,000 sf which had sat on the market for over 16 months.

Upper Arlington/Grandview is a high rent submarket, some of the highest in the metro region, averaging $19.80/sf. Rent growth is currently at a modest 3 percent, with a cyclical growth rate at 23 percent over the last five years, one of the strongest in the metro. Lower-rated space represents about a third of the submarket's office supply, with average rents about $18 per sf. The higher-rated spaces bring in nearly $24 per sf.

Appendix B. Market Studies

Office Market Studies

Steady growth has added 570,000 sf of new office space to the market since 2010, with only 34,000 sf currently under construction, indicating no risk for overdevelopment. The average year built for properties sold in the last 12 months range from 1951 to 1974. Sales totals for the cycle are around $105,320,000, with an average price of $67 per sf, which is low for the region. However, this past year, the average property sold for around $105 per sf. Historically, a single sale can cause the volume in a market to spike, but the jump from last year is due to increased market activity. Properties of all types have been selling at an increased rate over the past three years. Since 2000, close to $100 million has been invested in this area, and close to 30 percent of that has occurred since 2016.

New & Proposed Office Construction

Figure 4: *Arlington Gateway (left) and Lane II (right) are anticipated to add a total of 150,000 sf of office space.*

New office construction has a direct impact on the potential for new office development at the study area. Construction is currently underway for 20,000 sf of new professional office for the Lane II project, and an additional planned 130,000 sf of office space is proposed at the Arlington Gateway Project, also on Lane Avenue. With The Ohio State University expansion of West Campus into an "innovation district," it is also plausible that a major office component could spur the demand for additional office in the immediate vicinity and increase the potential for professional office space at the site.

Regional Economic Trends

The Columbus Region's economy has made significant strides over the past several years. Over the last decade, the region added nearly 164,000 jobs. Columbus' economy remains led by the education and health care sectors. Job growth in the healthcare insurance sector since 2006 has been well above the national average (49 percent and 30 percent, respectively). Notable local healthcare employers such as Nationwide, Cardinal Health, Aetna Inc., Express Scripts and UnitedHealthcare are major job providers. Anchored by The Ohio State University, innovation in healthcare is supported by an educated talent pool that feeds the larger ecosystem of research, digital health solutions and biomedical informatics.

The Ohio State University's West Campus "innovation district" is one example of long-term strength in the healthcare economy. The Wexner Medical Center West Campus Ambulatory

Center Facility will see an additional two new buildings (totaling 400,000 sf), including central Ohio's first proton therapy treatment facility, in partnership with Nationwide Children's Hospital.

Figure 5: *Grandview Crossing (left) and Plug and Grandview Yard (right) are positive signs of the local economy's improvement since the Great Recession.*

The finance sector is another of the Columbus Region's top economic outputs, as the area is home to global banking enterprises such as JPMorgan Chase & Co., Huntington Bancshares Incorporated, Discover Financial Services and PNC Financial Services.

Finally, Columbus' low cost of living has long been touted as a selling point for the metro. Columbus was recently ranked as third in the nation for the least time it takes for renters to become homeowners, and is one of the top best cities for millennials based on affordability, jobs and overall happiness.

Regional Office Market Trends

Demand for office space remains steady in the Columbus region. While net absorption in 2018 hit the lowest level since 2013, in 2019 the second quarter improved from the first quarter. Two-thirds of all vacant office space in the Columbus metro is located in suburban submarkets, and downtown has the best performance with a vacancy rate of 13.4 percent and net absorption for the current quarter at 131,000 sf.

In downtown Columbus, a recent delivery of 92,000 sf of space in the 711 North High Street building provides a glimpse into market trends. All but 10,000 sf of the building was pre-leased by Spaces (42,000 sf), Pillar Tech (25,000 sf) and Upstart Network (15,000 sf). In the Northeast Columbus submarket, vacancy dropped to 10.5 percent due to the leasing of 104,000 sf by Trinity Health at 3100 Easton Square, and 78,000 sf by Sarepta Therapeutics at 3435 Stelzer Road. The effective rent on this lease was $27 per sf plus electricity, substantially higher than average rents in the submarket but in-line with comparable leases in Key Tower.

Rents have started to level off slightly after increasing slowly since 2013. Rental rates in the Columbus Region should continue to grow at a modest rate. The suburban and downtown submarkets have about the same average asking rent per square foot, at around $20.

Appendix B. Market Studies

Office Market Studies

New regional office supply will come online through the rest of 2019 and into 2020. Six key buildings that are currently under construction include 196,000 sf at Dublin Bridge Park in the Northwest submarket, 99,000 sf at Easton Expansion Phase III in the Northeast submarket, 55,000 sf at Municipal Light Plant in the CBD, 46,000 sf at Moxy Hotel Mixed-Use complex in the CBD, 45,000 sf at Mercantile Tower in the CBD and 44,000 sf at 8100 Walton Parkway in the Northeast.

Summary of New Office Potential

Figure 6: *New office development in a walkable town center would contrast much of the suburban office space available in the market and potentially increase Upper Arlington's share of the regional office market.*

By 2024, new office potential for the Lane Avenue Corridor could reach up to 260,000 sf of professional office, including 100,000-120,000 sf of local-service office and 150,000-200,000 sf of Class A 4- or 5- Star office development. New professional office development could be targeted towards education, healthcare, wellness and related technical professions, or plausibly as a satellite location for a regional or national corporation. The local-serving office would be attractive to financial services, real estate brokers, doctors, dentists and other providers of necessary services for Upper Arlington residents, students and the surrounding community.

Professional office development in the Lane Avenue corridor study area may potentially achieve triple-net annual rents up to $26 to $28 per sf, while local-serving office rent potential could range up to $18 to $22 per sf. The offices could be integrated into the upper floors of mixed-use buildings within a walkable town center. Local-serving office buildings could range from 2,000 sf to 10,000 sf or could be integrated into the town center as office suites as small as 500 sf. Offices should be located within walking distance of shopping and dining destinations as this provides a desirable amenity for the tenants and supports the retailers and restaurants with daytime consumers.

The sources of new office development potential are as follows:

- **Pent-Up Demand:** Current vacancy rates suggest there may be existing pent-up demand in the market for new office space to satisfy natural or equilibrium vacancy space needs. Using a conservative 10 percent vacancy level as a threshold for needing additional office market construction and comparing that hypothetical vacant inventory to the actual

vacant inventory (per Costar) GPG estimates that the Lane Avenue study area has the potential for another 153,000 sf of 4- and 5-star new office space to achieve equilibrium. This demand is considered reasonable by market conditions today, irrespective of any projected job growth.

- **Anticipated Employment Growth:** As previously stated, the City of Upper Arlington is projected to add around 825 office workers by 2024, and the Columbus Region has the potential to add as many as 26,725 new office jobs. Assuming 150 sf of space needed to support each new office worker, the region arguably has the potential to add as much as 4 million sf of new office space. Given Upper Arlington's share of office employment growth, this could translate into a localized amount of up to 124,000 sf of new office potential by 2024.

- **Functional Obsolescence:** The last factor in the demand potential for new office space is the annual functional obsolescence and re-tasking of 1- and 2-Star buildings, which currently supply over 2 million sf of office space in the Upper Arlington submarket. An annual functional obsolescence rate ranging from 1.00 percent to 1.33 percent is used, representing an average building useful life of between 75 and 100 years. This depletion rate is used to estimate the amount of space which is removed from the marketplace. The report estimates approximately 30,000 sf of 1- and 2-Star office space being worn-out or re-purposed in the submarket annually.

Limits of Study

The findings of this study represent GPG's best estimates for the amounts and types of office projects that should be supportable in the study area. Every reasonable effort has been made to ensure that the data contained in this study reflect the most accurate and timely information possible and are believed to be reliable. This study is based on estimates, assumptions, and other information developed by GPG independent research effort, general knowledge of the industry, and consultations with the client and its representatives. This study is designed as objective third-party research and GPG does not recommend that any or all of the supportable office be developed in the study area.

No responsibility is assumed for inaccuracies in reporting by the client, its agent and representatives or in any other data source used in preparing or presenting this study. This report is based on information that was current as of October 10, 2019 and GPG has not undertaken any update of its research effort since such date.

This report may contain prospective financial information, estimates, or opinions that represent GPG's view of reasonable expectations at a particular time, but such information, estimates, or opinions are not offered as predictions or assurances that a particular level of income or profit will be achieved, that particular events will occur, or that a particular price will be offered or accepted.

Appendix B. Market Studies

Office Market Studies

The actual amounts of supportable office could be significantly higher or lower depending on multiple market and not market variables including the type, design and quality of the new development. It is plausible that a walkable town center, with well-designed buildings and public realm, could draw office tenants from beyond this study's estimated market area boundaries and considerably outperform the site's location and limited market potential. On the other hand, a poorly implemented development or badly managed office facility could underperform the location.

Actual results achieved during the period covered by our prospective financial analysis may vary from those described in our report, and the variations may be material. Therefore, no warranty or representation is made by GPG that any of the projected values or results contained in this study will be achieved.

This study should not be the sole basis for programming, planning, designing, financing, or development of any commercial center. This study is for the use of the client for general planning purposes only and is void for other site locations or developers.

-- END OF ANALYSIS --

Appendix B. Market Studies

Hotel Market Studies

Introduction

Figure 1: *Aerial photo of the Lane Avenue corridor study area in the City of Upper Arlington, which can support an additional 250 to 300 keys of full-service hotel development by 2024.*

Executive Summary

This study finds that the Lane Avenue corridor study area in Upper Arlington has the potential to support an additional upscale class, limited-service hotel of 100 to 120 rooms-keys by 2024. By 2024, due to employment and residential growth in the area, there is also the potential for an additional 250 to 300 keys of full-service hotel development. The full-service hotels' amenities should include a well-appointed lobby and common area, approximately 8,000 sf to 12,000 sf of meeting and conference space, indoor pool and whirlpool and a business center and fitness center. This demand is in addition to the hotel that will be included in the forthcoming Lane II development. The hotel demand could potentially be significantly greater if the Lane Avenue corridor and/or proposed The Ohio State University West Campus research center were developed as a walkable mixed-use center similar to Easton Town Center or the Short North area.

By 2024, the potential average daily room rate (ADR) for the new upscale class limited-service hotel could increase up to 5 percent from current rates. The full-service hotel may capture a 30 percent increase in ADR, offering average daily room rates reaching up to $150 to $180 (in

constant 2019 dollars, not adjusted for inflation). Estimated occupancy rates for the new hotel developments is 75 to 80 percent.

Numerous upper scale national chain hospitality brands are plausibly suitable for the study area including DoubleTree Club, Drury Inn, Fairfield Inn, Home2 Suites and Wyndham Garden Hotel. Upscale limited service class brands that would be realistic for the study area include AC Marriot, aloft Hotel, Cambria Hotel and Suites, Double Tree, Hilton Garden Inn, Homewood Suites, Hyatt Place, Radisson and Staybridge Suites.

Figure 2: *The Ohio State University (left) and employers such as Nationwide (right) create a potentially significant source of demand for future hotel development in the study area. (Photo sources: osu.edu, cbusarch.com)*

Background

As part of the Lane Avenue Corridor Study, Gibbs Planning Group, Inc. (GPG) has been retained by OHM Advisors as a subconsultant to conduct a hotel market potential analysis to determine how much hotel development may be supportable within the study area. The Lane Avenue corridor study area is in the city of Upper Arlington, located to the immediate west of both the City of Columbus and The Ohio State University. To expand commercial uses, Upper Arlington is undertaking redevelopment of existing sites through projects such as the Golden Bear Redevelopment, Arlington Gateway and First Community Village. Additionally, the city has begun to study development along Lane Avenue. This analysis is intended to provide an understanding of the hotel market potential of the Lane Avenue Corridor, situated in south Upper Arlington, by 2024.

The proximity to The Ohio State University and other major destinations and employers in Columbus is anticipated to be a major advantage over other locations in the market. The Ohio State University's plans to expand its West Campus into an "innovation district", which lies directly east of the study area, could significantly impact the demand for hotel development. Planned developments include a 340,000 square-foot medical facility, and 270,000 square-foot interdisciplinary research facility, and a 270,000 square-foot energy innovation center. Additionally, the school envisions this district to be organized around a central main street with cafes, restaurants, offices and housing. It should be noted that this district would be developed over decades and at this early point the ultimate number, type, size and quality of its tenants remains unknown. This hotel market study is based on existing demand and does not include this expansion of The Ohio State University campus. However, if the West Campus district becomes

Appendix B. Market Studies

Hotel Market Studies

an exceptional mixed-use destination, it could impact the amount of hotel development ultimately supportable in the Lane Avenue corridor study area.

Figure 3: *OSU plans future mixed-use development along Lane Avenue (left) including an interdisciplinary research facility (right). (Source: OSU)*

Economic Indicators

Assessing the economic environment in which the proposed study area is located distills key indicators of market demand. Analysis of this data provides a broad measurement of an area's economic health and indicates trends and levels of business activity which occur in a particular area. The Lane Avenue Corridor study area is influenced in a general manner by the economic, physical, and social characteristics of Upper Arlington, Franklin County and the Columbus Metropolitan Region.

Employment

One of the most important factors in determining present and potential hospitality demand is employment. Upper Arlington has maintained an unemployment rate (2.7 percent) much lower than that for Ohio (at 4.4 percent), the Columbus region (3.9 percent) and Franklin County (4.3 percent). Upper Arlington is currently facing a negative trend in a few sectors, including agriculture, manufacturing, retail trade, information, finance and professional services. However, gains in the educational, healthcare and social assistance sectors are offsetting the negative trends, resulting in a net gain of jobs in the market and furthering the significance of education and health care jobs in the local economy. Overall, if current trends continue, net job growth is projected to add 1,000 jobs in Upper Arlington, 88,300 jobs in Franklin County and 112,700 jobs in the Columbus region by 2024.

The largest private sector employers in Franklin County are Nationwide (13,400 employees), JPMorgan Chase & Co. (8,220), Cardinal Health, Inc (5,058), American Electric Power Company (3,627) and Alliance Data Systems Corporation (3,057). In the Columbus Region, other major employers include Honda of America Mfg., Inc. (10,701), L Brands, Inc. (7,800) and Huntington Bancshares Incorporated (5,052). Additionally, The Ohio State University employs 37,000 people. Many of these companies and employers generate significant hotel room night demand for clients, consultants and employees. However, it is reported that much of this demand is leaking to surrounding areas due to the lack of suitable, well-located hotels in the Upper Arlington market.

Upper Arlington Market Area Employment Growth

Industry	Upper Arlington			Franklin County			Columbus MSA		
	2019	2024	+/-	2019	2024	+/-	2019	2024	+/-
Agriculture, Forestry, Fishing, Hunting & Mining	50	40	(10)	1,420	1,340	(80)	5,770	5,570	(200)
Transportation, Warehousing & Utilities	580	850	270	36,130	48,570	12,440	54,570	66,560	11,990
Construction	640	1030	390	25,910	28,060	2,150	49,300	54,090	4,790
Manufacturing	880	820	(60)	49,970	58,660	8,690	94,500	104,770	10,270
Wholesale Trade	480	510	30	18,880	19,350	470	30,660	32,460	1,800
Retail Trade	1,210	1,080	(130)	78,580	85,200	6,620	122,860	132,370	9,510
Information	300	210	(90)	15,200	15,720	520	21,840	22,800	960
Finance, Insurance, Real Estate, Rental & Leasing	1820	1,720	(100)	64,700	71,150	6,450	98,020	107,840	9,820
Professional, Scientific, Tech Services, Administrative, Support, Waste Management & Remediation Services	3,060	2,300	(760)	80,230	93,510	13,280	114,880	131,140	16,260
Education Services, Health Care & Social Assistance	6,250	7,830	1,580	158,620	180,410	21,790	242,940	271,920	28,980
Arts, Entertainment, Recreation, Accommodation & Food Services	970	990	20	64,310	78,680	14,370	92,490	108,380	15,890
Other Services	630	420	(210)	27,450	30,160	2,710	42,470	45,380	2,910
Public Administration	730	800	70	28,630	27,560	(1,070)	48,130	47,840	(290)
Total	**17,660**	**18,600**	**1,000**	**650,030**	**738,370**	**88,340**	**1,018,430**	**1,131,120**	**112,690**

Table 1: *Employment projections for Upper Arlington, Franklin County and the Columbus MSA. Employment growth generally increases demand for hotel rooms. (Sources: US Census Bureau, Bureau of Labor Statistics)*

Population and Income

While an area's population trends do not have a direct correlation on hotel room night demand, they may reflect the economic health of an area. Similarly, population and economic trends may suggest the likelihood of demand generated by visitors and local residents. Upper Arlington is presently home to 36,100 residents living in 14,600 households. By 2024, the population is projected to grow to 37,300 residents in 15,100 households for annual growth rates of 0.65 percent and 0.63 percent, respectively. The growth rates are modest but generally follow regional and state trends.

The median household income in Upper Arlington is $107,500 while the average household income is $151,000, demonstrating the impact of high-income earning households. Overall, the majority of households (69 percent) earn more than $75,000 per year. Upper Arlington is well educated as 77 percent of residents over the age of 25 have earned a bachelor's degree or higher. These income characteristics are notably higher than the region and state, indicating a favorable underlying residential market with the potential to generate room night demand from local businesses, visitors and groups.

Hotel Market Studies

Upper Arlington Market Area Demographic Comparison				
Category	**Upper Arlington**	**Franklin County**	**Columbus MSA**	**Ohio**
2019 Population	**36,100**	1,302,000	2,109,200	11,805,000
2024 Population	**37,300**	1,375,300	2,223,600	11,955,900
2019-24 Annual Population Growth Rate	**0.65%**	1.10%	1.06%	0.25%
2019 Households	**14,600**	532,000	828,300	4,729,700
2024 Households	**15,000**	562,400	873,700	4,798,400
2019-24 Annual Households Growth Rate	**0.63%**	1.12%	1.07%	0.29%
2019 Average HH Income	**$150,900**	$80,700	$85,300	$75,500
2024 Average HH Income	**$161,800**	$91,400	$96,300	$85,900
2019 Median HH Income	**$107,500**	$59,700	$63,000	$55,000
2024 Median HH Income	**$113,100**	$67,700	$72,500	$61,800
2019 HH Income $75K+	**69%**	40%	43%	37%
2019 Education Level, Bachelor's Degree or Higher	**77%**	40%	37%	28%
2019 Average Commute	**20.3 min**	21.8 min	23.7 min	23.4 min
2019 Employment, Occupation White Collar	**87.2%**	66.1%	64.9%	59.1%
2019 Employment, Occupation Services	**8%**	17.5%	16.9%	17.8%
2019 Employment, Occupation Blue Collar	**4.9%**	16.4%	18.1%	23%
2019 Unemployment Rate	**2.7%**	4.3%	3.9%	4.4%

Table 2: *Population and household income growth are positive signs that the underlying market conditions could potentially support increased hotel room demand. Upper Arlington has higher income and educational attainment in comparison to the rest of the region and state. (Sources: US Census Bureau, Esri)*

GREATER COLUMBUS TOURISM

Recent data shows that more visitors are staying longer in the Columbus region. In 2018, the Greater Columbus region hosted 41.9 million tourists representing a 1.9 percent increase from 2017 and the ninth consecutive year of tourism growth in the area. Tourism growth in the region is on pace with the national growth rate. Visitors bring $9.7 billion in economic impact to the region annually and tourism directly supports one in every 12 jobs in Franklin County. Ohio's economy benefited from $42 billion contributed by travelers. The increase in tourism translated to a 1.9 percent increase in hotel rooms booked. Columbus' 65.8 percent occupancy rate is higher than other Midwest destinations such as Cleveland (59.7 percent), Pittsburgh (60.3 percent), Cincinnati (64.5 percent) and Detroit (66.6 percent).

From 2017-2018, it is estimated that day visitors to Greater Columbus increased by 500,000 while overnight visitors grew by 300,000 to 3.9 million. The average length of stay increased from 2.2 nights in 2017 to 2.4 nights in 2018. Visiting friends or relatives account for 47 percent of overnight trips. Leisure travel constitutes 33 percent of overnight trips. Business related trips make up 16 percent of overnight trips. Following national trends, shopping and nightlife/dining are the most popular tourism activities, suggesting new hotels in a walkable town center would be well-received.

UPPER ARLINGTON LODGING MARKET

Within a 3-mile radius of the Lane Avenue corridor study area, there are 25 lodging establishments and a total of 2,008 rooms. Ten of these hotels and 63 percent of the rooms are considered in the upscale or luxury classes, five of the hotels and 21 percent of the rooms are in the upper midscale cluster, three hotels and 6 percent of the rooms are in the midscale category and seven of the hotels and 10 percent of the rooms are economy class. Five of the hotels were built in the last five years and the average age of all hotels is 20 years old.

Upper Arlington Study Area Hotel Market Statistics					
Year	**Occupancy**	**Average Daily Rate**	**Revenue per Available Room**	**Room Nights Sold**	**Room Nights Available**
2013	66.3%	111.94	74.26	352,698	531,692
2014	68%	116.39	79.11	359,306	528,632
2015	70.1%	124.56	87.33	365,759	521,647
2016	70.9%	128.57	91.10	386,281	545,165
2017	69.6%	130.36	90.73	457,887	657,872
2018	70.1%	129.41	90.74	513,915	732,920
2019 YTD	73.4%	131.29	96.37	358,146	487,944
Average	**69.2%**	**124.65**	**87**	**399,142**	**572,267**

Table 3: *The Upper Arlington market is on pace to outperform its recent history in occupancy, average daily rate and revenue per available room. (Source: STR)*

Since 2013, the overall annual occupancy in the Upper Arlington market has averaged 69.2 percent, showing an upward trend from 66.3 percent in 2013 to 73.4 percent in 2019. The average occupancy rate is modest, and it should be noted that it is influenced by a high number of older, dated hotels in the market. The data also does not reflect the occupancy rates of the Lane II project's new hotel development, currently under construction, which are estimated to be 75 to 80 percent.

Over the same period the average daily rate (ADR) has increased at an average rate of 3 percent, although this hit a peak of 7 percent in 2015 and hit a low point of -0.7 percent in 2018. The seven-year average ADR sits at $124.28. Revenue per available room (RevPAR) has similarly increased at an average rate of 4.2 percent since 2013. Room nights booked have increased from 352,700 in 2013 with a peak of 513,900 rooms booked in 2018.

Since 2013, a number of economy class and older hotels have closed including the Holiday Inn Columbus (OSU), University Inn, Park University Hotel, University Plaza Hotel and Conference Center, Super 8 Columbus (OSU), Fawcett Center Hotel, Olentangy Inn and Knights Inn Columbus properties. Overall revenue in the market has steadily grown by 11.1 percent to $66.5 million in 2018.

Appendix B. Market Studies

Hotel Market Studies

Day of the Week Study Area Hotel Market Statistics								
	Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Average
Occupancy	47.0%	67.2%	76.3%	75.8%	70.3%	77.5%	80%	71%
ADR	$116.21	$124.75	$130.76	$130.45	$127.05	$141.62	$142.44	$130.47
RevPAR	54.64	83.79	99.71	98.82	89.29	109.76	114.00	92.86

Table 4: *Tuesday and Wednesday are the most popular corporate travel days, while Friday and Saturday generate the most leisure room night demand. (Source: STR)*

Room night demand generally peaks in the summer months with June and July representing the busiest season averaging 39,000- and 39,400-nights worth of monthly demand respectively. The slowest months are December and January when 25,300- and 27,100-nights are the respective monthly room night demand. The busiest night of the week is Saturday with an average occupancy of 80 percent and an ADR of $142.44. The slowest night is Monday with an average occupancy of 47 percent and an ADR of $116.21.

Figure 4: *New hotel development in a mixed-use town center could increase Upper Arlington's capture of regional hotel room night demand. Shown above is Lane Avenue (Source: upperarlingtonoh.gov).*

Summary of Findings

This study finds that the Lane Avenue corridor study area in Upper Arlington has the potential to support an upscale class, limited-service hotel of 100 to 120 keys by 2024. By 2024, due to growth in employment and the planned expansion of Ohio State University's west campus, there is potential for an additional 250 to 300 keys of full-service hotel development. The full-service hotels' amenities should include a well-appointed lobby and common area, approximately 8,000 sf to 12,000 sf of meeting and conference space, indoor pool and whirlpool, a business center and fitness center. Occupancy rates are estimated to be 75 to 80 percent. This demand is in addition to the 116-room TownePlace Suites Hotel development that is currently under construction as part of the Lane II project in the study area.

By 2024, the potential average daily room (ADR) rate for the new upscale class limited-service hotel could increase up to 5 percent from current rates. The full-service hotel may capture a 30 percent increase in ADR, offering average daily room rates reaching up to $150 to $180 (in constant 2019 dollars, not adjusted for inflation).

The hotel(s) should be integrated into the walkable commercial districts in Upper Arlington, such as the Lane Avenue corridor. Integrating into the existing commercial corridor and a hotel

operating according to industry standards has the potential to significantly increase the attraction of corporate, leisure and group room night demand which could allow the site to outperform the market and competitive properties. Conversely, new hotel deployment in the immediate vicinity of the site could hinder the supportability of new hotel development at the site.

Limits Of Study

The findings of this study represent GPG's best estimates for the amounts and types of hotel projects that could be potentially supportable in the study area. Every reasonable effort has been made to ensure that the data contained in this study reflect the most accurate and timely information possible and are believed to be reliable. This study is based on estimates, assumptions, and other information developed by GPG independent research effort, general knowledge of the industry, and consultations with the client and its representatives. This study is designed as objective third-party research and GPG does not recommend that any or all of the supportable hotel rooms be developed in the study area.

No responsibility is assumed for inaccuracies in reporting by the client, its agent and representatives or in any other data source used in preparing or presenting this study. This report is based on information that was current as of November 13, 2019 and GPG has not undertaken any update of its research effort since such date.

This report may contain prospective financial information, estimates, or opinions that represent GPG's view of reasonable expectations at a particular time, but such information, estimates, or opinions are not offered as predictions or assurances that a particular level of income or profit will be achieved, that particular events will occur, or that a particular price will be offered or accepted.

The actual amounts of supportable hotel potential could be significantly higher or lower depending on multiple market and not market variables including the type, design and quality of the new development. It is plausible that a walkable town center, with well-designed buildings and public realm, could draw rooms nights from beyond this study's estimated market area boundaries and considerably outperform the site's location and market potential. On the other hand, a poorly implemented development or badly managed office facility could underperform the location.

Actual results achieved during the period covered by our prospective financial analysis may vary from those described in our report, and the variations may be material. Therefore, no warranty or representation is made by GPG that any of the projected values or results contained in this study will be achieved.

This study should not be the sole basis for programming, planning, designing, financing, or development of any commercial center. This study is for the use of the client for general planning purposes only and is void for other site locations or developers.

-- END OF ANALYSIS --

Appendix B. Market Studies

Residential Market Studies

INTRODUCTION

Figure 1: *The Lane Avenue corridor study area (pictured above) is in Upper Arlington, a rapidly growing city located adjacent to Columbus, Ohio and The Ohio State University.*

Executive Summary

This study finds that by 2024 the Lane Avenue corridor study area in Upper Arlington, Ohio will be able to support up to 420 new residential units ranging from *for-sale* townhomes and cottage homes to multi-family or mixed-use buildings containing *for-rent* lofts and upscale apartments. Unit sizes could range from 400 sf apartments to 2,000 sf homes. This demand is in addition to the residential units that will be included in the forthcoming Arlington Gateway and Lane II developments. It is plausible that the Lane Avenue district could potentially support considerably more new multi-family for-sale and rental residential development as the proposed The Ohio State University West Campus research center is completed.

The Lane Avenue corridor is situated in a bustling and highly sought after area of Upper Arlington. The City of Upper Arlington currently has an estimated 15,200 housing units; 75.0 percent of the units are owner-occupied; 21.1 percent are renter-occupied, and the vacancy rate is 3.9 percent. The median home value is $380,100 and the median age of homes is 61 years. Moreover, 84.2 percent of the current housing stock are single-family homes, while 15.8 percent are multi-family.

Upper Arlington is also home to roughly 36,100 residents and 14,600 households with an average income of $150,900 per year. Many city residents are gainfully employed, and the average age is 44.8 years – 4.7 years older than the state average. Over 76 percent of the city's residents over the age of 25 have a four-year college degree and 68.6 percent of households earn over $75,000 per year.

If new residential development is built to industry standards and offers an amenitized and walkable urban setting, the new for-sale single-family units could potentially be offered at an average base price of up to $280 per sf. Furthermore, the rental units could potentially be offered at an average monthly rent of up to $2.20 per sf/month with average base rents of as much as $2.10 per sf/month for studios and up to $2,300 per month for upscale three-bedroom apartments.

In addition to upscale apartments, this study recommends soft lofts, townhomes and live-work units, and cottage homes. ***Soft lofts*** are built from the ground up to incorporate loft-like features that usually include high ceilings, exposed concrete or ductwork and oversized windows. ***Townhomes*** are single-family dwellings with at least two floors that share a wall with another house. Some townhomes are developed as Live-Work units that usually combine a shop, studio or office at ground level and a single residential unit above. Finally, ***cottage homes*** are small detached single-family homes that are frequently grouped in clusters around small squares.

Figure 2: *Soft Lofts (left) generally feature open floor plans with contemporary finishes and signature design elements. Upscale apartments (right) should provide an expanded kitchen, stainless appliances and custom bathrooms.*

The residential market potential for the Lane Avenue corridor could be broken down as follows for optimum market position:

- **120 - 140 Soft Lofts** with base units ranging from 400 sf studio units to 900 sf two-bedroom units in two- to five-story buildings with or without retail or amenities occupying the ground floor. The buildings should be developed to offer open floor plans, high ceilings, desirable daylighting, and where possible, indoor-outdoor space.

- **150 - 170 Upscale Apartments** with average base units ranging from 700 sf one-bedroom units to 1,150 sf three-bedroom units located in multi-family buildings. These dwellings may be distinguished from competition with premium kitchen finishes and appliances and generous master bedrooms with walk-in closets.

Appendix B. Market Studies

Residential Market Studies

- **60 - 80 Townhomes & Live-Works** with average base models ranging from 1,100 sf two-bedroom units to 1,800 sf three-bedroom units arranged in clusters of four- to eight units along walkable streets with street trees and parallel on-street parking. Units would include open floor plans, one- or two-car attached or detached garages and moderate upscale amenities. A targeted portion could be developed as Live-Work units with a 500 to 750 sf first floor, street front accessible suite that could be used as a professional office, small retail shop or exercise/entertainment space.

- **20 - 30 Cottage Homes** ranging from 1,000 sf two-bedroom to 2,000 sf four-bedroom homes on 2,500 sf to 4,000 sf lots. Cottage homes can serve as an effective density transition by avoiding street facing driveways in favor of alley-serviced garages or shared parking. Desirable for their limited yards (and less maintenance), the homes should have generous porches and patios. Cottages may also be clustered around a shared courtyard.

***Figure 3**: The townhome (left) and cottage home (right) offer alternatives to the traditional single-family home.*

Background

As part of the Lane Avenue Corridor Study, Gibbs Planning Group Inc. (GPG) has been retained by OHM Advisors as a subconsultant to conduct a residential market potential analysis to determine what types of new residential development will be supportable within the Lane Avenue corridor through 2024.

GPG addressed the following issues in this study:

- What is the state of the current residential market in the Lane Avenue corridor and in Upper Arlington generally?
- What is the current economic outlook in the area?
- What is the overview of residential units currently engaged in marketing units?
- Based on the projected household growth and current and projected residential units in the market, what is the feasibility of additional units in the Lane Avenue corridor?
- Should the new units be developed as single-family, condominium or rental (apartment) units?

- What is the anticipated absorption rate for the projected units and in what price range should they be developed?

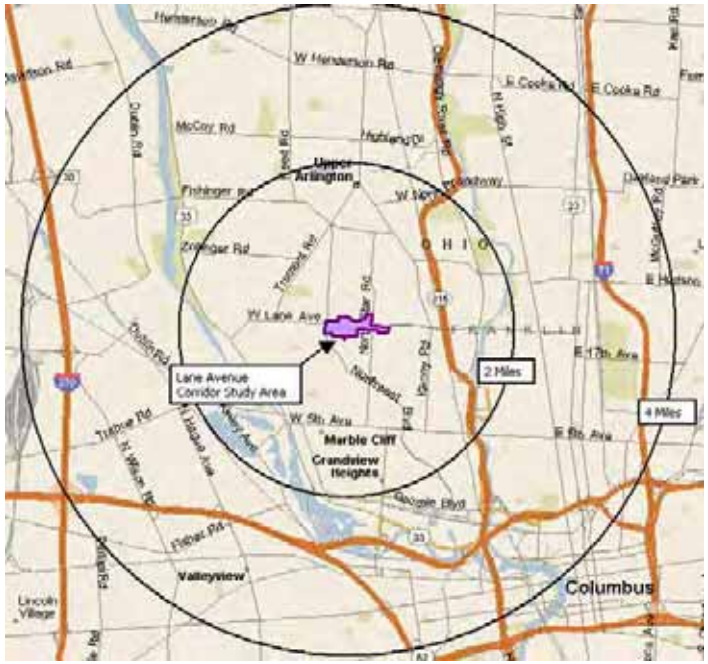


***Figure 4:** The Lane Avenue corridor study area is located in the City of Upper Arlington, just northwest of downtown Columbus, Ohio.*

Market Area Demographic Statistics

Fluctuations in the housing market are reflected by changes in certain demographic categories. An overall increase in population or declining household size generates greater dwelling unit demand. Also, changes in family composition, income, age, education and marital status all impact overall market needs and niche housing requirements.

Upper Arlington has a current estimated population of 36,100. Since 2000 the population has increased by roughly 2,500 people, and growth over the next 5 years is statistically forecasted at an annual growth rate of 0.65 percent. Household growth is expected to slightly lag behind population growth, translating to an additional 500 households in the city by 2024.

Residential Market Studies

Upper Arlington has a higher proportion of married households and a lower percentage of single-person households than Franklin County, the Columbus MSA and the State of Ohio generally. Over the last nine years, the Upper Arlington population has become older, as its median age has climbed from 42.9 years in 2010 to 44.8 years in 2019. The city's median age is projected to continue to increase, reaching 45.1 years by 2024. Overall, the city is noticeably older than the county, region and state. Currently, the age 55 and older segment comprises 35.8 percent of the city's population, and this figure is projected to increase to 37.3 percent by 2024. In contrast, the 25-44 age segment is slightly lower, and the percentage of residents in this age range is projected to marginally increase over the next five years from 34.9 percent to 35.0 percent.

Upper Arlington Area Demographic Comparison				
Category	**Upper Arlington**	**Franklin County**	**Columbus MSA**	**Ohio**
2000 Population	**33,600**	1,069,000	1,674,700	11,353,100
2010 Population	**33,700**	1,163,400	1,902,000	11,536,500
2019 Population	**36,100**	1,302,100	2,109,200	11,805,100
2024 Population	**37,300**	1,375,300	2,223,600	11,955,900
2019-24 Annual Population Growth Rate	**0.65%**	1.1%	1.06%	0.00%
2000 Households	**13,900**	438,800	659,900	4,445,800
2010 Households	**13,700**	477,200	748,500	4,603,400
2019 Households	**14,600**	532,100	828,300	4,729,700
2024 Households	**15,100**	562,400	873,700	4,798,400
2019-24 Annual Households Growth Rate	**0.51%**	1.12%	1.07%	0.25%
2019 Education Level, Bachelor's Degree or Higher	**76.9%**	40.2%	35.7%	28.4%
2019 Single-Person Households	**26.8%**	31.9%	28.2%	28.9%
2019 Marital Status, Married	**59.1%**	39.0%	46.1%	47.2%
2019 Households with Children	**33.4%**	17.9%	21.1%	19.4%
2010 Median Age	**42.9**	33.5	35.3	38.7
2019 Median Age	**44.8**	35.1	36.8	40.1
2024 Median Age	**45.1**	35.4	37.3	40.9
2010 Population Aged 25-54	**39.3%**	42.7%	43.2%	40.1%
2019 Populaton Aged 25-54	**34.9%**	40.9%	40.2%	37.7%
2024 Population Aged 25-54	**35.0%**	40.4%	39.6%	37.0%
2010 Population Aged 55+	**30.6%**	20.4%	21.8%	26.7%
2019 Populaton Aged 55+	**35.8%**	25.1%	26.6%	31.7%
2024 Population Aged 55+	**37.3%**	26.1%	28.0%	33.1%

Chart 1: *Demographic statistics for Upper Arlington and other relevant statistical geographies. (Source: US Census, ESRI, SEMCOG, GPG).*

Over 26 percent of Upper Arlington households are single-person households and 35.1 percent are married or partner households without children – key market segments for a variety of housing types considered in this analysis. Finally, another important demographic characteristic

for residential expansion is post-secondary education. Upper Arlington is exceedingly well educated, as 76.9 percent have a bachelor's degree education level or higher.

Income And Occupation Statistics

Upper Arlington's average annual household income of $150,000 is significantly higher than that for the county, region and State of Ohio. Moreover, 68.6 percent of households earn over $75,000 per year – the primary income group that can afford new residential construction. Upper Arlington's workforce is approximately 87.2 percent white-collar, 8.0 percent services and 4.9 percent blue-collar. Furthermore, Upper Arlington's current unemployment rate is estimated at 2.7 percent, which is lower than that for the county, region and State of Ohio.

Upper Arlington Area Income and Occupation Comparison				
Category	**Upper Arlington**	**Franklin County**	**Columbus MSA**	**Ohio**
2019 Average HH Income	**$150,900**	$80,700	$85,300	$75,500
2024 Average HH Income	**$161,800**	$91,400	$96,300	$85,900
2019 Median HH Income	**$107,500**	$59,700	$63,000	$55,000
2024 Median HH Income	**$113,100**	$67,700	$72,500	$61,800
2019 Per Capita Income	**$61,700**	$33,100	$33,600	$30,400
2024 Per Capita Income	**$66,100**	$37,500	$37,900	$34,600
2019-24 HH Income Annual Growth Rate	**1.4%**	2.5%	2.5%	2.6%
2019 HH Income +$75K	**68.6%**	40.2%	42.9%	36.6%
2024 HH Income +75K	**71.9%**	46.0%	48.7%	42.2%
2019 Average Commute	**20.3 min**	21.8 min	23.7 min	23.4 min
2019 Employment, Occupation White Collar	**87.2%**	66.1%	64.9%	59.10%
2019 Employment, Occupation Services	**8.0%**	17.5%	16.9%	17.8%
2019 Employment, Occupation Blue Collar	**4.9%**	16.4%	18.1%	23.0%
2019 Unemployment Rate	**2.7%**	4.3%	3.9%	4.4%
2019 Total Employment within Avg. Commute of Study Area	**686,000**	-	-	-

Chart 2: *Upper Arlington's present and future income and occupation information compared with the county, region and State of Ohio. (Source: US Census, ESRI, US BLS, GPG).*

The average commute time in Upper Arlington is 20.3 minutes, which from the study area extends north to Perry Township, south to Jackson Township, west to Hilliard and east to Gahanna. Given this geography, there are nearly 690,000 workers in the region for whom living in the city is a convenient commute. An estimated 230,000 of these workers are employed in professional jobs and would be particularly attracted by the convenience of living in a city with the comfort and amenities of new residential construction.

There are presently 15,200 housing units in Upper Arlington; 75.0 percent are owner-occupied, 21.1 percent are renter-occupied and 3.9 percent are vacant. Compared to the county, region and state, Upper Arlington has the lowest vacancy rate and the highest owner occupancy rate.

Appendix B. Market Studies

Residential Market Studies

Furthermore, Upper Arlington's housing stock is 84.2 percent single-family dwellings and 15.8 percent multi-family dwellings. This strongly suggests that the market could be more balanced through the introduction of more multi-family dwellings, particularly within walking distance of shops, restaurants and parks.

Upper Arlington Area Housing Characteristics Comparison				
Category	Upper Arlington	Franklin County	Columbus MSA	Ohio
2010 Housing Units	14,500	527,200	821,000	5,127,500
2010 Housing Owner Occupied	11,100	264,600	471,100	3,111,100
2010 Housing Renter Occupied	2,600	212,700	277,400	1,492,400
2010 Vacant Housing	800	50,000	72,500	524,100
2019 Housing Units	15,200	574,500	894,100	5,282,300
2019 Housing Owner Occupied	11,400	281,900	506,400	3,080,600
2019 Housing Renter Occupied	3,200	250,200	321,900	1,649,100
2019 Vacant Housing	600	42,400	65,800	552,600
2024 Housing Units	15,600	604,000	939,900	5,381,300
2024 Housing Owner Occupied	11,900	304,200	543,200	3,178,600
2024 Housing Renter Occupied	3,200	258,200	330,600	1,619,700
2024 Vacant Housing	600	41,600	66,200	582,900
Single-Family Housing Units	84.2%	65.7%	71.6%	75.0%
Multi-Family Housing Units	15.8%	33.5%	26.2%	21.6%
2019 Median Year Homes Built	1958	1975	1978	1967
2019 Occupied Housing Built Before 1960	56.4%	28.3%	27.2%	41.0%
2019 Owner Occupied Housing Value Less than $150,000	2.3%	39.1%	35.7%	48.7%
2019 Owner Occupied Housing Value More than $500,000	24.7%	5.7%	6.0%	3.9%
2019 Median Owner Occupied Home Value	$380,100	$180,900	$188,900	$153,700
2019 Average Owner Occupied Home Value	$429,200	$224,500	$233,600	$194,600
2024 Owner Occupied Housing Value Less than $150,000	1.0%	32.5%	27.9%	40.4%
2024 Owner Occupied Housing Value More than $500,000	26.1%	7.0%	7.9%	5.3%
2024 Median Owner Occupied Home Value	$393,900	$201,400	$216,100	$177,900
2024 Average Owner Occupied Home Value	$441,500	$246,800	$260,700	$220,000

Chart 3: *Upper Arlington's existing housing statistical data. (Source: US Census, ESRI, Lake County Auditor, Zillow).*

The median home value in Upper Arlington is significantly higher than that in the county, region and State of Ohio generally. The proportion of Upper Arlington's owner occupied housing valued at over $500,000 (24.7 percent) is also much higher than that for the county, region and state, and only 2.3 percent of the city's owner occupied housing is valued at less than $150,000. Lastly, Upper Arlington's housing stock is generally older than that of county, region and state, and has a median age of 61 years.

New Construction Residential Market

New housing construction has remained relatively constant in the Columbus Metro Area over the last five years with an average of approximately 8,315 building permits issued annually. Permits favor single-family homes followed by multi-family projects of more than 5 units.

Columbus Metro Area Building Permit Data					
Year	Total Permits	Single-Family	Two-Family	3 to 4 Units	5 Units or More
2019 YTD	5,184	2,667	50	74	2,393
2018	9,440	4,493	162	174	4,611
2017	8,892	4,295	42	116	4,439
2016	8,637	4,157	50	278	4,152
2015	7,555	3,523	72	258	3,702
2014	7,052	3,505	100	243	3,204
Total	**46,760**	**22,640**	**476**	**1,143**	**22,501**

Chart 4*: Building permits by housing type in the Columbus Metropolitan Statistical Area (Source: US Census, US BPS.)*

Within the Lane Avenue corridor is a major residential project that is currently under construction (Lane II) and another that was recently granted approval (Arlington Gateway).

Figure 5*: Renderings of the forthcoming Lane II (left) and Arlington Gateway (right) projects.*

Lane II is a major mixed-use development along Lane Avenue that is currently being developed by Crawford Hoying. Construction for the entire project is scheduled to occur from June 2019 to November 2021, with several phases of work anticipated. East of Westmont Boulevard, there will be a 5-story, 116-room hotel facing Lane Avenue, as well as two adjacent condominium buildings (one that is four stories with four units, and the other three stories with four units). Surface parking is planned to be located behind the housing units and connect with surface and structured parking at The Lane to the immediate east of the project site. West of Westmont Boulevard, a five-story, mixed-use building will be developed. It is planned to include residential units on the 3rd through 5th floors, 20,000 sf of office space on the ground and 2nd floors, two restaurants on the ground floor and a 248-space parking garage wrapped by two-story townhomes to the north.

Appendix B. Market Studies

Residential Market Studies

Arlington Gateway will be a $100 million mixed-use infill project that is planned to be at the corner of Lane Avenue and North Star Road. In August 2018, the Upper Arlington city council authorized a development agreement with the project team, which consists of Continental Real Estate Cos., Arcadia Development of Ohio and Kohr Royer Griffith. At 11 stories, Arlington Gateway will be the tallest building in Upper Arlington. It will be built on three acres at the southeast corner of North Star Road and Lane Avenue. This development will include 132,000 sf of Class A office space, 27,000 sf of first floor retail and restaurant space, 225 apartment units and a 866-space parking garage. As of the date of this report, a tentative construction schedule for this project was pending.

In addition to these projects within the Lane Avenue corridor, The Ohio State West Campus District is a planned expansion of the university's west campus. Located to the immediate east of the Lane Avenue corridor study area, OSU plans to transform this area into an "innovation district" that would potentially include a 340,000 sf medical facility, 270,000 sf interdisciplinary research facility and 270,000 sf energy innovation center. Additionally, the school envisions this district to be organized around a central main street with cafes, restaurants, offices and housing. It should be noted that this district would be developed over decades and at this early point the ultimate number, type, size and quality of its tenants remains unknown. Since this residential market study is based on existing demand, it does not include this expansion of The Ohio State University campus. However, if the west campus district becomes an exceptional mixed-use destination, it could impact the amount of residential development ultimately supportable in the Lane Avenue corridor study area.

Existing Residential Market

Currently, there are 98 single-family homes listed for sale in Upper Arlington at an average list price of $669,100. The average square footage is 3,020, yielding an average list price per square foot of $213. Additionally, there are 18 condominiums listed for sale averaging a $329,100 asking price and 1,950 sf, which is $167 per sf.

Year to date, 487 single-family homes have sold in Upper Arlington for an average price of $473,400 or $206 per sf. The average size of a sold home was 2,335 sf and the median year built was 1962. Over the same period, 90 condominiums have sold in Upper Arlington for an average price of $243,000 for a 1,540 sf unit size or $157 per sf. The median year built for sold condos was 1967 and no condos were sold that had been constructed during the last ten years.

In terms of the multi-family market, according to CoStar, the current average asking rent in Upper Arlington is $1,385 per month or $1.43 per sf/month. However, some of the newest apartment complexes in the area (such as The View on Fifth, Meridian Apartment and Broadview) have rents nearing or even slightly exceedingly $2.00 per sf/month. In fact, Upper Arlington multi-family rents are among the highest in the Columbus area, and have modestly increased by 1.4 percent from last year. Renters pay a premium to live in the live/work/play environment that Upper Arlington offers, but location greatly effects rent. For properties clustered around Ohio State and close to downtown, asking rents are almost 20 percent higher. Furthermore, the current multi-family vacancy rate is 4.3 percent, which has remained constant

from last year. In fact, historically, Upper Arlington's multifamily vacancy rate has rarely risen above 6 percent. This is a result of Columbus' strong economy keeping recent grads in place, and Upper Arlington's proximity to downtown and Dublin employment nodes has created an exceptional environment for apartment owners.

Summary Of Potential Residential Types And Target Markets*

Upper Arlington - Lane Avenue Potential Market Position*						
Number of Units	Housing Type	Unit Configuration	Unit Mix	Base Rent/ Price	Base Unit Size (sf)	Base Rent/ Price per sf
120 - 140	Soft Lofts	Studio/1BA	20%	$850	400	$2.10
		1BR/1BA	45%	$1,150	550	$2.10
		2BR/1BA	15%	$1,400	750	$1.90
		2BR/2BA	20%	$1,800	900	$2.00
150 - 170	Upscale Apartments	1BR/1.5BA	50%	$1,550	700	$2.20
		2BR/2BA	35%	$2,000	950	$2.10
		3BR/2.5BA	15%	$2,300	1,150	$2.00
60 - 80	Townhomes & Live-Works	2BR/2BA	25%	$335,000	1,200	$280
		2BR/2.5BA	40%	$430,000	1,600	$270
		3BR/2.5BA	35%	$540,000	2,000	$270
20 - 30	Cottage Homes	2BR/2BA	45%	$270,000	1,000	$270
		3BR/2.5BA	40%	$390,000	1,500	$260
		4BR/3BA	15%	$510,000	2,000	$255
350 - 420	***Total Units***					

Chart 5: *A number of different housing typologies are potentially supportable in the Lane Avenue corridor.*
*****These figures are based on current demand and therefore do not take into account the proposed OSU expansion.

By 2024, consumers in Upper Arlington will generate demand for a variety of housing types. A description of potential residential types follows:

120 - 140 Soft Lofts: Unit sizes could range from 400 sf to 900 sf and should be appointed as contemporary lofts with high ceilings, a significant amount of glass or daylighting, and where possible, indoor-outdoor space or French-type balconies. Durability and maintenance issues should be the criteria when selecting finishes and materials. The kitchens should feature hard-surfaces and stainless steel appliances (or whatever is trending in the market). A washer and dryer should be included in each unit. Except in bedrooms, floors may be offered as hard wood and ceramic or stone in the kitchens and baths. Bedrooms can be carpeted. Bathrooms should have a contemporary finish.

Typical arrangements of multiple-story multi-family or mixed-use buildings generally yield 30 to 40 units per acre. Due to their smaller size, residents will expect a convenient walk to shopping and dining as well as public open space or recreation. On average, these new units should be offered at a base rent of $1.90 to $2.10 per sf per month. Premiums for custom interior finishes, unit locations and garage parking could potentially increase the rent.

Appendix B. Market Studies

Residential Market Studies

150 - 170 Upscale Apartments: High household incomes and a relatively low supply indicate the potential for upscale 700 sf to 1,150 sf apartments. In addition to the loft finishes above, units could include eat-in kitchen with differentiating kitchen finishes; bathrooms with premium finishes and a unique shower or soaking tub; and modern bedroom appointment with generous closets.

Typical arrangements of multiple-story multi-family buildings generally yield 25 to 40 units per acre. Apartments should be within a reasonable walking distance of commercial and public amenities. On average, these new units should be offered at a base rent of $2.00 to $2.20 per sf per month. Premiums for high-end finishes, unit locations and garage parking could potentially increase the rent, however the depth of upscale demand and market competition should be carefully monitored as prices near $2.50 per sf per month.

60 - 80 Attached Residential: As an often efficient and profitable housing type with good urban qualities, Upper Arlington should include attached townhomes of 1,200 to 2,000 sf, offering some with first-floor master bedrooms and detached garages and others with attached tuck-under garages. Units should include internal and external finishes typical of 2nd move up and semi-custom homes with one- or two-car attached or alley adjacent garage parking spaces. Hardwood floors, ceramic tile, glazed cabinets and hard surface countertops should be a part of the standard package.

A portion of the demand should be designed as or able to accommodate first floor office suites which may desirable for semi-retired lawyers, financial services and real estate professionals. These for sale homes will need to have easy access to on- and off-site amenities with convenient linkage to local commercial districts.

Typical arrangements of 2.5 story buildings generally yield nine to 15 units per acre. On average, these attached new units should be offered at a base for-sale price of $270 per sf to $280 per sf or $335,000 to $540,000 each. Premiums for custom interior and exterior finishes, fireplaces and lot locations could potentially increase the home prices.

20 - 30 Cottage Homes: Most suburban markets suffer a lack of new construction homes of less than 1,500 sf. With the dramatic increase in average home size since the 90s, many consumers are realizing that bigger is not always better. Empty nesters, young families and single parents in particular are drawn to the autonomy of a single-family home with significantly less maintenance. Cottage homes can be arranged close together on small blocks or clustered around a courtyard as seen in *Figure 3 on page 5*. Conveniently walkable to parks, dining and shopping, a growing market is willing to trade home size and private yard. Well-kept shared open space and generous porches contribute to an increased sense of socialization.

These homes should be built on 3,000 to 4,000 sf lots, with alley-facing garages or shared parking. Home sizes could range from 1,000 to 2,000 sf, with two to four bedrooms, open floor plans and moderate upscale amenities and finishes. Typical arrangements of cottage homes generally yield five to ten units per acre. This study estimates that these homes could be offered at

a base price of $255 - $270 per sf or $270,000 to $510,000 each. Premiums for custom interior and exterior finishes, fireplaces and lot locations could potentially increase the home prices.

Limits Of Study

The findings of this study represent GPG's best estimates of the residential potential of the Lane Avenue Corridor study area by 2024. Every reasonable effort has been made to ensure that the data contained in this study reflects the most accurate and timely information possible and is believed to be reliable. This study is based on estimates, assumptions and other information developed by GPG's independent research effort, general knowledge of the residential real estate industry, market data from real estate listing services and consultations with the client and its representatives.

No responsibility is assumed for inaccuracies in reporting by the client, its agent and representatives or in any other data source used in preparing or presenting this study. This report is based on information that was current as of October 9, 2019 and GPG has not undertaken any update of its research effort since such date.

This report may contain prospective financial information, estimates, or opinions that represent GPG's view of reasonable expectations at a particular time, but such information, estimates, or opinions are not offered as predictions or assurances that a precise level of income or profit will be achieved, that particular events will occur, or that a specific price will be offered or accepted. Actual results achieved during the period covered by this prospective financial analysis may significantly vary from those described in our report, and the variations may be material. Therefore, no warranty or representation is made by GPG that any of the projected values or results contained in this study will be achieved.

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For the purposes of this study, GPG has assumed the following:

- The Upper Arlington regional economy will stabilize at normal or above normal ranges of population, household formation and employment growth, while price and cost inflation remain at historic levels.
- Employment distribution is to remain constant, without a spike or decline in employment by SIC category.
- Current residential demand is not impacted by the planned Ohio State west campus district.

Residential Market Studies

- Any new development will be planned, designed and managed per the best practices of the American Planning Association, American Institute of Architects, Congress for New Urbanism, Urban Land Institute, National Association of Home Builders, National Multi-Family Housing Council and the National Town Builders Association.

- Projected sales rates, as well as product preferences, are based on our proprietary econometric model of the relationship between changes in population, incomes, home value appreciation, household and family size, and demographic concentrations of age groups. The most current data has been gathered from CoStar, Realcomp Online, NOACA, U.S. Census Bureau, ESRI, CoStar, Zillow.com and Ohio brokerage services.

-- END OF ANALYSIS --

Appendix B. Market Studies

Retail Market Studies

INTRODUCTION

Figure 1: *Within the Lane Avenue corridor, pictured above, there is a strong demand for a wide assortment of retailers and restaurants.*

Executive Summary

This study finds that the Lane Avenue corridor in Upper Arlington can presently support up to 190,000 additional square feet (sf) of retail and restaurant development which could generate as much as $70.2 million in annual sales by 2024. This new commercial development could include 40 to 45 new retail stores totaling 155,000 sf and 12 to 15 new restaurants totaling 35,000 sf. The supportable new businesses include department stores, grocery, general merchandise stores, full-service restaurants, pharmacy and hardware. The Lane Avenue district could potentially support considerably more new retail and restaurant development as the proposed The Ohio State University West Campus research center is completed.

The Lane Avenue corridor is in the City of Upper Arlington, which is experiencing tremendous growth. Its primary trade area is home to roughly 60,000 people and 25,000 households with a $119,400 average annual household income. Many trade area residents are gainfully employed and the median age is 38.9 years – 3.8 years above the county average. An impressive 75.7 percent of the trade area's residents over the age of 25 have a four-year college degree and 56.8 percent of households earn over $75,000 per year.

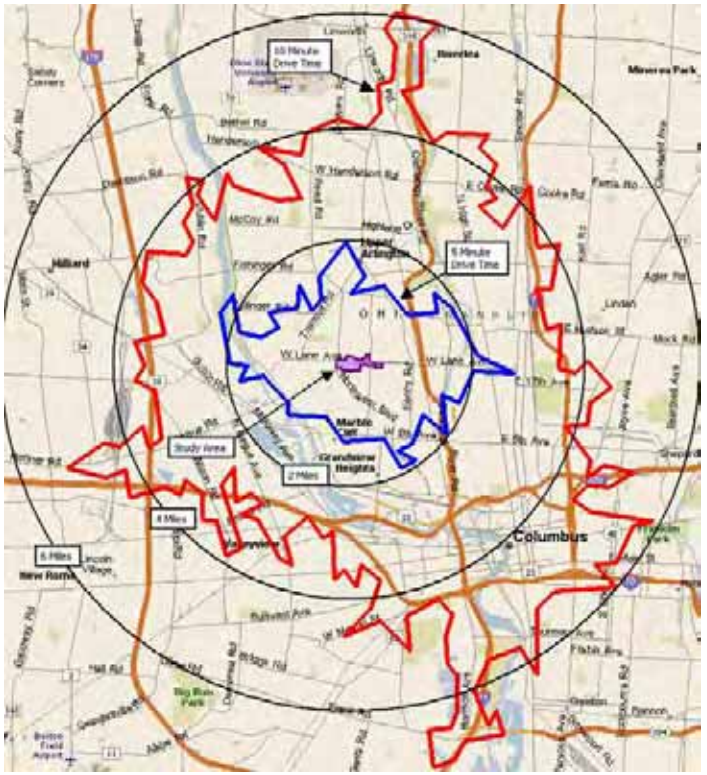


Figure 2: *Map showing the 5-minute and 10-minute drive times from the Lane Avenue corridor study area.*

Background

As part of the Lane Avenue Corridor Study, Gibbs Planning Group, Inc. (GPG) has been retained by OHM Advisors as a subconsultant to conduct a retail feasibility analysis to determine how much and what types of retail and restaurants (if any) are supportable within the Lane Avenue corridor in Upper Arlington, Ohio through 2024.

GPG addressed the following issues in this study:

- What is the existing retail market for the Lane Avenue corridor and surrounding areas?
- What are the existing and potential trade areas for the Lane Avenue corridor?

- What are the population, demographic and lifestyle characteristics in the primary trade area, currently and projected for 2024?
- What is the current and projected growth for retail expenditures in the primary trade area, now and in 2024?
- How much retail square footage is supportable in the Lane Avenue corridor and what retail uses may seek to deploy a new business there?
- What retail sales volumes can potentially be achieved in the Lane Avenue corridor by these new businesses?

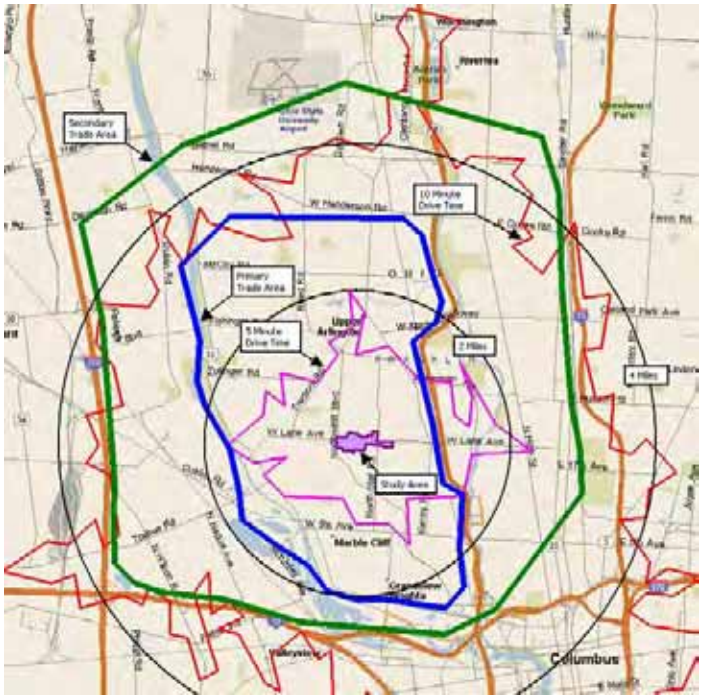


***Figure 3**: The study area's primary trade area (shown above in blue) and secondary trade area (shown above in green).*

Trade Area Boundaries

The primary trade area is the consumer market where the study area has a significant competitive advantage because of access, design, lack of quality competition and traffic and commute

patterns. This study finds that the Lane Avenue corridor's primary trade area extends north to Sandover Road and Old Henderson Road, east to SR-315, south to Goodale Boulevard and Dublin Road and west to Mckinley Avenue and the Scioto River. GPG estimates that residents, visitors and workers inside the primary trade area will account for up to 60 to 70 percent of the total sales captured by retailers inside the Lane Avenue corridor study area.

The secondary or community-oriented trade area (Figure 3) extends in all directions to include residents and workers who because of convenient access may in the future generate expenditure for Lane Avenue corridor retailers. The boundaries of the secondary or community-oriented trade area extend north to Davidson Road, the Ohio State University Airport and East Kanawha Avenue, east to Indianola Avenue and the Ohio Expo Center & State Fair, south to I-670 and I-70, and west to I-270. Residents who live in the secondary, but not the primary, trade area will shop at Lane Avenue retailers frequently, but it will not be their primary shopping destination. GPG estimates that consumer expenditure by these residents will account for 10 to 20 percent of the retail sales inside the Lane Avenue study area.

Table 1: Demographic Characteristics

Demographic Characteristic	*Primary Trade Area*	*Secondary Trade Area*	*3-Mile Radius*	*5-Mile Radius*	*Franklin County*
2019 Population	**58,700**	198,100	137,200	335,200	1,302,100
2019 Households	**27,300**	86,600	57,500	144,500	532,100
2024 Population	**61,500**	208,400	143,800	354,400	1,375,300
2024 Households	**28,600**	91,400	60,500	153,400	562,400
2019-2024 Annual Population Growth Rate	**0.93%**	1.02%	0.94%	1.12%	1.10%
2019-2024 Annual HH Growth Rate	**0.96%**	1.07%	1.02%	1.20%	1.12%
2019 Average Household Income	**$119,400**	$89,000	$87,500	$77,400	$80,700
2019 Median Household Income	**$85,400**	$62,200	$59,400	$53,800	$59,700
2024 Average Household Income	**$130,100**	$98,200	$96,200	$86,700	$91,400
2024 Median Household Income	**$93,700**	$69,200	$65,500	$59,500	$67,700
% Households w. incomes $75,000 or higher	**56.8%**	43.0%	41.5%	36.2%	40.2%
% Bachelor's Degree	**41.1%**	37.8%	39.7%	29.4%	25.1%
% Graduate or Professional Degree	**34.6%**	29.0%	30.8%	20.6%	15.1%
Average Household Size	**2.13**	2.12	2.14	2.20	2.39
Median Age	**38.9**	29.7	27.1	31.8	35.1

***Table 1:** A comparison of the key demographic characteristics of the primary trade area and secondary trade area, 3-mile radius and 5-mile radius from the center of the Lane Avenue corridor study area and Franklin County.*

Trade Area Demographics

Using data from Esri (Environmental Systems Research Institute) and the U.S. Census Bureau, GPG obtained the most recent population and demographic characteristics (2019) and those projected for the primary trade area, secondary trade area, 3-mile radius and 5-mile radius from the center of the study area and Franklin County.

Appendix B. Market Studies

Retail Market Studies

The primary trade area includes 58,700 people, which is expected to increase at an annual rate of 0.93 percent to 61,500 by 2024. Currently, the primary trade area has 27,300 households, which is projected to increase at an annual rate of 0.96 percent to 28,600 by 2024. The 2019 average household income is $119,400 and is estimated to increase to $130,100 by 2024. The median household income in the primary trade area is $85,400 and is projected to increase to $93,700 by 2024. Moreover, 56.8 percent of the households earn above $75,000 per year. The current average household size is 2.13 people and the median age is 38.9 years old.

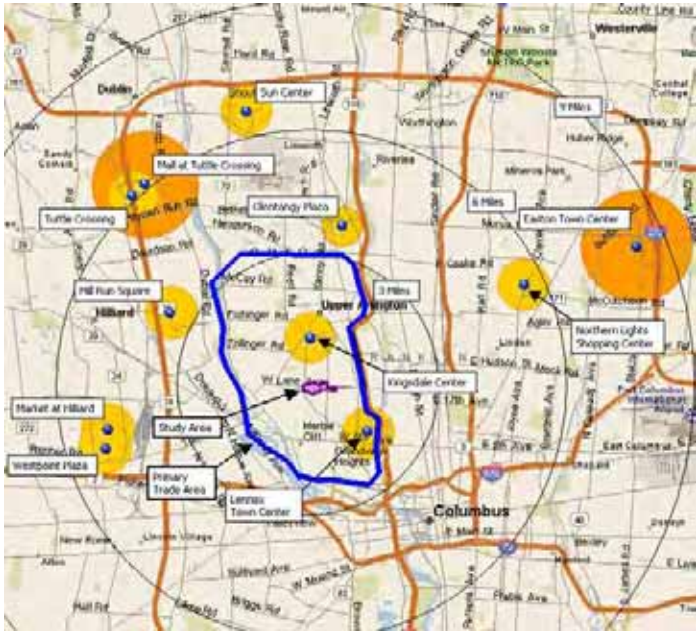


Figure 4: *The Lane Avenue corridor's primary trade area (shown above inside the blue line) and major retail competition. Note: Polaris Fashion Place, a 1.6 million sf regional shopping center located approximately 10.5 miles northeast of the Lane Avenue Study area, is not pictured.*

In comparison, the secondary trade area reports a current average household income of $89,000 and median household income of $62,200. By 2024, the average household income is projected to rise to $98,200, with the median household income also rising to $69,200. Population and household counts are expected to increase, with annual growth rates through 2024 of 1.02 percent and 1.07 percent, respectively.

Table 2: 2019 & 2024 Supportable Retail Table*

Retail Category	Total Demand	Estimated Supportable SF		2019 Sales/SF	2019 Estimated Retail Sales	2024 Sales/SF	2024 Estimated Retail Sales
Retailers							
Apparel Stores	$57,996,627	9,500	sf	$380	$3,610,000	$400	$3,800,000
Beer, Wine & Liquor Stores	$23,497,908	3,200	sf	$380	$1,216,000	$400	$1,280,000
Department Store Merchandise	$155,400,139	28,200	sf	$310	$8,742,000	$325	$9,165,000
Electronics & Appliance Stores	$59,795,421	5,700	sf	$380	$2,166,000	$400	$2,280,000
Furniture Stores	$33,052,042	5,000	sf	$365	$1,825,000	$385	$1,925,000
General Merchandise Stores	$89,710,133	16,200	sf	$275	$4,455,000	$290	$4,698,000
Grocery Stores	$256,599,464	17,500	sf	$520	$9,100,000	$545	$9,537,500
Hardware	$81,863,933	11,500	sf	$260	$2,990,000	$275	$3,162,500
Home Furnishings Stores	$30,760,194	6,400	sf	$345	$2,208,000	$360	$2,304,000
Jewelry Stores	$21,900,869	3,900	sf	$415	$1,618,500	$435	$1,696,500
Garden Stores	$9,200,800	2,400	sf	$265	$636,000	$280	$672,000
Miscellaneous Store Retailers	$45,876,522	7,400	sf	$275	$2,035,000	$290	$2,146,000
Office Supplies & Gift Stores	$31,217,799	8,200	sf	$280	$2,296,000	$295	$2,419,000
Pharmacy	$114,384,540	12,200	sf	$480	$5,856,000	$505	$6,161,000
Shoe Stores	$18,062,036	3,400	sf	$345	$1,173,000	$360	$1,224,000
Food: Cheese, Meats & Produce	$22,748,930	6,700	sf	$295	$1,976,500	$310	$2,077,000
Sporting Goods & Hobby Stores	$36,731,113	7,000	sf	$310	$2,170,000	$325	$2,275,000
Retailer Totals	**$1,088,798,468**	**154,400**	**sf**	**$346**	**$54,073,000**	**$364**	**$56,822,500**
Restaurants							
Bars, Breweries & Pubs	$33,295,653	8,300	sf	$360	$2,988,000	$380	$3,154,000
Full-Service Restaurants	$110,252,434	12,500	sf	$385	$4,812,500	$405	$5,062,500
Limited-Service Eating Places	$108,025,662	9,600	sf	$320	$3,072,000	$335	$3,216,000
Bakery, Coffee, Ice Cream, etc.	$14,295,969	7,000	sf	$275	$1,925,000	$290	$2,030,000
Restaurant Totals	**$265,869,718**	**37,400**	**sf**	**$335**	**$12,797,500**	**$353**	**$13,462,500**
Retailer & Restaurant Totals	**$1,354,668,186**	**191,800**	**sf**	**$344**	**$66,870,500**	**$361**	**$70,285,000**

Table 2: *The leading supportable retail and restaurant categories are department store merchandise, grocery, general merchandise stores, full-service restaurants and pharmacy.*

*These figures are based on current demand and therefore do not take into account the proposed OSU expansion.

METHODOLOGY

To determine the amounts and types of retail supportable in the Lane Avenue corridor GPG defined a trade area based on geographic and topographic considerations, traffic access/flow in the area, relative retail strengths and weaknesses of the competition, concentrations of daytime employment and the retail gravitation in the market, as well as our experience defining trade areas for similar markets. Population, consumer expenditure and demographic characteristics of trade area residents were collected by census tracts from the U.S. Bureau of the Census, U.S. Bureau of Labor Statistics and Esri.

Finally, based on the projected consumer expenditure capture (demand) in the primary trade area of the gross consumer expenditure by retail category, less the current existing retail sales (supply) by retail category, GPG projects the potential net consumer expenditure (gap) available to support new development. The projected net consumer expenditure capture is based on household expenditure and demographic characteristics of the primary trade area, existing and planned retail competition, traffic and retail gravitational patterns and GPG's qualitative assessment of the Lane Avenue corridor. Net potential captured consumer expenditure (gap) is equated to potential retail development square footage, with the help of retail sales per square foot data provided by Dollars and Cents of Shopping Centers (Urban Land Institute and International Council of Shopping Centers), qualitatively adjusted to fit the urbanism and demographics of the study area.
For the purposes of this study, GPG has assumed the following:

- No major regional retail centers will be developed within the trade area of this analysis through 2024.
- The region's economy will continue at normal or above normal ranges of employment, inflation, retail demand and growth.
- The Lane Avenue corridor is properly zoned to support infill and redevelopment projects with current and innovative standards, and the existing infrastructure (water, sewer, arterial roadways, etc.) will be able to support commercial development.
- Annual population growth for the Lane Avenue corridor's primary trade area is estimated to be 0.93 percent throughout the five-year period of this study.
- Retail demand is not impacted by the planned Ohio State west campus district.
- Employment distribution is projected to remain constant, without a spike or decline in employment by NAICS categories.
- Any new construction will be planned, designed, built and managed to the best practices of the American Institute of Architects, American Planning Association, American Society of Landscape Architects, Congress for the New Urbanism, International Council of Shopping Centers and the Urban Land Institute.
- Parking for new commercial development projects or businesses in the Lane Avenue corridor will meet or exceed industry standards.
- Visibility of any new retail is also assumed to be very good, with signage as required to assure easy visibility of the retailers.

LIMITS OF STUDY

The findings of this study represent GPG's best estimates for the amounts and types of retail and restaurant businesses that should be supportable in the Lane Avenue corridor now and through 2024. Every reasonable effort has been made to ensure that the data contained in this study

reflects the most accurate and timely information possible and is believed to be reliable. It should be noted that the findings of this study are based upon generally accepted market research and business standards. It is possible that the study area could support lower or higher quantities of retailers and restaurants yielding lower or higher sales revenues than indicated by this study, depending on numerous factors including respective business practices and the management and design of the study area.

This study is based on estimates, assumptions and other information developed by GPG as an independent third-party research effort with general knowledge of the retail industry, and consultations with the client and its representatives. This report is based on information that was current as of October 10, 2019 and GPG has not undertaken any update of its research effort since such date.

This report may contain prospective financial information, estimates, or opinions that represent GPG's view of reasonable expectations at a particular time. Such information, estimates, or opinions are not offered as predictions or assurances that a particular level of income or profit will be achieved, that particular events will occur, or that a particular price will be offered or accepted. Actual results achieved during the period covered by our market analysis may vary from those described in our report, and the variations may be material. Therefore, no warranty or representation is made by GPG that any of the projected values or results contained in this study will be achieved.

This study ***should not*** be the sole basis for designing, financing, planning, and programming any business, real estate development or public planning policy. This study is intended only for the use of the City of Upper Arlington and is void for other municipalities and organizations.

--End of Study--

Appendix B. Market Studies

Retail Market Studies

Appendix EXHIBIT A1: Primary Trade Area Community Profile

Gibbs Planning Group

Community Profile

Primary Trade Area
Area: 15.06 square miles

Prepared by Esri

Population Summary	
2000 Total Population	52,676
2010 Total Population	53,820
2019 Total Population	58,675
2019 Group Quarters	440
2024 Total Population	61,468
2019-2024 Annual Rate	0.93%
2019 Total Daytime Population	59,151
Workers	35,756
Residents	23,395
Household Summary	
2000 Households	24,501
2000 Average Household Size	2.13
2010 Households	25,020
2010 Average Household Size	2.14
2019 Households	27,304
2019 Average Household Size	2.13
2024 Households	28,642
2024 Average Household Size	2.13
2019-2024 Annual Rate	0.96%
2010 Families	13,125
2010 Average Family Size	2.89
2019 Families	13,782
2019 Average Family Size	2.92
2024 Families	14,263
2024 Average Family Size	2.93
2019-2024 Annual Rate	0.69%
Housing Unit Summary	
2000 Housing Units	25,333
Owner Occupied Housing Units	60.7%
Renter Occupied Housing Units	36.0%
Vacant Housing Units	3.3%
2010 Housing Units	26,595
Owner Occupied Housing Units	57.4%
Renter Occupied Housing Units	36.7%
Vacant Housing Units	5.9%
2019 Housing Units	28,495
Owner Occupied Housing Units	54.4%
Renter Occupied Housing Units	41.4%
Vacant Housing Units	4.2%
2024 Housing Units	29,775
Owner Occupied Housing Units	54.8%
Renter Occupied Housing Units	41.4%
Vacant Housing Units	3.8%
Median Household Income	
2019	$85,379
2024	$93,684
Median Home Value	
2019	$347,651
2024	$362,150
Per Capita Income	
2019	$55,905
2024	$61,032
Median Age	
2010	37.4
2019	38.9
2024	39.8

Data Note: Household population includes persons not residing in group quarters. Average Household Size is the household population divided by total households. Persons in families include the householder and persons related to the householder by birth, marriage, or adoption. Per Capita Income represents the income received by all persons aged 15 years and over divided by the total population.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2019 and 2024 Esri converted Census 2000 data into 2010 geography.

Appendix EXHIBIT A2: Primary Trade Area Community Profile

Gibbs Planning Group

Community Profile

Primary Trade Area
Area: 15.06 square miles

Prepared by Esri

2019 Households by Income	
Household Income Base	27,304
<$15,000	5.8%
$15,000 - $24,999	5.4%
$25,000 - $34,999	6.4%
$35,000 - $49,999	9.3%
$50,000 - $74,999	16.3%
$75,000 - $99,999	13.9%
$100,000 - $149,999	20.0%
$150,000 - $199,999	9.6%
$200,000+	13.3%
Average Household Income	$119,368
2024 Households by Income	
Household Income Base	28,642
<$15,000	4.7%
$15,000 - $24,999	4.5%
$25,000 - $34,999	5.8%
$35,000 - $49,999	8.5%
$50,000 - $74,999	15.2%
$75,000 - $99,999	14.1%
$100,000 - $149,999	21.8%
$150,000 - $199,999	11.4%
$200,000+	13.9%
Average Household Income	$130,108
2019 Owner Occupied Housing Units by Value	
Total	15,500
<$50,000	0.3%
$50,000 - $99,999	0.6%
$100,000 - $149,999	3.1%
$150,000 - $199,999	9.5%
$200,000 - $249,999	12.0%
$250,000 - $299,999	12.6%
$300,000 - $399,999	25.0%
$400,000 - $499,999	16.5%
$500,000 - $749,999	15.4%
$750,000 - $999,999	3.6%
$1,000,000 - $1,499,999	1.1%
$1,500,000 - $1,999,999	0.3%
$2,000,000 +	0.0%
Average Home Value	$391,974
2024 Owner Occupied Housing Units by Value	
Total	16,317
<$50,000	0.1%
$50,000 - $99,999	0.2%
$100,000 - $149,999	1.9%
$150,000 - $199,999	7.9%
$200,000 - $249,999	11.2%
$250,000 - $299,999	12.3%
$300,000 - $399,999	26.3%
$400,000 - $499,999	18.2%
$500,000 - $749,999	16.6%
$750,000 - $999,999	4.2%
$1,000,000 - $1,499,999	0.7%
$1,500,000 - $1,999,999	0.3%
$2,000,000 +	0.0%
Average Home Value	$405,040

Data Note: Income represents the preceding year, expressed in current dollars. Household income includes wage and salary earnings, interest dividends, net rents, pensions, SSI and welfare payments, child support, and alimony.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2019 and 2024 Esri converted Census 2000 data into 2010 geography.

Retail Market Studies

Appendix EXHIBIT A3: Primary Trade Area Community Profile

Gibbs Planning Group

Community Profile

Primary Trade Area
Area: 15.06 square miles

Prepared by Esri

2010 Population by Age	
Total	53,818
0 - 4	5.0%
5 - 9	5.6%
10 - 14	5.6%
15 - 24	12.7%
25 - 34	18.1%
35 - 44	12.7%
45 - 54	14.1%
55 - 64	12.1%
65 - 74	6.6%
75 - 84	5.0%
85 +	2.5%
18 +	80.3%
2019 Population by Age	
Total	58,676
0 - 4	4.5%
5 - 9	4.7%
10 - 14	5.3%
15 - 24	12.3%
25 - 34	17.8%
35 - 44	12.6%
45 - 54	12.1%
55 - 64	13.0%
65 - 74	9.7%
75 - 84	5.2%
85 +	2.8%
18 +	82.3%
2024 Population by Age	
Total	61,470
0 - 4	4.5%
5 - 9	4.7%
10 - 14	4.8%
15 - 24	11.8%
25 - 34	17.8%
35 - 44	13.2%
45 - 54	11.4%
55 - 64	12.0%
65 - 74	10.9%
75 - 84	6.2%
85 +	2.8%
18 +	83.2%
2010 Population by Sex	
Males	26,028
Females	27,792
2019 Population by Sex	
Males	28,637
Females	30,038
2024 Population by Sex	
Males	30,091
Females	31,377

Source: U.S. Census Bureau, Census 2010 Summary File 1 Esri forecasts for 2019 and 2024 Esri converted Census 2000 data into 2010 geography.

Appendix EXHIBIT A4: Primary Trade Area Community Profile

Gibbs Planning Group

Community Profile

Primary Trade Area
Area: 15.06 square miles

Prepared by Esri

2010 Population by Race/Ethnicity	
Total	53,820
White Alone	90.8%
Black Alone	1.7%
American Indian Alone	0.2%
Asian Alone	5.0%
Pacific Islander Alone	0.0%
Some Other Race Alone	0.6%
Two or More Races	1.8%
Hispanic Origin	2.0%
Diversity Index	20.6
2019 Population by Race/Ethnicity	
Total	58,675
White Alone	87.2%
Black Alone	2.1%
American Indian Alone	0.2%
Asian Alone	7.3%
Pacific Islander Alone	0.0%
Some Other Race Alone	0.8%
Two or More Races	2.4%
Hispanic Origin	2.7%
Diversity Index	27.5
2024 Population by Race/Ethnicity	
Total	61,468
White Alone	84.9%
Black Alone	2.4%
American Indian Alone	0.2%
Asian Alone	8.9%
Pacific Islander Alone	0.0%
Some Other Race Alone	0.9%
Two or More Races	2.8%
Hispanic Origin	3.3%
Diversity Index	31.7
2010 Population by Relationship and Household Type	
Total	53,820
In Households	99.3%
In Family Households	71.3%
Householder	24.5%
Spouse	20.3%
Child	24.0%
Other relative	1.7%
Nonrelative	0.8%
In Nonfamily Households	28.0%
In Group Quarters	0.7%
Institutionalized Population	0.7%
Noninstitutionalized Population	0.0%

Data Note: Persons of Hispanic Origin may be of any race. The Diversity Index measures the probability that two people from the same area will be from different race/ethnic groups.
Source: U.S. Census Bureau, Census 2010 Summary File 1 Esri forecasts for 2019 and 2024 Esri converted Census 2000 data into 2010 geography.

Appendix B. Market Studies

Retail Market Studies

Appendix EXHIBIT A5: Primary Trade Area Community Profile

Gibbs Planning Group

Community Profile

Primary Trade Area
Area: 15.06 square miles

Prepared by Esri

2019 Population 25+ by Educational Attainment	
Total	42,934
Less than 9th Grade	0.5%
9th - 12th Grade, No Diploma	1.0%
High School Graduate	7.1%
GED/Alternative Credential	0.7%
Some College, No Degree	11.6%
Associate Degree	3.3%
Bachelor's Degree	41.1%
Graduate/Professional Degree	34.6%
2019 Population 15+ by Marital Status	
Total	50,148
Never Married	35.1%
Married	52.3%
Widowed	4.3%
Divorced	8.4%
2019 Civilian Population 16+ in Labor Force	
Civilian Employed	98.0%
Civilian Unemployed (Unemployment Rate)	2.0%
2019 Employed Population 16+ by Industry	
Total	35,984
Agriculture/Mining	0.2%
Construction	3.1%
Manufacturing	5.1%
Wholesale Trade	2.7%
Retail Trade	7.6%
Transportation/Utilities	4.0%
Information	2.2%
Finance/Insurance/Real Estate	10.2%
Services	60.7%
Public Administration	4.2%
2019 Employed Population 16+ by Occupation	
Total	35,984
White Collar	84.8%
Management/Business/Financial	24.3%
Professional	41.7%
Sales	9.3%
Administrative Support	9.6%
Services	9.2%
Blue Collar	5.9%
Farming/Forestry/Fishing	0.0%
Construction/Extraction	1.0%
Installation/Maintenance/Repair	1.0%
Production	1.8%
Transportation/Material Moving	2.2%
2010 Population By Urban/ Rural Status	
Total Population	53,820
Population Inside Urbanized Area	100.0%
Population Inside Urbanized Cluster	0.0%
Rural Population	0.0%

Source: U.S. Census Bureau, Census 2010 Summary File 1 Esri forecasts for 2019 and 2024 Esri converted Census 2000 data into 2010 geography.

Appendix EXHIBIT A6: Primary Trade Area Community Profile

Gibbs Planning Group

Community Profile

Primary Trade Area
Area: 15.06 square miles

Prepared by Esri

2010 Households by Type	
Total	25,021
Households with 1 Person	37.1%
Households with 2+ People	62.9%
Family Households	52.5%
Husband-wife Families	43.4%
With Related Children	18.6%
Other Family (No Spouse Present)	9.0%
Other Family with Male Householder	2.6%
With Related Children	1.2%
Other Family with Female Householder	6.4%
With Related Children	3.6%
Nonfamily Households	10.4%
All Households with Children	23.6%
Multigenerational Households	1.0%
Unmarried Partner Households	5.6%
Male-female	4.8%
Same-sex	0.8%
2010 Households by Size	
Total	25,021
1 Person Household	37.1%
2 Person Household	35.1%
3 Person Household	12.5%
4 Person Household	10.2%
5 Person Household	3.9%
6 Person Household	0.9%
7 + Person Household	0.3%
2010 Households by Tenure and Mortgage Status	
Total	25,020
Owner Occupied	61.0%
Owned with a Mortgage/Loan	43.6%
Owned Free and Clear	17.4%
Renter Occupied	39.0%
2010 Housing Units By Urban/ Rural Status	
Total Housing Units	26,595
Housing Units Inside Urbanized Area	100.0%
Housing Units Inside Urbanized Cluster	0.0%
Rural Housing Units	0.0%

Data Note: Households with children include any households with people under age 18, related or not. Multigenerational households are families with 3 or more parent-child relationships. Unmarried partner households are usually classified as nonfamily households unless there is another member of the household related to the householder. Multigenerational and unmarried partner households are reported only to the tract level. Esri estimated block group data, which is used to estimate polygons or non-standard geography.

Source: U.S. Census Bureau, Census 2010 Summary File 1 Esri forecasts for 2019 and 2024 Esri converted Census 2000 data into 2010 geography.

Retail Market Studies

Appendix EXHIBIT A7: Primary Trade Area Community Profile

Gibbs Planning Group

Community Profile

Primary Trade Area
Area: 15.06 square miles

Prepared by Esri

Top 3 Tapestry Segments	
1.	Metro Renters (3B)
2.	In Style (5B)
3.	Exurbanites (1E)
2019 Consumer Spending	
Apparel & Services: Total $	$79,914,149
Average Spent	$2,926.83
Spending Potential Index	137
Education: Total $	$62,266,680
Average Spent	$2,280.50
Spending Potential Index	143
Entertainment/Recreation: Total $	$119,216,132
Average Spent	$4,366.25
Spending Potential Index	134
Food at Home: Total $	$186,125,934
Average Spent	$6,816.80
Spending Potential Index	132
Food Away from Home: Total $	$137,841,151
Average Spent	$5,048.39
Spending Potential Index	137
Health Care: Total $	$209,713,177
Average Spent	$7,680.68
Spending Potential Index	129
HH Furnishings & Equipment: Total $	$79,018,651
Average Spent	$2,894.03
Spending Potential Index	136
Personal Care Products & Services: Total $	$33,174,675
Average Spent	$1,215.01
Spending Potential Index	137
Shelter: Total $	$699,893,025
Average Spent	$25,633.35
Spending Potential Index	139
Support Payments/Cash Contributions/Gifts in Kind: Total $	$92,546,066
Average Spent	$3,389.47
Spending Potential Index	137
Travel: Total $	$85,078,971
Average Spent	$3,115.99
Spending Potential Index	139
Vehicle Maintenance & Repairs: Total $	$43,459,978
Average Spent	$1,591.71
Spending Potential Index	139

Data Note: Consumer spending shows the amount spent on a variety of goods and services by households that reside in the area. Expenditures are shown by broad budget categories that are not mutually exclusive. Consumer spending does not equal business revenue. Total and Average Amount Spent Per Household represent annual figures. The Spending Potential Index represents the amount spent in the area relative to a national average of 100.

Source: Consumer Spending data are derived from the 2016 and 2017 Consumer Expenditure Surveys, Bureau of Labor Statistics. Esri.
Source: U.S. Census Bureau, Census 2010 Summary File 1 Esri forecasts for 2019 and 2024 Esri converted Census 2000 data into 2010 geography.

Appendix EXHIBIT B1: Secondary Trade Area Community Profile

Gibbs Planning Group

Community Profile

Secondary Trade Area
Area: 41.99 square miles

Prepared by Esri

Population Summary	
2000 Total Population	172,504
2010 Total Population	177,683
2019 Total Population	198,137
2019 Group Quarters	14,779
2024 Total Population	208,438
2019-2024 Annual Rate	1.02%
2019 Total Daytime Population	253,633
Workers	170,338
Residents	83,295
Household Summary	
2000 Households	77,226
2000 Average Household Size	2.09
2010 Households	78,440
2010 Average Household Size	2.11
2019 Households	86,632
2019 Average Household Size	2.12
2024 Households	91,389
2024 Average Household Size	2.12
2019-2024 Annual Rate	1.07%
2010 Families	33,411
2010 Average Family Size	2.80
2019 Families	35,458
2019 Average Family Size	2.83
2024 Families	36,998
2024 Average Family Size	2.83
2019-2024 Annual Rate	0.85%
Housing Unit Summary	
2000 Housing Units	81,202
Owner Occupied Housing Units	46.2%
Renter Occupied Housing Units	48.9%
Vacant Housing Units	4.9%
2010 Housing Units	83,667
Owner Occupied Housing Units	44.6%
Renter Occupied Housing Units	49.1%
Vacant Housing Units	6.2%
2019 Housing Units	90,626
Owner Occupied Housing Units	42.5%
Renter Occupied Housing Units	53.1%
Vacant Housing Units	4.4%
2024 Housing Units	95,159
Owner Occupied Housing Units	43.0%
Renter Occupied Housing Units	53.1%
Vacant Housing Units	4.0%
Median Household Income	
2019	$62,151
2024	$69,238
Median Home Value	
2019	$266,934
2024	$284,575
Per Capita Income	
2019	$39,200
2024	$43,341
Median Age	
2010	29.0
2019	29.7
2024	30.2

Data Note: Household population includes persons not residing in group quarters. Average Household Size is the household population divided by total households. Persons in families include the householder and persons related to the householder by birth, marriage, or adoption. Per Capita Income represents the income received by all persons aged 15 years and over divided by the total population.
Source: U.S. Census Bureau, Census 2010 Summary File 1 Esri forecasts for 2019 and 2024 Esri converted Census 2000 data into 2010 geography.

Appendix B. Market Studies

Retail Market Studies

Appendix EXHIBIT B2: Secondary Trade Area Community Profile

Gibbs Planning Group

Community Profile

Secondary Trade Area
Area: 41.99 square miles

Prepared by Esri

2019 Households by Income	
Household Income Base	86,625
<$15,000	12.5%
$15,000 - $24,999	8.4%
$25,000 - $34,999	8.7%
$35,000 - $49,999	10.7%
$50,000 - $74,999	16.7%
$75,000 - $99,999	12.7%
$100,000 - $149,999	16.2%
$150,000 - $199,999	6.7%
$200,000+	7.4%
Average Household Income	$89,020
2024 Households by Income	
Household Income Base	91,382
<$15,000	10.7%
$15,000 - $24,999	7.6%
$25,000 - $34,999	8.3%
$35,000 - $49,999	10.2%
$50,000 - $74,999	16.0%
$75,000 - $99,999	13.1%
$100,000 - $149,999	18.0%
$150,000 - $199,999	8.2%
$200,000+	7.9%
Average Household Income	$98,213
2019 Owner Occupied Housing Units by Value	
Total	38,446
<$50,000	0.7%
$50,000 - $99,999	2.4%
$100,000 - $149,999	8.1%
$150,000 - $199,999	16.0%
$200,000 - $249,999	18.3%
$250,000 - $299,999	13.4%
$300,000 - $399,999	19.0%
$400,000 - $499,999	10.2%
$500,000 - $749,999	9.0%
$750,000 - $999,999	1.8%
$1,000,000 - $1,499,999	0.7%
$1,500,000 - $1,999,999	0.2%
$2,000,000 +	0.2%
Average Home Value	$319,547
2024 Owner Occupied Housing Units by Value	
Total	40,815
<$50,000	0.3%
$50,000 - $99,999	1.5%
$100,000 - $149,999	6.1%
$150,000 - $199,999	14.3%
$200,000 - $249,999	18.2%
$250,000 - $299,999	14.0%
$300,000 - $399,999	21.0%
$400,000 - $499,999	11.7%
$500,000 - $749,999	10.0%
$750,000 - $999,999	2.2%
$1,000,000 - $1,499,999	0.5%
$1,500,000 - $1,999,999	0.1%
$2,000,000 +	0.2%
Average Home Value	$334,590

Data Note: Income represents the preceding year, expressed in current dollars. Household income includes wage and salary earnings, interest dividends, net rents, pensions, SSI and welfare payments, child support, and alimony.
Source: U.S. Census Bureau, Census 2010 Summary File 1 Esri forecasts for 2019 and 2024 Esri converted Census 2000 data into 2010 geography.

Appendix EXHIBIT B3: Secondary Trade Area Community Profile

Gibbs Planning Group

Community Profile

Secondary Trade Area
Area: 41.99 square miles

Prepared by Esri

2010 Population by Age	
Total	177,683
0 - 4	4.5%
5 - 9	3.8%
10 - 14	3.6%
15 - 24	29.0%
25 - 34	18.7%
35 - 44	10.4%
45 - 54	10.8%
55 - 64	9.5%
65 - 74	4.7%
75 - 84	3.3%
85 +	1.8%
18 +	86.0%
2019 Population by Age	
Total	198,138
0 - 4	3.8%
5 - 9	3.6%
10 - 14	3.6%
15 - 24	29.1%
25 - 34	17.8%
35 - 44	10.7%
45 - 54	8.9%
55 - 64	9.7%
65 - 74	7.1%
75 - 84	3.5%
85 +	2.1%
18 +	86.5%
2024 Population by Age	
Total	208,439
0 - 4	3.9%
5 - 9	3.5%
10 - 14	3.4%
15 - 24	28.9%
25 - 34	17.5%
35 - 44	10.9%
45 - 54	8.7%
55 - 64	8.9%
65 - 74	7.8%
75 - 84	4.5%
85 +	2.1%
18 +	86.8%
2010 Population by Sex	
Males	90,146
Females	87,537
2019 Population by Sex	
Males	101,212
Females	96,924
2024 Population by Sex	
Males	106,426
Females	102,013

Source: U.S. Census Bureau, Census 2010 Summary File 1 Esri forecasts for 2019 and 2024 Esri converted Census 2000 data into 2010 geography.

Retail Market Studies

Appendix EXHIBIT B4: Secondary Trade Area Community Profile

Gibbs Planning Group

Community Profile

Secondary Trade Area
Area: 41.99 square miles

Prepared by Esri

2010 Population by Race/Ethnicity	
Total	177,682
White Alone	85.5%
Black Alone	4.1%
American Indian Alone	0.2%
Asian Alone	6.6%
Pacific Islander Alone	0.0%
Some Other Race Alone	1.5%
Two or More Races	2.1%
Hispanic Origin	3.4%
Diversity Index	31.2
2019 Population by Race/Ethnicity	
Total	198,137
White Alone	80.8%
Black Alone	5.1%
American Indian Alone	0.2%
Asian Alone	9.4%
Pacific Islander Alone	0.0%
Some Other Race Alone	1.8%
Two or More Races	2.8%
Hispanic Origin	4.3%
Diversity Index	39.0
2024 Population by Race/Ethnicity	
Total	208,438
White Alone	78.1%
Black Alone	5.6%
American Indian Alone	0.2%
Asian Alone	11.0%
Pacific Islander Alone	0.0%
Some Other Race Alone	2.0%
Two or More Races	3.2%
Hispanic Origin	5.0%
Diversity Index	43.4
2010 Population by Relationship and Household Type	
Total	177,683
In Households	93.2%
In Family Households	54.0%
Householder	18.8%
Spouse	14.7%
Child	17.1%
Other relative	2.1%
Nonrelative	1.2%
In Nonfamily Households	39.3%
In Group Quarters	6.8%
Institutionalized Population	0.5%
Noninstitutionalized Population	6.3%

Data Note: Persons of Hispanic Origin may be of any race. The Diversity Index measures the probability that two people from the same area will be from different race/ethnic groups.
Source: U.S. Census Bureau, Census 2010 Summary File 1 Esri forecasts for 2019 and 2024 Esri converted Census 2000 data into 2010 geography.

Appendix EXHIBIT B5: Secondary Trade Area Community Profile

Gibbs Planning Group

Community Profile

Secondary Trade Area
Area: 41.99 square miles

Prepared by Esri

2019 Population 25+ by Educational Attainment	
Total	118,578
Less than 9th Grade	1.1%
9th - 12th Grade, No Diploma	1.6%
High School Graduate	9.8%
GED/Alternative Credential	1.1%
Some College, No Degree	14.6%
Associate Degree	4.9%
Bachelor's Degree	37.8%
Graduate/Professional Degree	29.0%
2019 Population 15+ by Marital Status	
Total	176,322
Never Married	53.8%
Married	36.2%
Widowed	3.3%
Divorced	6.8%
2019 Civilian Population 16+ in Labor Force	
Civilian Employed	96.9%
Civilian Unemployed (Unemployment Rate)	3.1%
2019 Employed Population 16+ by Industry	
Total	118,028
Agriculture/Mining	0.3%
Construction	2.9%
Manufacturing	5.1%
Wholesale Trade	2.2%
Retail Trade	9.2%
Transportation/Utilities	4.1%
Information	2.2%
Finance/Insurance/Real Estate	8.4%
Services	61.9%
Public Administration	3.8%
2019 Employed Population 16+ by Occupation	
Total	118,030
White Collar	75.3%
Management/Business/Financial	18.0%
Professional	35.9%
Sales	9.3%
Administrative Support	12.1%
Services	15.9%
Blue Collar	8.9%
Farming/Forestry/Fishing	0.1%
Construction/Extraction	1.4%
Installation/Maintenance/Repair	1.3%
Production	2.6%
Transportation/Material Moving	3.5%
2010 Population By Urban/ Rural Status	
Total Population	177,683
Population Inside Urbanized Area	100.0%
Population Inside Urbanized Cluster	0.0%
Rural Population	0.0%

Source: U.S. Census Bureau, Census 2010 Summary File 1 Esri forecasts for 2019 and 2024 Esri converted Census 2000 data into 2010 geography.

Appendix B. Market Studies

Retail Market Studies

Appendix EXHIBIT B6: Secondary Trade Area Community Profile

Gibbs Planning Group

Community Profile

Secondary Trade Area
Area: 41.99 square miles

Prepared by Esri

2010 Households by Type	
Total	78,439
Households with 1 Person	37.7%
Households with 2+ People	62.3%
Family Households	42.6%
Husband-wife Families	33.3%
With Related Children	13.3%
Other Family (No Spouse Present)	9.3%
Other Family with Male Householder	3.0%
With Related Children	1.3%
Other Family with Female Householder	6.3%
With Related Children	3.5%
Nonfamily Households	19.7%
All Households with Children	18.3%
Multigenerational Households	1.0%
Unmarried Partner Households	7.1%
Male-female	5.8%
Same-sex	1.3%
2010 Households by Size	
Total	78,440
1 Person Household	37.7%
2 Person Household	35.5%
3 Person Household	12.8%
4 Person Household	8.9%
5 Person Household	3.5%
6 Person Household	1.0%
7 + Person Household	0.6%
2010 Households by Tenure and Mortgage Status	
Total	78,440
Owner Occupied	47.6%
Owned with a Mortgage/Loan	35.6%
Owned Free and Clear	12.0%
Renter Occupied	52.4%
2010 Housing Units By Urban/ Rural Status	
Total Housing Units	83,667
Housing Units Inside Urbanized Area	100.0%
Housing Units Inside Urbanized Cluster	0.0%
Rural Housing Units	0.0%

Data Note: Households with children include any households with people under age 18, related or not. Multigenerational households are families with 3 or more parent-child relationships. Unmarried partner households are usually classified as nonfamily households unless there is another member of the household related to the householder. Multigenerational and unmarried partner households are reported only to the tract level. Esri estimated block group data, which is used to estimate polygons or non-standard geography.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2019 and 2024 Esri converted Census 2000 data into 2010 geography.

Appendix EXHIBIT B7: Secondary Trade Area Community Profile

Gibbs Planning Group

Community Profile

Secondary Trade Area
Area: 41.99 square miles

Prepared by Esri

Top 3 Tapestry Segments	
1.	Metro Renters (3B)
2.	Dorms to Diplomas (14C)
3.	In Style (5B)
2019 Consumer Spending	
Apparel & Services: Total $	$196,603,663
Average Spent	$2,269.41
Spending Potential Index	106
Education: Total $	$154,716,407
Average Spent	$1,785.90
Spending Potential Index	112
Entertainment/Recreation: Total $	$282,803,886
Average Spent	$3,264.43
Spending Potential Index	100
Food at Home: Total $	$455,754,994
Average Spent	$5,260.82
Spending Potential Index	102
Food Away from Home: Total $	$341,691,084
Average Spent	$3,944.17
Spending Potential Index	107
Health Care: Total $	$492,964,149
Average Spent	$5,690.32
Spending Potential Index	96
HH Furnishings & Equipment: Total $	$188,504,398
Average Spent	$2,175.92
Spending Potential Index	102
Personal Care Products & Services: Total $	$79,817,724
Average Spent	$921.34
Spending Potential Index	104
Shelter: Total $	$1,701,586,512
Average Spent	$19,641.55
Spending Potential Index	106
Support Payments/Cash Contributions/Gifts in Kind: Total $	$212,941,077
Average Spent	$2,458.00
Spending Potential Index	99
Travel: Total $	$193,511,751
Average Spent	$2,233.72
Spending Potential Index	100
Vehicle Maintenance & Repairs: Total $	$107,070,115
Average Spent	$1,235.92
Spending Potential Index	108

Data Note: Consumer spending shows the amount spent on a variety of goods and services by households that reside in the area. Expenditures are shown by broad budget categories that are not mutually exclusive. Consumer spending does not equal business revenue. Total and Average Amount Spent Per Household represent annual figures. The Spending Potential Index represents the amount spent in the area relative to a national average of 100.

Source: Consumer Spending data are derived from the 2016 and 2017 Consumer Expenditure Surveys, Bureau of Labor Statistics. Esri.
Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2019 and 2024 Esri converted Census 2000 data into 2010 geography.

Bayshore Town Center

Bayshore Town Center in Glenview, Wisconsin, is a mixed-use, pedestrian friendly shopping center featuring more than 1.2 million square feet (111,480 sq m) of retail shops, restaurants, office, and multi-family residential units. Bayshore Town Center provides a dynamic atmosphere and unique space for visitors to shop, gather, relax, and have fun. This town center is a good example of new urbanism.

Originally an open-air strip mall built in 1954; Bayshore Town Center was one of the first automobile-oriented shopping centers constructed in Milwaukee . In the mid-1970s, it was converted into an indoor, self-closed mall, reaching approximately 600,000 square feet (55,740 sq m) of retail space. In 2006, Bayshore Town Center was redeveloped into a mixed-use, open space town center, with a total 1,300,000 square feet retail floor area. In order to stick with the vision and the town center plan, no "big-box" development is allowed in Bayshore Town Center .

Bayshore Town Center serves as a redevelopment model of how a public/private partnership can successfully plan and implement a new town center. The city of Glendale took many actions to create this mixed-use shopping center, such as assisting with land assemblage and environmental remediation, and providing significant public financing for the project. The development team remediated a polluted property and redeveloped it into a well-connected, walkable town center.

SITE DATA

Location:	Glenview, Wisconsin
Site Size:	55 Acres
Land Uses:	Retail, Office, and Multi-family Residential

Appendix C. Case Studies

Columbia Pike

Located outside Washington, D.C., in Arlington County, Virginia, Columbia Pike is the most diverse corridor in Arlington with a collection of residences, restaurants, and historic buildings. The Pike covers for more than three mile across Arlington's core, from Arlington Cemetery and Fort Myer in the east, all the way to Arlington's western border with Fairfax County.

The development of the Pike first began in the early 1900s when streetcars started connecting the Rosslyn and Nauck neighborhoods. The stop at the intersection of Columbia Pike and Walter Reed Drive became the focal point of early commercial development. However, with the increased number of automobile-oriented retailing, Columbia Pike's compact shopping began to spread out.

In order to alleviate the congestion and improve residents' quality of life, the county set a vision that includes affordable housing, improved transit, and pedestrian –friendly environment. Strategies for realizing this vision include using innovative Form Based Codes, encouraging higher density development, and making transportation and other public improvements. In the first 13 years after Form Based Codes was implemented, developers have added 3,084 residential units, more than 337,970 square feet of commercial space and a 52,300 square-foot community center, public plaza, mini-parks and new supermarkets.

Today's Columbia Pike becomes a place where people can shop, eat and get together. In 2014, the Congress for New Urbanism named the community's plan for the Pike the "Best Corridor Plan" in the nation.

SITE DATA

Location:	Arlington, Virginia
Site Size:	3 Mile Corridor
Land Uses:	Retail, Office, and Multi-family Residential

Bethesda Row

Bethesda Row in Bethesda, Maryland, is a mixed-use, pedestrian friendly redevelopment located two blocks from downtown Bethesda, a first-ring suburb immediately northwest of Washington, D.C. This property has a total of 534,000 square feet and 382 parking spaces. The population in a 3-mile radium is approximately 145,000 with an average household income of $212,000.

Bethesda Row development was built by the Federal Realty Investment Trust, the development creates a dynamic, pedestrian-friendly streetscape for visitors to shop, relax, and have fun. Design elements such as paved sidewalks, trees, outdoor seating help make Bethesda Row pleasant to walk around. A public parking garage is located in the center of Bethesda Row, where is easily accessible from all parts of the development. This 1,000-space garage is built by Montgomery County served as a critical subsidy for the project. This parking garage plays an important role in the development, because the project never would have been built if Federal Realty had been responsible for providing that amount of parking.

The project covers four city blocks and contains more than 300,000 square feet of retail and restaurant space; more than 140,000 square feet of office space; and 180 residences. In 2002, Bethesda Row received a Charter Award from the Congress for the New Urbanism and an Award for Excellence from the Urban Land Institute.

SITE DATA

Location:	Bethesda, Maryland
Site Size:	20 Acres
Land Uses:	Retail, Office, and Multi-family Residential

Appendix C. Case Studies

Silver Spring

Downtown Silver Spring is a mixed-use, urban infill redevelopment project located in Silver Spring, Maryland, an inner-ring suburb of Washington, D.C. This project features approximately 440,000 square feet of retail space, 185,000 square feet of offices, a 179-room hotel, more than 3,800 parking spaces, public plazas and other open space, and 23 movie screens in two facilities.

Downtown Silver Spring was previously occupied with several underutilized structures, including the historic 1938 art deco-style Silver Theatre and Silver Spring Shopping Center complex, a landmark of early 20th-century commercial architecture and one of the nation's first automobile-oriented shopping centers.

Two attempts were made to redevelop the area, but both failed. After the failed attempts, a public/ private development partnership come together to create a mixed-use place for this urban community that features a traditional street format. The project was designed to be compatible with the existing art deco architecture and considerate of the scale of the neighborhood. The restored Silver Spring Shopping Center serves as a focal point of the new mixed-use complex.

SITE DATA

Location:	Silver Spring, Maryland
Site Size:	30 Acres
Land Uses:	Retail, Office, Commercial, and Multi-family Residential

Rockville Town Center

Rockville Town Center is a mixed-use, pedestrian-friendly redevelopment project located in Rockville, Maryland. It is a 12.5-acre, transit-oriented redevelopment that replaces a failed shopping mall with a vibrant civic, retail and residential core.

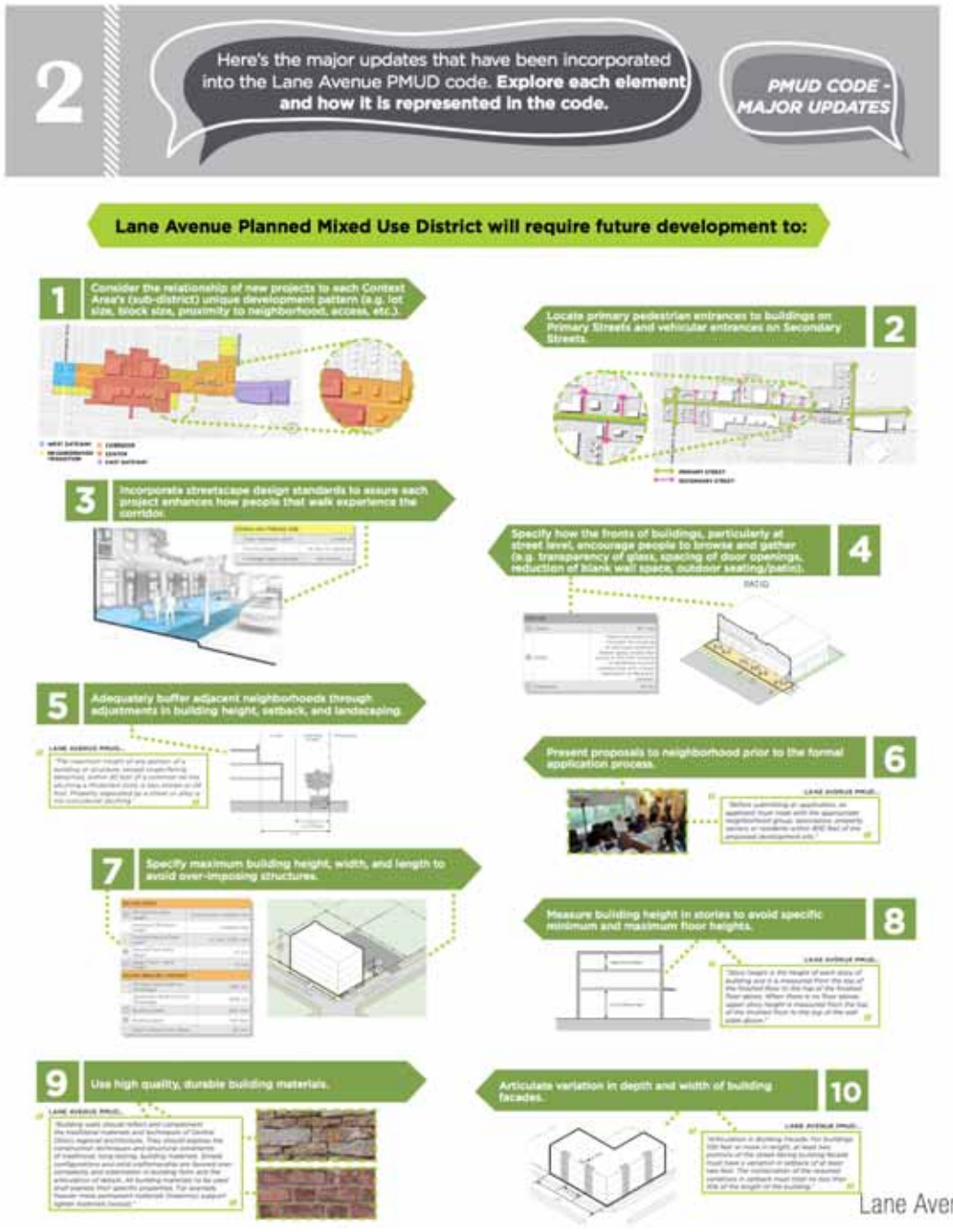
Rockville Town Square was previously a 500,000 square foot mall built in 1972. When the mall first opened, 40 of the 55 store fronts were occupied. In 1981, it was down to just 20 of 55 occupied store fronts due to the competition. The mall closed less than 10 years after it first opened.

After the mall was closed, downtown Rockville's most central block has sat empty for decades. Starting in 2004, redevelopment continued with the Rockville Town Center project. In order to transform it to a mixed-use, walkable place, the redevelopment incorporates a variety of facades and other architectural elements; a six-story clock tower; an inviting streetscape of wide sidewalks, street furniture and trees; parking garages utilizing an advanced parking guidance system; and close proximity to the Montgomery County Historic District and Rockville's central neighborhoods. Additionally, the plaza serves as a focal point and gathering place, hosting a variety of outdoor events, from weekly farmers markets to the annual Rockville Uncorked wine and music festival.

SITE DATA

Location:	Rockville, Maryland
Site Size:	12.5 Acres
Land Uses:	Retail, Commercial, and Multi-family Residential

Appendix D. Gateways and Thresholds


2
Here's the major updates that have been incorporated into the Lane Avenue PMUD code. Explore each element and how it is represented in the code.
PMUD CODE - MAJOR UPDATES
Lane Avenue Planned Mixed Use District will require future development to:
1
Consider the relationship of new projects to each Context Area's (sub-district) unique development pattern (e.g. lot size, block size, proximity to neighborhood, access, etc.).
2
Locate primary pedestrian entrances to buildings on Primary Streets and vehicular entrances on Secondary Streets.
3
Incorporate streetscape design standards to assure each project enhances how people that walk experience the corridor.
4
Specify how the fronts of buildings, particularly at street level, encourage people to browse and gather (e.g. transparency of glass, spacing of door openings, reduction of blank wall space, outdoor seating/patio).
5
Adequately buffer adjacent neighborhoods through adjustments in building height, setback, and landscaping.
6
Present proposals to neighborhood prior to the formal application process.
7
Specify maximum building height, width, and length to avoid over-imposing structures.
8
Measure building height in stories to avoid specific minimum and maximum floor heights.
9
Use high quality, durable building materials.
10
Articulate variation in depth and width of building facades.

Appendix F. Sub-District Summary

3

The Lane Avenue Planned Mixed Use District (PMUD) has been categorized by sub-districts to reflect desired character in the zoning code and streetscape improvements. **Learn about each sub-district!**

EAST GATEWAY SUB-DISTRICT

EAST GATEWAY

Intent and General Uses

The intent: To reinforce and enhance the downtown urban core and provide the highest-intensity vibrant, compact, walkable urban environment. A variety of building types with active pedestrian street facades and a diverse range of uses supported by active ground floor frontages. A wide range of regional- center appropriate uses as well as employment, retail, services, civic, or public uses.

General Uses: Ground floor commercial or service uses with a mix of commercial, residential, service, and/or office uses on upper stories.

Desired Built Form

- Attached buildings
- Large lot width
- Large building footprint and coverage on the lot
- No blank walls or planes
- Buildings placed at or near the edge of the right-of-way
- Diverse mix of building frontages. This mostly includes arcades, galleries, and shopfronts.
- Height: 2 to 11 stories

East Gateway - Public Realm

What is the public realm? It is the built environment within the sub-district where the public has free access (e.g. sidewalk, streetscape, park or square).

Within the **East Gateway**, the public realm includes a **frontage zone** that allows outdoor dining and has an enlarged **landscape zone** to buffer from high volume traffic. This proposed streetscape model is what is currently planned for the Gateway project.

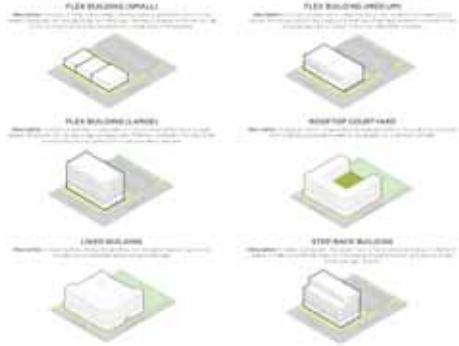
Open Space Typologies

What is an open space typology? It is an example of the types of public open space that may occur in the city's environment.

Location Map

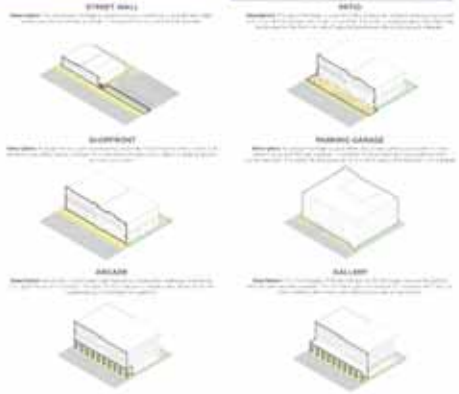
Building Typologies

What is a building typology? It is an example of building massing that illustrates a particular function and style on a site and/or streetscape and how it relates to the public realm.



Frontage Typologies

What is a frontage typology? It is an example of the frontage forms or areas between a building facade and the public realm, including its built and landscaped elements.



4

The Lane Avenue Planned Mixed Use District (PMUD) has been categorized by sub-districts to reflect desired character in the zoning code and streetscape improvements. **Learn about each sub-district!**

CORRIDOR SUB-DISTRICT

CORRIDOR

Intent and General Uses

The intent: To enhance the City's existing corridors so that over time they will become more walkable and serve multiple districts with a diverse range of commercial, retail, service, and office uses, and small-to-large footprint, moderate-intensity building types. This zone also supports public transportation hubs.

General Uses: Ground floor commercial or service uses with a mix of commercial, residential, service, and/or office uses.

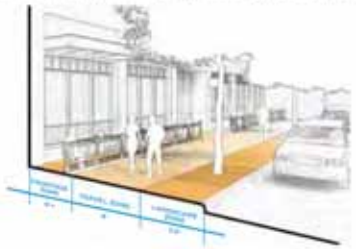
Desired Built Form

- Attached buildings
- Medium to large lot width
- Large building footprint
- No blank walls or planes
- Buildings placed at or near the right-of-way
- Diverse mix of building frontages. This mostly includes arcades, galleries, and shopfronts.
- Height: 2 to 4 stories

Corridor Gateway - Public Realm

What is the public realm? It is the [illegible] between what the sub-district is, where the public has their access (e.g., sidewalk, entitlement, public space).

Within the **Corridor**, the public realm includes a **frontage zone** that allows outdoor dining and has a **landscape zone** to match existing tree grate dimensions, style, and spacing. The proposed streetscape model is what currently exists at Hudson 29 and Hilton.



Open Space Typologies

What is an open space typology? It is an example of the types of public open and green space that may occur in the sub-district/area.

PASSAGE

POCKET PARK

PLAZA

POCKET PLAZA

GREEN

Location Map

Building Typologies

What is a building typology? It is an example of building types that illustrate a particular land use and/or define a site, access to parking and its built-in mass.

FLEX BUILDING (SMALL)

FLEX BUILDING (MEDIUM)

STEP-BACK BUILDING

ROOFTOP COURTYARD

L-SHED BUILDING

Frontage Typologies

What is a frontage typology? It is an example of the frontage forms or areas between a building facade and the sub-district/street right-of-way and sidewalk/pathway/public.

STREET WALL

PATIO

SHOPFRONT

PARKING GARAGE

ARCADE

GALLERY

Appendix F. Sub-District Summary

5

The Lane Avenue Planned Mixed Use District (PMUD) has been categorized by sub-districts to reflect desired character in the zoning code and streetscape improvements. **Learn about each sub-district!**

CENTER SUB-DISTRICT

CENTER

Intent and General Uses

The intent: To reinforce a vibrant, compact, walkable, urban center that serves the community and the overall region with a diverse range of uses in a variety of building types with active pedestrian street facades on multiple frontages.

General Uses: Ground floor commercial or service uses with a mix of commercial, residential, service, and/or office uses on upper stories.

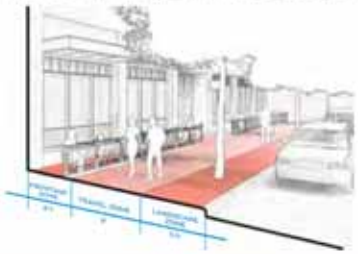
Desired Built Form

- Attached buildings
- Large lot width
- Large building footprint
- No blank walls or planes
- Buildings placed at or near the right-of-way
- Diverse mix of building frontages. This mostly includes arcades, galleries, and shopfronts.
- Height: 2 to 6 stories

Center - Public Realm

What is the public realm? It is the built environment within the public sector where the public has access (e.g. sidewalks, streetscape, public services).

Within the **Center**, the public realm includes a **frontage zone** that allows outdoor dining and has a **landscape zone** to match existing tree grate dimensions, style, and spacing. The proposed streetscape model is what currently exists at Hudson 29 and Hilton.



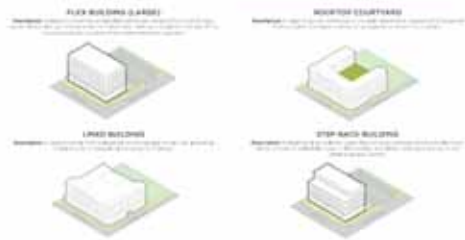
Open Space Typologies

What is an open space typology? It is an example of the types of public open and green spaces that may be part of the built environment.

Location Map

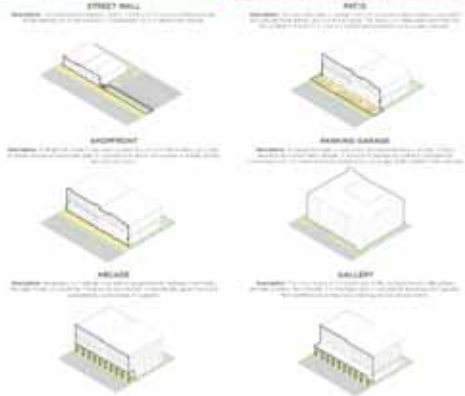
Building Typologies

What is a building typology? It is an example of building forms that combine a particular function and construction within a site, relative to adjoining and the public realm.



Frontage Typologies

What is a frontage typology? It is an example of the transport forms or areas between actually facades and the public realm, inclusive of both shared components.



6

The Lane Avenue Planned Mixed Use District (PMUD) has been categorized by sub-districts to reflect desired character in the zoning code and streetscape improvements. **Learn about each sub-district!**

NEIGHBORHOOD SUB-DISTRICT

NEIGHBORHOOD

Intent and General Uses

The Intent: To reinforce established neighborhoods in walkable urban areas. Neighborhoods will evolve through the use of small to medium building footprints and medium intensity building types to achieve a compact urban form that accommodates a variety of urban housing choices. This zone also supports public transportation alternatives.

General Uses: Primarily multi-unit residential uses with smaller neighborhood-supporting uses at appropriate locations.

Desired Built Form

- Attached or detached buildings
- Medium lot width
- Small to medium building footprint and coverage on the lot
- Buildings near the edge of the right-of-way
- Primarily multi-unit residential uses with smaller neighborhood supporting uses at appropriate locations
- Height: 2 to 3 stories

Neighborhood - Public Realm

What is the public realm? It is the built environment and/or the sub-district where the public has free access (e.g. sidewalks, streetscapes, public parks).

Within the **Neighborhood**, the **frontage zone** is buffered to transition the street scale to neighborhoods and there is a turf **landscape zone**. This typology is applied to residential and office live/work uses.

Open Space Typologies

What is an open space typology? It is an example of the types of public open space and open spaces that may occur in the built environment.

GREENWAY AND TRAIL

POCKET PARK

Location Map

Building Typologies

What is a building typology? It is an example of a building form that illustrates a particular function and location within a site relative to parking and the public realm.

DUPLEX

MULTIPLEX

SINGLE FAMILY ATTACHED

ACCESSORY DWELLING UNIT

LIVE WORK

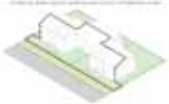
Frontage Typologies

What is a frontage typology? It is an example of the frontage form or areas between a building facade and the public realm, including its built and planted components.

RAISED YARD

STOOP

FORECOURT



PORCH

Appendix F. Sub-District Summary

7

The Lane Avenue Planned Mixed Use District (PMUD) has been categorized by sub-districts to reflect desired character in the zoning code and streetscape improvements. **Learn about each sub-district!**

WEST GATEWAY SUB-DISTRICT

WEST GATEWAY

Intent and General Uses

The Intent: To provide walkable, urban neighborhoods with a variety of urban housing choices in small to large footprint, medium-intensity building types that support and are within short walking distance of neighborhood-serving commercial and service uses. This zone also supports public transportation alternatives.

General Uses: Primarily office or multi-unit residential uses with neighborhood-supporting retail, commercial, and/or service uses on the ground floor.

Desired Built Form

- Attached buildings
- Medium lot width
- Medium building footprint
- No blank walls or planes
- Buildings placed at or near the right-of-way
- Diverse mix of building frontages. This includes mostly forecourt and shopfront.
- Height: 2 to 4 stories

West Gateway - Public Realm

What is the public realm? It is the built environment within the sub-district where the public has free access (e.g. sidewalk, streetscape, public spaces).

Within the **West Gateway**, the public realm includes a shallow **frontage zone** to transition the street scale to neighborhoods. The **landscape zone** matches existing tree grates and tree spacing and could also be used for outdoor seating.

Open Space Typologies

What is an open space typology? It is an example of the types of public open space (green space) that may occur in the west environment.

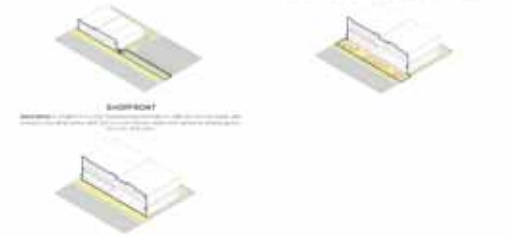
Location Map

Building Typologies

What is a building typology? It is an example of building forms that maximize a particular function and location within a site, relative to serving and the public realm.

Frontage Typologies

What is a frontage typology? It is an example of the frontage (with or area) between a building facade and the public realm, including its built and planted components.



Currently this area is occupied by single-family residential housing with limited access from Vassar Place. Osborn Drive and Ombersley Lane are two neighborhood roads branching from Vassar Place and Noth Star Road, respectively. However, there is a lack of connection between Osborn Drive and Ombersley Lane, resulting in an incomplete circulation. Furthermore, with new development taking place along Lane Avenue, there appears to be a rising concern about the transition between the Lane Avenue PMUD and the adjacent neighborhoods. Therefore, this area was identied as a potential opportunity area that could be included in the Lane Avenue PMUD in the future.

There is great potential to connect Osborn Drive with Ombersley Lane to create more seamless circulation and access to North Star Road. In the meantime, the well-connected Osborn Drive will create a more significant buffer for the neighborhoods to the north. When opportunities arise, lower density developments should be considered in this area to be consistent with the surrounding neighborhood. Expansion of the PMUD boundary in other areas is not recommended. Parking, however, may be expanded into the adjacent R-1C zoned neighborhood, which permits surface parking lots as a conditional use, subject to the PMUD conditional use standards.

FIGURE 1: Potential Opportunity Area Diagram

FIGURE 2: Potential Opportunity Area Enlargement Diagram