



Destination Euclid: The Euclid Avenue Recreationway
Corridor is a strategy to revitalize Euclid Avenue. A
Transportation for Livable Communities Initiative (TLCI),
the plan works to achieve the TLCI goal of promoting a
healthier community through planning and environmental
linkages from an integrated transportation perspective.

Euclid Avenue is an historic transportation route in the City of Euclid that was once a critical connection between population centers that supported industry, automotive-centered uses and high density residential uses. Overtime and with the loss of industry, the roadway has become a route that is overbuilt for its use. With this shift in function, the City of Euclid has the opportunity to revitalize Euclid Avenue to create a place that fits with the City's commitment to the Creating Healthy Communities (CHC) Program.

<u>Destination Euclid: The Euclid Avenue Recreationway</u>
<u>Corridor</u> redefines Euclid Avenue through a variety of
community involvement techniques, including: Advisory
Committee Meetings, Focus Groups and Public Meetings.
These input gathering sessions provide the basis for a

new vision for the corridor: Euclid Avenue is envisioned as a corridor with an iconic character that promotes healthy living and accommodates economic development for a regional destination.

The Corridor Design Plan translates this vision into a long-term design concept that will achieve Euclid Avenue's goals and objectives for the future; this concept characterized as the Recreationway. Addressing the corridor and its key intersections, the Recreationway focuses economic development along the corridor at several "villages" and a central business campus and unites the corridor through the development of a linear park. These two key features are described as follows:

 Villages & Central Business Campus: To address the need for commercial uses to have a "critical mass", and to organize development along the corridor, a series of villages are proposed where commercial uses are concentrated. In addition, the center of activity along the Euclid Avenue Corridor is the central business campus. This feature enhances the existing uses and promotes a mixed-use hub within the corridor. The proposed villages and central business campus will create corridor variation and add interest along Euclid Avenue. • The Linear Park: By reducing the current five-lane roacway to three lanes and re-centering the road to one side of the right-of-way, Euclid Avenue is reprogrammed as a linear park. In other words, Euclid Avenue can use the space within the existing right-of-way, made available by lane reductions, for recreational purposes while still maintaining traffic flow. The resulting corridor will enhance commercial uses, will be pedestrian and bicycle friendly and will be more attractive and functional.

Further developing this concept, the Corridor Design Plan identifies potentials for linking Euclid Avenue to the surrounding region through the development of green corridors, integrates the alternative transportation modes through the development of trails, addresses mixeduse and residential development along the corridor to promote walkable neighborhoods and identifies potential improvements, like the development of roundabouts, at key intersections along the corridor.

To enable short term and long term implementation, the "Making it Happen" section of the plan identifies recommendations for key intersections and detailed next steps for achieving the vision for the future. The resulting development of the Euclid Avenue Recreationway provides a community designed for healthy living, one that can have a real and tangible impact on the community and the lives of its residents.

Destination Euclid:

The Euclid Avenue Recreationway Corridor

A Transportation for Livable Communities Initiative (TLCI) Plan

Acknowledgements

Special Thanks To

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A Transportation for Livable Communities Initiative (TLCI) Plan

Destination Euclid:

The Euclid Avenue Recreationway Corridor

For the City of Euclid, OH

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Traffic Engineering Report
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Citywide Trail Concept Plan and Alternatives Analysis Summary



A clear understanding of the planning context and existing conditions along the Euclid Avenue corridor is the foundation for the development of the Plan. The following section provides an overview of the project and public input process that informed the Plan for the Euclid Avenue Recreationway Corridor.



Planning Foundation

The planning foundation includes the following topics:

- About the Plan
- About the Study Area
- Public Involvement
- → The Vision

About the Plan

<u>Destination Euclid: The Euclid Avenue Recreationway Corridor</u> is a coordinated effort to strengthen community livability along one of the City of Euclid's historic transportation routes.

Initiated by the City of Euclid and funded by the Northeastern Ohio Areawide Coordinating Agency (NOACA), this plan is part of the Transportation for Livable Communities Initiative (TLCI). A regional effort, the TLCI promotes livable communities throughout the Greater Cleveland area by providing federal funding assistance for community and public agency projects that advance the TLCI's goals of community livability.

Destination Euclid: The Euclid Avenue
Recreationway Corridor introduces a visionary
concept of Euclid Avenue as a Recreationway.
This concept accomplishes the goals of the TLCI
by planning for redeveloping of this transportation
route as a vehicle for healthy living. It focuses
on a key goal of the TLCI: to promote a healthier
community through planning and environmental
linkages from an integrated transportation
perspective.

As a cooperative effort involving various stakeholders, the City of Euclid, the Cuyahoga County Board of Health, the County Planning Commission and Ohio State University Extension, the plan also furthers the City's commitment to the Creating Healthy Communities (CHC) Program and its goal to reduce chronic diseases, including heart disease, diabetes, cancer, and stroke, through a health equity framework. The CHC team focuses on making policy, systems, and environmental changes within a community, school, or workplace.¹ This plan is part of the CHC effort.

Transportation for Livable Communities Goals

- Enhance the economic viability of existing communities within the region
- Enhance the region's quality of life
- Enhance the community's identity
- Foster compact land use development/redevelopment
- Facilitate accessibility by improving the range of transportation choices by adding or improving pedestrian, transit or bicycle facilities
- Reduce air and water pollution through the best management practices
- Improve transportation/land use links
- Encourage fuel and energy conservation
- Promote healthier community through planning and environmental linkages from an integrated transportation perspective
- Preserve and enhance farmland, forests and open space
- Assist the redevelopment of urban core communities
- Result in projects that can compete at the regional level for capital funds through NOACA's regional transportation investment process
- Enhance historic, scenic and environmental elements of the transportation system
- Improve the safety and efficiency of the existing transportation system

Why Here?

Euclid Avenue is an optimal location to focus healthy community efforts because of the corridor's opportunity to readdress how this transportation route functions. An east-west connection across the southern end of the City, Euclid Avenue is a 35 mph five lane roadway with a center two-way left turn lane, also known as US Route 20. Historically, the corridor functioned as a primary connection between population centers that supported a wide range of industries, automotive-centered commercial uses and higher density residential uses. But with the loss of major industries along the corridor and the development of Interstate 90/State Route 2, Euclid Avenue's primary use has shifted. With this shift, the corridor has the opportunity to determine how to best serve the community.

About the Study Area

Boundary & Key Intersections

The Study Area is the entire first lot on both sides of the Euclid Avenue in the City of Euclid. The resulting limit line varies widely in its width due to the varied size of the lots ranging from 2,200 feet wide at the Heritage Business Park building to 100 feet wide at some of the residential lots. This project limit line is not the limit of the study, however, since it is imperative to consider the context of the surrounding lands in order to effectively plan for the corridor. The limit line is used when quantifying various items such as land use percentages, etc.

There are ten key intersections within the Study Area. These intersections are critical to the development and redevelopment opportunities along Euclid Avenue.

Regional Context

The City of Euclid is a first ring suburb of the City of Cleveland. Euclid is located on the east side of Cleveland on the shore of Lake Erie. Adjacent municipalities include Cleveland, South Euclid and Richmond Heights in Cuyahoga County and Willoughby Hills, Wickliffe, and Willowick in Lake County. The City of Euclid is traversed by two railroad corridors and I-90 effectively divides the City into two parts. The Euclid Avenue Corridor is located in the southern section of the City between railroads and the Portage Escarpment.

Legend

Community Public Service

Project Limit Line

Major Intersections
Minor Intersections
Existing Trail
Existing Scenic Byway

Existing Land Use
Residential
Apartments
Commercial
Industrial
Open Space

Local Context

In order to understand the scale of the corridor, a series of walking distances are shown on the Local Context Map. These are shown as concentric circles originating in the center of the corridor at the Heritage Business Park site. Distances are calculated assuming that a pedestrian will average three miles per hour and are shown in five and ten minute increments. From the map, one can see that a majority of the corridor can be reached from the center within thirty minutes while walking the entire corridor would take over an hour.



Local Context Map



History of Euclid and Euclid Avenue

Euclid was one of the first townships in the Western Reserve. The area was first settled in 1804 by David Dille, a lieutenant in the Revolutionary War, and incorporated as a township in 1809. From 1809 to 1815, the Township of Euclid was larger and showed more promise for development than Cleveland until construction of the Ohio-Erie Canal established Cleveland's prominence in the region. Euclid would remain a rural community throughout the 1800s. Early settlers of Euclid Township were primarily from New England. Cleveland, as the industrial center, attracted 19th century European immigrants. Production of wine and quarrying for bluestone were important industries of the area. Railroads which crossed the Township were established in 1850 and greatly improved distribution for these two industries.

During the early part of the 20th century, the Village of Euclid began to see some industrial development adjacent to the railroad lines. The village feared that industrial development expanding from the city of Cleveland would change the character of the Village. The Village of Euclid became the center of a landmark Supreme Court Case concerning the legitimacy of zoning. The Village zoned much of the land between Euclid Avenue and the Railroad corridor for residential use. Ambler Realty had bought up a large share of this land with the intent to sell it for industrial uses. The Supreme Court ruled in favor of the Village of Euclid and upheld the right to zone the land. Since the ruling, the land went largely undeveloped. In 1941, the United State government selected the Ambler site as an ideal location for a War Plant. The City of Euclid complied with the zoning change. The site became home to a General Motors Plant making aircraft engines and landing gear.

During and after WWII, the area between the two railroad corridors saw rapid industrial expansion. TRW Inc. established its main facility in Euclid with a plant even larger than the General Motors Plant. TRW created missile systems for early space vehicles and ICBM's. At its peak, TRW employed more than 10,000 people. The industrial expansion gave rise to a dramatic population increase. People settling in Euclid during this time period were primarily from the City of Cleveland and Eastern European immigrants.

The industrial bubble began to bust in the mid 1970s when many of the companies moved their operations to other locations or went out of business. Euclid lost more than 7,000 jobs between 1979 and 1985. Lincoln Electric is the largest employer to have maintained their facility in Euclid. The City continues to transform itself from an aged industrial center into a modern place for business and industry. Many of the large single-tenant industrial buildings have been modified in recent years to multi-tenant facilities. For example, the 1.8 million square foot former TRW facility, located on a 157 acre campus at 23555 Euclid Avenue, now houses a variety of uses such as Eaton Corporation Aerospace Fuel Systems Division, TECT Power, The Cuyahoga Community College Regional Transportation Institute, Tremco, and many others. The former GM Inland Fisher Guide Plant now houses HRG Industrial Surplus, the Euclid Sports Plant, and a number of other users at its facility at 20001 Euclid Avenue.

Planning Context

The efforts of the Euclid Avenue Corridor TLCI Plan are supported by a variety of other planning studies completed for the City and region. The following highlights some key findings from other planning studies that provide the foundation for the development of this Plan:

- Euclid Avenue Task Force (1995): Identified crime and overall character of the area as deterrents to neighborhood stability.
- Euclid Master Plan (1996): Identified the Euclid Avenue area as the gateway to the City and called for redevelopment to make the corridor economically viable. The study highlighted a lack of specific treatment or theme along the Euclid Avenue corridor.
- Southeast Euclid One Community Development Plan (1998): Identifies the need for a unified streetscape pattern within the Euclid Avenue right-of-way
- Northeast Ohio First Suburbs Consortium Economic Revitalization Initiative: Identifies the Euclid Avenue and East 260th Street Business District as unattractive and not well kept.

HEALTH

IMPROVED

9

Potentially Leads

Term Outcome

ong.

Healthy Communities

Community health belongs at the center of planning initiatives because designing environments that promote healthy living and healthy choices can have a substantial impact on our quality of life. According to the Centers for Disease Control and Prevention (CDC), 7 of 10 leading causes of death in the United States are chronic diseases. Preventable health risks including insufficient physical activity and poor nutrition contribute to the development and severity of many chronic disease.1

While improving health involves a variety of aspects, it is critical to understand and implement the community planning and design changes that can have a role in addressing some of the major health issues our residents face. The following table identifies some of the community planning and design changes that can have significant health impacts.

According to the CDC, in 2009, More than 80% of high school students and more than half (56%) of all adults did not meet recommendations for aerobic physical activity from the 2008 Physical Activity Guidelines for Americans. These guidelines call for at least 60 minutes each day of physical activity for children and adolescents and 75-150 minutes each week (depending on activity intensity) for adults.1

Healthy Communities, Preventing Chronic Disease by Activating Grassroots Change. At a Glance 2011. Centers for Disease Control and Prevention National Center for Chronic Disease Prevention and Health Promotion, Division of Adult and Community Health.

Short-Term Outcomes

→ More supportive built environment

- → Increased nonresidential destinations within walking or biking distance
- ⇒ Safe, attractive and direct pathways to destinations
- → More walkable neighborhoods
- → More opportunities to engage in physical activity through nonmotorized transportation

→Increased opportunity to engage in a variety

⇒ Greater proportion of people achieving

recommended levels of physical activity

▶Increased pedestrian use of trails and streets

Increased physical activity

Increased physical activity

of physical activities

Intermediate Outcomes

Increase Access to Recreational Facilities/ Sites

Improve Built

Environment

Improve Built

Environment

to Support

Biking

Improve

Access

to Public

Transportation

to Support

Walking

Increase

Use

Mixed Land

in environmental planning → Increased number of playgrounds and recreational facilities available or physical

→ Increased access to parks or open space

⇒ Increased consideration of physical activity

- ➡ More walk-friendly neighborhoods
- → More opportunities for physical activity
- ⇒ Improved pedestrian safety
- ➡ More bike-friendly streets
- → More opportunities for physical activity
- ⇒ Improved safety and convenience for bicvclists

→Increased bicycling →Increased physical activity

➡Increased physical activity

- → Increase opportunities for walking to/from public transportation Reduced barriers to public transportation
- →Increased use of public transportation for work, school, shopping, etc.
- ⇒Reduced driving
- →Increased physical activity
- → Reduced fuel consumption and emission

Improve Traffic Safety through Traffic Calming Measures

- ⇒ Reduced traffic speed
- ⇒ Increased traffic-safety awareness
- →Increased road safety
- ⇒Reduced traffic injuries
- →Increase bicycling and walking
- →Increased physical activity

- ⇒ Increased perception of safety
 - → Increased use of streets and playgrounds
- ⇒ Reduced crime rates

→Increased number of people being physically active outdoors

→Increased purchase of healthier foods and

- → Reduced sedentary behaviors (e.g., watching TV, playing video games)
- →Increased physical activity
- beverages
 - →Increased supermarket revenue →Increased customer satisfaction

 - →Increased customer loyalty
 - ⇒ Positive cycle of economic investment
 - → Healthier food and beverage consumption

Provide Places to be Physically Active

> Improve Access to Supermarkets Underserved Areas

→ Increased number of supermarkets ⇒ Increased access to healthier foods and beverages

Creation of iobs

Table extrapolated from Making the Case to Stakeholders, Linking Policy and Environmental Strategies to Health Outcomes, YMCA of the USA, Revised 10.21,2012.

Healthy Communities, Preventing Chronic Disease by Activating Grassroots Change. At a Glance 2011. Centers for Disease Control and Prevention. National Center for Chronic Disease Prevention and Health Promotion, Division of Adult and Community Health.

Public Involvement

A healthy community is one that suits the needs of its residents. Currently the Euclid Avenue corridor is at odds with this concept with deficiencies in amenities, activities, access and identity. To address these and other needs of the community, an interactive public input process was conducted to understand how the corridor can be redesigned to provide a move livable community with better opportunities for economic development.

A variety of outreach techniques were used to gather input from the community including a vision session, focus groups and public meetings. In addition, a stakeholder committee of community representatives helped to guide the planning process from initiation to implementation to ensure that the project meets the needs of the local residents. The following briefly summaries these outreach techniques and the key public input highlights that resulted from the sessions.

Vision Session

In December 2011, a vision session was conducted with the Advisory Committee to identify the character of the Euclid Avenue corridor as well as the existing opportunities and obstacles towards redeveloping the corridor. When asked how the plan for the corridor could be most useful, a key response was to provide an implementation plan to develop concrete and achievable projects.

Focus Groups

In February 2012, a series of four focus groups were conducted, the topics included:

- Transportation
- Business and Property Owners
- · Community Health
- · Parks and Environment

These focus groups helped to identify specific issues and opportunities along the corridor including: the need to change the perception of safety along the corridor, to address issues related to walkability, bicycle access and corridor crossing and the need for a brand or theme for the corridor.

Issues & Opportunities Public Meeting

In February 2012 an Issues and Opportunities Public Meeting was conducted to inform the community about the TLCI project and gather input for the development of the plan. The meeting included an overview presentation of the project and an interactive session using workbooks and mapping to facilitate participation.

Improve Health.

Change the perception of the Corridor.

er for walking. Strengthen connections.

Make the distances seem shorter for walking.

Provide bike lanes. Provide a reason for people to visit here.

Become a place for activity. Improve access.

Greenspace. Retail opportunities to serve residential population.

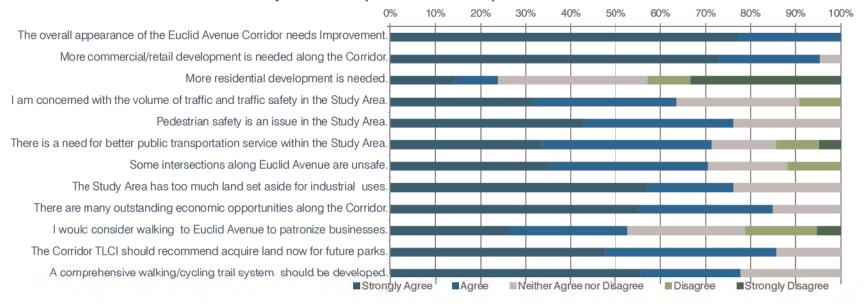
Recreation-based retail.

Economic Development.

Repurpose existing land uses.

Create a brand.

Summary of Public Input Workbook Responses



100% of Public Meeting Participants Agreed or Strongly Agreed that the overall appearance of the Euclid Avenue Corridor needs improvement.







Destination Euclid: The Euclid Avenue Recreationway Corridor

The Vision

Based on public input, a vision was developed for the Euclid Avenue corridor.

Euclid Avenue is envisioned as a corridor with an iconic character that promotes healthy living and accommodates economic development for a regional destination.

With an established vision for the corridor, a series of goals and objectives were created for key topic areas including: identity, connectivity, circulation, community health, economic development, housing, character and land use. These goals and objectives are the guide for the development of this plan as well as the development of Euclid Avenue.

Goal: Identity

To establish a relevant identity for the 21st Century Euclid Avenue Corridor

Objectives

- Define a vision for future access and services along the Corridor
- Determine business needs for public improvements that will facilitate their operations
- Refine various identities where appropriate and accommodate changes in character between intersections

Goal: Circulation

To move cars and people in the most efficient and sustainable manner

Objectives

- Establish a multimodal Corridor sized appropriately to demand
- Improve pedestrian and bicycle access between housing and Euclid Avenue

Goal: Connectivity

To improve physical and psychological connections along the Euclid Avenue Corridor

Objectives:

- Establish a hierarchy of streets to efficiently transport vehicles, pedestrians and cyclists
- Establish a comprehensive and fully connected trail system

Goal: Community Health

To establish a model living and working community for the region that emphasizes healthy living

Objectives

- Incorporate planning strategies that maximize pedestrian, bicyclist and motorist safety
- Promote walking and biking by making retail goods and services available to pedestrians
- · Improve public transit infrastructure
- · Minimize air quality, water quality and/or noise impacts

Goal: Economic Development

To improve the Corridor in an economically sustainable manner

Objectives

- · Transform the Corridor into a regional destination
- Use current trends to program the corridor with appropriate uses that will promote revitalization
- Use Corridor improvements to leverage funding opportunities throughout the City of Euclid

Goal: Character

Express the unique character of the Euclid Avenue Corridor through urban design

Objectives:

- Promote the concept of "Green Streets" that include the use of environmentally sound materials, ecosensitive lighting and stormwater management practices
- Celebrate and enhance the historic character of portions of the Corridor
- Promote the appropriate infill and/or reuse of vacant parcels to enhance the urban character of the
- Promote public art by programming its use throughout the Corridor

Goal: Housing

Provide a diversity of housing alternatives appropriate to serve current housing trends

Objectives:

- Program public improvements that will maintain or increase property values and neighborhood quality of life
- Promote built form designed at a human and pedestrian scale
- Ensure that the future of the corridor includes residential uses to preserve vitality
- Program the Corridor with mixed-use development including first floor office and upper floor residential where appropriate

Goal: Land Use

To develop a Future Land Use Plan that promotes revitalization

Objectives:

- Acquire land for future park and open space development
- Reuse and/or rethink land uses along the Corridor to accommodate an appropriate vision for future development
- Develop destination "nodes" that are programmed with a mixture of uses







Potentials Analysis

The potentials section includes the following topics:

- → Physical Analysis
- Market Potentials
- Traffic Analysis
- → Benefits of Roundabouts

Physical Analysis

To understand the function of the corridor a detailed physical analysis was conducted, collecting on-site inventory of the existing conditions along Euclid Avenue. The information gathered was used to identify potentials for the future development of the corridor.

Site analysis and photographic inventory identified the following prominent traits of Euclid Avenue:

- The roadway width is vast; with four lanes and a center turn lane, Euclid Avenue is at an intimidating scale for pedestrians and bicyclists.
- The majority of businesses are located on the northern side of Euclid Avenue.
- There is a significant amount of green space along the corridor, particularly on the southern side of Euclid Avenue.
- The corridor does not have a significant amount of single family housing options.
- Multi-family tend to be mid-rise apartments or tightly packed low-rise apartment complexes.
- Industrial land uses are concentrated in the center of the corridor, on the northern side of Euclid Avenue.
- Several industrial buildings are outdated or no longer suited for the purposes of the existing tenants.
- Commercial development along the corridor is spread out and lacking a sense of place or arrival.

- The corridor is not taking full advantage of its location as an exit on the I-90, providing little complementary services for those exiting this major travel route.
- There are existing and potential trails as well as a potential green corridor adjacent or proximate to the corridor.
- There is a scenic byway that travels along the western portion of the Study Area.
- Euclid Creek is a key environmental feature within the Study Area.

Character Areas

The result of the physical analysis is an assessment and mapping of the existing character areas. These character areas represent greatly simplified areas along Euclid Avenue that have a common character. They are based on the general appearance of the area as seen from the road. The open/green space character area, for example, represents areas along Euclid Avenue that are woods, open lawn or vacant parcels regardless of whether the land use is industrial, residential or commercial. It is interesting to note that character areas are not always consistent on opposite sides of the Avenue switching from side to side.



Potential Trails & Greenspace

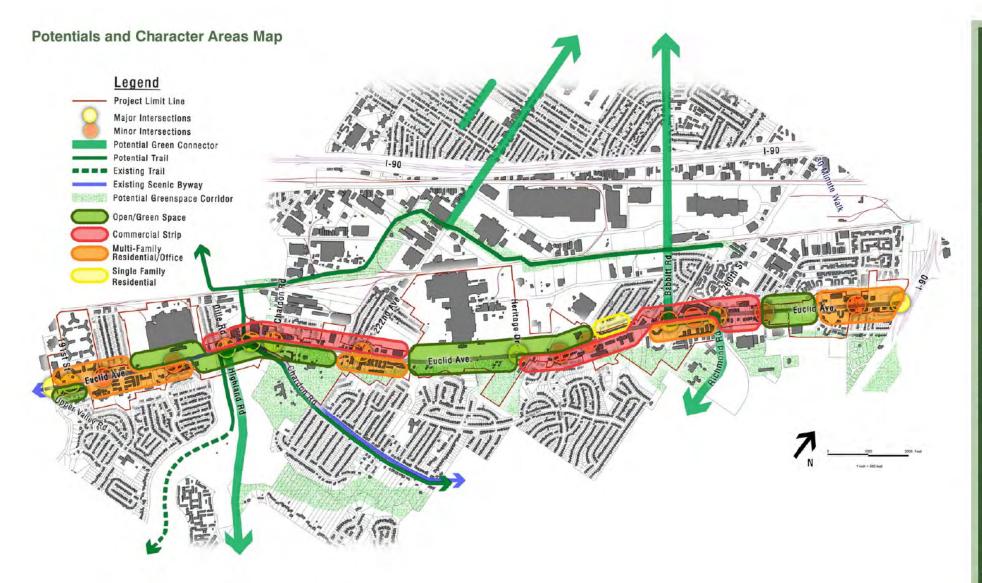
The 'Cuyahoga County Greenspace Plan' identified several locations within or around the study area for potential trails or greenspace. The plan for Euclid Avenue incorporated these features into the Potentials and Character Areas Map. They are describe below:

- Potential Trails: There is a trail proposed that would follow Euclid Creek downstream to Lake Erie and connect the two sections of the Euclid Creek Metroparks Reservation. Chardon Road, as it climbs the bluff south of Euclid Avenue, is also shown as a potential trail route.
- Potential Greenspace Corridor: These are lands that
 are currently predominantly greenspace, or that have
 the potential to be reverted back to greenspace, and
 that connect to form a continuous strip of greenspace.
 These lands were selected regardless of whether they
 are in private or public ownership.





peter j. smith & company, inc.



Market Potential

To plan for the future, Euclid Avenue must evolve as a corridor with an updated mix of uses to serve its future living and working population. By examining the market conditions, the plan can better determine appropriate uses along Euclid Avenue based on market potential. Market potentials addressed include regional, housing, hotel, supermarket and retail potentials.

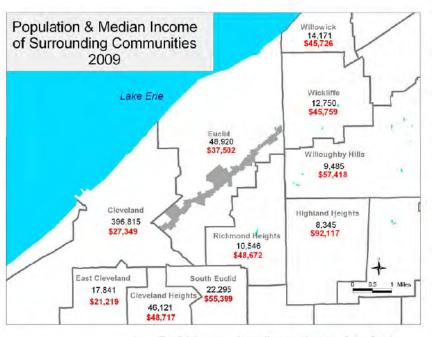
Regional Market

To address the potentials of the Euclid Avenue corridor, it is necessary to look at the City and the surrounding region. The City of Euclid has a total population of 46,000; the population living immediately adjacent to the Study Area (Euclid Avenue) is approximately 15,000. Neighboring Cleveland has just under a half a million people, however much of this population is rather distant from Euclid. The following figure shows the population and median income of municipalities adjacent to Euclid.

Existing Destinations

Located in the Study Area is a destination which draws a considerable number of visitors each year. Our Lady of Lourdes Shrine is located on Euclid Avenue and Chardon Road. The Shrine is

a replica of the grotto in Lourdes, France that possesses two stones from the original site in Lourdes, where there have been documented apparitions of the Virgin Mary. The shrine draws thousands of people from throughout the country and Canada. Other popular tourist attractions



along Euclid Avenue, five miles southwest of the Study Area near Case Western University, include Cleveland's museum district, Little Italy and the Lake View Cemetery. Major attractions, located ten miles west of the Study Area, include Downtown Cleveland and the Rock-n-Roll Hall of Fame.

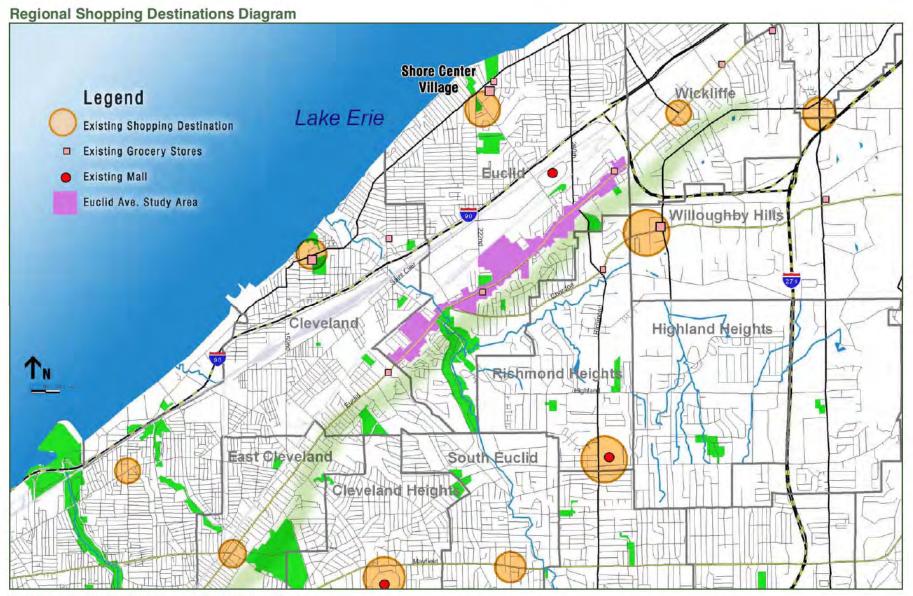
Existing Service Overview

Access to retail stores and services is limited for residents along the Corridor. While there is a Save-a-Lot and a Convenient Food Mart along the Euclid Corridor, there is no major grocery store located in the southern portion of Euclid. The closest major grocery stores are located in downtown Euclid at the corner of Babbit Road and Lake Shore Boulevard and in Willoughby Hills at the corner of Chardon Road and Bishop Road. There is also a major Grocery Store located in Cleveland on Lake Shore Boulevard at 159th Street. All of these grocery stores are at least two miles from the Study Area. Several Census Tracts have been designated as "food deserts". Food deserts are census tracts where the median income is less than 80% of the metropolitan median income or at least 20% of the population is below the poverty level and there is no grocery store located within walking distance to a majority of the people leaving within that census tract.

There are also no Shopping Malls located in the Study Area. Euclid Mall is located in southern Euclid, near the study area, but the mall has only factory outlets and is more than half empty. There is a mall located in Richmond Hills four miles south of the Study Area.

Regional Shopping Destinations

The Regional Shopping Destinations Diagram shows existing shopping destinations in the City of Euclid and the surrounding communities. "Shopping destinations," in this case, are groups of retail businesses that, collectively, have enough critical mass to draw patrons. This is important since it is a common practice for commercial uses such as restaurants, theatres or boutique shops to be located in groupings to increase business. When looking at the diagram, it is immediately apparent that the shopping destinations form a circle around the Euclid Avenue Corridor, reinforcing the notion that there is money being spent around the corridor that could be captured.



Destination Euclid: The Euclid Avenue Recreationway Corridor

Housing

Obtaining data on the housing market is difficult to do at this time. The housing market crisis that has swept through the nation has hit the Cleveland area particularly hard. All data available point to a lack of a housing market and presents an area that is losing households. In the short run, these statistics are accurate. Planning for the long run requires looking at the types of housing that is currently unavailable or underserved in the City of Euclid, but are selling elsewhere in the Cleveland Metropolitan Area. From the statistics below, one can see that the current housing mix has not been able to attract new households.

	2009	2010	2011	
Number Sold	300	202	204	
Total Sales	\$16,726,690	\$11,671,742	\$8,793,343	
Median List Price	\$49,900	\$54,900	\$41,900	
Median Sale Price	\$44,500	\$48,950	\$34,250	
Average SP/LP	e SP/LP 92% 91%		90%	
Median Days on Market	59	71	79	

Euclid Housing Market Statistics

A location quotient helps to determine relative concentration in one area compared to relative concentration of a larger area in which it belongs. For example, it can be determined if the City of Euclid has a higher or lower percentage of single family houses in a given value range compared to the percentage of the same value housing in all of Cuyahoga County. The City has greater percentage of single family homes in the low to mid range than the county as a whole. Many of them lie vacant due to foreclosure. There is a smaller percentage of homes with values above \$150,000 compared to the county.

The City of Euclid has many apartment complexes, particularly along the Euclid Avenue corridor. Most of these apartment complexes are either mid-rise apartments or tightly packed low-rise apartment complexes. There are no high-rise apartments. While there are some, there seems to be a lack of mid-rise apartments that front on an active streetscape with commercial uses. There are also few garden apartments with ample green common areas and townhouse developments.

A study recently completed for the City of South Euclid presents the annual potential market for new and existing housing for all of Cuyahoga County. The data shows that there is an increasing demand for market rate multifamily developments. The following table was presented in the study.

Housing Types	No. of Households	Percent of Total
Multi-family for-rent (lofts/ apartments, leaseholder)	900	28.10%
Multi- family for-sale (lofts/ apartments, condo/co-op ownership)	710	22.20%
Single Family Attached for- sale (townhouse, fee simple/ condominium ownership)	610	19.10%
Low-range single family detached (houses, fee simple ownership)	470	14.70%
Mid-range single family detached (houses, fee simple ownership)	340	10.60%
High-range single family detached (houses, fee simple ownership)	170	5.30%

Cuyahoga County Annual Potential Market for New and Existing Housing

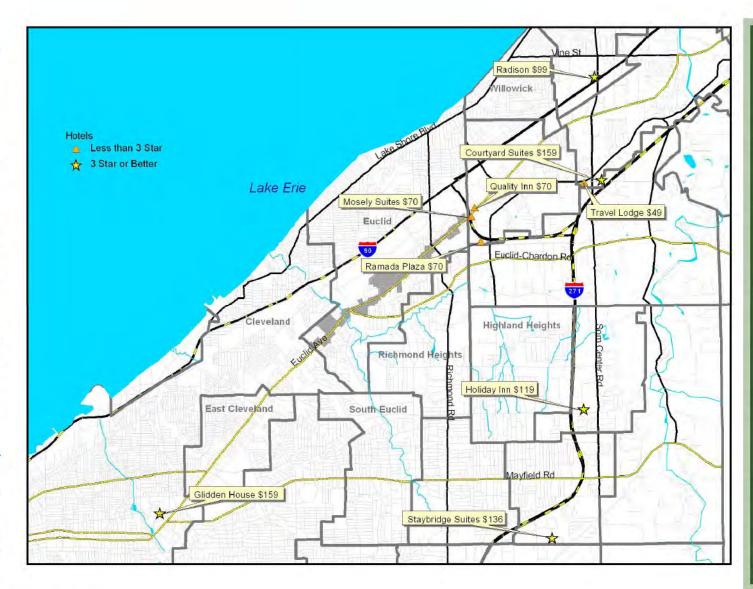
A study completed by Pitkin and Meyers looks at the effects that the Baby Boomer generation will have on the housing market in the next few decades. The study argues that the Baby Boomer generation has shaped the housing market for the last four decades. When their generation entered their thirties and forties, they led the rise of single family housing developments. As the Baby Boomers enter retirement, there will be a rise in developments that cater to senior needs. They will leave behind an oversupply of single family house which the younger generations will be unable to fill. This event may crash the market for single family houses and leave neighborhoods behind with scattered vacancies leading to blight in these neighborhoods. The generally affluent Baby Boomer generation will be looking for retirement communities which offer a wealth of amenities. They will like to be near goods and services as well as recreational amenities. Higher density mixed-use developments would accommodate this group.

Energy costs and concerns over global warming are driving a rise in pedestrian friendly developments. The motivation for this development patterns crosses all generations, but primarily in younger upcoming generations. A location quotient analysis of age groups reveals that the City of Euclid has a lower concentration of individuals between the age of 18-21. The low concentration is closely tied to the lack of an educational institution. Expansion of Cuyahoga Community College into Heritage Park could attract this demographic segment to Euclid. Case Western University, only a few miles down Euclid Avenue, could also supply students if development catered to this demographic. People in this age group tend to occupy loft apartments in an urban setting.

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Hotel Potential

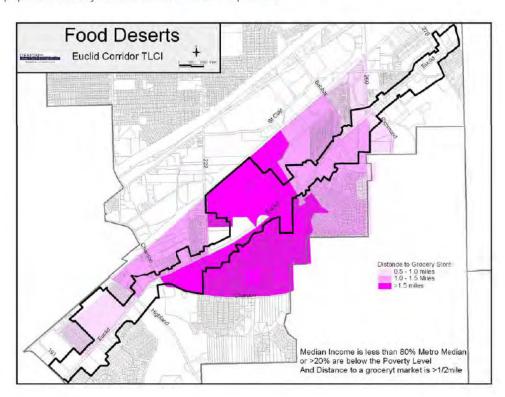
It is difficult to ascertain the demand for a hotel within the study area. Previous studies and public input suggest that the area would be an appropriate location for a quality hotel. Hotels that were located there in the past have failed. However, failure of these hotels may not be for lack of available demand. The hotels were located in an area that was noticeably deteriorating. Work has already begun to restore the area. Eventually, Euclid Avenue could be a location for a quality hotel. The location has immediate access to I-90 and would be the closest quality hotel to downtown with highway access. Two hotels exist on Euclid Avenue on the opposite side of I-90, but these are two star budget hotels. The Ramada Plaza is located at the Bishop Road exit, but the quality of this hotel is also suspect. The closest good quality hotel is the Courtyard Suites located two miles away off of Som Center Road. A Radisson Hotel is also located off of Som Center Road near the Lakeland Freeway. A Holiday Inn is located off of I-271, more than six miles from the study area. The following figure shows the location of hotels in the area. Clearly, there is a void of high quality hotels in the Euclid/East Cleveland area. The hotels shown were obtained from popular travel sites such as Expedia and Hotels.com. There may be hotels, such as the Lake Erie Lodge that did not even receive consideration from these sites.



Supermarket Feasibility

Several census tracts within the Study Area have been designated as Food Deserts by the USDA. Food Deserts are defined as census tracts with low income with little access to healthy foods. Distance to a supermarket is one measurement that goes into designating a foods desert. Other census tracts within the Study Area are located further away from a supermarket, but income levels were not low enough to designate them as food deserts. The lack of access to a supermarket and the relatively high population density of the area could indicate a possible

demand for a supermarket. There is a Dave's supermarket located at Shore Center and there is a Save-A-Lot on the eastern end of the corridor near 276th Street. Just outside of the Euclid city limits there is another Save-A-Lot near Green Road as well. There are a few Convenient Markets, but these markets have a smaller selection of items with higher prices. A larger supermarket on Euclid Avenue would be the primary grocery store location for Euclid south of I-90, East Cleveland, parts of eastern Cleveland, as well as parts of Cleveland Heights, South Euclid, and Richmond Heights.



Retail Supply

In the Euclid Avenue Market Area, the existing retail establishments have been broken down by type of establishment and arranged according to the amount of floor area on the following chart:

Retail Type	Floor Area
Vacant	106,809
Restaurant	46,257
Auto Sales	31,978
Dollar Value Stores	22,506
Grocery	20,462
Beauty	17,768
Auto Repair	17,485
Bar	12,027
Bank	12,021
Pharmacy	10,759
Auto Parts	8,753
Gas Convenience	8,373
Cell Phone	7,862
Car Wash	7,052
Clothing	7,047
Office Supply	3,816
Appliance Parts	3,042
Laundry	2,858
Special Service	2,717
Sporting Goods	1,908
Beverage Center	1,479
Rental	1,156

Retail Supply in Euclid

Floor Area was determined from a windshield survey of retail uses applied to a building floor area database. Please refer to the next section for a description of the Euclid Avenue project area.

Retail Demand

A retail gap analysis was performed to identify the potential for new growth in various retail sectors. The analysis, depicted in the chart below, is a supply and demand model designed to identify present consumption activity and evaluate the performance of the corridor's retail sector. Using 2012 data, retail sales (supply) and consumer expenditures (demand) are broken down by 12 major retail categories and shown for the primary market area (0 - 2 mile radius) and secondary market area (2 - 10 mile radius). Where spending (demand) exceeds supply (sales) a retail gap exists, indicating there is a level of sustainable growth that could be achieved in that sector. Conversely, in sectors where supply meets or exceeds demand, the market is saturated in that sector, making it unlikely for additional growth to be sustained. Using national standard retail capture rates. it is estimated the project area could potentially capture 20% of unmet demand from the primary market and an

additional 2% from the secondary market area.

The analysis illustrates that there is a significant demand for new retail in the project area, with most sectors, except building materials, garden equipment and supply stores, showing a gap. This indicates that residents are purchasing these goods elsewhere. New or expanded retail in sectors showing a gap will capture portions of that spending locally.

Among the sectors showing the greatest need are food and beverage (grocery) stores, general merchandise and clothing and home furnishings. The data also shows demand for restaurants in the project area. In total, the analysis shows potential for more than 100,000 square feet of retail growth. The amount of potential demand expressed in square feet is roughly equal to the amount of existing vacant retail inventory currently on the market. Retailers and developers have been slow to pick up these spaces and invest in them to turn them around. This suggests that the spaces are either too expensive

or obsolete for today's retail uses making them too expensive to renovate. During the public input process, owners and leasing agents for these spaces reported their efforts to market them were frustrated even though they had lowered the rents.

The implementation of this study's major recommendations for the public realm will provide the incentive for owners to upgrade or replace the tired plazas that line the north side of Euclid Avenue. A more pedestrian and multi-modal friendly atmosphere will calm the traffic and improve the experience of the corridor. Implementing design guidelines for new construction bringing the buildings to the front of the lot lines further improves the corridor. Recommendations strengthening the relationship between the highway interchange and the corridor will draw new shoppers and visitors to Euclid Avenue.

	Primary	Market Area (0	- 2 Miles)	Secondary	Market Area (2 -	- 10 Miles)	Gr	owth Poter	ntial
Industry Summary	Demand (Expenditures)	Supply (Retail Sales)	Retail Gap (Capture Rate = 20%)	Demand (Consumer Expenditures)	Supply (Retail Sales)	Retail Gap (Capture Rate = 2%)	Sustainable Growth (\$)		Sustainable Growth (SQFT)
Motor Vehicle & Parts	\$69,005,741	\$106,709,313	-\$37,703,572	\$973,033,848	\$593,775,649	\$379,258,199	\$44,450	\$481	92
Furniture & Home Furnishings	\$8,183,960	\$2,511,925	\$5,672,034	\$117,757,162	\$81,229,532	\$36,527,630	\$1,864,959	\$163	11,407
Electronics & Appliance	\$10,432,589	\$4,469,990	\$5,962,599	\$146,915,082	\$142,796,003	\$4,119,079	\$1,274,901	\$153	8,324
Bldg Materials, Garden Equip. & Supply	\$11,238,119	\$22,058,070	-\$10,819,951	\$174,527,925	\$101,727,199	\$72,800,725	-\$707,976	\$315	-2,249
Food & Beverage Stores	\$48,268,910	\$11,193,573	\$37,075,337	\$675,030,464	\$585,153,972	\$89,876,492	\$9,212,597	\$343	26,851
Health & Personal Care	\$12,334,094	\$9,125,278	\$3,208,817	\$180,646,260	\$172,542,123	\$8,104,138	\$803,846	\$131	6,157
Gasoline Stations	\$51,328,114	\$65,555,008	-\$14,226,894	\$705,536,412	\$560,097,883	\$145,438,529	\$63,392	\$126	502
Clothing & Clothing Accessories	\$13,161,041	\$3,869,450	\$9,291,590	\$180,876,698	\$181,935,716	-\$1,059,019	\$1,837,138	\$168	10,910
Sporting Goods, Hobby, Book & Music	\$4,766,068	\$1,050,400	\$3,715,669	\$65,969,143	\$51,251,300	\$14,717,843	\$1,037,491	\$147	7,072
General Merchandise	\$47,655,493	\$36,429,843	\$11,225,650	\$681,460,317	\$500,280,516	\$181,179,801	\$5,868,726	\$128	45,846
Miscellaneous Store Retailers	\$6,918,660	\$6,354,687	\$563,974	\$95,932,476	\$57,411,828	\$38,520,649	\$883,208	\$190	4,656
Food Services & Drinking Places	\$53,725,058	\$32,484,649	\$21,240,409	\$752,401,561	\$768,554,379	-\$16,152,819	\$3,925,025	\$233	16,823

Destination Euclid: The Euclid Avenue Recreationway Corridor

Traffic Analysis

The purpose of the traffic analysis for Euclid Avenue is to adequately assess the existing traffic conditions at the study intersections; to provide a comprehensive study which evaluates and documents the need for traffic signal control based upon established criteria and other engineering factors if warranted; and to ensure the ability of the roadway and intersections to adequately handle the safety, efficiency, and mobility of traffic at the intersections based upon the appropriate form of traffic control.

The traffic analysis is the result of the Traffic Engineering Report prepared for the project by TMS Engineering, a firm out of Stow, Ohio that specializes in traffic and transportation analysis. The entire Traffic Engineering Report is contained in this document as Appendix A. The report compares data collected for the existing traffic conditions to the criteria established by the Ohio Manual of Uniform Traffic Control Devices, The Highway Capacity Manual, and professional engineering judgment from onsite field reviews. The following are the ten traffic signal controlled intersections that are the under study:

- 1. Euclid Avenue & I-90 Eastbound Ramps
- 2. Euclid Avenue & East 260th Street/Richmond Road
- 3. Euclid Avenue & Babbitt Road
- 4. Euclid Avenue & Heritage Drive
- 5. Euclid Avenue & East 222nd Street
- 6. Euclid Avenue & Chardon Road
- 7. Euclid Avenue & Chardon Road/Chardon Middle School
- 8. Euclid Avenue & Dille Road/Highland Road
- 9. Euclid Avenue & East 191st Street
- 10. Euclid Avenue & Upper Valley Drive

The Ohio Department of Transportation functionally classifies roadways to help define a roadway's characteristics as well as identify roadways that are eligible for federal funds. Functional classification is the grouping of roads, streets, and highways in a hierarchy based on the type of highway service they provide. Generally, streets and highways perform two types of service. They provide either traffic mobility or land access and can be ranked in terms of the proportion of service they provide. The functional classification of the roadways in the study area can be seen on ODOT's website at: http://www.dot.state.oh.us/Divisions/Planning/ProgramMgt/functionalclass/Pages/FunctionalClassificationMaps.aspx

Euclid Avenue is a 35 mph, five-lane roadway with a center two-way left turn lane. It is classified as an urban principal arterial roadway according to the Ohio Department of Transportation. Euclid Avenue has an average daily traffic (ADT) of approximately 18,150 vehicles per day in the study area.

Future Traffic Volumes

Design of new roadways or improvements to existing roadways should not usually be based on current traffic volumes alone, but should consider future traffic volumes. Arterial and collector roadways, like those found in the study area, carry a predominate amount of through traffic due to their functional characteristics. Arterial streets usually carry more through traffic than collectors. This through traffic component generally increases as regional growth occurs.

The year 2030 traffic volumes for Euclid Avenue within the study area were requested through the Northeast Ohio Areawide Coordinating Agency (NOACA).

The NOACA regional model indicated an expected decline in traffic volumes along Euclid Avenue between the base year of 2010 and the horizon year of 2030.

Therefore, NOACA, recommended that the existing traffic and peak hours be used for the basis of the analysis since this is the expected highest volume of traffic the area will have in the regional model years of 2010 to 2030.

The Traffic Engineering Report concludes that a "road diet" may be implemented by having some travel lanes completely eliminated without causing delays for vehicles.

TMS has stated, "studies have shown that road diets do have the ability to improve safety while serving similar (or higher) daily traffic volumes following a lane reduction." A road diet will also benefit pedestrians. According to TMS, "transit users and pedestrians have a more difficult time crossing a four-lane, or greater, roadway than a roadway with less travel lanes."

Traffic Signal Warrant Analysis

A properly placed traffic signal can improve the safety and efficiency of flow through an intersection. An unnecessary signal can be the source of danger and annoyance to all who use the intersection including pedestrians, bicyclists, and motorists. It can also increase air pollution and cause driver frustration if there is not much traffic on the minor street.

When determining whether or not a traffic signal is necessary at a specific location, an evaluation of the candidate location (called a signal warrant study) is conducted to determine the answers to the following questions:

- 1. How much traffic is there on the intersecting streets?
- 2. Are high levels of traffic consistent throughout the day or just during a few hours?
- 3. Is there a significant amount of pedestrian traffic?
- 4. Is the street a wide, high speed, and busy thoroughfare?
- 5. Are school children crossing the street?
- 6. Will a signal improve the flow of traffic or cause gridlock with other nearby signals?

The signal warrant study collects all of the relevant data at a location that is being considered for a traffic signal. Once the data is collected, it is compared to criteria that has been established by extensive research and experience and documented in the latest edition of the Ohio Manual of Uniform Traffic Control Devices (OMUTCD).

The results of the signal warrant analysis do not necessarily justify installation or removal of a traffic signal. Other, more appropriate solutions should be considered prior to considering installation of a traffic signal. Spacing between signals is always a major concern beyond the basic warranting analysis and should be carefully reviewed before deciding on installation of a new signal.

It should be noted that traffic signals do not prevent motor vehicle crashes. Engineering studies have shown that in many instances, total intersection crashes increase after a traffic signal is installed. Certain types of crashes are susceptible to correction by installation of traffic signals, however, overall the number of crashes generally increase.

Based upon the evaluation of the warrants established by the Ohio Manual of Uniform Traffic Control Devices,

the analysis concluded that the following intersections do not meet the warrant requirements for traffic signal control:

- 1. Euclid Avenue & Heritage Drive
- 2. Euclid Avenue & East 191st Street
- 3. Euclid Avenue & Upper Valley Drive

As such, the City of Euclid can choose to pursue elimination of signals at those intersections and instead, go to stop sign controls. The analysis also concluded that the seven remaining intersections studied <u>meet</u> the warrant requirements for traffic signal control.

Capacity and LOS at Study Intersections

Intersection capacity analyses were performed at the study intersections using the procedures outlined in the computerized version of the Transportation Research Board's Highway Capacity Manual, HCM2010 (HCS2010, Release 6.2). The capacity analyses were performed in order to estimate the maximum amount of traffic that can be accommodated by a roadway facility while maintaining recommended operational qualities. The AM and PM design hour volumes were analyzed to determine the level-of-service (LOS) at the study area intersections.

The capacity analysis procedures provide a calculated "average vehicle delay", which is based on traffic volumes, number of lanes, type of traffic control, channelization, grade, and percentage of large vehicles in the traffic stream at each intersection. The average delay calculated at an intersection is then assigned a "grade" or level-of-service

(LOS) ranging from A to F as follows:

LOS	Unsignalized Average Delay Per Vehicle (sec)	Signalized Average Delay Per Vehicle (sec)
Α	< 10.0	< 10.0
В	10.1 to 15.0	10.1 to 20.0
С	15.1 to 25.0	20.1 to 35.0
D	25.1 to 35.0	35.1 to 55.0
Е	35.1 to 50.0	55.1 to 80.0
F	> 50	> 80

The analysis indicates that conditions at the study area intersections are currently operating with acceptable levels-of-service (LOS C or better) during the AM and PM peak hours under the 2012/2030 existing conditions with existing traffic signal control.

As previously stated, three intersections do not meet the warrant requirements for signalized intersections.

An analysis was performed to determine that, if those intersections were converted to stop sign control, would the LOS be within the recommended standards?

The analysis indicates that the intersections are expected to operate with acceptable levels-of-service under stop sign control during the AM and PM peak periods except for the southbound approach at Upper Valley Drive. The southbound approach at Euclid Avenue and Upper Valley Drive is expected operate with a level-of-service E during the PM peak hour. This LOS E can be attributed to the lack of adequate gaps in the east-west Euclid Avenue through traffic stream for the Upper Valley Drive vehicles to turn left into. This delay is limited to only vehicles on Upper Valley Drive and does not impact the Euclid Avenue traffic.

Benefits of Roundabouts

Since intersections are a key transportation feature along the corridor, alternatives to traditional intersections are specifically addressed, uncovering various benefits of utilizing roundabouts.

Over the last few decades, thousands of roundabouts have been installed in Europe, Australia and other parts of the world. Recently they have gained support in the United States, and where they have been installed, drivers are becoming comfortable with their use. In the communities where roundabouts have been built, even where the public has been hesitant to accept them initially, roundabouts have been accepted enthusiastically because of the increased safety they provide, along with the traffic calming and aesthetic benefits.

The fact that the modern roundabout is the safest form of intersection control available has been verified worldwide,

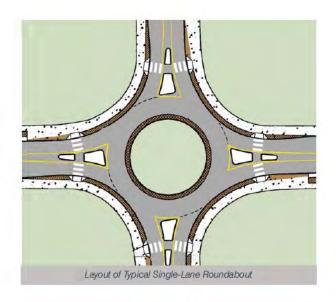
In the USA there are several recent studies of intersection safety. The Insurance Institute for Highway Safety, completed an in depth study of 24 intersections -- in a mix of urban, suburban and rural environments, which had been converted from stop control and signals to modern roundabouts. (Crash Reduction Following Installation of Roundabouts in the United States, Insurance Institute for Highway Safety, Arlington, VA: Status Report, May, 2000.) This study reported reductions of 39 percent for all crash severities combined, 76 percent of all injury crashes and an approximate 90 percent in fatal and incapacity injury crashes. Also, according to the study, "The safety benefits don't come at the expense of traffic flow. In fact, where roundabouts replace intersections with stop signs or traffic

signals, delays in traffic can be reduced by as much as 75 percent."

Associated benefits of roundabouts include:

- · Reduction in fuel use
- Reduction in pollution
- No signal equipment to install and repair
- · Reduction in noise due to fewer stops/starts

Data regarding pedestrian and bicycle safety at roundabouts is not as prevalent as data on vehicle safety. However, there is a report titled the National Cooperative Highway Research Program (NCHRP) Report 572, 2007 conducted by the Transportation Research Board. This study observed at roundabouts, "769 pedestrian crossing events and 690 bicyclist events from video recordings and there were no observed crashes and only eight observed conflicts (0.5%). The low observation numbers confirm what was found in the crash reports that were collected for this project. Crash reports collected from 139 legs at 39 roundabouts revealed a total of five reported pedestrian crashes and eight reported bicyclist crashes across all sites over a mean reported crash history period of 3.8 years per site. In summary, the findings of this research did not find any substantial safety problems for non-motorists at roundabouts, as indicated by there being few reported crashes and a very small number of observed conflicts."









Corridor Design Plan

The corridor design plan includes the following topics:

- Sustainable Design Principles
- → The Concept
- → The Plan

Sustainable Design Principles

Sustainable design principles guide the development of the Urban Design Plan. They promote good design; design that is in the best interest of the community and the natural environment that supports our residents. Furthering these principles are policies to that work direct resources toward promoting sustainability and minimizing future expense to the community. These principles and policies are the benchmark for all design actions outlined in the Plan that implement the Euclid Avenue vision, goals and objectives.

Principle #1 · Focus population and employment growth by encouraging infill development

Older developed areas offer vast infill potentials for higher density development due to the high number of vacant, outdated and underused properties. With efficient redevelopment, Euclid Avenue can offer a mix of light industrial, commercial and residential land uses that are in demand for today's market.

Policies for Encouraging Infill Development:

- Euclid Avenue should provide a full range of modern housing options to maintain and attract a supportable level of population.
- Euclid Avenue should provide a mixture of land uses proximate to each other which incorporates easy access to employment, service areas and residential areas to encourage the use of alternative transportation.
- Euclid Avenue should increase density to support population growth, employment and service areas.
- Euclid Avenue should promote community health through increased pedestrian amenities, safety and proximate destinations.

Principle #2 - Maximize the use of existing infrastructure

New development in undeveloped areas requires the building and extension of expensive infrastructure. However, along Euclid Avenue, proposed development is infill development. The capacity exists in the Euclid Avenue corridor to maximize the existing water and sanitary infrastructure to support the proposed infill development at minimal cost.

Policies for Maximizing the Use of Existing Infrastructure:

- Euclid Avenue should use existing sanitary sewer and domestic water systems wherever possible, for all proposed infill development.
- Euclid Avenue should employ existing stormwater infrastructure, wherever possible, in the redevelopment of the corridor.
- Euclid Avenue should use stormwater infiltration channels in the redevelopment of the corridor to reduce the volume of stormwater during a storm event, reducing the need for sewer system upgrades.

Principle #3 - Reduce the pollution caused by vehicle traffic

Unnecessary vehicle trips increase the carbon footprint. Increased carbon impacts all aspects of our daily existence, particularly air quality from exhaust and overall community health from encouraging a sedentary lifestyle.

Policies for Reducing the Pollution Caused by Vehicle Traffic:

- Euclid Avenue should provide more green area, resulting in many benefits including reducing the radiant heat effect.
- Euclid Avenue should utilize roundabouts to reduce idling that occurs at signalized intersections, thereby reducing exhaust emissions.
- Euclid Avenue should utilize roundabouts to improve traffic flow and thereby reduce the vehicle noise resulting from the stop and go at signalized intersections.
- Euclid Avenue should increase the number of trees along the corridor to improve air quality, minimize the heat island effect and improve corridor aesthetics.
- Euclid Avenue should be designed with ample sidewalks and a multi-purpose trail to reduce the carbon footprint by encouraging residents to walk or bicycle.

<u>Sustainable Design and the Euclid Avenue Corridor:</u> Sustainability requires the responsible management of community resources and the ability to use and replenish resources for future generations. As the Euclid Avenue corridor is redeveloped, sustainability should imply stewardship of the land; but as an existing commercial corridor, economic sustainability is also crucial. The sustainable design principles balance economic and environmental design objectives.

Principle #4 - Enhance the natural environment and minimize future impacts

Development impacts our natural environment: the flow of stormwater, movement of wildlife and air quality to name just a few. Along the Euclid Avenue corridor, however, numerous assets can be capitalized upon during the redevelopment of the corridor that will enhance the natural environment including the naturalized forest areas to the south of the corridor which remain because the slopes were too steep to develop and the natural flow of surface water as it runs down the face of the escarpment.

Policies for Enhancing the Natural Environment:

- Euclid Avenue should reduce the stormwater quantity by allowing water to percolate into the ground and acting as short-term stormwater storage.
- Euclid Avenue should be designed with vegetated channels (such as medians) to improve the quality of stormwater by causing stormwater to flow through these channels before entering stormwater pipes.
- Euclid Avenue should preserve the woodlot areas running parallel to the corridor to promote a wildlife corridor, improve air quality and act as an educational resource.
- Euclid Avenue should promote biodiversity along the corridor with the redevelopment of the corridor.
- Euclid Avenue should daylight streams that have been piped and restore aquatic habitat.

Principle #5 - Promote recreation and community health

Auto-oriented communities increase vehicle miles travelled and do not encourage or, in some cases, do not allow walking. Five lane streets separate the streetscape and promote linear development. In contrast, mixed-use service nodes encourage neighborhood residents to walk or bike for goods and services. Reducing the width of the street creates space to offer a variety of places for activities adjacent to residential areas and the space for a multi-purpose recreational trail.

Policies for Promoting Recreation and Community Health:

- Euclid Avenue should promote population diversity by developing gathering and activity areas in mixed-use nodes for all age and ethnic groups.
- Euclid Avenue should facilitate crossing the corridor for all age groups with the narrowing of the street and the use of medians, where feasible.
- Euclid Avenue should facilitate and encourage walking, cycling and alternative modes of transportation through redevelopment as a complete and green street.
- Euclid Avenue should develop children's play and recreation activity areas closer to higher density residential areas.
- Euclid Avenue should develop parks and recreation space adjacent to residences so that these facilities are no longer a distant destination.
- Euclid Avenue should focus neighborhood services and convenient, quality food supply in development nodes (villages).
- Euclid Avenue should offer recreation facilities: play structures, court sports, exercise areas, seating areas.

Principle #6 - Promote a marketable identity and destination for employment

Without employment and opportunity for residents of the corridor, future sustainability of other resources may not be achieved. Economic sustainability is therefore paramount and is addressed in the Euclid Avenue TLCI Plan in a number of ways.

Policies for Promoting a Marketable Identity:

- Euclid Avenue should develop a new urban identity to attract and retain both employment and residents.
- Euclid Avenue should create a new urban experience that is healthier and safer.
- Euclid Avenue should develop the corridor as an iconic streetscape that is greener with a more modern identity.
- Euclid Avenue should promote mixed-uses for civic, education, light industry, retail, office, services and a variety of housing opportunities, promoting potential redevelopment of older, stagnant areas in Euclid.
- Euclid Avenue should build on the area's location as a highway interchange destination with new commercial/ retail opportunities,
- Euclid Avenue should link to the waterfront and the traditional downtown to maintain the waterfront community identity.
- Euclid Avenue should identify and enhance design themes for each mixed-use development node (village) to promote the history and identity of Euclid.

The Concept

To create an iconic character that promotes healthy living and accommodates economic development the concept for Euclid Avenue is to develop the corridor as a recreationway that shifts the focus of this transportation corridor from industry to residents. This shift is beneficial for both industry as well as residents since it provides a more desirable place to live and work, a key attraction for new industry.

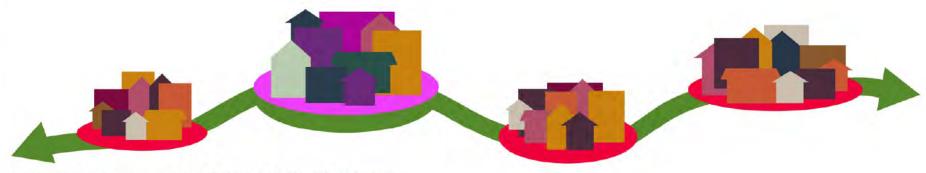
The recreationway concept features a series of mixeduse villages along Euclid Avenue that are linked by a continuous linear park.

The Villages & Central Business Campus

The Recreationway concept breaks Euclid Avenue into several distinct nodes or "villages" to provide a community focus along the expansive corridor. Three separate new villages and one Central Business Campus function as nodes along the Euclid Avenue Corridor. In this context, the term "village" refers to a concentration of commercial activity and not a governmental entity. Each village has a slightly different character and purpose that should be reinforced with the use of design guidelines that suggest a design vocabulary reflecting the desired character of each.

Why is this a plan feature?

The length of the corridor is approximately four miles long, a walking distance of about 80 minutes. Considering that a typical lap around a shopping mall is under a mile, the Euclid Avenue corridor is a very long distance to trek for a walkable retail and commercial experience. By concentrating development in "villages" or nodes the corridor creates a series of pedestrian-friendly shopping and gathering nodes along a linear park. Also key to this concept is the development of distinct village design flavors that provide a varied sense of activities and attractions along Euclid Avenue.



Villages & Central Business Campus Concept Diagram

Euclid Creek Village

Centered at the intersection of Chardon Road and Euclid Avenue, the Euclid Creek Village contains some of the oldest residential buildings in the area and is the location of the Euclid Museum. Creating a core of commercial buildings in this area will help restore the original focus on this historic area. Businesses in the village could also capitalize on the presence of Euclid Creek which has a trail proposed to run along it and is an attraction for anglers. Businesses such as fishing supplies, bike repair or restaurants catering to outdoor sports enthusiasts would work well here.

Central Business Campus & Proposed Parkland

In the middle of the study area is Heritage Business Park. This facility is both the geographic center of the corridor and a center of jobs and enterprise. The Central Business Campus enhances this area by designing it to be the heart of activity along the corridor with enhanced facilities for offices, light manufacturing, education and municipal facilities. Attached to the Central Business Campus is a large proposed parkland area that is a feature along the Recreationway. This proposed parkland area partly occupies Heritage Business Park site, which has a great deal of mowed lawn and unused parking areas near Euclid Avenue that, with the cooperation of the owner, can be converted into public parkland. This ties in nicely with the existing park to the west known as Coulter Avenue Park. Collectively, these two properties form a sizable greenspace that can be used for a variety of recreation and passive uses.

Euclid Woods Village

The Euclid Woods Village, named after the old-growth forest on the nearby bluff, is where businesses that support locals would be successful due to its location at the intersections of Euclid Avenue with Babbit Road, Richmond Road and 260th Street; all roads that flow from residential areas. This could be the location of a major grocery store, restaurants, specialty shops, and service industries.

Gateway Village

The Gateway Village is located at the eastern end of the project area in the vicinity of the Interstate-90 interchange and would focus on regional commercial businesses that can benefit from the access and visibility from the Interstate. Businesses such as motels/hotels, large retail, entertainment venues, and restaurants could be successful in this area. This is a good location for a piece of "signature architecture" that would function as an identifier and a gateway for Euclid Avenue.

Villages & Central Business Campus Concept Map



Destination Euclid: The Euclid Avenue Recreationway Corridor

The Linear Park

The Recreationway concept transforms Euclid Avenue into a linear park that provides ample space for a variety of recreation opportunities and beautifies the appearance of the corridor. By redesigning the transportation route into one that suits the existing conditions and reflects the vision for the future, the community gains space for an active lifestyle.

The linear park concept is achieved by the application of Complete and Green Streets principles. Reducing the travel lanes and shifting the remaining travel lanes to one side of the right-of-way will create the opportunity to develop a linear park. The linear park can be used for a variety of uses including a multi-purpose trail.

Potential recreational features within the linear park may include:

- · trailheads to citywide trail system
- · decorative plantings
- · multi-purpose trail
- · interpretive area
- · enhance transit waiting area
- arboretum
- gateways
- monuments
- public art

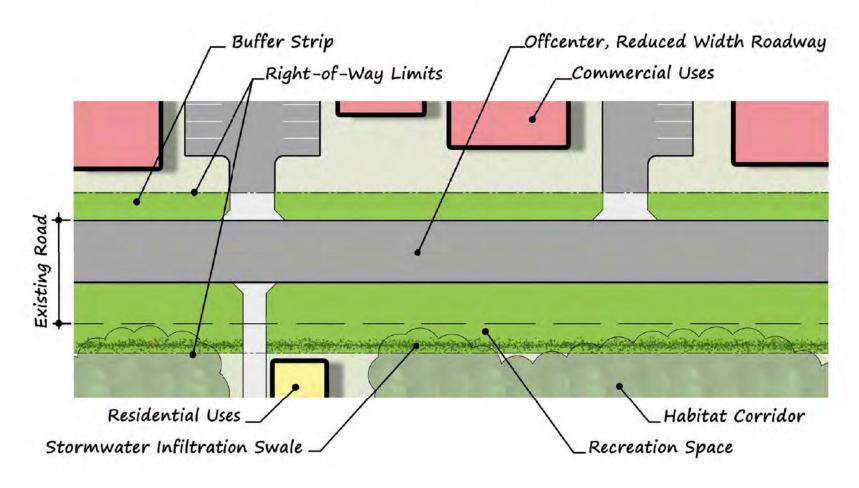
Other elements of this concept include the development of Gateways and Green Connectors. Gateways are critical elements that define the boundaries of the Euclid Avenue Corridor. Having an effective, attractive gateway element in prominent locations will convey to pedestrians, bicyclists and drivers that Euclid Avenue's Recreationway is a destination. Green Connectors are existing roadways that are enhanced to include amenities for pedestrians and bicyclists. Linking the Recreationway to other parts of the City and region provides a comprehensive system of alternative transportation routes.

Existing Euclid Avenue Streetscape



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Linear Park Concept Diagram



The Plan

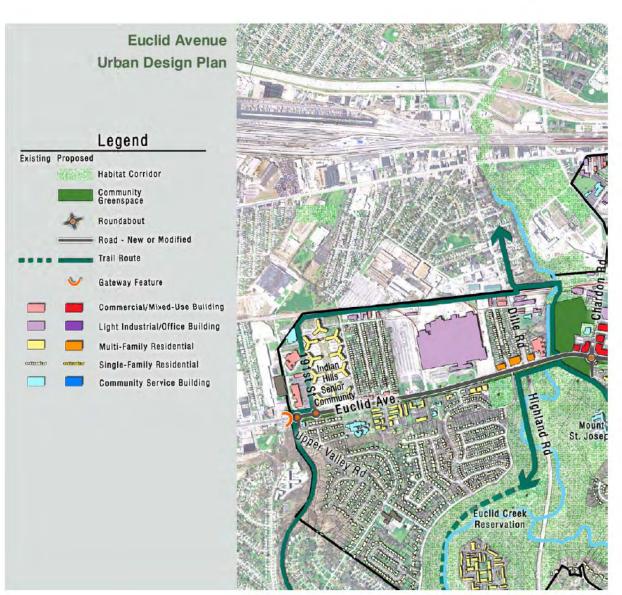
The Urban Design Plan details what the Recreationway concept means for specific design elements. It takes the broad ideas of the concept and translates them into physical improvements. The Urban Design Plan for the Euclid Avenue corridor guides all future development towards the creation of the Recreationway and the realization of the community vision for the future.

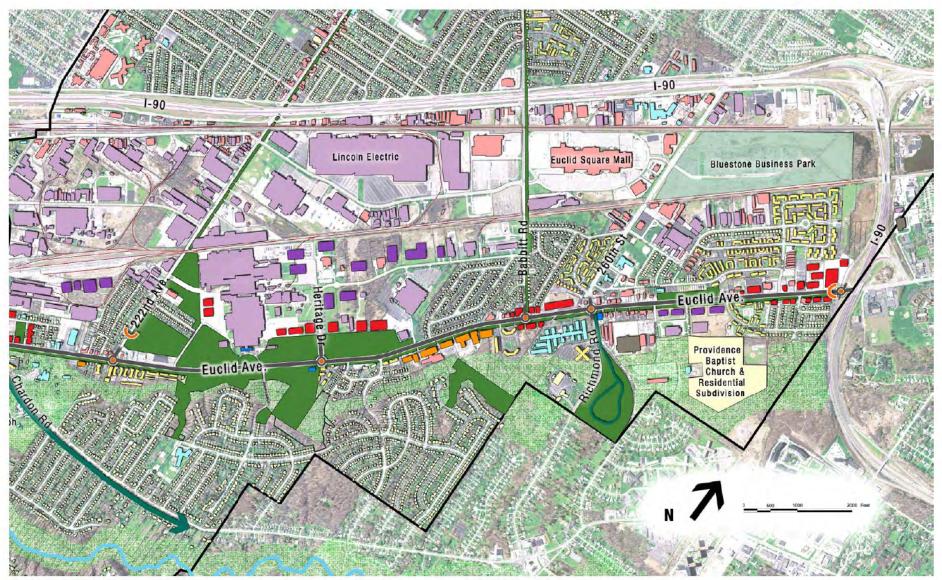
The Urban Design Plan graphic shows both existing and proposed design features. To describe each of the many features identified, the Urban Design Plan is broken into three categories:

- Corridor Development
- Parks & Open Space
- Circulation

The adjacent Urban Design Plan is a complete view of what is proposed for the Euclid Avenue Corridor.

* It should be noted that proposed building identified in the Urban Design Plan should be viewed, not as specific plans, but as indicators of land use changes and as examples of the use and scale of buildings that would be appropriate for a given location.





Destination Euclid: The Euclid Avenue Recreationway Corridor

Corridor Development

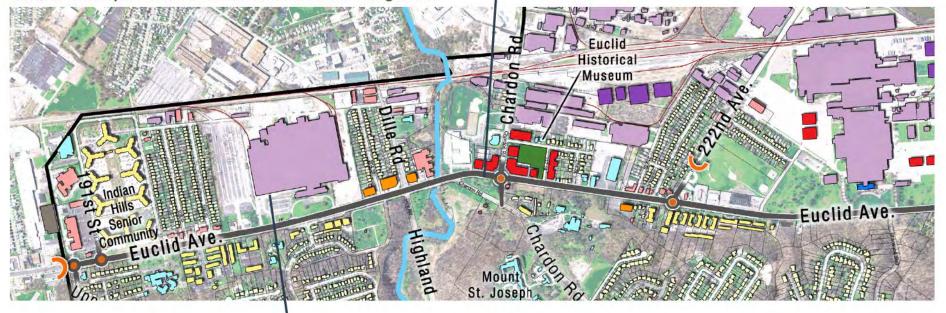
There are several different types of development proposed for the Euclid Avenue Corridor including commercial development, industrial development, mixed-use development and residential development. The following highlights all major development proposed along Euclid Avenue.

Corridor Development in the Euclid Avenue Urban Design Plan

Commercial Development at Chardon Road and Euclid Avenue

This area is the center of the proposed Euclid Creek Village and the building along the frontage should be commercial to make Euclid Creek Village a center of activity.

It has also been suggested by stakeholder committee members that the Euclid Museum could benefit from enhanced visibility. This may be accomplished by acquiring and removing some of the adjacent, low-cost residential properties to open views to the museum and perhaps creating a small park.



Adaptive Reuse of the Former GM Inland/Fisher Body Plant Site

The existing building on this site is over one million square feet and is partially leased to a variety of tenants who require an inexpensive, spacious facility. The generous setback can support the development of the linear park along the site's frontage with tremendous potential to support green infrastructure facilities for stormwater management. The building would be ideal for reinvestment to support adaptive reuse.

Commercial Development at the Central Business Campus

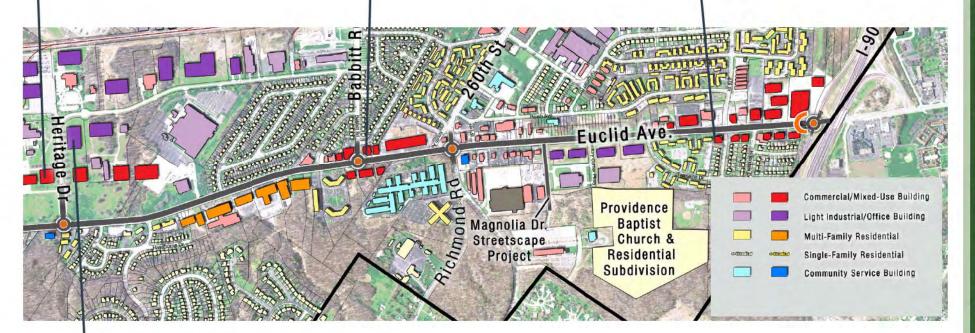
There are several commercial buildings proposed adjacent to the expanses of greenspace that may contain light industrial, office and community uses. The existing front entrance building is envisioned as new municipal offices.

Commercial Development at Babbitt Road and Euclid Avenue

This is the proposed Euclid Forest Village area and has several new commercial buildings shown along the frontage.

Commercial Development at Euclid Avenue and the I-90 Interchange

This area is within the proposed Gateway Village and has new commercial buildings shown. This would be the location for an iconic architectural feature to catch the eye of interstate travelers and to anchor Euclid Avenue.



Industrial Development at the Central Business Campus

Several new buildings and building modifications are proposed for this area currently known as the Heritage Business Park. The Heritage Business Park campus is well positioned to accommodate additional, given its surplus of developable land (approximately 40 acres), proximity to highway and rail, and available infrastructure.

Parks & Open Space

There are two different types of parks and open space proposed in the Urban Design Plan for Euclid Avenue: community greenspace and the habitat corridor.

Community Greenspace

Community Greenspace is land that may be either developed for recreational purposes or left in its natural state. It is made up both existing and proposed lands. Not all of the proposed Community Greenspace is currently publicly-owned and can be designated once the land is purchased or an arrangement such as a lease or occupancy permit has been obtained.

The following highlights the proposed Community Greenspaces.

Habitat Corridor

Habitat Corridor lands form a continuous network of greenspace which is ideal for wildlife and should be protected. These lands are generally located on the bluffs above Euclid Avenue, which have not been developed due to the steep slopes and potential for flooding. The County recognized the importance of Habitat Corridors in their Cuyahoga County Greenspace Plan which identifies these lands as "Greenspace Corridors" and includes the following description:

"These hillsides and valleys are the location of some of the largest remaining concentrations of tree canopy in the County. Air filtration, erosion control, and improved water quality which these natural buffers offer benefits the overall quality of life in the area and reduces the need for more expensive man-made solutions.

Many areas within these corridors provide important habitats for land and aquatic plants and animals. Connected habitats are better than disjointed habitats and larger habitats are better for ensuring the survival of a species than smaller areas."

In addition to the wildlife benefit, the Habitat Corridor will provide an attractive patch of green that buffers views of houses at the top of the bluff.

The City should consider partnerships with private conservation groups and current stakeholders to acquire conservation easements and develop active stewardship of sensitive but hard to develop terrain. Creating a shared stewardship of these areas could take the form of hillside and creek side woodland club areas similar to the existing beach club recreational holdings which seem to contribute to neighborhood stability in the Lake Erie shoreline neighborhoods.

Roadside Community Greenspace

Part of the "Recreationway" concept includes the development of linear Community Greenspace. Roadside Greenspace should also be located where possible along the Proposed Green Connector routes: Highland Road, E. 222nd Street, Babbit Road and Richmond Road.



Euclid Museum Park Community Greenspace

In the vicinity of the Euclid Museum, a new Community Greenspace would be created by the City acquiring several residential properties, razing the buildings and replacing them with a small park. The park will reinforce the function of, and the visibility toward, the museum. There is a veteran's memorial currently located near 260th and Tungsten that is not readily visible that could be relocated to this site.

Former GM Inland/Fisher Body Plant Site

The generous setback can support the development of the linear park along the site's frontage with tremendous potential to support green infrastructure facilities for stormwater management.

Euclid Central Middle School Community Greenspace

There are plans to develop a multipurpose trail that will connect the two sections of the Cleveland Metroparks Euclid Creek Reservation. The trail is proposed to traverse a portion of the current Central Middle School. This plan proposes that the site be converted to parkland with a portion of the proposed Euclid Creek Trail running along it.

Central Business Campus Community Greenspace

There is Community Greenspace proposed for the new Central Business Campus (currently Heritage Business Park). This is shown both along Euclid Avenue and in the spaces between buildings. It can be either city-owned or privately-owned greenspace.

Sherwood Boulevard Area Community Greenspace

Greenspace proposed in this area is mostly privatelyowned vacant land that has not been developed due to the steep slopes. This area could be used to provide trails from the residential area at the top of the bluff to Euclid Avenue and its new amenities. The City of Euclid can increase the amount of Community Greenspace by acceptance of parcels through the Cuyahoga County Land Bank



Circulation

The circulation system is redefine in the Euclid Avenue Urban Design Plan with modifications to Euclid Avenue as well as surrounding roads that impact the corridor. The following highlights all major circulation modifications proposed in the study area.

Euclid Avenue Modification

Euclid Avenue is reprogrammed as a street that enhances commercial uses, is pedestrian and bicycle friendly and is an attractive and varied corridor. It is modified on the plan by reducing the roadway from five-lanes to three lanes and re-centering the road to the north side of the right-of-way, creating open space on the south side of the right-of-way.

East of Chardon Road, this new profile provides one lane in each direction and a median planter or, where necessary, a center two-way left turn lane. Drivers will be able to pull into the center lane to avoid blocking traffic while waiting for oncoming traffic to clear before making a left turn. This is a commonly used profile that most driver are used to and, according to the Traffic Engineering Report, will handle the volumes of traffic present on Euclid Avenue without causing delays. West of Chardon Road, traffic volumes require maintaining two driving lanes in each direction. Here, the recreation way will be appropriately narrowed.

The center lane will be a planted median wherever there is no need for the turn lane. This will be a decorative element as well as a stormwater infiltration channel. When there is rainwater or snowmelt, the water on Euclid Avenue would flow into the center median where it can percolate into the ground in low volumes. Higher volumes of water, beyond what can percolate into the ground, would flow down the length of the median, being filtered by plantings, to a catch basin where it will flow into the conventional stormwater system, albeit cleaner, and in lower volumes, than if it were simply collected directly off the paving at the curb.

To ensure that businesses along Euclid Avenue are not impacted, the roadway would shift to the north side of the right-of-way where the most businesses are located. Conversely, land uses such as residential would also benefit by having the road be located on the opposite side of the right-of-way, farther from traffic. The existing land uses along Euclid Avenue are well suited to this concept since they are often not symmetrical across the roadway with commercial uses, in particular, located on one side only. The open space created by re-centering the roadway in the right-of-way, can become usable recreation space; in effect, a linear park.

Roundabouts

Roundabouts are proposed at intersections throughout the corridor to control traffic flow at intersections. A roundabout is an unsignalized circular intersection engineered to maximize safety and minimize traffic delays. Redeveloping Euclid Avenue's intersections from the existing conventional signalized intersections to into roundabout intersections is consistent with the Recreationway concept and the vision for the future as it benefits all roadway users. Adjacent is a photo-simulation of a roundabout at the intersection of 222nd Street and Euclid Avenue. The center of the roundabout may be treated is a variety of ways but, in this case, a sculpture is shown.

Chardon Road Modification

Chardon Road has been altered on the plan to intersect Euclid Avenue at one location only. Currently Chardon Road south of Euclid Avenue splits in a "Y" formation as it approaches Euclid Avenue. The west end of the "Y" ends at a three-way intersection with Euclid Avenue at a sharp angle and, on the plan, has been eliminated and converted to greenspace. The remaining (eastern) branch of Chardon Road continues across Euclid Avenue at a four-way intersection.

Circulation in the Euclid Avenue Urban Design Plan



Gateway Features

Gateways are located at both ends of the corridor and on E. 222nd Street where interstate traffic enters the corridor. Gateways would welcome roadway users to both the Euclid Avenue Corridor and the City of Euclid. Gateways may consist of a lighted entrance sign identifying the "Euclid Avenue Corridor in the City of Euclid" and perhaps a slogan. The sign should be unique in design using materials and colors that reflect the intrinsic qualities of the corridor. The sign would be surrounded by decorative, colorful plantings to further draw the attention of passersby.

Proposed Trails

The Urban Design Plan includes potential trail routes in the project area. These routes were proposed prior to the development of this plan, and are shown here to give them an extra measure of support. The trail routes include the Euclid Railroad-Green Creek Trail and the Euclid Creek Connector.

Magnolia Road Improvements

The proposed streetscape improvement plan establishes a new landscape theme that incorporates new trees and plantings, sewer upgrades and biofiltration areas to manage runoff. The Plan includes a new sidewalk, consistent street lighting, and an improved transit waiting environment to better serve pedestrian needs.

Euclid Avenue Streetscape Improvements

As part of the Euclid Avenue roadway modifications, there are several streetscape improvements that are planned including linear park, sidewalk, crosswalks, bus pull-offs, landscaping, underground utilities and street lighting. The following describes these improvements.

Linear Park Recreation Space

One of the benefits of the Euclid Avenue Recreationway concept is the recreation space that is made available by re-centering the road in the right-of-way. There will be a strip of space approximately 35 feet in width along one side of the road that can be used for a variety of recreation uses.

Sidewalks

Sidewalks are located on only one side of Euclid Avenue; the other side has a multi-purpose trail. It is preferable that the sidewalk be six feet in width since studies have shown that pedestrians are more likely to use a sidewalk that is at least six feet in width. The sidewalk can be placed directly behind the curb or at the back edge of the right-of way. Where located behind the curb, there can be a strip of accent paving just behind the curb acting as a tactile warning for visually impaired pedestrians and providing an attractive visual element. In some cases, existing sidewalks may be used since they are generally located at the edge of the right-of-way.

Crosswalks

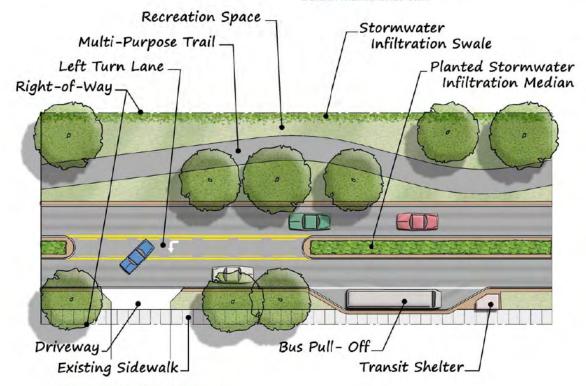
There is a high percentage of senior citizens and children that live in the project area and it is important that they be able to cross Euclid Avenue safely, at convenient locations. It is anticipated that by reducing the number of lanes on Euclid Avenue, traffic speeds will decrease making it more feasible to provide crosswalks at mid-block locations giving pedestrians better access to RTA stops or businesses on the opposite side of the road.

Bus Pull-offs

The modified Euclid Avenue has 15 feet of space between the curb and the edge of the right-of-way; wide enough for a six-foot sidewalk and a nine-foot bus pull-off. Provided that it is detailed correctly with ample curb flares that allow a bus to turn in smoothly, the pull-offs would be convenient for bus passengers and traffic. This configuration prevents traffic delays that can occur on roadways with a single lane in each direction because it does not force traffic to wait while passengers load and unload.

Landscaping

Euclid Avenue should be tree-lined for several reasons: to diminish the heat island effect; to provide a haven for wildlife; to provide a wind-break; to add human scale; and to add seasonal interest. However, the spacing between trees should be increased in commercial areas so as not to block views to businesses. Street trees should be deciduous trees with a tall trunk so that ground-level visibility is not obscured. Planting of shrubs and flower beds should be limited to areas where an accent is needed at features such as gateways or monuments so as not to burden maintenance staff.



Proposed Roadway Plan - Euclid Avenue

Underground Utilities

The Euclid Avenue Recreationway concept would have little impact on utilities. Storm drainage on the proposed road side of the right-of-way would likely be unaffected, particularly if the existing curb could be left in place. On the opposite side of the road, where the recreation corridor is located, a new curb drain would need to be installed and connected to the proposed vegetated median drainage. Water and sanitary sewer lines could remain in their current location in the right-of-way.

Street Lighting

Ideally a street renovation project would include burial of overhead utilities and decorative light poles. Lighting levels along the road should vary with the commercial nodes (villages) and intersections having a higher level of illumination than less-developed and residential areas. A style of lighting should be selected for the corridor and

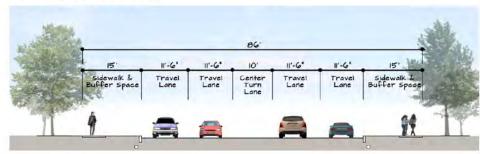
used throughout. Consideration should be given to the use of high- efficiency LED lighting which is now available in a wide variety of styles. Though the initial cost of LED lamps is higher than the more common metal halide, the cost can be amortized over time since LEDs commonly operate for 20,000 hours or more while using much lower wattage. The style of light pole chosen should be available in a variety of heights for various applications from pedestrian spaces to the roadway itself and should be evocative of the area's industrial heritage. Some poles such as Holophane's Site

Link series are designed with dovetail tracks that allow easy retrofitting of attachments to hold banners, planters, signs, pedestrian crossing signals, holiday decorations,

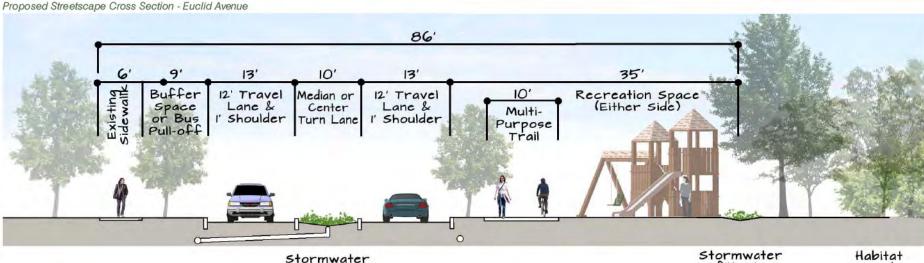
Infiltration

etc., eliminating the needs for awkward hose clamp-type attachments and reducing the need for additional sign posts. Spacing of light poles will be dependent on the lamps selected, pole height and the desired illumination levels.

Existing Conditions Cross Section - Euclid Avenue

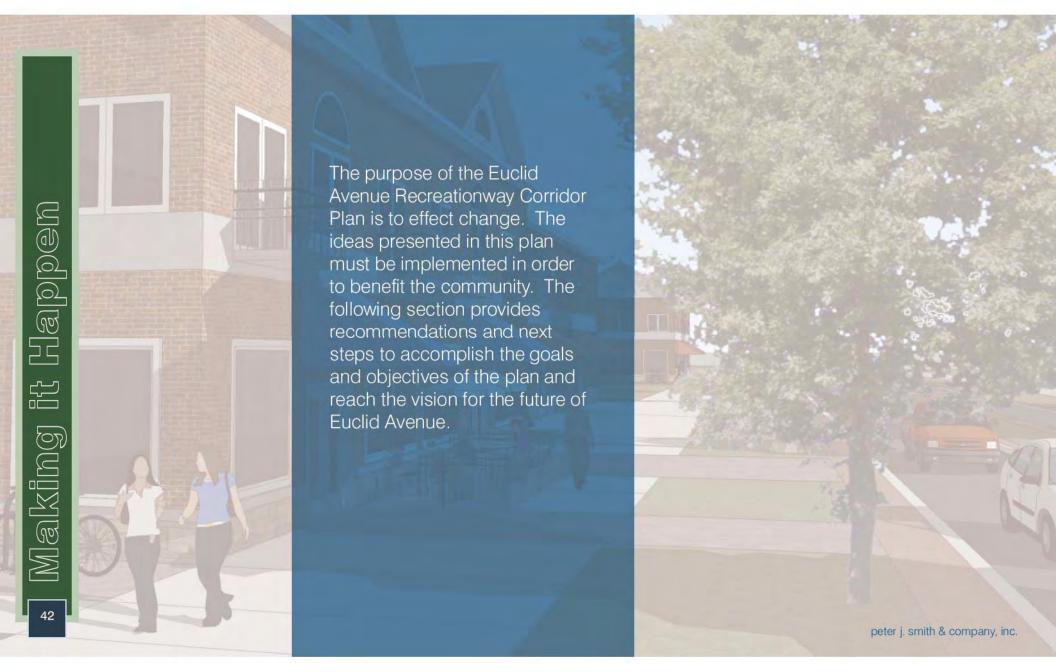


Infiltration



Destination Euclid: The Euclid Avenue Recreationway Corridor

Corridor



Making It Happen

The making it happen section includes the following topics:

- → Key Intersection Recommendations
- → Plan Recommendations
- Priority Projects
- → Quick Wins
- Potential Funding

Intersection Recommendations

Intersections play a pivotal role in the function of the Euclid Avenue Corridor. To address these integral elements, recommendations are detailed for each of the ten key intersections on Euclid Avenue in the Study Area. The Traffic Analysis Report is included as Appendix A.

Key intersections, from east to west, include:

- 1. I-90 Eastbound Ramps and Euclid Avenue
- East 260th Street/Richmond Road and Euclid Avenue
- Babbitt Road and Euclid Avenue
- Heritage Drive and Euclid Avenue
- East 222™ Street and Euclid Avenue
- Chardon Road and Euclid Avenue
- Chardon Road/Chardon Middle School Entry Road and Euclid Avenue

Improvements Common to all Intersections

In addition to the intersection specific recommendations, there are a series of improvements that are proposed for all intersections regardless of whether the intersection is redesigned or not. Common elements are:

Enhance Crosswalks

Crosswalks can be made more prominent by installing a contrasting color and texture. This may consist of a simple surface treatment with a product such as Streetbond 150 or it can be an inlay of pavers to create a texture variation as well. Enhanced crosswalks will act as a traffic calming measure where driver intuitively watch for pedestrians.

Re-time Traffic Control Signals

It has been over ten years since the signal timing was adjusted. A traffic consultant can study traffic flow and adjust the signal timing to reduce delays for through traffic. Benefits include, besides reduced delays, reduced pollution due to idling and less noise from stop and go traffic.

Put Overhead Utilities Underground

Hiding overhead utilities greatly reduces the visual clutter at intersections. Though it can be expensive. there are practical benefits as well, such as the elimination of storm-related power outages.





1. I-90 Eastbound Ramps & Euclid Avenue

This intersection is recommended for conversion to a single-lane roundabout. According to the traffic study, daily volumes are suitable for a roundabout conversion. While this intersection may not have the direct catalyic potential of spurring redevelopment as others, further west, it presents an opportunity to serve as the eastern gateway to the City and establish a brand identity for the corridor. An interchange modification study will be required to ensure that adequate and safe access to Interstate 90 is maintained.



2. East 260th Street/Richmond Road and Euclid Avenue

This is the busiest intersection in the Euclid Avenue Study Area and has been a topic of debate in the city in recent years. There is a concern that eastbound vehicles on Euclid Avenue that are turning right (south) onto Richmond Road have trouble making the turn. The southwest corner of Richmond Road and Euclid Avenue is rutted from trucks turning hard to avoid hitting vehicles on Richmond that are waiting to turn left (west) at the light.

Ultimately, a two-lane roundabout is the preferred traffic control alternative at this intersection. It is shown that traffic volumes can be accommodated with an adequate level of service with this alternative. However, conceptual plans for this intersection that add a lane have been developed to address the current problems.

The short-term recommendation for this intersection is to add a right-turn lane to the east-bound Euclid Avenue.

Traffic Engineer Review of Recommendation: The Traffic Engineer for this study, TMS Engineering, reports that current traffic volumes do support the long-term use of a roundabout at this intersection. In addition, the capacity analysis that was performed in the Traffic Engineer Study does not indicate that intersection requires the additional capacity the addition of an exclusive eastbound right turn would provide. An exclusive right turn lane may be necessary from a safety standpoint, however, a review of the intersection crash history would be necessary to make this determination. It should also be noted that the addition of any lane at a signalized intersection will require the intersection signal timings to be adjusted (delayed) due to the impact on crossing times for pedestrians as a result of the increased crossing distance.

A reduction of lanes on Euclid between intersections would require that the number of lanes increase as it approaches the intersection and the recommended length of these lanes should be:

- · Westbound Left Turn Lane 500 feet
- Westbound Through and Right Turn Lane Backup Length – 500 feet
- Eastbound Left Turn Lane 600 feet
- Eastbound Through Lane Backup Length

 475 feet
- Eastbound Right Turn Lane 725 feet



Babbit Road & Euclid Avenue

This intersection does not have any modifications proposed for the short term beyond the improvements common to all intersections. However, being a three-way intersection (except for a residential driveway), Babbit Road and Euclid Avenue have a lesser volume of traffic than many of the four-way intersections and would be an ideal candidate for a roundabout.

Traffic Engineer Review of Recommendation: The Traffic Engineer for this study reports that a single lane roundabout would be suitable at the intersection, however, there is a residential driveway located directly across from Babbitt Road. Proper roundabout design does not allow the inclusion of driveway access within the roundabout. The relocation of this driveway would need to be considered in the application of a roundabout at this intersection. In the event that the intersection remains signalized, the westbound side may be converted to one lane for right turn and through traffic.

If lane reductions are made on Euclid Avenue between intersections, the recommended length of the lanes for a signalized intersection should be:

- Eastbound Left Turn Lane 550 feet
- Eastbound Through Lane Backup Length 550 feet



Heritage Drive & Euclid Avenue

A review of traffic volumes has revealed that this intersection does not meet the warrant requirements for a signalized intersection making it possible to remove the signals entirely. In addition, the "Y" shape presents some unique traffic control challenges. Considering the small numbers of vehicles on Heritage Drive, there is a surplus of lanes with Heritage Drive having two lanes going onto Euclid Avenue at the east branch of the Y and another lane going onto Euclid Avenue at the west branch of the Y. Just this year several new tenants have moved into Heritage Business Park, however, it is unlikely that the volume of traffic at this intersection has greatly increased since traffic counts were taken during early spring of 2012.

Our recommendation for the short term would be to undertake a separate study to remove the signals. At a later date, before any major reconstruction is required, the intersection should be reconfigured to either a conventional T shape or a roundabout.

Traffic Engineer Review of Recommendation: The Traffic Engineer reports that a single lane roundabout would be suitable at the intersection. Also, the conversion of the Y shaped intersection to a traditional three-way T shaped intersection would not likely provide any additional capacity benefits but would likely have a positive safety impact by converting the intersection into a traditionally shaped intersection that would meet most driver's expectations. It would also likely reduce the speeds of vehicles approaching the intersection as they would have to make a 90 degree turn onto or off of Euclid Avenue where as the current configuration works similar to a slip ramp.



5. East 222nd Street and Euclid Avenue

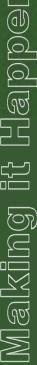
This three-way intersection is a major gateway onto Euclid Avenue with the on and off ramps to Interstate 90 on 222nd Street. In the short term, this intersection should be improved by including a gateway for south-bound vehicles on 222nd as well as some significant visual upgrades using the improvements that are common to all intersections such as enhanced crosswalks, lighting and plantings.

In the long term this intersection could be converted into a roundabout due to the traffic volumes that are less that some of the four-way intersections. A roundabout would create a strong gateway effect using an attractive center island treatment.

<u>Traffic Engineer Review of Recommendation</u>: The Traffic Engineer has noted that the existing traffic volumes are acceptable but approaching the upper threshold for the acceptability of single lane roundabout.

If lane reductions are made on Euclid Avenue between intersections, the recommended length of the lanes for a signalized intersection should be:

- · Westbound Left Turn Lane (into apartment building) 600 feet
- Westbound Through and Right Turn Lane Backup Length 600 feet
- Eastbound Left Turn Lane 525 feet
- Eastbound Through and Right Turn Lane Backup Length 525 feet





Chardon Road and Euclid Avenue and 6.

7. Chardon Road/Chardon Middle School Entry Road and Euclid Avenue

Chardon Road has two intersection points on Euclid Avenue since it forms a "Y" as Chardon approaches from the south. Currently each intersection has signal controls. The City of Euclid should consider the eventual closure of the intersection at the Chardon Middle School Entry Road. The entire western segment of Chardon could be closed and all traffic could be diverted to the eastern intersection of Chardon Road and Euclid Avenue thereby eliminating a signalized intersection and the delays that it causes.

The resulting intersection would work well as a roundabout, however, without removing one side of the Chardon Road Y, a roundabout in close proximity to a lighted intersection is not recommended since the traffic cue at the signalized intersection may back up into the roundabout effectively stopping traffic from circulating around the circle. The traffic report indicates that a two-lane roundabout at Chardon Road would operate at adequate levels of service.

Traffic Engineer Review of Recommendation: The Traffic Engineer agrees that a two-lane roundabout would be suitable at the intersection. The intersection has enough available capacity to incorporate the additional traffic if the intersection at the Middle School were eliminated.

At the Chardon Road and Euclid Avenue intersection, if lane reductions are made on Euclid Avenue between intersections, the recommended length of the lanes for a signalized intersection should be:

- Westbound Left Turn Lane 600 feet
- Westbound Through and Right Turn Lane Backup Length 675 feet
- Eastbound Left Turn Lane 600 feet
- Eastbound Through and Right Turn Lane Backup Length 750 feet

At the Chardon Middle School and Euclid Avenue intersection, if lane reductions are made on Euclid Avenue between intersections, the recommended length of the lanes for a signalized intersection should be:

- Westbound Left Turn Lane 600 feet
- Westbound Through and Right Turn Lane Backup Length 750 feet
- Eastbound Left Turn Lane 600 feet
- Eastbound Through and Right Turn Lane Backup Length 975 feet

Please note that there is not enough distance between the two intersections to meet the length requirements no lane reduction between intersections are feasible.



8. Dille Road/Highland Road and Euclid Avenue

Recommendation to this intersection include elimination of one lane in each direction to a dedicated left turn lane and a right turn and through traffic lane. Traffic counts at this intersection show that even a two-lane roundabout is not feasible since it would not operate at an acceptable level of service during the afternoon/evening peak hours.

If lane reductions are made on Euclid Avenue between intersections, the recommended length of the lanes should be:

- Westbound Left Turn Lane 600 feet
- · Westbound Through and Right Turn Lane Backup Length 650 feet
- Eastbound Left Turn Lane 600 feet
- Eastbound Through and Right Turn Lane Backup Length 775 feet



9. East 191st Street and Euclid Avenue and

10. Upper Valley Drive and Euclid Avenue

These intersections do not have the volume of traffic to warrant a signalized intersection. If desired, a study for removing the existing traffic signals could be conducted to confirm the observation of TMS Engineers, who conducted the Traffic Engineering Report for Euclid Avenue as part of this study. If a new study confirms the TMS results, then stop signs would replace the signals and traffic on Euclid Avenue would flow unimpeded.

Long-term, a roundabout is recommended for each of these intersections. The Traffic Engineer has indicated that single lane roundabouts would adequately serve the existing and future traffic volumes. Roundabouts at these two locations offer the potential for a western gateway to Euclid and the establishment of an aesthetic brand for the corridor.



Plan Recommendations

The vision for the Euclid Avenue corridor and the Urban Design Plan is achieved by following a series of implementation steps that range from short term to long term projects for continued progress in creating healthy communities. These steps are summarized in the following table.

Next Step Action	Action Description
Adopt the Plan	The City of Euclid should adopt the Euclid Avenue Recreationway Plan. This is a critical step in plan implementation because it acknowledges the plan as the City's vision for the future of the Euclid Avenue corridor. By adopting the plan, the City is setting the course for all future development along this corridor. This should be the first step in plan implementation because it provides
Implement 'Quick- Wins'	a guide for all corridor stakeholders and will help to foster partnerships and efficient development as all parties work towards a shared vision. The City of Euclid should implement 'quick-wins' to generate momentum and enthusiasm for future phases of implementation. 'Quick-wins' are projects that require relatively little cost; are not controversial; require few approvals and permits and are on publicly-owned land.
Undertake Priority Projects	The City of Euclid should work to implement the variety of projects identified in the Euclid Avenue Recreationway. These projects provide the substantial changes to the corridor that will help to develop healthy living along Euclid Avenue.
Address Key Intersections	The City of Euclid should address the implementation potentials at each key intersection and prioritize rehabilitation actions. The design of an intersection impacts how people use a corridor. To develop Euclid Avenue as a one that promotes healthy living and features walking and biking along the corridor, the intersections need to fit this use. Intersection and roadway improvements should be prioritized from east to west, beginning with the roundabout recommended at the I-90 interchange and continuing west with implementation of the recreationway.
Revise the Zoning Code	The City of Euclid's Zoning Code should be revised so that it allows the type of development proposed in the Future Land Use Plan. With the appropriate zoning in place, development that occurs over time is positioned to support the Urban Design Plan. Note: Rezoning a public- or privately-owned parcel for a new use does not cause a change in itself. The existing use simply becomes a non-conforming use (it does not conform to the new zoning) and is free to continue, as-is, until a building permit is needed for a new building or significant building modification.
Develop Design Guidelines	The City of Euclid should develop, and adopt as part of the City's zoning, design guidelines to direct certain physical aspects of new development along the Euclid Avenue corridor. Design guidelines provide criterion for heights, materials, setbacks, etc., that are in keeping with the desired character of a given area. Design guidelines differ from design standards, a component of form-based zoning, in that they literally provide guidance rather than require adherence to specific codified standards. For the Euclid Avenue Corridor, a unique set of design guidelines should be developed for each of the village nodes as well as for multi-family residential development that occurs between the village nodes. Design guidelines should be based on the vernacular architectural styles of the area combined with the desired building uses.

Priority Projects There are four priority projects for the Euclid Avenue Recreationway. The following matrix identifies these projects, how to

initiate them, potential project partners and the probable cost associated with the project.

<u>Project</u>	Description	To Initiate	Potential Partners	Opinion of Probable Cost
Create the Recreationway	The Recreationway is proposed for the space between the intersections. Since Euclid Avenue is uniform in width and makeup throughout the study area the steps to implement it and the cost will be uniform throughout.	Identify a project area. This will likely occurs when a section of roadway requires resurfacing or other major improvements. Prepare a conceptual plan, identify costs and seek funding.	ODOT, NOACA	\$8,980,000
Euclid Creek Trail	This section of trail will, start at the end of the existing trail at Euclid Creek Reservation and will follow the creek through the study area to Wildwood Park. If the Euclid Middle School is relocated, the trail can easily go through the former school grounds along the creek.	This can be done wholly or in sections. Identify project area, prepare a conceptual plan, identify costs and seek funding.	NOACA, Cuyahoga County	\$965,000
Euclid Railroad Greenway	This is the proposed greenway near Upper Valley Road on the south side of Euclid Avenue. The greenway exists as the right-of-way of the former Euclid Railway.	Review land ownership, prepare conceptual plan, identify costs, seek funding.	NOACA, Cuyahoga County	\$100,000
Acquire Lands for Community Greenspace	Community Greenspace is shown on the Urban Design Plan. Some of this land is currently city-owned, however there are several key parcels that could be acquired, or an easement obtained, to allow for the development of trails down the slope or recreation space.	Identify parcels for acquisition, negotiate with landowner	Cuyahoga County	N/A

Zoning & Design Guideline Recommendations

Zoning and design guidelines are an integral part of implementation. Zoning provides the regulations that allow for the type of development proposed in the Urban Design Plan while design guidelines promote the appropriate character for the corridor.

The following describes each of the zoning recommendations. With the exception of those that apply city-wide, recommendations are numbered and corresponded to the highlighted Zoning Recommendations Map.

City-wide Recommendations:

- Amend the U4 Neighborhood Commercial definition to allow mixed-use. In this case, mixed-use means a mix of residential and commercial with commercial occurring on the ground floor. Currently, the U4 Neighborhood Commercial, zone does not allow for residential uses, thereby excluding mixed-use development.
- Amend the U5 General Commercial to allow for a height exception for hotels. The current height district (H2) will only allow 4 stories or 50 feet.

1. Rezone for Neighbourhood Mixed-Use

Rezone the properties on the south side of Euclid from U2 Two Family Residential and U8 Office Park to U4 Neighborhood Commercial to allow a neighborhood mixed-use village area.

2. Rezone for Gateway Commercial Area

Rezone the area between 276th Street and I-90 from U4 Neighborhood Commercial, U8 Office Park, and U3 Apartments to U5 General Commercial. This will allow hotels and other uses appropriate near a highway interchange.

3. Rezone Inland Fisher Plant Area

Develop a special planned unit mixed use district to facilitate reuse and development of this site as a mix of industrial storage and sports or industrial arts and recreation facility within a modified industrial building envelope.

4. Rezone for Multi-Family Residential Area

Rezone the south side of Euclid Avenue west of Babbit from U4 Neighborhood Commercial and U8 Office Park to U3E Elevator Apartment. This will allow multi-family housing.

5. Create a Habitat Corridor Overlay District

Modify the City's Hillside Regulations, Chapter 1397, to include a Habitat Corridor Overlay District that is intended to maintain areas that promote wildlife habitat preservation, and stormwater runoff quality as well as hillside erosion control. In this district, development would be required to maintain a percentage of uninterrupted, contiguous land in its natural state in order to function as a habitat corridor. The specific percentage of land in its natural state would require further study so that it is adequate without being an onerous requirement. In reality, most of this land has remained undeveloped due to the steep slopes that make it unsuitable for most types of development. The Zoning Recommendations Map illustrates the proposed Habitat Corridor Overlay District within, and beyond, the Study Area.

<u>About Design Guidelines:</u> Design guidelines advise developers to use pre-determined standards for heights, materials, setbacks, etc., that are in keeping with the desired character of a given area. Design guidelines differ from design standards, a component of form-based zoning, in that they literally provide guidance rather than require adherence to specific codified standards.

About Overlay Districts: Overlay districts add special provisions to the existing zoning to accomplish specific objectives in a given area.

Zoning Recommendations Map

6. Create Design Guideline Overlay Districts for the Proposed Villages & Multi-Family Residential Area

Design Guidelines should be developed for the villages and multi-family residential development proposed in the Urban Design Plan to preserve and enhance character in these areas. Each village should have a unique set of design guidelines appropriate to the village context. Multifamily residential design guidelines should promote the vision for the corridor between the village nodes. The following overlay districts for design guidelines should be created in the Study Area:

6(a). Euclid Creek Village Overlay District

6(b). Euclid Woods Village Overlay District

6(c). Gateway Village Overlay District

Design guidelines should be based on the vernacular architectural styles of the area combined with the desired building uses. Recommendations for specific design guidelines in each of the overlay districts is provided in the following section.



Euclid Creek Village - Design Guidelines Recommendations

This is the historic enclave in Euclid which was once the location of a historic mill on Euclid Creek. The area now contains the Euclid Museum and some older housing stock. New buildings in this area should be mixed-use such as small to medium sized retail and service businesses, offices, and upper-story residential. The style of the buildings should be in keeping with the historic flavor. The scale of development should be smaller and more pedestrian oriented than other "villages" and the streetscape should be richly detailed. The following lists the specific design guideline recommendations for the village.

Building Height: Three stories maximum

Building Frontage: No minimum frontage distance. 150 feet maximum frontage length with five

foot minimum setbacks every 50 feet.

Building Exterior: Historic in character with acceptable materials being brick, stucco, stone,

clapboard or a combination. Exterior should be richly detailed with cornices, sills, and window framing. The ground floor should be especially well detailed

and have a high percentage of glass (60%) on the front façade.

Building Roof: Roofs should have some form of peak such as gabled, or hipped. Details such

as dormers are also encouraged.

Building Setback: 10-15 feet from the property line to allow for the development of a sidewalk

Parking: Place parking behind buildings. Parking access should be via a lane leading to

the back of the lot

Sidewalks: If not already part of the public realm, a 10-foot wide sidewalk should be

developed.



Euclid Creek Village - Suggested Building Style

Euclid Woods Village - Design Guidelines Recommendations

This commercial village area is intended to concentrate commercial services for the residents that travel through from both the north and south. New buildings in this area should be medium-scaled service and retail businesses with an option for residential and offices on the upper floors. The following lists the specific design guideline recommendations for the village.

Building Height: Five stories maximum

Building Frontage: Minimum width should be 50 feet unless restricted by the lot size. 150 feet

maximum frontage length with five foot minimum setbacks every 50 feet.

Building Exterior: Modern in character with acceptable materials being brick, masonry, stucco,

stone or a combination. The ground floor front façade should have a unique

color or material with at least 60% glass.

Building Roof: Green (vegetated) roofs are encouraged

Building Setback: 15 feet from the property line to allow for the development of a sidewalk

Parking: Place parking behind buildings. Parking access should be via a lane leading to

the back of the lot

Sidewalks: If not already part of the public realm, a 10-15 foot wide sidewalk should be

developed.



Euclid Woods Village - Suggested Building Style

Gateway Village - Design Guidelines Recommendations

Gateway Village is the easternmost of the proposed Villages located just west of the I-90 interchange. The purpose of this "village" is to allow commercial businesses that capitalize of the visibility to and access from the interstate such as hotels and large retail buildings. The following lists the specific design guideline recommendations for the village.

Building Height: Seven stories maximum

Building Frontage: Minimum width should be 50 feet unless restricted by the lot size. There should

be no maximum frontage length but there must be five foot minimum setbacks

every 100 feet of frontage

Building Exterior: Modern in character with acceptable materials being brick, masonry, stucco,

stone or a combination. The ground floor front façade should have a unique

color or material with at least 60% glass.

Building Roof: Green (vegetated) roofs are encouraged

Building Setback: 15 feet from the property line to allow for the development of a sidewalk

Parking: Place parking behind buildings. Parking access should be via a lane leading to

the back of the lot

Sidewalks: If not already part of the public realm, a 10-15 foot wide sidewalk should be

developed.

Gateway Village - Suggested Building Style

Multi-Familiy Residential - Design Guidelines Recommendations

The following lists the specific design guideline recommendations for multi-family residential areas that occur between village nodes.

Building Height: Five stories maximum

Building Stepbacks: The first two stories should be vertical to preserve the street wall, the next two

stories should step back 15 feet to allow light to enter the street and the top

floor should step back another fifteen feet.

Building Frontage: No minimum length. 150 feet maximum frontage length with five foot minimum

setbacks every 50 feet.

Building Exterior: Modern in character with acceptable materials being brick, masonry, stucco,

stone or a combination. If developed as commercial space, the ground floor front facade should have a unique color or material with at least 60% glass.

Building Setback: 10-15 feet from the property line to allow for the development of a sidewalk

Parking: Place parking behind buildings. Parking access should be via a lane leading to

the back of the lot

Sidewalks: If not already part of the public realm, a 10-15 foot wide sidewalk should be

developed.



Multi-Family Residential - Suggested Building Style

Quick Wins

"Quick wins" are immediate implementation measures that can be accomplished in the short term to demonstrate action and promote investment in the plan.

Of all the projects and initiatives associated with the Euclid Avenue Recreationway Corridor, there are a few that would rise above the others as possible quick wins. These are projects that require relatively little cost; are not controversial; require few approvals and permits and are on publicly-owned land.

These simple, yet exciting, projects will generate momentum and enthusiasm for future phases of implementation.

Quick Win #1

Southbound Turning Lane

Add southbound turning lane, or increase radius, at the East 260th Street/Richmond Road/Euclid Avenue Intersection.

Quick Win #2

City Marquee

Replace the existing City Marquee at the Chardon Road/Euclid Avenue Intersection with an Electronic Message Center.

Quick Win #3

Complete Sidewalk

Install the missing section of sidewalk on the south side of Euclid Avenue between Beverly Hills Drive and Heritage Drive.

Quick Win #4

Euclid Railroad Greenway

Develop the Euclid Railroad Greenway in cooperation with the Cities of Cleveland and South Euclid, and the Cleveland Metroparks to preserve the ecologically sensitive Green Creek riparian and wildlife habitat corridor.

Quick Win #5

Enhance Crosswalks

To address concerns about pedestrian safety, crosswalks at key intersections can be enhanced to increase their visibility.

Quick Win #6

Improved Street Lighting

An Immediate improvement in aesthetics along the Euclid Avenue Corridor could be made by improving street lighting styles.

Quick Win #7

Gateways

Develop gateways at the three locations shown on the Urban Design Plan:

- On Euclid Avenue west of the Interstate 90/271 ramp.
- 2. On 222nd Avenue near Euclid Avenue
- On Euclid Avenue at the City of Cleveland boundary near Upper Valley Road

Each gateway has slightly different site conditions and context that must be addressed in the design, however, there should be a similar style applied to all three.



Photo-Simulation of a Potential Gateway Design along the Euclid Avenue Corridor

A variety of funding opportunities are available for the implementation of the Euclid Avenue TLCI Plan.

The following charts identify public funding sources, including federal, state and local sources as well as various private funding sources.

Publ	ic	Fund	lina	Sou	ırces

	Program	Description	Agency	Contact	Funding
Federal	CDFI-Bank Enterprise Award	The CDFI Fund supports financial institutions around the country that are dedicated to financing and supporting community and economic development activities. The BEA Program complements the community development activities of insured depository institutions (i.e., banks and thrifts) by providing financial incentives to expand investments in CDFIs and to increase lending, investment, and service activities within economically distressed communities. Providing monetary awards for increasing community development activities leverages the Funds dollars and puts more capital to work in distressed communities throughout the nation.	Community Development Financial Institutions	www.cdfifund.gov (202) 653-0300	\$1,500 - \$500,000 Grant
	Capacity Building for Community Development and Affordable Housing Grants	Through funding of national intermediaries, the Section 4 capacity building program enhances the capacity and ability of community development corporations (CDCs) and community housing development organizations (CHDOs) to carry out community development and affordable housing activities that benefit low-income families.	Department of Housing and Urban Development	www.hud.gov	Grant - Only Available to Enterprise Community Partners, Local Initiatives Support Corporation, and Habitat for Humanity
	National Scenic Byways Discretionary Grant Program	Under this program, the Secretary of Transportation may make grants to States or Indian tribes to implement projects on roads designated as National Scenic Byways	Department of Transportation (DOT) Federal Highway Administration	www.fhwa.dot.gov	Grant, matching requirement
	Surface Transportation Infrastructure _ Funds for the TIGER II program are to be awarded on a competitive basis for projects that value a significant impact on the Nation, a metropolitan area or a region. Capital Investments		Department of Transportation	www.dot.gov	\$10-200 Million
	16 Green	i6 Green is a multi-agency competition that focuses on the nexus between economic development and environmental quality, spotlighting the best ideas that contribute to a vibrant, innovative clean economy.	Economic Development Administration	www.eda.gov	\$1 Million (only 6 awards)
	Public Works, Economic Adjustment, and GCCMIF Programs Opportunity	Grants made under these programs will focus on innovation and regional collaboration to create and retain higher wage and sustainable jobs, leverage the flow of private capital, encourage economic development, and strengthen America's ability to compete in the global marketplace.	Economic Development Administration	www.eda.gov	Cooperative Agreement Grant
	The Jobs and Innovation Accelerator Challenge	Regions across the nation can compete for complementary Federal resources that will be targeted to address the gaps and opportunities specific to their self-identified, high-potential industry clusters.	Economic Development Administration	www.eda.gov	Grant ~ \$200,000

Public Funding Sources (cont.)

	Program	Description	Agency	Contact	Funding
	Planning and Local Technical Assistance Programs Opportunity	EDA provides assistance to eligible recipients to create regional economic development plans in order to stimulate and guide the economic development efforts of a community or region. EDA's Local Technical Assistance Program helps eligible recipients fill the knowledge and information gaps that may prevent leaders in the public and nonprofit sectors in economically distressed regions from making optimal decisions on local economic development issues.	Economic Development Administration	www.eda.gov	Cooperative Agreement Grant
	Assisted Housing Stability and Energy and Green Retrofit	Grants and loans will be made available through HUD's Office of Affordable Housing Preservation (OAHP) for eligible property owners to make energy and green retrofit investments in the property, to ensure the maintenance and preservation of the property, the continued operation and maintenance of energy efficiency technologies, and the timely expenditure of funds.	owners to make energy and green retrofit investments in the enance and preservation of the property, the continued operation and Development Department of Housing and Urban www.hud.gov Seven and preservation of the property, the continued operation and Development		Grants and Loans based on project size
State	Natureworks	Local governments can apply for up to 75 percent reimbursement grants (state funding) for acquisition, development, or rehabilitation of public park and recreation areas.	Ohio Department of Natural Resources (DNR)	Mary Fitch, Grant Administration 2045 Morse Road Columbus, Ohio 43229 mary.fitch@dnr.state.oh.us	Reimbursement Grant, up to 75%
	Land And Water Conservation Fund (LWCF)	These grants provide up to 50 percent reimbursement for outdoor recreation projects.	Ohio Department of Natural Resources (DNR)	Mary Fitch, Grant Administration 2045 Morse Road Columbus, Ohio 43229 mary.fitch@dnr.state.oh.us	Reimbursement Grant, up to 50%
	Clean Ohio Trails Fund	The Clean Ohio Trails Fund works to improve outdoor recreational opportunities for Ohioans by funding trails for outdoor pursuits of all kinds.	Ohio Department of Natural Resources (DNR)	D'Juan Hammonds 2045 Morse Road E-2 Columbus, Ohio 43229 djuan.hammonds@dnr.state.oh.us 614-265-6417	Reimbursement Grant, up to 75%
	Recreational Trails Program	Eligible projects include development of urban trail linkages, trail head and trailside facilities; maintenance of existing trails; restoration of trail areas damaged by usage; improving access for people with disabilities; acquisition of easements and property; development and construction of new trails; purchase and lease of recreational trail construction and maintenance equipment; environment and safety education programs related to trails.	Ohio Department of Natural Resources (DNR)	D'Juan Hammonds 2045 Morse Road E-2 Columbus, Ohio 43229 djuan.hammonds@dnr.state.oh.us (614) 265-6417	Reimbursement Grant, up to 80%
	Bicycle and Pedestrian Activities	Each State Department of Transportation provides for a Bicycle and Pedestrian Coordinator to promote and facilitate the increased use of nonmotorized transportation, including development of facilities for use by pedestrians and bicyclists, and educational, promotional, and safety programs for using such facilities. Funding is provided trough the Federal Transportation Enhancement Program	Ohio Department of Transportation (ODOT)	Julie Walcoff, SRTS Program Manager 1980 W. Broad Street Columbus, OH 43223 phone: (614) 446-3049 julie.walcoff@dot.state.oh.us	Federal-aid reimbursement program provides up to 80% of eligible costs for construction only.
	County Surface Transportation	A construction funding program for eligible roadway improvements. The County Engineers Association of Ohio (CEAO) serves as the program manager and is responsible for project selection, funding criteria and program priorities.	Ohio Department of Transportation (ODOT)	Andrea Stevenson andrea.stevenson@dot.state.oh.us (614) 644-8211	Up to 80% cost. Funding only for construction. Limits per county apply.

Public Funding Sources (cont.)

Program	Description	Agency	Contact	Funding
Federal Discretionary Funding	The Federal Highway Administration (FHWA) administers a variety of discretionary programs through its various offices. These programs represent special funding categories where FHWA solicits for candidates and selects projects for funding based on applications received. Each program has its own eligibility and selection criteria that are established by law, by regulation, or administratively. Eligible applicants are State Departments of Transportation and local governments; however, funds flow through the DOT to ensure the required oversight.	Ohio Department of Transportation (ODOT)	Lou Hazapis lou.hazapis@dot.state.oh.us phone: (216) 584-2114	Nationwide funding varies between programs and is provided for in the multi-year transportation reauthorization acts and annual appropriations acts. When selecting projects, FHWA considers national geographic distribution among all discretionary programs.
State Infrastructure Bank	This revolving loan program maximizes the use of federal and state funds to make direct loans and bond financing to eligible projects. The intent is to enhance the number of transportation projects that can be completed within the state that otherwise would not be considered for traditional grant financing.	Ohio Department of Transportation (ODOT)	Malinda Lawrence, SIB Coordinator mlawrence@dot.state.oh.us 1980 W. Broad St. Columbus, OH 43223 phone: (614) 644-7255	The availability of dollars is dependent upon SIB activity and loan repayments. There is no set limit and 100% financing is available.
Transportation Review Advisory Committee	The TRAC selects the major new capacity projects to be constructed in a six-year period. Major new capacity projects are those which cost ODOT more than \$5 million and do one or more of the following: increase mobility, provide connectivity, increase the accessibility of a region for economic development, increase the capacity of a transportation facility, or reduce congestion.	Ohio Department of Transportation (ODOT)	Jim Gates, TRAC Coordinator jim.gatesl@dot.state.oh.us 1980 W. Broad St. Columbus, OH 43223 phone: (614) 752-4857	ODOT determines how much money is available for the Major New Program after basic maintenance and operational needs have been met.
Metropolitan Planning Organizations and Large Cities	This program provides funds to each of Ohio's seventeen Metropolitan Planning Organizations to finance multi-modal transportation system improvement projects and programs in Ohio's urban areas.	ODOT thru Northeast Ohio Areawide Coordinating Agency (NOACA)	NOACA 1299 Superior Avenue Cleveland, Ohio 44114-3204 Telephone: (216) 241-2414	ODOT annually sub-allocates federal Surface Transportation Program (STP) funds and Transportation Enhancement (TE) to each MPO.
Safety	This program provides funds to ODOT and local governments for highway safety treatments or corrective activity designed to alleviate a safety problem or a potentially hazardous situation.	Ohio Department of Transportation (ODOT)	Andrea Stevenson andrea.stevenson@dot.state.oh.us (614) 644-8211	ODOT will provide up to 90% of the eligible costs for preliminary engineering, detailed design, right-of- way, or construction.
Urban Paving Program	This program provides funds for eligible surface treatment and resurfacing projects on state and U.S. Routes within municipal corporations.	Ohio Department of Transportation (ODOT)	Lou Hazapis lou.hazapis@dot.state.oh.us phone: (216) 584-2114	Funding is provided on an 80-20 basis with the local governments providing the 20% match for project construction costs
Business Development (629) Account	Comparies and/or communities with the costs of improving project site infrastructure; can be used to reduce costs incurred to construct or improve on-site public access roads. Each project must create or retain jobs.	Ohio Department of Development	Office of Business Development (216)-787-3244	Grant money is available to local community in support of project.
Local Transportation Improvements Program	Provides grants for local road and bridge projects	Ohio Public Works Commission	www.pwc.state.oh.us	Funded from .01 of the motor fuel tax, the program provides \$60 million annually in grants. Moneys are distributed on a per capita basis.

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Public Funding Sources (cont.)

	Program	Description	Agency	Contact	Funding
	Urban Redevelopment Loan	The Ohio Department of Development's (Development) UR Loan provides low interest loans to municipalities or designated nonprofit economic development organizations to acquire real estate for assembly into developable parcels and remediate any brownfield contamination site to entice private business investment in distressed urban locations.	Ohio Department of Development	Daryl Hennessey, Division Asst. Chief 77 South High Street, 28th Floor Columbus, OH 43215-6130 (614) 466-4551 financialincentives@development.ohio. gov	The UR Loan may finance up to 40% of allowable project costs with loans ranging in size from \$500,000 to \$5,000,000. The UR Loans are "takeout" financing
	State Capital Appropriations Bill	Biennial state capital appropriations bill funds acquisitions, rehabilitation, restoration, and exhibit curation for local historical organization improvement projects sponsored by state legislators.	Ohio Cultural Facilities Commission	State Senator or Representative from District	Varies, No matching required
	Economic Development Program	Provides funds to units of local government to provide gap financing for local business development. Except for local infrastructure needs, Economic Development Program funds are repaid to the local community's Revolving Loan Fund to provide funding for additional business assistance activities.	Ohio Department of Development	Ohio Dept. of Development 77 S. High Street Columbus, OH 43216 (800) 848-1300 www.odod.state.oh.us	Business Loan Funding
	Microenterprise Development Program	Provides grants to eligible cities and counties and non-profit organizations to assist in the development of local microenterprise businesses and to create and retain long-term jobs in the private sector. Microenterprises are defined as for-profit entities with five or fewer employees, one of whom owns the business.	Ohio Department of Development	Ohio Dept. of Development 77 S. High Street Columbus, OH 43216 (800) 848-1300 www.odod.state.oh.us	Small Business grants
	Capacity Building	Capacity building funds are designed to strengthen Ohio's non-profit arts and cultural sector by helping applicants improve internal governance and leadership, cultivate strategic community linkages, and develop financial and human resources for long-term stability.	Ohio Arts Council	Ohio Arts Council 727 E. Main St Columbus, OH 43205-1796 (614)-728-4481www.oac.state.oh.us	\$500-\$5,000, 50% match required
	Arts Access	Provides funds for organizations that have not applied for OAC funding, start-up organizations, community driven onetime projects and organizations with budgets under \$25,000.	Ohio Arts Council	Susan DePasquale, Program Coordinator 30 E. Broad St 33rd Floor Columbus, OH 43215 (614)-446-2613 susan.depasquale@oac.state.oh.us	\$500-\$3,000, 50% match required
Local	The Grow Cuyahoga County Fund	Grow Cuyahoga County offers affordable growth capital on advantageous terms to borrowers who create jobs and investment in our community .	Cuyahoga County Department of Development	Bob Flanto, Senior Development Financial Manager Cuyahoga County 1701 East 12th Street, 1st Floor Cleveland, Ohio 44114 (216)-698-2898 bflanto@cuyahogacounty.us	Loans ranging from \$100,000 to \$1 million as permitted by the US SBA, at or below market rates.

Private Funding Sources

Program	Description	Fields of Interest	Agency Contact	Funding	Geographic Focus
Abington Foundation	To support organizations which promote community health, welfare and education	Education, Healthcare, Cultural, Human Services, Community Development	The Abington Foundation c/o Foundation Management Services, Inc. 1422 Euclid Ave, Suite 627 Cleveland, Ohio 44115-1952 (216) 621-2901 info@fmcleveland.com	Priority will be given to requests for specific programs or projects. Organizations are discouraged from submitting requests for endowment or general operating support.	Cuyahoga County
American Electric Power Foundation	To support and play an active, positive role in APE communities	Education, Higher Education, Human Services, Environment, Arts & Culture	American Electric Power Foundation c/o APE Ohio attn: Beth Kaltenbach 1 Riverside Plaza Columbus, OH 43215 bkaltenbach@aep.com	Sponsors special programs to encourage economic development	Communities Served by AEP
Burton D. Morgan Foundation	To strengthen the free enterprise system by investing in organizations and institutions that foster the entrepreneurial spirit.	Entrepreneurship, Community Development, Economic Development	22 Aurora Street Hudson, Ohio 44236 Contact: Leslie Goldwater Nelson Phone: (330) 655-7929 Emall:Inelson@bdmorganfdn.org	Entrepreneurial support for organizations that provides the incubation, business planning, and capitalization assistance critical to success.	North East Ohio
Catholic Diocese of Cleveland Foundation	Providing aid to the poor and needy and educational opportunities to person who would otherwise not be able to participate.	Education; Environment; Human services; Building Community; Religion.	c/o The Catholic Diocese of Cleveland Fdn. 1404 E. 9th St., 8th Fl. Cleveland, OH 44114-1740 Telephone: (216) 696-6525, ext. 1630 E-mail: grant@cdcf.org	Building/Renovation, Operating Support	North East Ohio
Charter One Foundation	Promote affordable housing, encourage the development of innovative responses to basic human needs, encourage community-based services targeted to low - and moderate-income families and individuals. Support community development initiatives that are catalysts for economically distressed areas, promote new ways to address issues of economic self-sufficiency.	Financial Literacy, Education, Diversity, Poverty, Urban Development, Housing	Public Affairs Department Charter One 1215 Superior Avenue OHS790 Cleveland, Ohio 44114 http://www.charterone.com/community/ corporate/grants.aspx	Charitable Grant	Ohio, Indiana, Illinois, Michigan
Civic Innovation Lab	Encourage and engage Champions to come forward with innovative ideas to grow Greater Cleveland	Individual entrepreneurs and social entrepreneurs.	Civic Innovation Lab 1422 Euclid Avenue, Suite 1510 Cleveland, OH 44115 Telephone: (216) 925-4825 Fax: (216) 737-0735 http://www.civicinnovationlab.org/apply_funding.aspx	Mentoring and Funding up to \$30,000	North East Ohio

Private Funding Sources (cont.)

Program	Description	Fields of Interest	Agency Contact	Funding	Geographic Focus
Cleveland Colectivo	To strengthen the community through collective investments that identify and nurture innovative projects	Community development, neighborhood development, public/private ventures; Economic development; Environment, natural resources	c/o International Partners in Mission 3091 Mayfield Rd. Ste. 320 Cleveland Heights, OH 44118 E-mail: info@clevelandcolectivo.org	\$500-\$5,000 (Award Generally \$2,000)	Cleveland and Inner Ring suburbs
Cleveland Foundation	To enhance the quality of life for all the citizens of greater Cleveland by building community endowment, addressing needs through grant making, and providing leadership on key community issues.	Arts & Culture, Economic Development	1422 Euclid Ave., Ste. 1300 Cleveland, OH 44115-2001 Telephone: (216) 615-7254 E-mail: grantsmgmt@clevefdn.org		Greater Cleveland
Cyrus Eaton Foundation	The foundation gives primarily for Cleveland-based, little-known or supported cultural programs, public affairs, social services, and international peace studies	Arts; Conservation & Restoration; Education; Health & Social Welfare; Public affairs; Science	The Heights Rockefeller Bldg. 2475 Lee Blvd., Ste. 2B Cleveland Heights, OH 44118 Telephone: (216) 320-2285 Fax: (216) 320-2287 E-mail: cyrus.eaton.foundation@deepcove.	Endowments, General/operating support, Program development, Seed money	NE Ohio, Emphasis on Cleveland
Dominion Foundation	Supports a variety of programs such as food banks, homeless shelters, educational grants, cultural outreach programs in the performing arts, and land and habitat preservation	Civic and community development, culture and the arts, education, environment.	P.O. Box 5759 Cleveland, OH 44101-0759 Telephone: (216) 736-6503 Contact: Theresa C. Bishop, Sr. Philanthropy Coord. E-mail: terry_dbishop@dom.com	Charitable contributions	North East Ohio
First Energy Corp. Contributions Program	FirstEnergy also makes charitable contributions to nonprofit organizations directly	Arts; Economic development; Education; Health care; Human services	76 S. Main St. Akron, OH 44308 Telephone: (330) 384-5022 Chad Self (216) 295-5244	Charitable contributions	Areas of Company Operations
First Energy Foundation	The foundation supports programs designed to promote: Professional development and education, Economic development, and Employee involvement	Economic development; Education; Federated giving programs;	76 S. Main St. Akron, OH 44308 Telephone: (330) 384-5022 Chad Self (216) 295-5244	Annual Campaigns, Building Renovation	Areas of Company Operations

Private Funding Sources (cont.)

Program	Description	Fields of Interest	Agency Contact	Funding	Geographic Focus
Fund for Our Economic Future	The fund is a multi-year collaboration across the philanthropic, academic, government, and corporate sectors in northeast Ohio formed to encourage and advance a common and highly focused regional economic development agenda to strengthen the area's economic competitiveness.	Business Growth & Attraction	Betnia Burke, Manager of Grants & Emergency Initiatives 1360 E. 9th St. Cleveland OH, 44114 (216) 456-9805 bburke@thefundneo.org	Civic Engagement, Research	North East Ohio
Generation Foundation	committed to investing in economic and technological initiatives by supporting long term revitalization, employment growth and community development.	Community development; Economic development; Employment; Philanthropy/ volunteerism	3375 Hollister Rd. Cleveland, OH 44118-1325 Telephone: (216) 371-0289 Contact: Robert Miller, Exec. Dir. E-mail: rmiller@generationfoundation.org	Building/renovation, Conferences/ seminars, Matching/challenge support, Program development, Research, Seed money	North East Ohio
George Gund Foundation	Programs advancing economic revitalization and job creation, Projects promoting neighborhood development, Projects for improving human services, employment opportunities, housing for minority and low-income groups - Preference is given to pilot projects and innovative programs which present prospects for broad replication.	Arts; Civil rights; Race/ intergroup relations; Community development; Early childhood education; Elementary school/education; Employment; Environment;	1845 Guildhall Bldg. 45 Prospect Ave. W. Cleveland, OH 44115-1018 Telephone: (216) 241-3114 Contact: David T. Abbott, Exec. Dir. E-mail: info@gundfdn.org	Emergency funds, General/ operating support, Land acquisition, Matching/challenge support, Program development, Program-related investments/ loans, Seed money	North East Ohio
Higley Fund	Awards grants to benefit the community in the areas of education, environment, health care, performing arts, human services	Community development; Education; Environment; Health care; Human services; Performing arts	c/o Cleveland Foundation 1422 Euclid Ave., Ste, 1300 Cleveland, OH 44115-2063 Bruce Higley (216) 861-3810	Building/renovation; Capital campaigns; Program development	Greater Cleveland
John P. Murphy Foundation	Between 30% and 40% of total distributions are awarded to a wide variety of artistic and cultural institutions and organizations.	Education, Religion, Health, Community Development, Social Services, and Arts	50 Public Sq., Ste. 600 Cleveland, Ohio 44113-2267 Phone: (216) 623-4770 or 623-4771 http://foundationcenter.org/grantmaker/ jpmurphy/	Capital and operational support	Cuyahoga County and surrounding counties
Jump Start	JumpStart is a nationally recognized venture development organization that accelerates the progress of high potential, early-stage businesses.	Business Support/Economic and Community Development	737 Bolivar Road, Suite 3000 Cleveland, Ohio 44115 Telephone: (216) 363-3400 http://www.jumpstartinc.org/	Seed investment, training, follow-up capital, business guidance	North East Ohio

Private Funding Sources (cont.)

Program	Description	Fields of Interest	Agency Contact	Funding	Geographic Focus
Kevin and Elinor Smith Foundation	principal interests are in the fields of nonsectarian education, the performing and visual arts, and the environment	Arts; Education; Environment; Health care; Human services	30195 Chagrin Blvd., Ste. 275 Cleveland, OH 44124 Telephone: (216) 591-9111 Contact: Pamela M. Eichenayer pme@kesmithfoundation.org	Building/renovation, Capital campaigns, Continuing support, General/operating support	Greater Cleveland
Lubrizol Corporation Contributions Program	makes charitable contributions to nonprofit organizations directly. Support is given primarily in areas of company operations.	Arts; Community development; Education; Environment;	29400 Lakeland Blvd. Wickliffe, OH 44092 Fax: (440) 347-1858 Contact: Virginia J. Kuchling E-mail: gjk@lubrizol.com	General/operating support, In-kind gifts, Loaned talent, Sponsorships	North East Ohio
McDonald Fund	Fund Granting primarily in the area of business and economic Development	Economic Development, business promotion	Karen Lerchbacher, Administrator The Lubrizol Foundation 29400 Lakeland Blvd. Wicliffe, OH 44092 E-mail: karenlerchbacher@lubrizol.com (440) 347-1797	Grant Funding	Greater Cleveland
Shorebank Enterprise Group Cleveland	Focus on the core city, SEC utilizes three loan funds to provide lending solutions to companies that are not ready for traditional bank financing.	Community Development	540 E. 105th St Cleveland, OH 44108 (216) 268-6104 Email: matthew_sattler@sbk.com	Term debt to small businesses with high-growth potential (\$35,000 - \$100,000)	North East Ohio
William J. and Dorothy K. O'Neill Foundation	A wide range of philanthropic program areas, but grants are made only for "capacity building"	Community Development	30195 Chargin Blvd. #106 Cleveland, OH 44124 (216)831-4134 Contact: Cindy Drennan Email: cdrennan@oneillfdn.org	operations support, capital needs, capacity building, program expansion and other special projects	Areas where trustees live. Grants by invitation only
WECO Fund Microenterprise	an income-generating strategy that allows individuals with limited access to capital the opportunity to start or expand a small business. A microenterprise is a business that has five employees or less and can be capitalized with \$500 to \$35,000.	Small Business support	WECO Fund Inc. 1745 Rockwell Ave. Cleveland, OH 44114 (216)-458-0250	Loans to small businesses and financial training	Cleveland



Inventory

The inventory includes the following topics:

- Existing Land Use
- Existing Zoning
- Existing Recreation & Open Space
- → Circulation Overview
- Demographic & Economic Overview
- Overview of Existing Studies

Existing Land Use

In general, the City of Euclid south of I-90 is largely industrial on the north side of Euclid Avenue and Residential on the south side. Commercial uses and residential complexes are located on both sides of the corridor. The following analysis presents only the land uses in the Study Area which are those parcels that front onto Euclid Avenue. The following table presents the distribution of land uses in the Study Area.

Industrial

The large percentage of Industrial land is due to the fact that some industrial parcels are extremely large - Heritage Park and the former GM parcel. Both contain large industrial structures. There is vacant space still available within these structures. Three other industrial facilities located on Euclid Avenue are Argo Tech, Reliance Engineering, and American Punch; a new structure.

Commercial

Properties designated as Commercial include retail and office uses. Some contain buildings designed for commercial use, but are partial or completely vacant. Commercial Properties are primarily located on the north side of Euclid Avenue on the western half of the City. To the east, commercial properties are located on the south side of Euclid Avenue between Beverly Hills Drive and 254th Street; on the north side of Euclid Avenue from 254th Street to 260th Street; both sides of Euclid Avenue from 260th Street to Magnolia Dr.; and on both sides of Euclid Avenue east of Tremaine Drive.

Community Service

Community Service Uses include churches, cemeteries, nursing homes, medical facilities, schools, and government facilities. The largest parcel dedicated to community service is Our Lady of Lourdes compound between Euclid Avenue and Chardon Road. There are several religious properties located on the north side of Euclid Avenue opposite Our Lady of Lourdes. Euclid Middle School is located opposite Euclid Creek Reservation. There is a large nursing home at Richmond Avenue and a cemetery located west of Highland Road.

Apartments

Apartments are separated from residential uses to illustrate the difference in densities. The largest apartment complex, with over 1,500 units, is located between 191st and 193rd. Smaller apartments complexes are grouped together on the south side of Euclid Avenue on both sides of the Euclid Creek Reservation. A high-rise complex is located near the intersection of Euclid Avenue and Babbit Road. The complex located at Tremaine Drive is part of a larger complex that is being redeveloped.

Vacant

Vacant parcels are those properties with no structure on them. Most of these parcels were previously developed, but have since been cleared. Vacant parcels account for nearly 10% of the Study Area. The largest vacant areas are located on the north side of Euclid Avenue next to I-90 and between Magnolia Drive and Tremaine Drive. There are vacant parcels across from Heritage Park that are wooded.

Residential

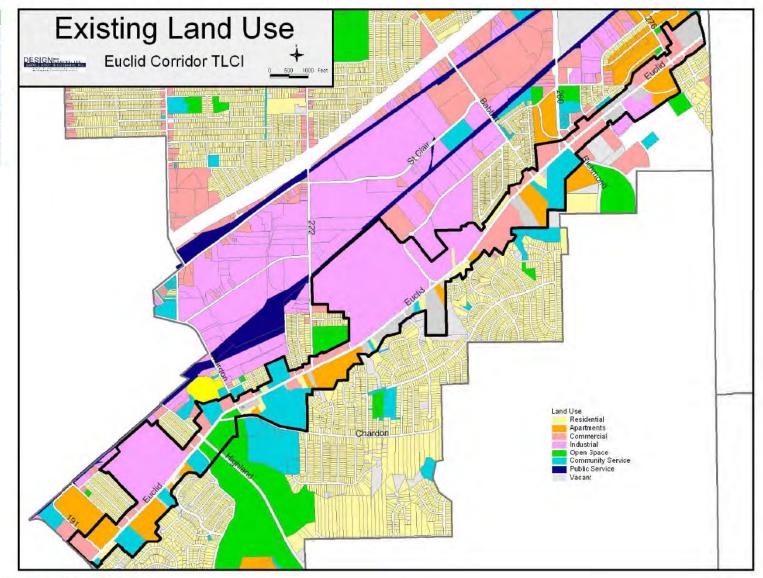
Residential properties contain single and two family dwellings. There are very few residential properties fronting onto Euclid Avenue. There is a residential block located between 248th and 254th. Other residential parcels are isolated and scattered along the corridor.

Parks

While parkland only makes up 2.6 percent of the Study Area, the parkland is part of the Euclid Creek Reservation that was bisected by the Study Area. The Reservation extends several miles south of Euclid Avenue containing 250 acres of park space.

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Land Use	Acres	Percent					
Industrial	224.0	41.4%					
Commercial	85.5	15.8%					
Community	79.6	14.7%					
Apartments	69.4	12.8%					
Vacant	51.9	9.6%					
Residential	17.0	3.1%					
Park	14.1	2.6%					
Land Use by Acres and Percentage							



Existing Zoning

The City of Euclid has a rich history of proactive planning through land use regulations. The current land use regulations and associated zoning is a compilation of amendments over the years. Many of the amendments seem to be the result of development driven demands since the pattern of zoning districts is nearly identical to the current land use pattern. The regulations are built on a series of text amendments completed over a long period of time with definitions scattered throughout the document. There are also exceptions to various regulations scattered throughout the document.

The City of Euclid is divided into 12 different use districts, ten of which are used within the Study Area. The table below presents the distribution of zoning use districts within the Study Area.

Zoning Designations

U1 - Single Family Residential

Nearly 9% of the Study Area is zoned for single family development. Existing single family parcels are zoned U1 in sort of a spot zoning fashion. In addition to the single family properties the back half of many deep lots are also zoned U1. Many of these lots are completely developed with apartment buildings. It is unclear how the use is determined on lots which are divided by two districts. The vacant wooded lots across from Heritage Park are also zoned U1.

U2 - Two Family Residential

Single family housing is also permitted within the district. Areas zoned U2 are located on the north side of Euclid Avenue between 248th Street and 254th Street and on the south side of Euclid Avenue across from Babbit Road.

U3- Apartment Buildings

Uses permitted in the U1 and U2 districts are also permitted. The U3 district accounts for 14% of the Study Area. Parcels where apartment buildings currently exist are zoned U3. As mentioned above, the back half of some of these parcels are zoned U1.

U3EL - Senior Housing

There is a large senior housing facility located at Euclid Avenue and Richmond Road which is zoned U3EL.

U4 - Neighborhood Commercial

The U4 District makes up 12.4% of the Study Area. These areas are located where there are existing commercial uses. There are some vacant areas that are still zoned U4.

U6 - General Industrial

General Industrial uses are primarily carried out indoors. While this district makes up a large portion of the Study Area, most of the district is made up of the Former GM plant and Heritage Park parcels. A few other parcels next to Heritage Park are also zoned U6.

U7 - Light Industrial

The new development on Century Corner Parkway is the only area zoned U7.

U8 - Office

This district makes up 6.3% of the Study Area. The largest area zoned U8 is located on the eastern edge of the Study Area. This area has been recently demolished and is awaiting development. The frontage of the GM/Fisher property on Euclid Avenue is zoned U8 There are several parcels Between Richmond Road and Beverly Hills Drive that are also zoned U8.

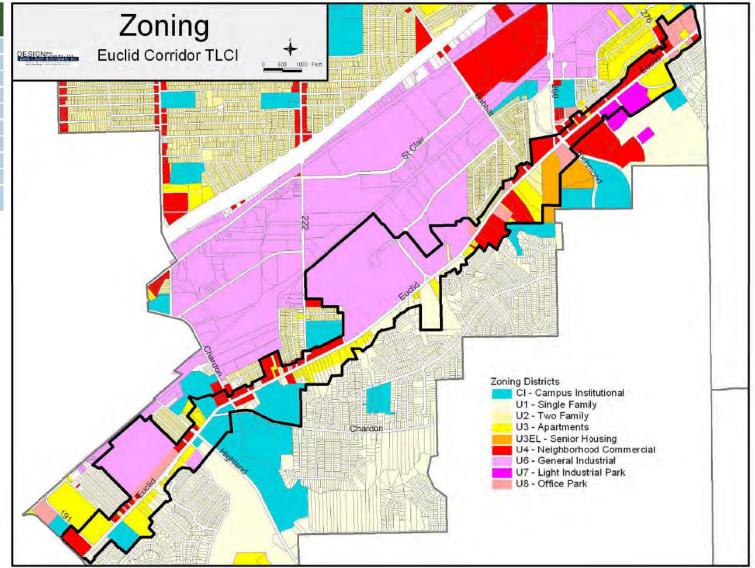
CI - Campus Institutional

Most of the areas within this district is the Our Lady of Lourdes campus, Euclid Middle School, Euclid Creek Park and the cemetery.

Ownership

More than 80% of the Study Area is private ownership. Any public improvement involving these properties will require an agreement with the owners. Private ownership is further broken down into corporate and individual ownership. Corporate ownership is predominant on commercial and industrial properties. Corporate ownership is also common with apartment complexes. More than two-thirds of the Study Area is owned by a corporate entity. Access to these properties is limited to patrons and residents. Most properties that are individual ownership are private residences. There are a few businesses on Euclid Avenue that are owned by and individual. Just over 9% of the Study Area is publicly owned. The largest of these areas are the Euclid Middle School and the Euclid Creek Reservation. The city has also acquired several vacant properties along the corridor. The remaining 8% of the property is owned by religious organizations

Zoning Designation	Acres	Percent
U1	47.6	8.7%
U2	11.4	2.1%
U3	75.9	14.0%
U3EL	13.7	2.5%
U4	87.5	16.1%
U6	207.1	38.1%
U7	13.2	2.4%
U8	34.1	6.3%
CI	53.3	9.8%
Zoning Distr	icts by Ac	eres and



Existing Recreation & Open Space

There are a variety of parks and recreation facilities located in the City, south of I-90, in or near the Study Area. The following lists these facilities as well as compares the amount of parks and open space provided to national standards.

Existing Parks & Recreation Facilities

- Euclid Creek Reservation: Located off Euclid Avenue at Highland Road, this park is a 251-acre nature park and is part of the Cleveland Metropark system. The park features 8.5 miles of hiking and all purpose trails. There are six picnic areas located in the park. The park was once the site of an old bluestone quarry.
- Hero Park: A 13 acre park located off 222nd Street, the park features a playground, baseball diamond, a large multipurpose field, and a sled hill. The park was rededicated in honor of the heroes of Flight 93.
- East 193rd Street Park: East 193rd Street park is a half acre neighborhood park with a playground.
- East 276th Street Park: Located on 276th Street and Sidney Drive, the 7/10th acre park has a playground, a pavilion and 5 basketball courts.
- Euclid Avenue Police Station: Located in front of the old GM plant, the police station has a playground and two basketball courts.
- Euclid Central Middle School: The School has 11.5 acres of athletic facilities which include two baseball fields, playground equipment, a football field with a cinder track.
- Evans Park: Located at Buena Vista and Grand Boulevard, the quarter acre park has a playground and a wooded area.

- Glenbrook School: The School is located off Chardon Road. The 3.8 acre facility has a pavilion, baseball field, playground equipment, and a swimming pool.
- Hillendale Park: The Park is a 5.5 acre facility located of Euclid Avenue. The park features a pavilion, playground and a baseball field. The park is also adjacent to a large wooded area.
- Indian Hills Park: The Park is 3.2 acre school facility with a baseball diamond and a playground.
- Mavec Park: The Park is a 1/3 acre neighborhood park with a playground located on 276th Street.
- Thomas Jefferson Park: Located behind Thomas
 Jefferson School, the 5 acre facility has a baseball field
 and a playground.
- Tungsten Park: A 3 acre neighborhood park with a playground and a pavilion. The park is located off of 260th Street.

Parks and Recreation Standards

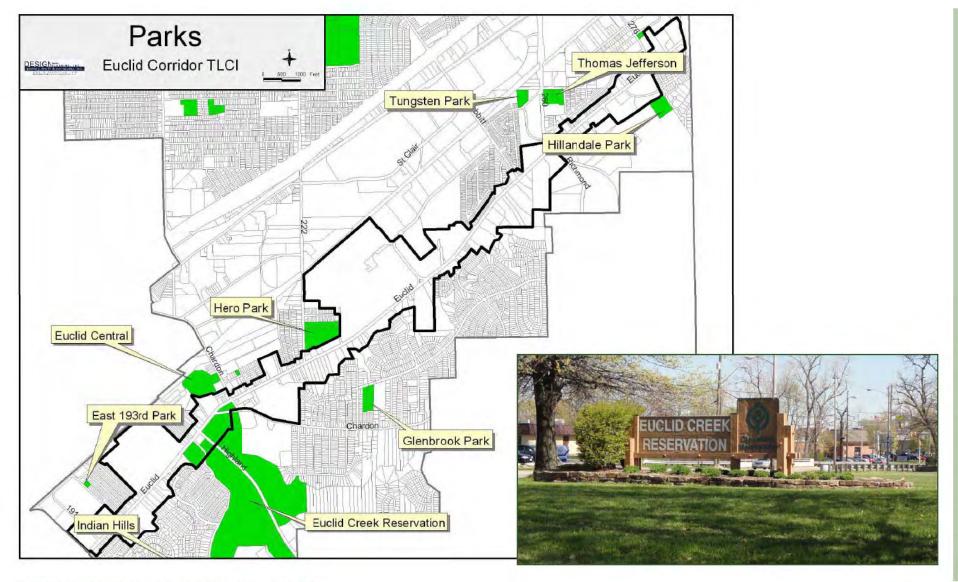
The Nation Recreation and Parks Association (NRPA) has developed standards for a minimum amount of facilities a community should have based on population. The NRPA has warned the these standards only represent a minimum and that other factors such as demographics, location, and financial capacity must be considered when developing park standards. Nevertheless, the standards are widely

used for the purposes of comparison. The following chart shows how the existing park facilities compare with NRPA standards. The standards are based on a population of 15,000, roughly the number of people that live in the southern portion of Euclid.

Based on NRPA standards the City of Euclid has sufficient park space for the citizens living in the southern section of the City. While there is a deficit in a few amenities, there is ample space to provide such facilities if there is a perceived need for them.

Facility	#Units per Population	Units Required	Units Provided	Surplus (Difference)
Neighborhood Park (acres)	3 per 1,000	45	47	2
Community Park (acres)	6 per 1,000	90	251	161
Basketball	1 per 5,000	3	5	2
Tennis	1 per 2,500	6	5	(1)
Volleyball	1 per 5,000	3	0	(3)
Baseball	1 per 5,000	3	7	4
Football	1 per 20,000	1	1	0
Soccer	1 per 10,000	2	0	(2)
1/4 Mile Running Track	1 per 20,000	1	1	0
Softball	1 per 5,000	3	3	0
Multiple Recreation Court	1 per 10,000	2	0	(2)
Swimming Pools	1 per 20,000	1	1	0
Trails (miles)	1/2 per 1,000	7.5	8.5	1

Zoning Districts by Acres and Percentage



Circulation Overview

An east-west connection across the southern end of the City, Euclid Avenue is a 35 mph five lane roadway with a center two-way left turn lane, also known as US Route 20. To identify the existing circulation conditions along this corridor, the following provides an overview of roadway conditions, traffic counts, alternative transportation options, parking and the surrounding roadways.

Lane Widths and Clear Zones

Euclid Avenue is a state highway (State Route 20) and, as such, any reconstruction must conform to Ohio Department of Transportation (ODOT) standards. ODOT publishes a design manual referred to as the 'Location and Design Manual' that spells out, in great detail, the specific design criteria that applies to all elements such as signs, drainage, slopes and lane widths. Volume 1, Section 300 is a description of state highway cross section designs for state highways. For planning purposes, ODOT considers Euclid Avenue an urban arterial road with a speed limit less than 50 miles per hour (Euclid Avenue is posted at 35 miles per hour) which means that it has a minimum lane width of 11 feet, or 12 feet for federal aid projects, with a one to two foot curbed shoulder.

ODOT also has requirements in its design manual for the Clear Zone along state roads. Clear Zone refers to "the desirable unobstructed area along a roadway, outside the edge of the traveled way, available for the safe recovery of vehicles that have left the traveled way." Specific Clear Zone dimensions depend on road curvature, roadway design speeds, side slope and other items but on Euclid Avenue the Clear Zone is fifteen feet. Where the recommended clear zone cannot be provided, a minimum lateral offset to fixed objects (non-breakaway signs and luminaire supports, utility poles, trees larger than 4 inches in diameter fire hydrants, etc.) of 4 feet from face of curb for curbed roadways and 8 feet from the edge of the traveled way for uncurbed roadways is acceptable. However, according to a representative of ODOT, on Euclid

Avenue where the paving width is being reduced, the required 15 feet would probably be mandated.

Street Lighting

Currently lighting on Euclid Avenue varies between the north and south sides of the road. On the north side, Cobra head-style lamps are mounted on utility poles that hold electric and cable lines. On the south side, cobra heads-style lights are on stand-alone poles that are fed electricity from overhead lines that cross Euclid Avenue. While this is a functional and economical system, it lacks aesthetic appeal.

Traffic Counts

Traffic Counts were obtained from Northeast Ohio Areawide Coordinating Agency (NOACA).

The NOACA counts were taken between 2006 and 2009. Euclid Avenue, at the eastern end of the City of Euclid has a traffic Average Annual Daily Traffic (AADT) count of 12,560 vehicles. This count was taken on the eastern side of the I-90 access ramp. In the Middle of the City, Euclid Avenue has an AADT of 11,140. On the western boundary of the City, Euclid Avenue has a count of 22,070. Chardon Road has and AADT of 5,990 vehicles before it merges with Euclid Avenue. Richmond Road carries 8,240 vehicles daily on the south side of Euclid Avenue while 12,490 vehicles travel on 222nd street on the north side of Euclid Avenue. I-90 carries 106,420 vehicles though the City of Euclid each day.

Note: More specific information regarding traffic analysis was completed in the Traffic Engineering Report completed for the project by TMS Engineering.

Road Construction Projects

There are no road improvements scheduled in the vicinity of the Study Area. The City of Euclid has worked with the RTA to upgrade transit waiting facilities. I-90 has recently been resurfaced through the City of Euclid. NOACA and RTA are currently considering a study of extending the Health Line Transit Route to the City of Euclid.

Alternative Transportation

Bus Transit

Four bus routes serve The City of Euclid. These bus routes are:

- 28 Euclid
- 39 Lake Shore
- 239 Euclid Park-N-Ride
- 94 East 260 Richmond

The Euclid route (28) runs along Euclid Avenue from Louis Stokes Station in East Cleveland to 276th Street on the eastern end of Euclid. There are multiple transfer opportunities at Louis Stokes station including the Redline Rapid Transit and the Healthline heading to downtown Cleveland. At 276th Street, riders can transfer onto the Laketran system which serves Lake County.

The Lakeshore route (39) runs along Lakeshore road from Lake County to downtown Cleveland.

The Euclid Park-n-Ride is located on St. Clair Avenue near Babbit Road. The 239 route offers express service to downtown Cleveland via I-90.

The East 260-Richmond route (94) is a north south route which runs from Euclid Hospital to Randall Park Mall in Bedford Heights. There multiple transfers available along the length of this route.

Rapid Transit

The Red Line is a rapid transit rail line that traverses the City of Cleveland from the Louis Stokes Transit Station to the Airport. The Health Line is a rapid transit bus route that

runs down Euclid Avenue from the Louis Stokes Transit Station to downtown Cleveland. The Louis Stokes Transit Station is located off Euclid Avenue, 2.75 miles from the City of Euclid. The Euclid (28) bus route connects the City of Euclid to the Rapid transit system at Louis Stokes Station.

Transit Waiting Environments

The term, transit waiting environment, refers to a location where a rider waits for a bus; generally referred to as a transit stops, or more commonly, bus stop. All bus stops are not alike; some have shelters, trash receptacles. benches and landscaping while some are simply signed locations. The Greater Cleveland Regional Transit Authority (RTA) is the agency that runs the buses and is generally responsible for bus stops. However, with approximately 8,500 bus stops in the county-wide system, RTA cannot fund the type of stops that some municipalities would prefer to have. RTA often relies on the municipalities to seek funding for the development of enhanced stops. In fact, this TLCI Plan can be used as a tool to seek and obtain such funding. To assist in the design and development of bus stops, RTA has published a guidebook titled "Transit Waiting Environments - An Ideabook for Making Better Bus Stops". A copy may be obtained by contacting RTA directly requesting a copy at dwillis@gcrta.org .

The concise guidebook provides a variety of design suggestions and identifies a variety of development levels based on the numbers of passengers boarding at each location. Generally a stop that has 50 or more boardings daily warrants the development of a shelter. However, stops with less boardings may be enhanced with amenities such as benches, trash receptacles, bike racks, accent paving, interpretive signage, etc. All stops should, at the least, have an RTA sign, good lighting and good visibility. Suggested distribution for bus stops in the guidebook is eight per mile, or in less developed areas, four per mile. The specific locations will depend on adjacent land uses and the road conditions. The guidebook underscores the point that "The quality of the customer experience

while waiting for transit vehicles is a crucial determinant of both overall satisfaction and general community attitudes towards transit."

Bicycle Circulation

Euclid Avenue is listed on the bike map for Cuyahoga County as suitable for experienced riders only. The designation is due to the lack of bicycle lanes on the corridor.

Other streets that have access to Euclid Avenue are designated for cyclists with intermediate skills. These roads also do not have designated bike lanes. Euclid Creek Reservation has a multi-use trail which offers bicyclists a place to ride, but does not connect to other destinations.

Pedestrian Circulation

Sidewalks are present on both sides of Euclid Avenue along the entire corridor (with minor exceptions). Most of the cross streets have a sidewalk on at least one side of the road. Euclid Creek Reservation has a multi-use trail which offers pedestrian a scenic walk for exercise.

Parking

There is one public parking lot located across from the Euclid Historical Museum on North Street Each individual use along the corridor provides their own parking facilities. Land use regulations have assured more than adequate parking for each establishment along the Euclid Avenue corridor. An analysis of parking facilities is contained in the commercial inventory.

Surrounding Road Network

Interstate/Expressway Access

I-90 runs just north of the Study Area in an east-west direction. Heading east, I-90 divides into two expressways. The Lakeland freeway runs closer to the shore of Lake Erie. I-90 dips south before heading in and easterly direction. On I-90, there is access to I-271, which is the outer belt for the Cleveland Metropolitan Area. Heading West, I-90 turns into the Shoreway Memorial Freeway and heads into

downtown Cleveland. There is direct access from Euclid Avenue to I-90 at the eastern border of the City. Along the length of I-90 in the City of Euclid, there is a service road on both sides of the interstate. There are ramps connecting I-90 with the service roads at three locations within the City and another just west of the City's border.

Major Arterials

Major arterials are usually long roads with higher volumes of traffic that traverse from neighborhood to neighborhood. Euclid Avenue is a major east/west arterial. Richmond Avenue/260th Street is a major arterial from the I-90 southward crossing Euclid Avenue.

Minor Arterials

Minor arterials are those streets which augment the Principal Arterial System and serve trips of moderate length. Minor Arterials put a greater emphasis on land access and less importance on mobility. The following roads are classified as minor arterials which connect to Euclid Avenue.

- Chardon Road
- · Dille Road/Highland Road
- 222nd Street

Collectors

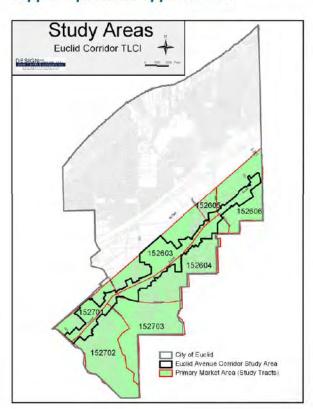
Collectors are streets which distribute trips from arterials and channel trips to arterials. Additionally, these roadways provide access and circulation within residential neighborhoods. Babbit Road is the only road classified as a collector with access to Euclid Avenue. Babbit Road connects Euclid Avenue to Downtown Euclid.

Local Streets

Local streets are not on a higher functional classification system and provide the lowest level of mobility with through traffic movement being discouraged. All other streets are classified as local streets.

Demographic and Economic Overview

Demographic and economic data provides the primary population information that supports potential opportunities.



For the Euclid Avenue Corridor, the information was collected and analyzed using census tract data or Study Tracts. The Study Tracts consist of the census tracts that exist entirely south of I-90. This area represents the primary market area for the Study Area. The study also compares the Study Tracts to surrounding comparison communities. Geographies used for comparison include the City of Euclid as a whole (including the Study Tracts), City of East Cleveland, City of Cleveland, Cuyahoga County, and the State of Ohio.

Population

Population trend is an indication of a community's stability. Declining populations mean a declining tax base. There is often a correlation with employment opportunities. The following table presents the population change from 2000-2009. As with most industrial cities in the northeast, populations continue to decline. The Study Area shows the sharpest decline since 2000.

1,296,287 40 1,393,978	439,013	24,827	47,935	14,714
40 1 202 079				
40 1,393,976	478,393	27,217	52,717	17,487
-97,691	-39,380	-2,390	-4,782	-2,773
-7.01%	-8.23%	-8.78%	-9.07%	-15.86%
	-97,691	-97,691 -39,380	-97,691 -39,380 -2,390	-97,691 -39,380 -2,390 -4,782

Race/Ethnicity

Racial make of a community influences the types of amenities needed. The following table shows the racial breakdown of the study area and comparison communities. The chart show that nearly two-thirds of the Study Area is African American.

	Ohio	Cuyahoga County	Cleveland	East Cleveland	Euclid	Study Tracts	
White	82.5%	63.5%	38.1%	5.0%	52.1%	30.1%	
Black or African American	11.6%	28.6%	49.8%	92.7%	43.5%	64.9%	
Hispanic or Latino	2.6%	4.3%	8.7%	0.7%	1.7%	2.4%	
Other (inc. 2 or more races)	3.3%	3.7%	3.3%	1.6%	2.7%	2.6%	
Racial Makeup in the Region							

Sex and Age

The breakdown of sex and age groups surrounding the Study Area can influence municipal decision-makers who are seeking to plan services and facilities for residents, with special consideration for youth and senior-oriented amenities. The distribution of residents by age is shown on the following table. The study area has a significantly higher percentage of female citizens. The Study area also has an aging population, having the highest percentage of people in both of the highest two age groups.

	Ohio	Cuyahoga County	Cleveland	East Cleveland	Euclid	Study Tracts
Male:	48.8%	47.3%	47.4%	45.2%	45.7%	42.3%
Female:	51.2%	52.7%	52.6%	54.8%	54.3%	57.7%
Under 18 years	24.0%	23.6%	25.4%	25.3%	23.0%	22.8%
18 to 34 years	22.1%	20.9%	23.2%	23.0%	19.5%	19.0%
35 to 49 years	21.6%	21.5%	21.6%	17.3%	23.7%	19.9%
50 to 64 years	18.7%	18.8%	17.2%	19.2%	17.6%	19.5%
65 years and over	13.6%	15.2%	12.6%	15.1%	16.3%	18.8%

Makeup of Sex and Age in the Region

Education

Levels of educational attainment are indicators of the type of workforce that a municipality has and often influences earning potentials. The percentage of people that did not finish high school is higher than Euclid as a whole, Cuyahoga County, and the State of Ohio, but not as high as the City of Cleveland and East Cleveland. There is also a higher percentage of people with college degrees than in those two cities.

	Ohio	Cuyahoga County	Cleveland	East Cleveland	Euclid	Study Tracts
No HS Diploma	13.2%	14.5%	24.5%	23.3%	12.1%	17.1%
HS Diploma, GED	56.1%	51.6%	56.0%	59.1%	60.5%	59.2%
Associate's degree	7.1%	6.5%	5.8%	6.6%	6.8%	5.6%
Bachelor's degree	15.0%	16.4%	8.5%	7.0%	13.6%	11.2%
Post Graduate Degree	8.6%	11.0%	5.2%	4.0%	7.1%	6.9%

Education Levels in the Regio

Labor Force

Labor force characteristics is an indication of a communities economic wellbeing. People in the labor force are those that have, or are looking, for employment. Retired persons and stay at home parents are not counted in the labor force. The unemployment percentage is taken from the labor force and not the total population. Only the City of East Cleveland has a lower percentage of people in the workforce. This is most likely due to the aging population. Of those in the workforce, the Study Area has a lower percentage of people unemployed than the Cities of Cleveland and East Cleveland, and is only slightly higher than the County. The City of Euclid, as a whole, has the highest percentage in the workforce with a lower percentage of unemployment than the County.

		Cuyahoga County		East Cleveland	Euclid	Study Tracts
% In Labor Force	65.0%	64.2%	60.2%	57.7%	66.4%	59.0%
% Unemployed	8.0%	10.0%	16.6%	17.5%	9.2%	11.9%

Labor Force Statistics in the Region

Means of Travel to Work

The means of travel to work could be influenced by a variety of factors. Income, proximity to work, and availability of transportation alternatives can all be a factor in how one gets to work. The following table shows the means of how people get to work. The table does not necessarily indicate the presence of a vehicle. A higher percentage of the people in the Study Area use public transportation to get to work than all of the comparison area. The fact that no one in the study area rides a bicycle to work could indicate the lack of facilities for such travel.

	Ohio	Cuyahoga County	Cleveland	East Cleveland	Euclid	Study Tracts
Drove alone	82.9%	79.2%	69.7%	69.2%	79.8%	75.2%
Carpooled	8.5%	8.0%	10.0%	8.4%	7.0%	4.9%
Public transportation	1.9%	6.1%	12.0%	13.6%	8.3%	15.3%
Bicycle	0.3%	0.3%	0.5%	0.2%	0.2%	0.0%
Walked	2.3%	2.7%	4.5%	4.0%	1.7%	2.3%
Other means	0.8%	0.7%	0.8%	1.0%	0.2%	0.1%
Worked at home	3.3%	3.0%	2.5%	3.7%	2.7%	2.2%

Means of Travel in the Region - Source: 2009 American Community Surv

Occupation and Industry

Occupation and industry statistics are indicators of the type of workforce and employment opportunities.

	Ohio	Cuyahoga County	Cleveland	East Cleveland	Euclid	Study Tracts
Management, business, and financial occupations:	12.8%	13.4%	8.2%	5.7%	11.0%	9.8%
Professional and related occupations:	19.9%	22.0%	15.2%	16.1%	18.2%	18.0%
Service occupations:	16.8%	18.2%	25.6%	30.6%	18.6%	19.6%
Sales and office occupations:	25.5%	26.7%	25.1%	29.0%	28.2%	31.3%
Farming, fishing, and forestry occupations	0.3%	0.1%	0.1%	0.0%	0.3%	0.0%
Construction and extraction occupations	4.7%	3.3%	4.0%	3.4%	3.5%	3.8%
Installation, maintenance, and repair occupations	3.4%	2.7%	2.8%	0.7%	2.8%	1.1%
Production occupations	9.2%	7.7%	10.8%	6.6%	10.1%	9.2%
Transportation and material moving occupations:	7.2%	5.8%	8.0%	7.9%	7.3%	7.1%

Occupations and Industries by Percentage in the Region

The distribution of occupations is fairly similar in all comparison areas. The study area does have a slightly higher percentage of people employed in sales and office occupations.

	Ohio	Cuyahoga County	Cleveland	East Cleveland	Euclid	Study Tracts
Agriculture, forestry, fishing and hunting, and mining:	1.1%	0.2%	0.2%	0.0%	0.4%	0.0%
Construction	5.8%	4.3%	4.5%	4.3%	3.7%	3.1%
Manufacturing	16.4%	13.3%	14.3%	9.4%	14.8%	12.5%
Wholesale trade	3.2%	3.5%	2.7%	0.6%	2.5%	2.0%
Retail trade	11.6%	10.1%	9.5%	10.8%	10.2%	12.4%
Transportation and warehousing, and utilities:	5.0%	4.5%	5.3%	6.8%	5.4%	5.4%
Information	2.0%	2.4%	1.9%	2.8%	1.9%	2.4%
Finance and insurance, and real estate and rental and leasing:	6.6%	8.6%	6.3%	5.1%	7.8%	10.0%
Professional, scientific, and management, and administrative and waste management services:	8.8%	10.6%	9.8%	8.5%	8.8%	7.2%
Educational services, and health care and social assistance:	22.7%	24.9%	24.2%	32.8%	25.2%	26.3%
Arts, entertainment, and recreation, and accommodation and food services:	8.5%	8.7%	10.6%	11.1%	8.5%	8.3%
Other services, except public administration	4.5%	4.6%	5.1%	5.2%	3.8%	3.1%
Public administration	3.8%	4.3%	5.4%	2.4%	6.9%	7.2%
	Distributi	on of Occupa	ations in the	Region		

Income

Two primary measures of income, median household income and per capita income, are used to assess wealth in a community. Median Household income reflects the distribution of income because it identifies the level at which there are an equal number of households with higher income as there are with lower income. Per capita income, however, refers to the total personal income in a community divided by the total population, an indicator of the actual dollar amount that exists in the community. The following is a breakdown of incomes by earnings bracket, median household income and per capita income. The percentage of people below the poverty level is also presented.

More than a quarter of the population is below the poverty level. While this percentage is higher than the City of Euclid as a whole and Cuyahoga County, it is still lower than that of the Cities of Cleveland and East Cleveland. A similar pattern is present with the median household and per capita incomes.

	Ohio	Cuyahoga County	Cleveland	East Cleveland	Euclid	Study Tracts
Less than \$10,000	8.3%	10.8%	19.4%	26.9%	11.0%	18.2%
\$10,000 to \$19,999	11.8%	13.3%	18.5%	19.3%	15.4%	20.7%
\$20,000 to \$29,999	11.6%	12.0%	15.0%	15.2%	12.6%	13.8%
\$30,000 to \$39,999	11.1%	10.7%	12.2%	12.8%	12.1%	10.5%
\$40,000 to \$49,999	10.0%	9.6%	9.2%	6.9%	10.4%	8.9%
\$50,000 to \$74,999	19.5%	17.2%	14.2%	11.7%	20.3%	12.8%
\$75,000 to \$99,999	12.0%	10.6%	6.2%	3.3%	10.1%	8.9%
\$100,000 to \$199,999	13.4%	12.8%	4.9%	3.6%	7.5%	5.8%
\$200,000 or more	2.4%	3.0%	0.5%	0.3%	0.7%	0.3%
Median household Income	\$47,144	\$43,145	\$27,761	\$22,339	\$39,016	\$28,238
Per capita Income	\$24,830	\$25,788	\$16,581	\$14,825	\$22,167	\$19,706
% Below Poverty	13.6%	16.4%	30.2%	37.1%	15.5%	26.3%
Public administration	3.8%	4.3%	5.4%	2.4%	6.9%	7.2%
		Income in the	e Region			

Home Tenure and Vacancy

Housing tenure reflects ownership patterns of occupied housing units. Vacancy statistics present the types of units that are not occupied.

Except for the City of East Cleveland, the study area has the highest percentage of people who rent. The vacancy rate is relatively low even compared to Cuyahoga County. The study Area has the lowest percentage of housing units that are for sale indicating a stronger market for owner occupied housing. The high percentage of "other vacant" structures in all geographies is most likely the result of abandoned housing.

	Ohio	Cuyahoga County	Cleveland	East Cleveland	Euclid	Study Tracts
Occupied	89.4%	87.3%	80.8%	70.9%	90.1%	88.0%
Owner occupied	69.5%	62.4%	47.8%	34.4%	57.7%	40.4%
Renter occupied	30.5%	37.6%	52.2%	65.6%	42.3%	59.6%
Vacant	10.6%	12.7%	19.2%	29.1%	9.9%	12.0%
For rent	28.3%	32.3%	31.2%	33.9%	42.7%	55.5%
Rented, not occupied	4.1%	3.3%	3.4%	0.4%	4.9%	3.0%
For sale only	15.4%	15.6%	12.5%	7.5%	16.5%	6.2%
Sold, not occupied	4.8%	4.6%	3.8%	2.6%	2.2%	1.5%
For seasonal, recreational, or occasional use	9.4%	1.8%	1.4%	2.3%	0.4%	0.0%
Other vacant	38.1%	42.4%	47.8%	53.3%	33.3%	33.8%
Public administration	3.8%	4.3%	5.4%	2.4%	6.9%	7.2%
- abii a aiiiiii oi ati oii	0.0 /0	Income in th			0.070	

Units in Structure

The number of units in a structure is an indicator of the types of housing patterns. The Study area has a significantly high percentage of units that are in structure with more than 50 units. There are also a significant proportion of people living in medium size apartment buildings.

	Ohio	Cuyahoga County	Cleveland	East Cleveland	Euclid	Study Tracts	
1, detached	68.4%	58.5%	47.1%	32.7%	55.9%	35.6%	
1, attached	4.5%	5.3%	5.9%	12.2%	5.7%	8.1%	
2	4.8%	10.4%	20.9%	13.2%	3.8%	3.0%	
3 or 4	4.5%	4.0%	6.9%	6.8%	1.6%	2.4%	
5 to 9	4.7%	4.4%	4.3%	7.4%	6.3%	12.1%	
10 to 19	3.9%	5.0%	3.9%	3.9%	6.0%	12.0%	
20 to 49	2.0%	3.1%	2.6%	6.5%	1.7%	3.2%	
50 or more	3.0%	8.8%	7.6%	16.9%	19.1%	23.6%	
Other	4.1%	0.6%	0.7%	0.3%	0.0%	0.0%	
Number of Units in Decidential Structures in the Decien							

Year Structure Built

The year that structures were built is a general indication of the age of the housing stock. The Study area has the fewest percentage of structures built before WWII. The post war boom is evident in the cata with the highest percentages of structures built in the 1950s and 60s. Very few structure have been built in the last 30 years.

	Ohio	Cuyahoga County		East Cleveland	Euclid	Study Tracts	
Since 2000	8.2%	3.5%	2.9%	0.3%	1.1%	1.6%	
Built 1990 to 1999	11.5%	5.0%	2.3%	0.9%	2.0%	2.1%	
Built 1980 to 1989	8.8%	5.2%	2.2%	1.5%	2.8%	6.3%	
Built 1970 to 1979	14.4%	9.4%	4.7%	5.0%	9.1%	13.5%	
Built 1960 to 1969	12.4%	12.9%	7.0%	9.8%	16.5%	23.1%	
Built 1950 to 1959	14.8%	20.4%	12.8%	11.6%	34.3%	27.2%	
Built 1940 to 1949	7.3%	10.7%	12.6%	14.4%	16.9%	12.1%	
Built 1939 or earlier	22.5%	32.8%	55.6%	56.5%	17.2%	14.3%	
Veer Structures Built in the Region							

Contract Rent

Rents in both the Study Area and all of Euclid are significantly higher than the other comparison areas. Combined with low income levels, the statistics show that people in Euclid are generally spending a larger percentage of their income on housing. However, with such a large vacancy rate on rental units could indicate that rental costs are higher than market value.

	Ohio	Cuyahoga County	Cleveland	East Cleveland	Euclid	Study Tracts	
Less than \$100	2.4%	2.3%	4.3%	1.1%	0.7%	0.9%	
\$100 to \$199	4.8%	5.2%	8.1%	10.1%	3.4%	6.0%	
\$200 to \$299	5.5%	4.6%	7.4%	5.8%	2.4%	3.4%	
\$300 to \$399	12.9%	8.5%	13.7%	10.0%	3.3%	4.0%	
\$400 to \$499	20.5%	17.6%	23.3%	26.8%	13.7%	14.1%	
\$500 to \$599	18.9%	19.1%	18.3%	22.2%	30.9%	28.5%	
\$600 to \$699	14.4%	16.2%	10.9%	14.2%	20.1%	23.1%	
\$700 to \$799	8.7%	10.8%	6.9%	4.4%	11.9%	9.4%	
\$800 to \$899	4.5%	6.0%	2.9%	3.0%	3.7%	1.2%	
\$900 to \$999	2.7%	3.7%	1.8%	2.2%	4.6%	3.7%	
\$1,000 or more	4.8%	6.0%	2.4%	0.1%	5.2%	5.7%	
Median contract rent	\$519	\$559	\$473	\$487	\$588	\$578	
Cost of Rent in the Region							

Overview of Existing Studies

Euclid Master Plan 1996

The last master plan conducted in the City of Euclid was in 1996. The plan was not a comprehensive plan because it targeted the economic conditions and the living environment in selected areas of the City. One of the selected areas was the Euclid Avenue corridor from 260th Street to the Interstate 90. This area is a gateway to the City and, at the time of the study, was in decline. Redevelopment of the corridor and making it economically viable is a major focus of the plan. The assets and liabilities of the corridor are presented in the plan as follows:

Assets

- Sidewalks most of the areas has six foot wide sidewalks with the exception of undeveloped properties.
- Tree Lawns Most properties maintain a lawn between the sidewalk and the street.
- Undeveloped Properties There are several parcels along Euclid Avenue, especially on the south side facing the hill, that are undeveloped with heavy tree cover. A visual break is created by the tree cover from the highly commercial strip.

Liabilities

- Street Trees There are few, if any, trees of significant size within the right-of-way, and in commercial developments, there is very little existing landscape treatments.
- Specific Treatment or Theme With the exception of the treatment on the north side of Euclid Avenue between Babbit Road and E 260th Street, there is no specific treatment of the sidewalk/treelawn space.
- Intersection Identity/Entrance Features Major

intersections such as E 222nd Street, Babbit Road, and E 260th Street are treated no differently, from a streetscape perspective, than any other intersection.

• Parking Lots – Most parking lots have no division from the sidewalk, no screening of cars from the street, and little or no landscaping within the parking area.

The Master Plan examines potential markets for development along the Euclid corridor. The big box retail market presented the best market for the area taking advantage of the locations access to I-90 and its proximity to the Euclid Square Mall.

The Master Plan presents two alternatives for the Brush Road parcels which is currently an undeveloped wooded area just south of Euclid Avenue. Both alternatives recommend upscale residential development in order to address the underserved market.

The Master Plan reviews the parks and recreation opportunities available in the City of Euclid. The plan demonstrates that while the City of Euclid does have an extensive park system, there is an overall deficit of park place. The plan also recommends that more funds be targeted towards repair and upkeep of existing facilities.

The Master Plan also addresses the Shore Center Business District, but does not address the Industrial Corridor north of Euclid Avenue.

Community Development Plan One Southeast Euclid

In 1998, the City of Euclid prepared a community development plan for southeast Euclid. Recommendations for development of this area include:

· Removal of deteriorating structures

- Redefine access patterns along Euclid Avenue and create connections to the Bishop Road retail district
- Assemble parcels in order to accommodate large retail developments
- Create a unified streetscape pattern within the Euclid Avenue right-of-way

The City has removed many of the deteriorating buildings and is working to assemble parcels. A unified streetscape has not been established and there is not direct connection the Bishop Road retail area.

Euclid Avenue Blight Study and Urban Renewal Plan 2000

The Euclid Avenue Blight Study and Urban Renewal Study were undertaken as a requirement for funding from the Weed and Seed program. Both are direct actions to improve the conditions of the Euclid Avenue corridor as recommended by the 1996 Master Plan. An exterior building survey was taken of all buildings within the study area. The survey revealed that 63% of the structures were classified as deteriorating. This survey was taken following the removal of 22 buildings in the Euclid Village apartments that were in poor condition. The report also cited that there was a lack of enforcement of building code violations.

The Urban Renewal Plan included in this study is somewhat contradictory to 1996 Master Plan. The Urban Renewal Plan focuses on attraction office development and developing the Brush Road parcel into an industrial park. A detailed plan for rezoning the area was presented in the plan. These zoning changes have been put into place.

City of Euclid 2012 Annual Action Plan

The Action Plan outlines the various programs funded by Community Development Block Grant (CDBG) monies for fiscal year 2012. The action plan allocates CDBG funds and creates benchmarks for each program. Among the programs are:

- Low interest home improvement loans
- Home improvement assistance
- Storefront renovation matching grants
- Streetscape improvements in the form of pedestrian amenities

The programs are all targeted to people and business with low and moderate income as well the disabled. Compliance with housing codes is a condition for structures receiving assistance. Home improvement loans are given to single family dwellings. No CDBG funds are directed towards repair of multi-family structures.

Euclid Avenue Task Force Notes 1995

The Euclid Avenue Task force was formed in 1994 by residents and business owners to discuss the issues confronting the Euclid Avenue corridor and to think of solutions. Issues discussed as a major deterrent to neighborhood stability include crime and the overall character of the area. The Task Force focused on rehabilitating multi-family residential complexes and turning them into "living/safe" zones. Community policing efforts would also improve safety issues. Recommendations for improving the character of the area include storefront renovation, building code enforcement, more street and sidewalk sweeping and street decorations for special events. The Task Force also recommended enhancement of entrances into Euclid, particularly at the I-90 interchange.

Northeast Ohio First Suburbs Consortium Economic Revitalization Initiative

The Northeast Ohio First Suburbs Consortium Economic Revitalization Initiative is a study of business districts throughout the first ring suburbs of Cleveland. The study gives a retail analysis, interviews with merchants and community members, and gives market recommendations. The study also presents a demographic profile for Euclid as a whole. The Euclid Avenue and East 260th Street

business district was included in the study. The retail analysis suggests that there is a surplus of grocery stores, clothing stores, and restaurants, as well as several other retail categories. No retail category shows a significant demand for more space. People interviewed describe the image of the district as poor. Major strengths are access to I-90, well maintained single family neighborhoods and proximity to more affluent neighborhoods to the south and east. Among those attributes mentioned as weaknesses are that the district is unattractive and not well kept up by the city. The district is auto-dominated and not pedestrian friendly. Drugs and crime are also seen as a problem in the neighborhood. Suggestions to improve the area include converting retail into light industrial uses and converting the old industrial site into housing. Fast food restaurants were seen as the major anchor to the area. Those interviewed expressed a desire for a quality supermarket and sit down restaurants. The following market recommendations were made by the consultants conducting the study:

- Retain existing food services that are offered and add more as opportunity arises.
- Retain existing vehicle repair and maintenance shops in the district
- Consider consolidating existing retail and explore the possibility of converting currently zoned retail uses to office or light industrial uses.

Cuyahoga County Green Space Plan

The Cuyahoga County Green Space Plan is a broad vision of protecting natural areas and providing interconnected trails throughout the county. The natural corridors concept plan is basically preserving green space around streams. Much of this has been accomplished through the creation of the metro parks system. Euclid Creek Reservation is part of the metropark system. Included in the green space concept is the eastern branch of Euclid Creek. While this area is not included in the Euclid Creek Reservation, it is currently undeveloped as the slopes on each side of the creek have precluded development. The detailed Green Space Plan also included the slope of the escarpment

on the south side of Euclid Avenue, which is currently an uninterrupted wooded area. The plan also prescribes a series of interconnected trails that build onto existing trails. The concept plan creates three concentric rings that connect into a continuous lakefront trail with three legs connecting back into downtown Cleveland. The "First Ring Loop", which is actually the second concentric ring, travels through Euclid. This loop builds off the existing trail in Euclid Creek Reservation and basically follows Euclid Creek through the City. The detailed trail plan proposes a trail which parallels Chardon Road from the Euclid Creek Reservation the Cuyahoga County Airport. Another proposed trail connects Euclid Creek to Tungsten Park following a rail corridor.

The Housing Crisis in Euclid, OH: Analysis and Outlook

An analysis was recently completed on the housing market in the City of Euclid. The Study was carried out by the Levine College of Urban Affairs at the Cleveland State University in 2011. The study shows that the City of Euclid was hit hard by the nationwide housing crisis. Foreclosure rates are high in all of the neighborhoods of Euclid. The high rate of houses sold at auction has dramatically reduced the median sale price of housing units. Arms length housing sales have shown signs of stability, but the gap between these sales and distressed sales is decreasing. The study also shows that vacancy rates are above 10 percent. The high vacancy rate may be attributed to owners being unable to sell at current market prices, but have still moved away. However, these vacant properties added to the blighted conditions and further reduce home values in the neighborhood. There are indications that the housing market in Euclid could stabilize, but the outlook gets grimmer the longer the foreclosure crisis continues.

Appendix

The inventory includes the following topics:

Proposed Lane Use & Traffic Control Diagram

Destination **Euclid**:

The Euclid Avenue Recreationway Corridor

Traffic Engineering Study

Proposed Lane Use & Traffic Control

Legend



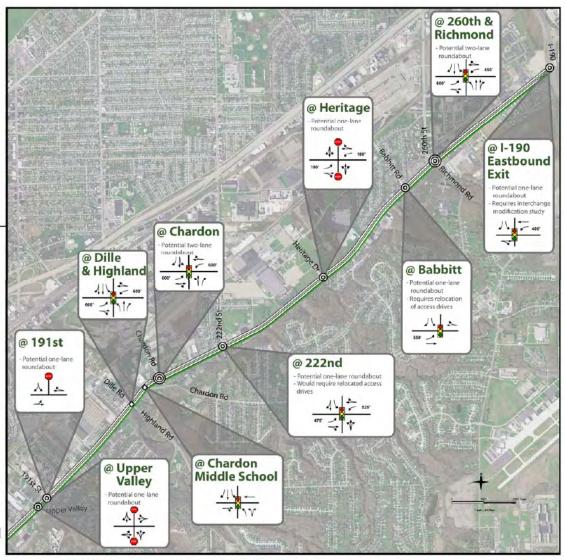
Euclid Avenue & Recreationway

- Potential 2-lane Roundabout
- Potential 1-lane Roundabout
- Intersection
- Signalized Traffic Control
- Stop Sign Traffic Control



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