



Freewill

Freewill Road/ SR 306 Corridor Study

Last Revised: 02/14/2022



RESOLUTION 2022-08

RESOLUTION TO ENDORSE THE FREEWILL ROAD SR 306 CORRIDOR STUDY

WHEREAS, Ragan Smith Associates (RSA) have completed the Freewill Road SR 306 Corridor Study pursuant to an Urban Transportation Planning Grant from the Tennessee Department of Transportation (TDOT) to the City of Cleveland, Tennessee; and

WHEREAS, the TDOT Urban Transportation Planning Grant application required that the Freewill Road SR 306 Corridor Study document be endorsed by the City when complete; and

WHEREAS, whereas the Freewill Road SR 306 Corridor Study was developed with input from the public, stakeholders, and officials from TDOT, the City of Cleveland, and Bradley County; and

WHEREAS, the Freewill Road SR 306 Corridor Study sets forth findings, recommendations, and other information concerning transportation, land use, economic development, the environment, and quality of life; and

WHEREAS, the Freewill Road SR 306 Corridor Study documents the importance of the I-75 Exit 20 and Tom Rowland Interchange area as a major community gateway and economic development area, while supporting the need for improved connectivity of this area to other parts of the community for which general route concepts are addressed; and

WHEREAS, the Freewill Road SR 306 Corridor Study documents the importance of improved connectivity and traffic flow for Freewill Road and Harrison Pike SR 312 near Prospect Elementary School and the I-75 bridge, while providing information relevant to further discussion of potential bridge and interchange improvements; and

WHEREAS, the Freewill Road SR 306 Corridor Study documents the importance of improvements to the existing Freewill Road conducive to its long-term use as a major urban corridor with multi-modal, traffic flow, and safety-related enhancements while leaving open the question of its possible future designation as a state route; and

WHEREAS, the Freewill Road SR 306 Corridor Study provides information to be further refined through local planning processes for land use and economic development, and adapted to coordinated transportation project planning and implementation at local, state, and federal levels

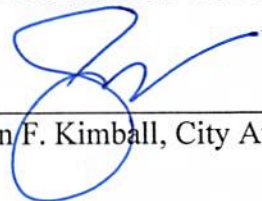
NOW, THEREFORE, BE IT RESOLVED, by the City Council of the City of Cleveland, Tennessee that:

1. As provided in the Urban Transportation Planning Grant application requirements, it is the intent of the City Council to endorse the Freewill Road SR 306 Corridor Study. The City Council recognizes the Freewill Road SR 306 Corridor Study as a supporting document for future transportation planning and coordination with local planning bodies and others on matters of land use, infrastructure, and economic development;

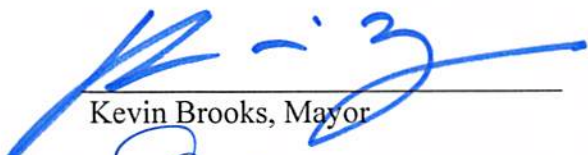
2. With the support and leadership of the Mayor on behalf of the City Council to coordinate across political boundaries and among varied interests, City staff are to work with local elected officials, local planning bodies, TDOT, land owners, and others to adapt the Freewill Road SR 306 Corridor Study to plans and programs for development that can be implemented to achieve the public benefits described in the Study with such adaptation including, but not being limited to, proposals for refinements to the scope and location of roadway improvements and other facilities and infrastructure within the Freewill Road SR 306 Corridor Study area.

Approved this 14th day of February, 2022.


APPROVED AS TO FORM:



John F. Kimball, City Attorney



Kevin Brooks, Mayor



Shawn McKay, City Clerk

ACKNOWLEDGMENTS



This project was made possible through funding from the TDOT urban transportation planning grant program in partnership with the city of Cleveland, TN.

In developing the SR-306 Study Plan, the Ragan-Smith team worked closely with City of Cleveland Officials, TDOT, Community Stakeholders and Technical Committees. This plan could not have been possible without the time and efforts put forth by the following:



MPO TCC, Stakeholder Representatives Members, & Study Steering Committee:

- Joe Fivas
- Tommy Myers
- Jonathan Jobe
- Shawn McKay
- Bently Thomas
- Brian Beck
- David Sheely
- Mary Lynn Brown
- Doug Berry
- Sarah Murray
- Andrea Noel
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- Brian Sells
- Jason Kemp
- Dr. Linda Cash
- Dr. Russell Dyer
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- Alan Wolfe
- Rachael Bergmann
- Kevin Layne

Cleveland MPO Executive Board Members:

- Kevin Brooks
- D. Gary Davis
- Avery Johnson
- Donna McDermott
- Mary Lynn Brown
- Andrea Noel

Documents Referenced:

- 2013 Bradley County Comprehensive Plan
- Bradley County Northern Corridor, Southern Corridor, and Central City Area Plans
- SR 60 Access Management Study
- MPO FY 2020-2023 TIP
- 2017 Connect Cleveland Walkability Plan
- 2045 MPO Regional Transportation Plan



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Objectives:

The City of Cleveland, in conjunction with the Cleveland MPO, Bradley County, with the support of TDOT, is investigating the potential for improvements of a north-south connector between SR 60 and APD 40 (Cleveland Beltway) at or near the Tom Rowland interchange. The alignment for this connector would roughly follow Freewill Road / SR 306 to Harrison Pike, with a new section of road required to complete the southern segment from Harrison Pike to APD-40. The stakeholders want to discern what classification of north-south connector is warranted for the western edge of Cleveland, considering a variety of inputs. The net cost of infrastructure improvements will be weighed against the potential benefits of increased economic development potential and quality of life enhancements. The existing zoning and land use, environmental conditions, existing and future traffic patterns, and projected future land uses will all factor into the evaluation of potential infrastructure enhancements.

This collaborative effort seeks to define the appropriate level of roadway enhancements based on the most likely community and economic development scenarios, transportation patterns and quality of life considerations.

Goals:

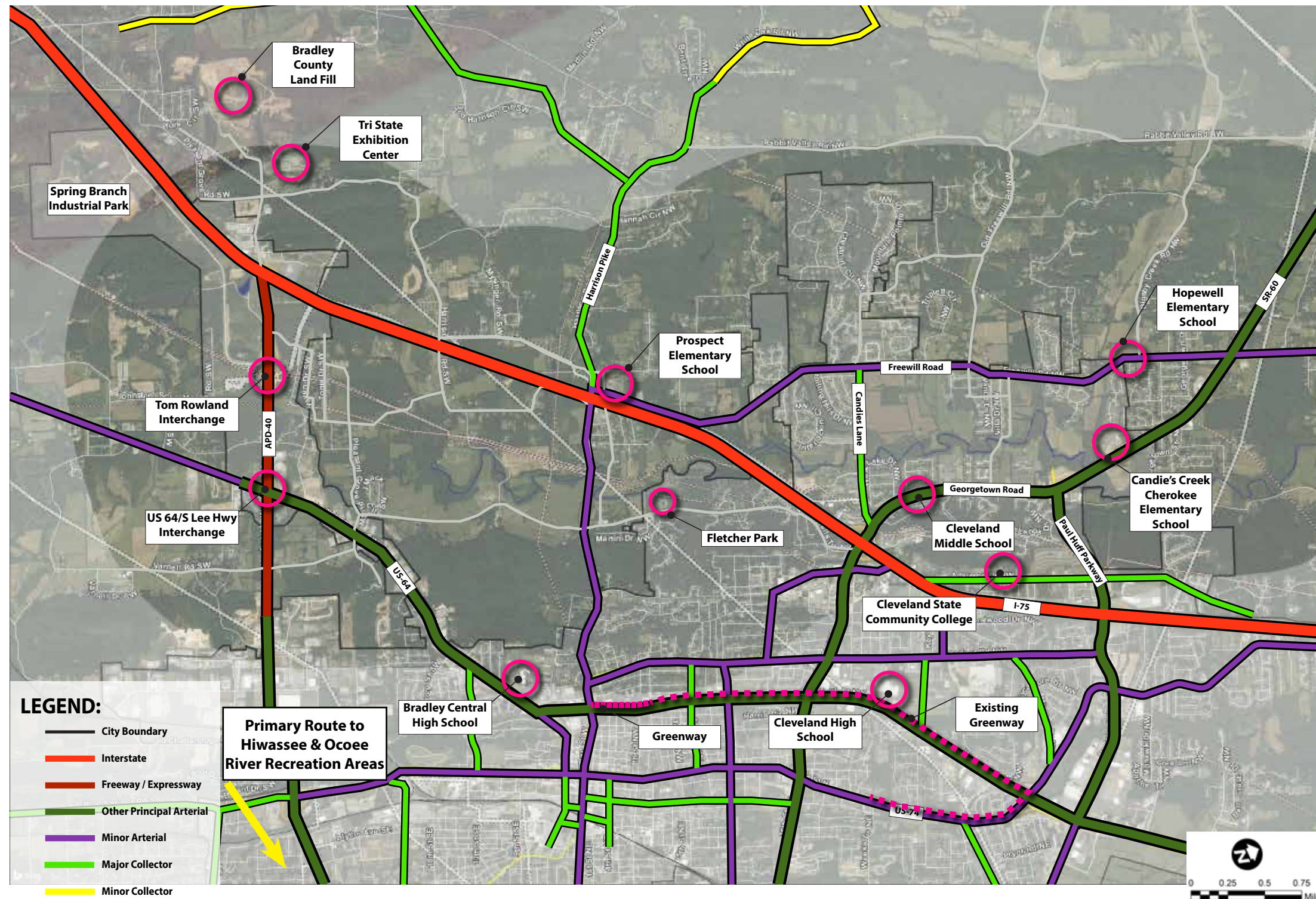
- Reduce Congestion on Existing Arterials
- Improve Access to Jobs and Essential Goods and Services
- Planning Infrastructure for Future Growth
- Identifying Opportunities for Economic and Job Growth
- Improving Multimodal Transportation Options
- Preservation and Enhancement of Key Natural and Open Space Corridors and Recreational Opportunities

Background:

Access to the interstate can be challenging for existing residents who live west of Interstate 75. Daily trips for shopping, education, services, and employment commutes, frequently involve congested intersections or circuitous routes. Non-residential zoning nodes in or adjacent to the study area should be evaluated as a tool for improving access to jobs, essential goods, and services and reducing trip generation congestion along east-west arterials and reducing the need for trips outside the corridor.

The Candies Creek valley and Freewill Road have long been considered a logical western edge for eventual urbanization and development by area planners. This paradigm should be tested and discussed. Georgetown Road was previously thought to be a northern edge for suburban and commercial expansion. Currently, Georgetown Road is a heavily utilized central arterial slated for improvements.

The construction of I-75, the APD-40 By-pass, Paul Huff Parkway, and the extension of sanitary sewer into the Candies Creek valley near Freewill Road have all stretched and accelerated Cleveland's growth. Future hubs for commercial services and employment are still evolving. Area leaders want to anticipate potential growth patterns, evaluate the best options for additional North-South connectors, and examine a possible location for an additional Cleveland Area I-75 interchange. The improvements slated to Georgetown Road are consistent with the pace of urbanization. Funding for specific enhancements to Freewill Road and Harrison Pike has not been committed in previous transportation plans. For this reason, the MPO, the City of Cleveland, and Bradley County are developing a plan for the Freewill Road - State Route 306 Extension Corridor that extends from SR 60 to the Tom Rowland interchange.



Study Area Context:

The Freewill Road / SR 306 Corridor is an area of anticipated growth for the City of Cleveland and the surrounding Bradley County. It is part of the established MPO area that includes the City of Cleveland and portions of Bradley and McMinn County. The primary connections to the City of Cleveland from Interstate 75 are anchored in the corridor. They include an interchange at the south edge of the corridor at APD-40 and interchanges at SR 60 and Paul Huff Parkway that interfaces with the easterly edge of the corridor. Critical land use and economic drivers for the corridor include:

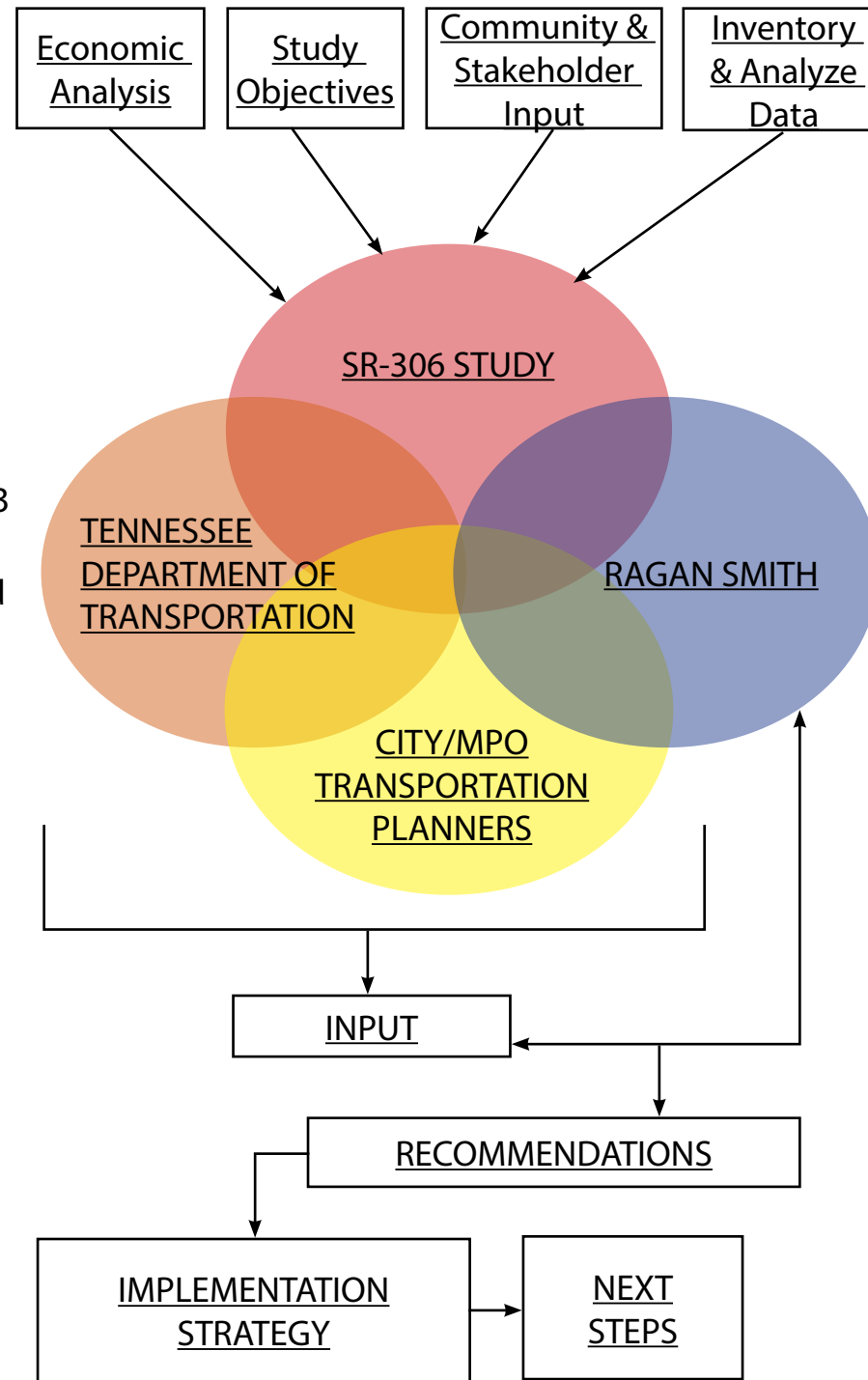
- Connection to the APD-40 Bypass serving as a loop around the south part of Cleveland as well as a gateway to Cherokee National Forest and the Ocoee and Hiwassee recreational areas
- Limited north – south connections in the transportation network on the southwest side of Cleveland
- Strong residential growth in both the city and county including the recent approval of several planned unit developments
- Limited direct access from Interstate 75 to the downtown core from the west side of the city
- The growth of Cleveland State Community College on the eastern edge of the corridor and growth of Lee University on the north side of downtown area
- The existing Spring Branch Industrial Park
- Industrial development sites relative to the Cleveland Regional Airport and strong rail connections to the north side of Cleveland, outside the corridor study

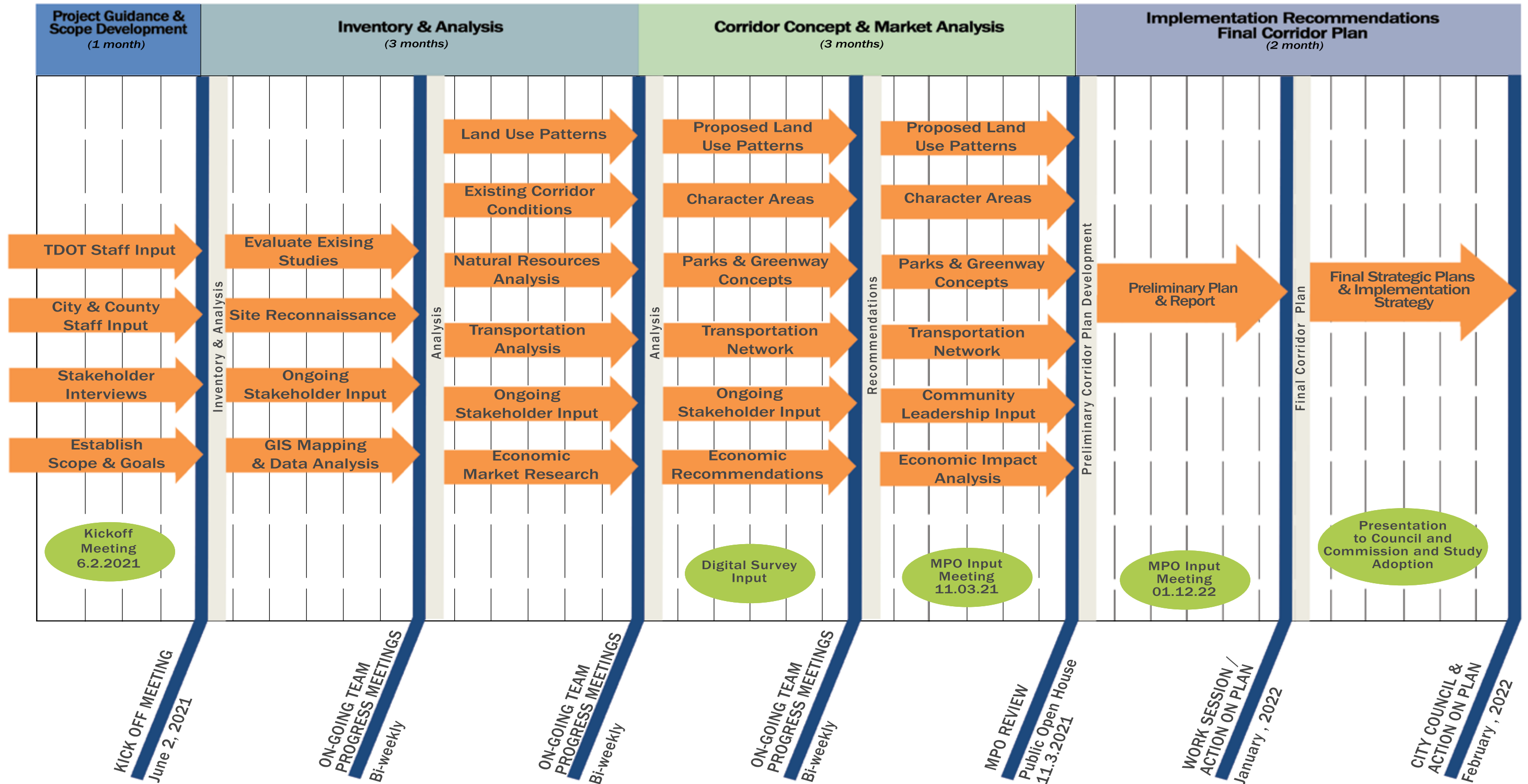


Project Approach:

The SR 306 Corridor Study began with the input and guidance of stakeholders and City and County Leadership. Next steps included extensive research on existing conditions and area attributes presented in the Inventory and Analysis summary. Community input was collected during a publicly noticed open house and an online survey. The strategy and approach were refined with input from the MPO Executive Board, Technical Committee, and City Staff. Land Use and Transportation recommendations build upon years of prior study and investment recorded in documents starting with the 2013 Bradley County Comprehensive Plan and Corridor Area Plans and continuing through the most recently adopted 2045 MPO Regional Transportation Plan.

Economic Development and Market Assessment recommendations were derived from a combination of regional market analysis, one-on-one stakeholder interviews, and a wealth of information provided by the astute and informed economic development staff at the Cleveland / Bradley County Chamber of Commerce. Input from residents collected during the community engagement process and a widely distributed survey shaped target outcomes and priorities. Timing, consensus priorities, and available funding will dictate the implementation plan and schedule.





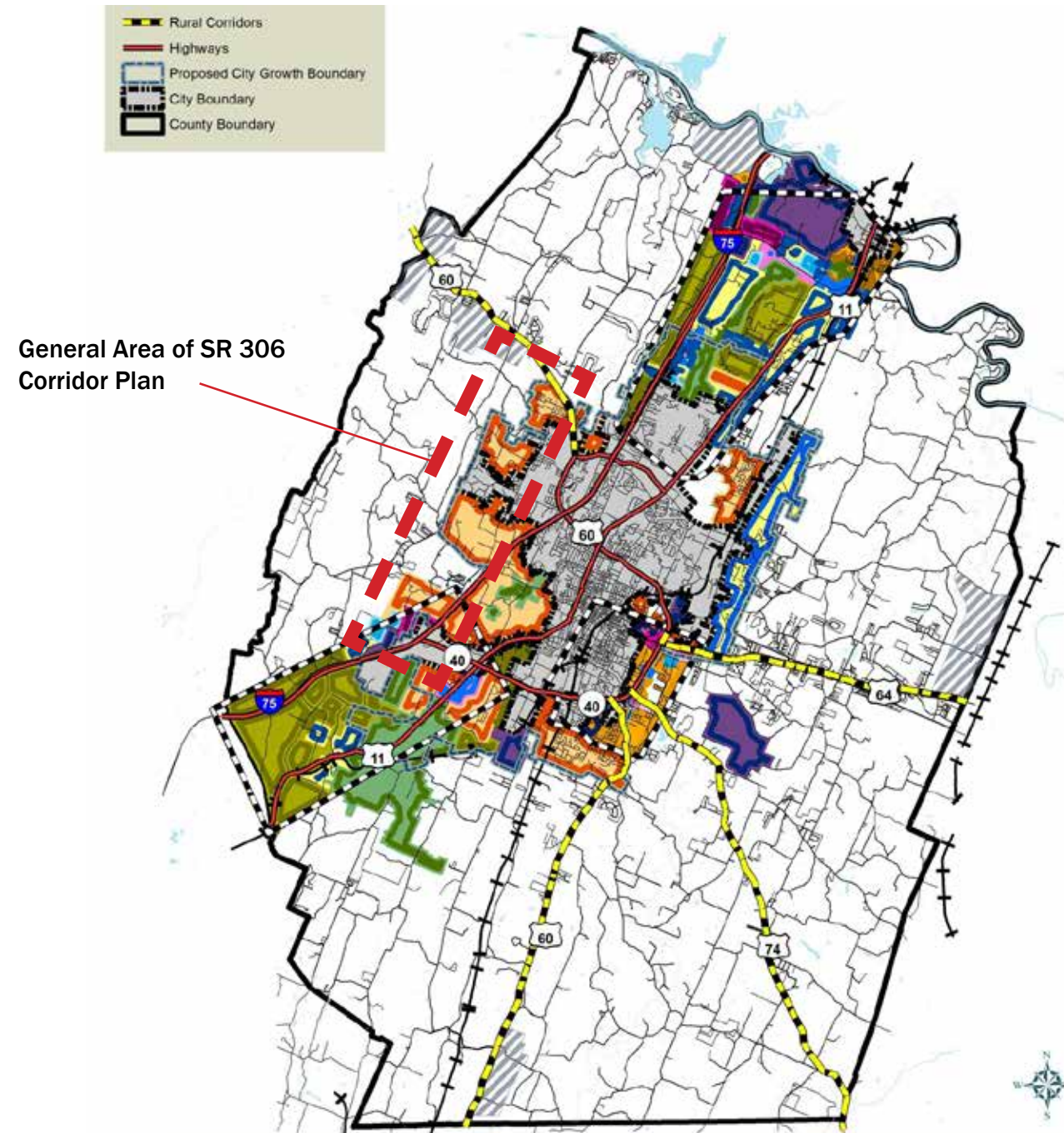


SECTION 1 - Inventory & Analysis





2013 Bradley County Comprehensive Plan

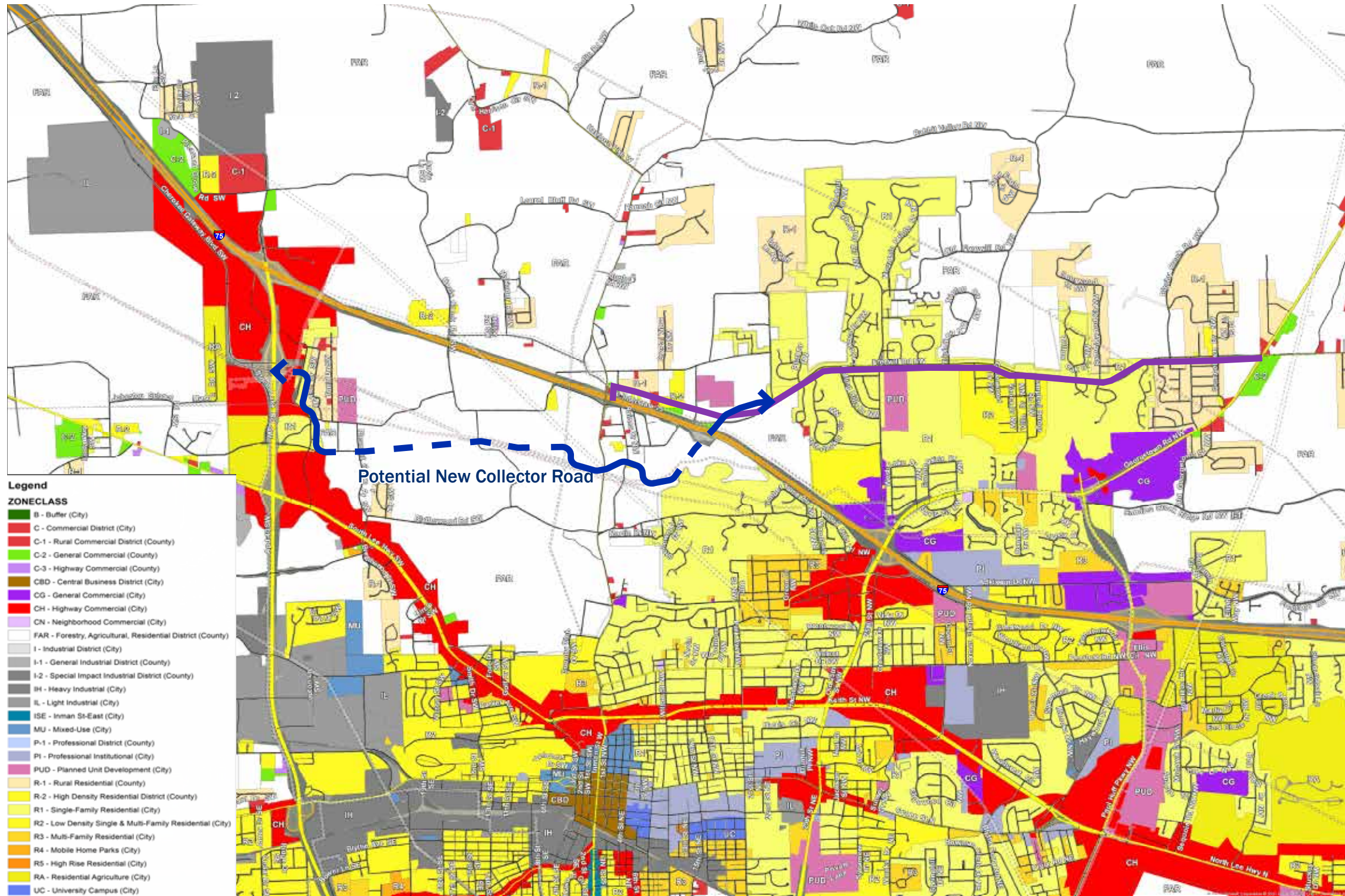


Land Use Overview:

- The plan provided a clear vision about areas for preservation of rural quality of life, job creation, industrial development, and anticipated residential growth
- Preservation of Conservation Areas and heritage farm properties may require additional community initiative and zoning tools
- The Bradley County Plan identifies most of the SR 306/ Freewill study area to be medium density single family residential with some pockets of natural conservation. This is the pattern most likely to continue in this area without transportation network changes or a strong land use vision for something different.

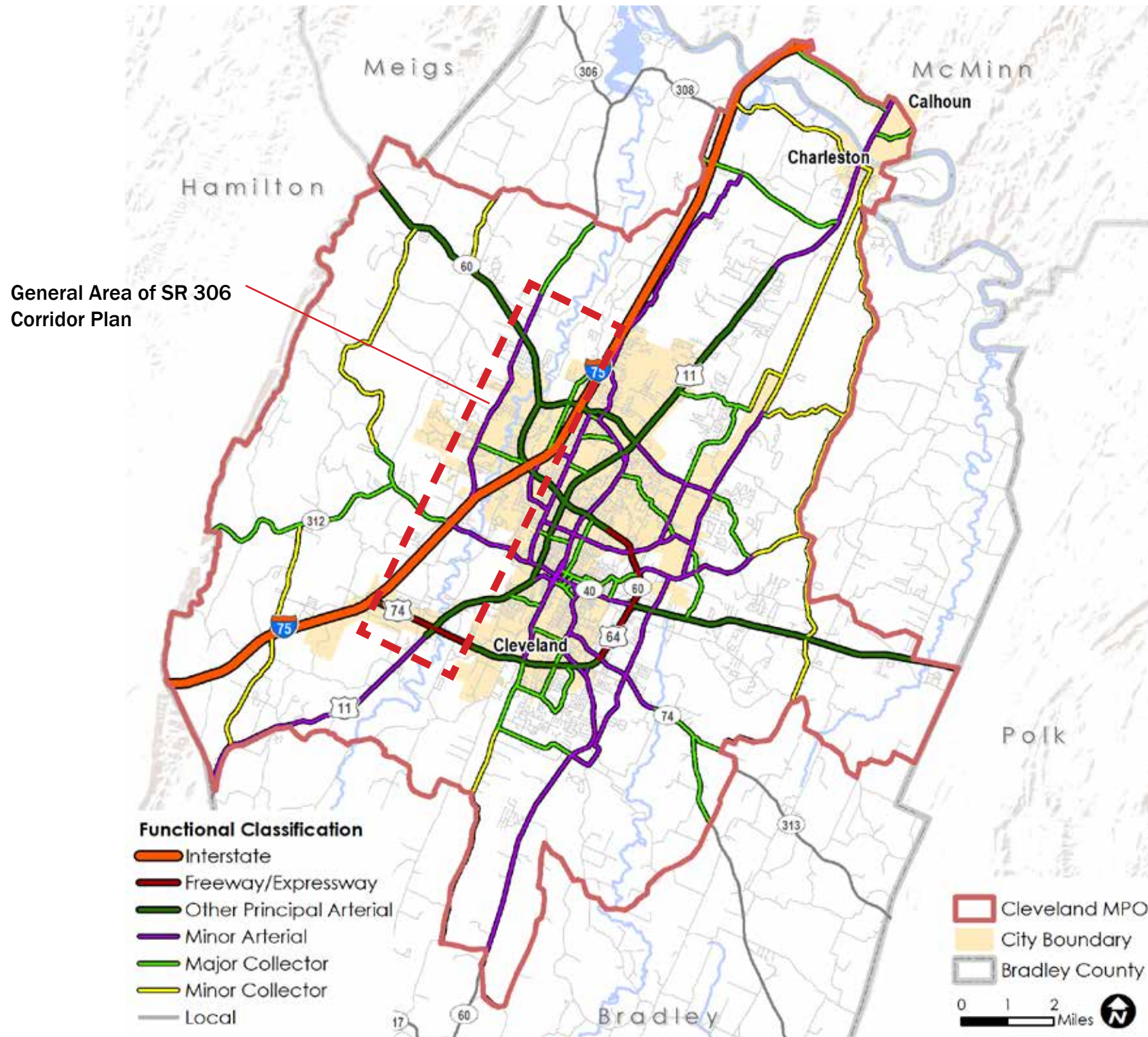


Existing Zoning



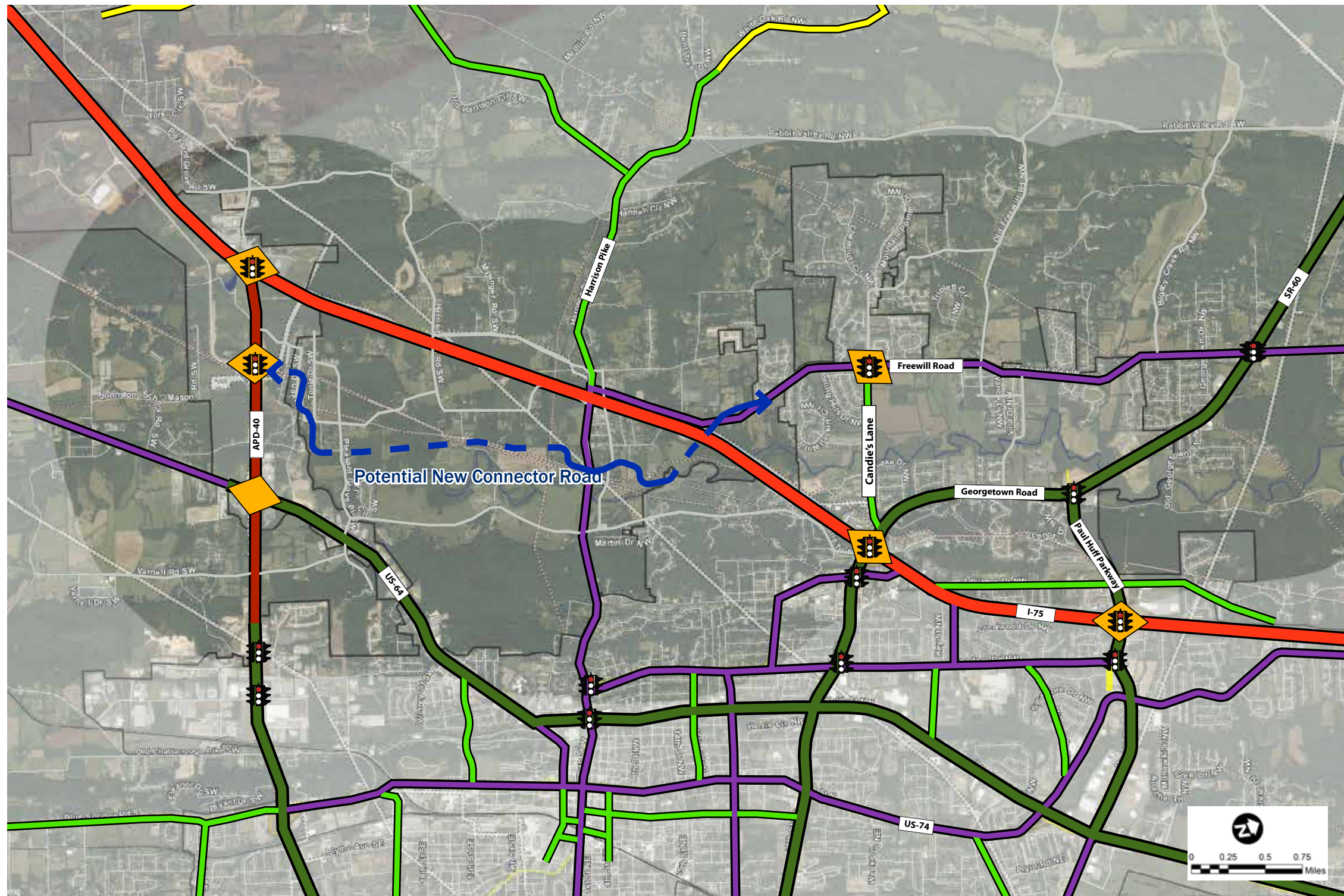
Existing Observations:

- Cleveland and Bradley County continues to see an intensification of use in the corridor
- Transition from FAR to R1, R2, and an increasing number of PUD entitlements
- Need to plan for Neighborhood Commercial services, Recreation, and Connectivity
- Extensive Use of Highway Commercial Zoning along APD-40 and Lee Highway
- Potential for access management issues and traffic congestion dominating impressions of the community
- Generally well planned and executed Industrial areas with good access exist at Spring Branch Industrial Park
- Lack of identified areas in need of preservation of rural residential and agricultural land use patterns
- The study area of the SR 306/Freewill Road Corridor Plan is currently a gap in between surrounding areas of increased land use densities. It has strong potential for significant growth and mixed land use if the city and county desire to establish such a vision.



Overview:

- Since the 2000 US Census, the City of Cleveland and surrounding portions of Bradley County have been identified as a rapidly growing urbanized area
- MPO created in 2003 with a variety of economic development, transportation planning and safety, mobility, environmental, and quality of life goals and objectives
- The MPO provides for short and long-range transportation planning and project coordination as well as data collection, analysis, and interpretation for member and partner organizations
- Since its construction, I-75 has established new access patterns to Cleveland driven by interchange access at APD-40, SR 60, and Paul Huff Parkway
- Growth associated with the economic success and livability of the area has continued to push development west to and past Interstate 75
- SR 306-Freewill Road has long been identified as a key north-south connector west of the interstate that could serve to connect the community and link Principal Arterial routes into the City of Cleveland

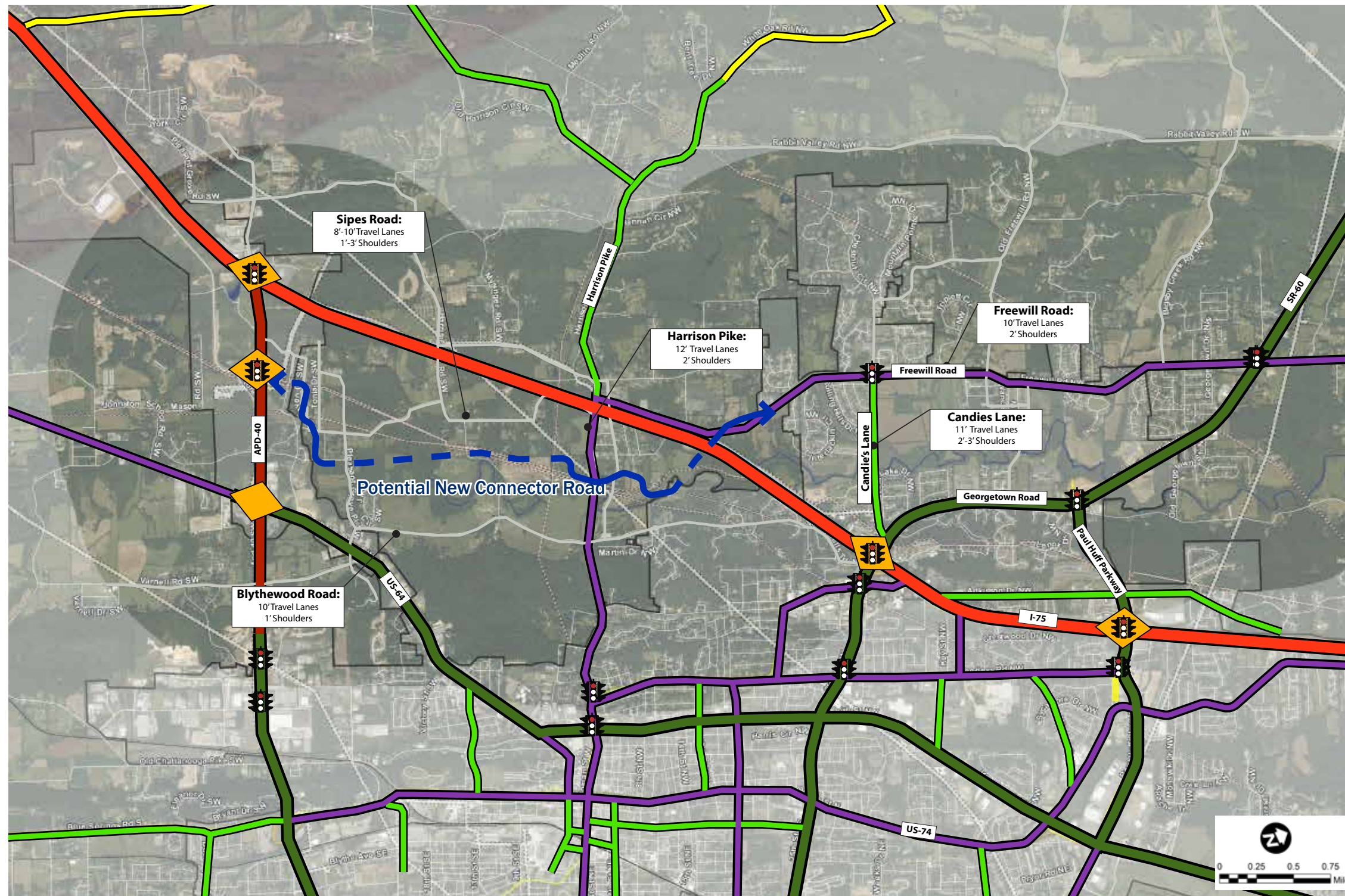


Transportation Observations:

- Within the study area Paul Huff Parkway, SR 60 / Georgetown Road, and APD – 40 provide the most direct and heavily utilized links between Interstate 75 and the City of Cleveland
- Cleveland's core street network is a grid system providing for ease of movement through the city
- Suburban growth at the edge of town and in unincorporated Bradley County has not replicated the grid network found closer to the center of town
- As both residential and commercial development continues to push west, better connectivity is needed to prevent pockets of congestion for motorized vehicles and lack of safe routes and choices for non-motorized travel
- Re-developing SR 306 / Freewill Road from SR 60 all the way to APD-40 with a more urban design standard including multi-modal infrastructure will improve flow and connectivity for daily trips emanating from this growing portion of the community
- Improving SR 306 / Freewill Road to serve as a principal arterial will provide the western spine for a new or extended grid to be established as new entitlements are designed and approved

LEGEND:

- Interstate
- Freeway / Expressway
- Other Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Existing Interchange
- Signalized Interchange, Off Ramp, or Intersection

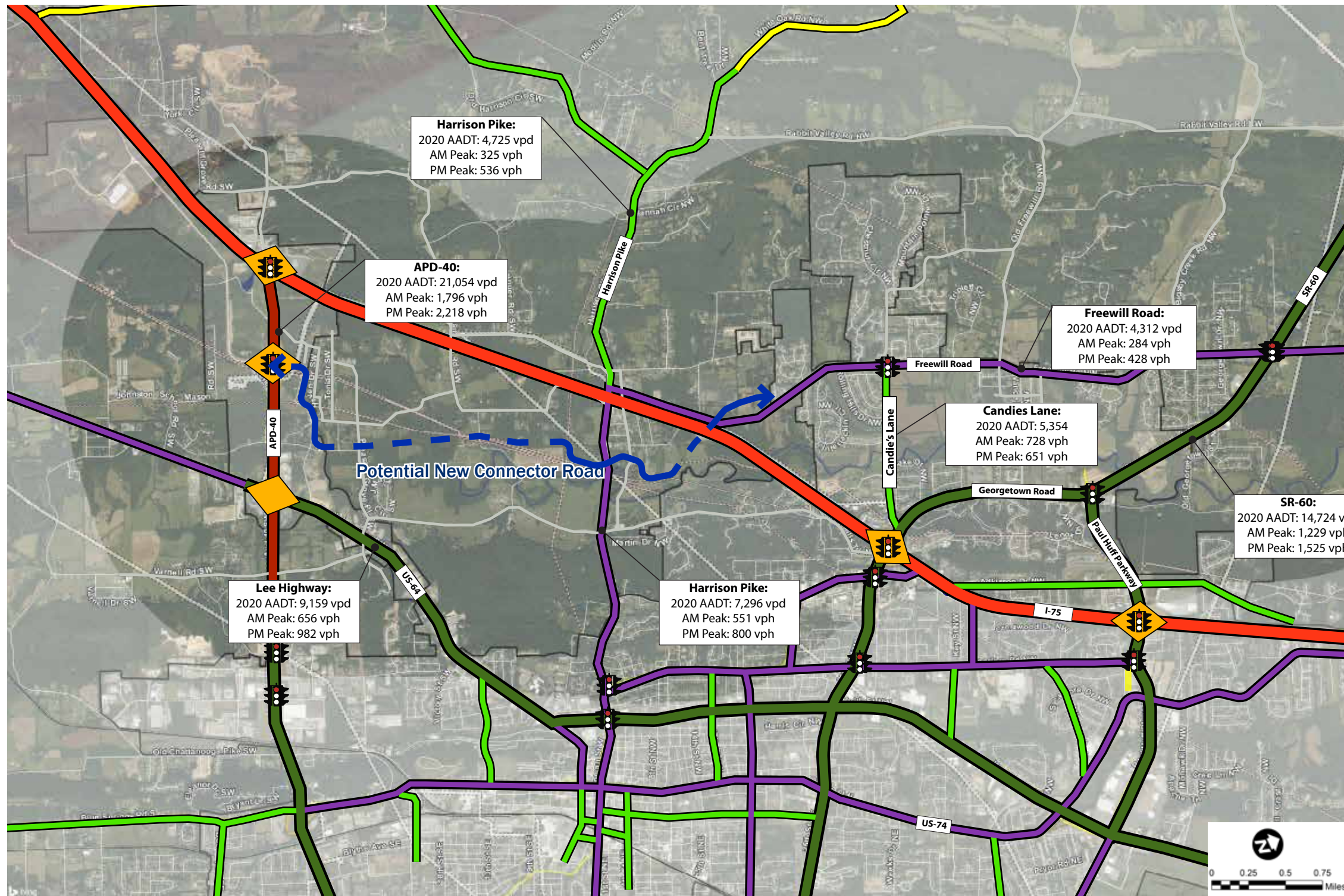


Road Section Observations:

- Many of the roadway sections within the project corridor generally include one travel lane in each direction with narrow shoulders. These sections are typical of roads in rural areas.
- The project corridor consists of a potential parallel route to Interstate 75 on the west side of the City of Cleveland. This parallel route provides local street connectivity between the three (3) interchanges on Interstate 75 within the City of Cleveland.
- North of Harrison Pike, Freewill Road, Candie's Lane, and State Route 60 create a connected network of streets with comparable lane and shoulder widths.
- South of Harrison Pike between Harrison Pike and APD-40, there is not a direct connection in the local street network and the indirect connections that do exist include lane and shoulder widths that are narrower than Harrison Pike and Freewill Road.

LEGEND:

- Interstate
- Freeway / Expressway
- Other Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- ◊ Existing Interchange
- ⓧ Signalized Interchange, Off Ramp, or Intersection



Existing Traffic Volumes Observations:

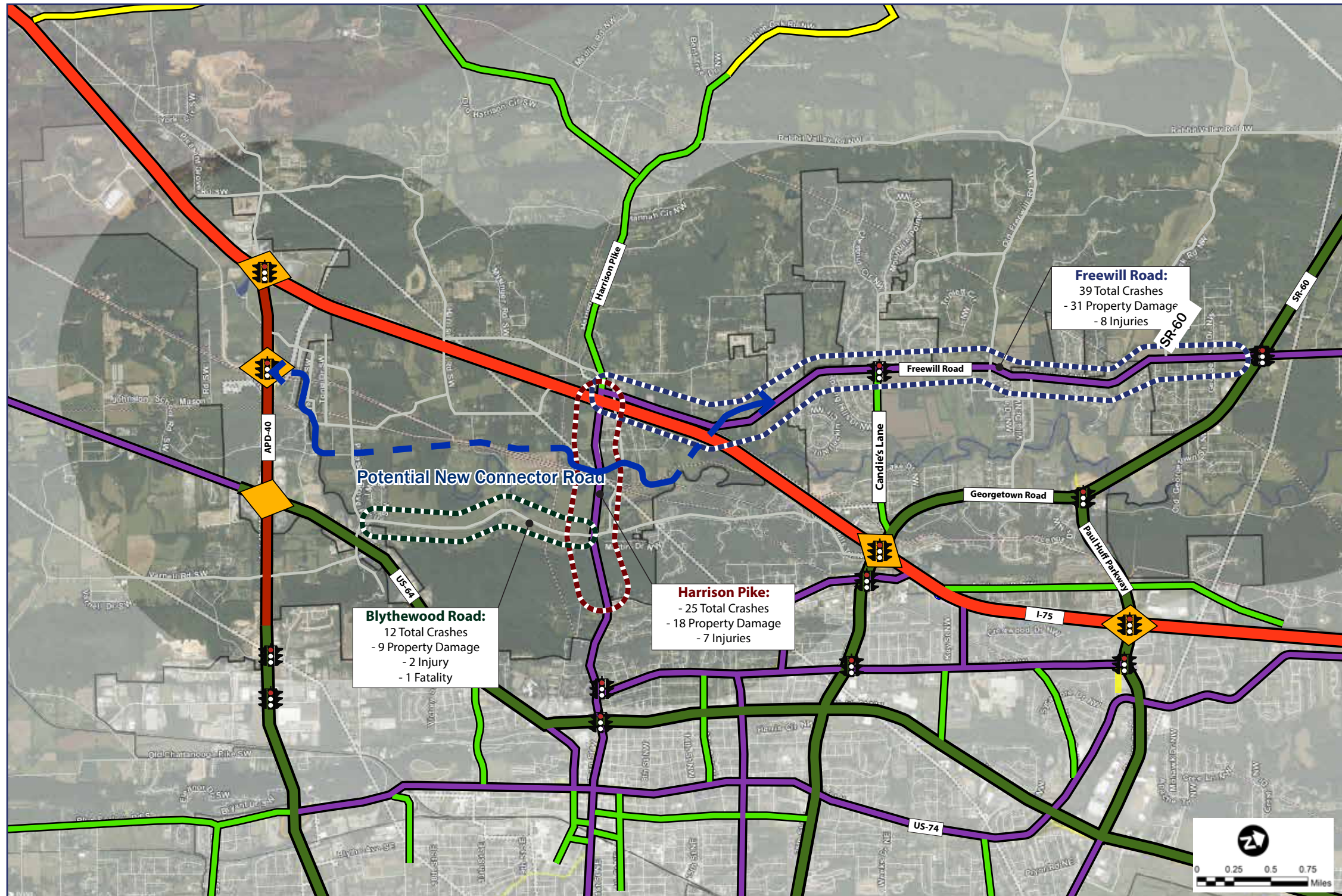
- The average annual daily traffic volumes shown for the project corridor are within normal ranges for arterials and collector streets in rural and suburban areas.
- In rural areas, the daily traffic volume can often be used to estimate the quality of traffic operations. However, in growing communities and areas of emerging development, the portion of traffic that occurs during the peak hour increases and becomes the primary indicator of traffic flow.
- Since the project corridor is parallel to Interstate 75 and close to the City of Cleveland Central Business District, it is likely that traffic operations will be characterized most accurately by the peak hour traffic flow at the intersection of arterial and collector streets.

KEY:

AADT: Annual Average Daily Traffic
 VPD: Vehicles Per Day
 VPH: Vehicles Per Hour
 SR: State Route
 APD: Appalachian Developmental Highway

LEGEND:

- Interstate
- Freeway / Expressway
- Other Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- ◆ Existing Interchange
- ⊠ Signalized Interchange, Off Ramp, or Intersection



Incident Summary/Observations:

Freewill Road

- There have been a total of 39 crashes on Freewill Road in the period from 2019-2021. This number of crashes results in a crash rate approximately 15% lower than the statewide average for roads of the same classification.

Harrison Pike (SR-312)

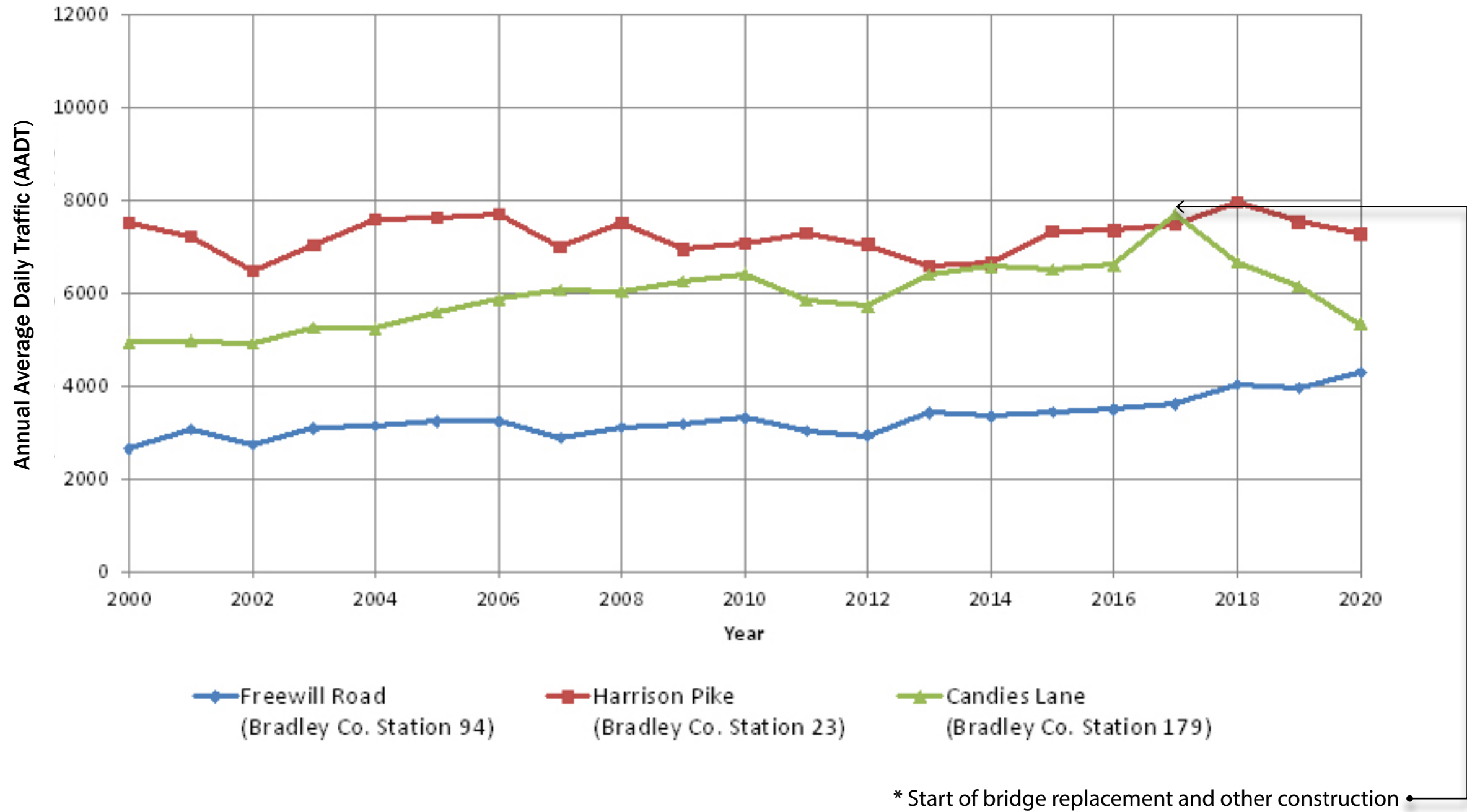
- There have been a total of 25 crashes on Harrison Pike from near Freewill Road to near Blythewood Road in the period from 2019-2021. This number of crashes results in a crash rate approximately 8% lower than the statewide average for roads of the same classification.

Blythewood Road

- There have been a total of 12 crashes on Blythewood Road in the period from 2019-2021. Traffic count data is not available to calculate a crash rate on Blythewood Road but the lower number of crashes could be indicative of lower traffic volumes than on Freewill Road and Harrison Pike. The presence of a fatal crash on Blythewood Road within the past 3 years is notable.

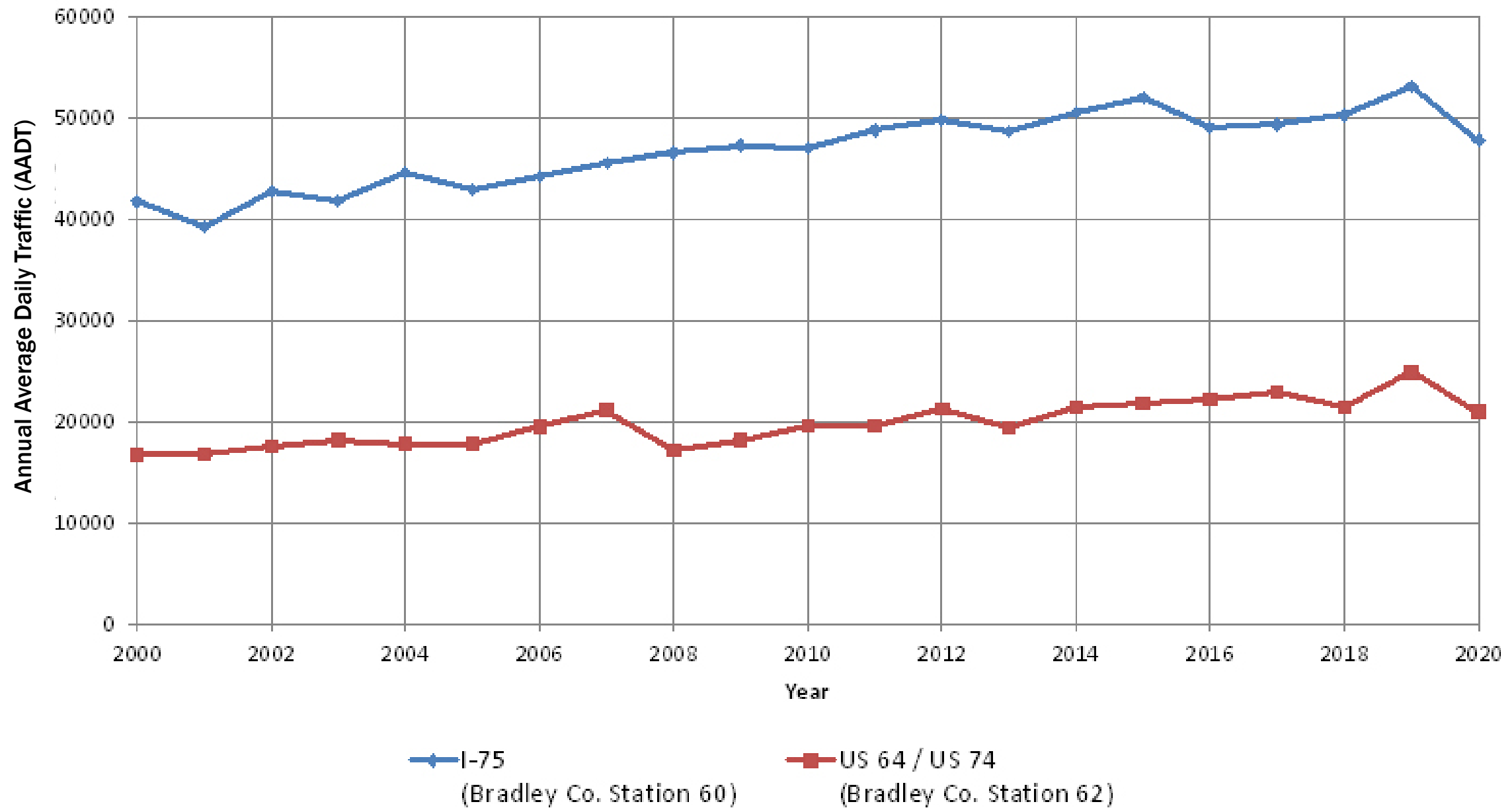


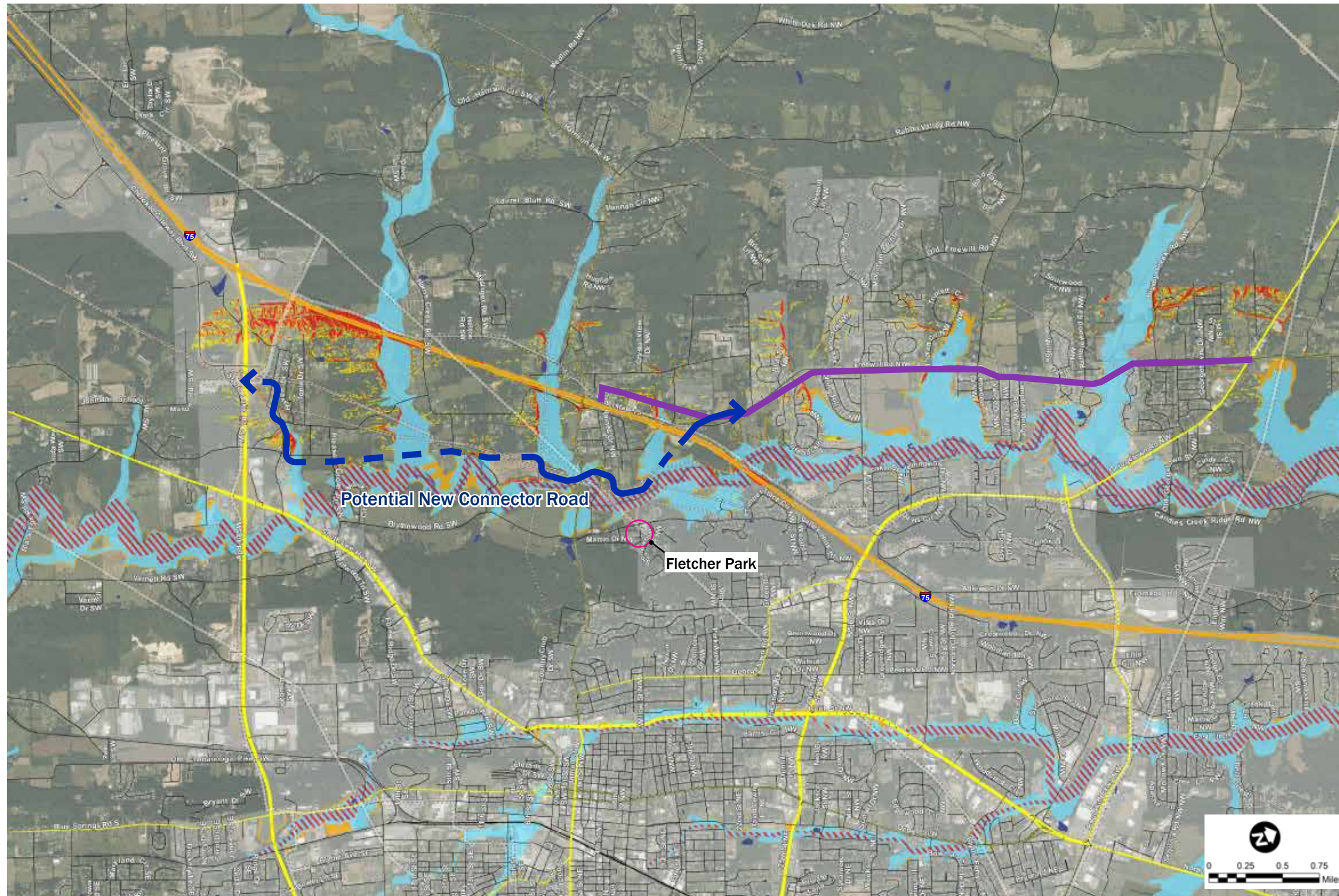
Historical Average Annual Daily Traffic Routes Less than 10,000 Trips per Day





Historical Average Annual Daily Traffic Routes Greater than 10,000 Trips per Day





Natural Resources Observations:

- Candie's Creek and its surrounding watershed is the most significant environmental feature in the study area and provides a critical stormwater collection basin, wildlife habitat, irrigation for heritage farmland, and recreational opportunities
- Candie's Creek and detailed study of hydrological conditions and stormwater management should be a foundational element for the design and approval of any new infrastructure or development in the study area
- Recent changes to traditional weather patterns, including more frequent catastrophic flooding, has demonstrated the need to respect and enhance critical waterways and associated flood plains to create resiliency in developing portions of our communities
- Fletcher Park on the banks of Candie's Creek is one of the community's gems for passive recreation and convening with nature
- Fletcher Park can serve as a hub for future greenway connectivity. Extending a network of conservation space will make this area of Cleveland safer, more resilient, and a more desirable place to live and work

Legend

Waterbodies

- Pond
- Wetlands

Flood Hazard

- 100 Year Flood Zone
- 500 Year Flood Zone
- Floodway

Slope Analysis

- 15 - 20%
- 20 - 25%
- 25% or Greater



Market Analysis* Summary:

- Cleveland has a relatively strong and diverse economy, long led by the manufacturing sector. The Cleveland MSA lost 6.1% of its employment, including 30% of its manufacturing jobs, from 2002 through the national recession of 2008-09. But the Cleveland area has more than recovered those jobs with employment growth of 19% between 2010 and 2018. Despite stagnation in manufacturing employment overall, the Cleveland area has gained manufacturing jobs since 2010. And, while the COVID Pandemic wreaked havoc on employment rates, the Cleveland area has regained most of the jobs lost in 2020.
- The Cleveland industrial real estate market has an estimated inventory of 12.5 million square feet of warehouse, manufacturing, and other industrial space. Vacancy is extremely low, at 1.7%, according to Co*Star. Even so, the market has had negative industrial absorption in three of the last five quarters despite expanding warehouse and distribution demand nationwide. Some of this negative absorption related to a dearth of new industrial building space available for accommodating expansions and attracting new companies. Rental rates have increased dramatically in the last few quarters, again relating both to a spike in demand coupled with a dearth in supply. Nevertheless, Cleveland's industrial rates remain competitive in comparison to both Chattanooga and nearby Dalton, Georgia.
- The Cleveland MSA is projected to add industrial employment generating demand for about 675,000 to 700,000 square feet of industrial space by 2030, or about 75,000 square feet per year. Historic absorption trends indicate annual absorption of about 60,000 square feet per year, so likely demand will average 60,000 to 75,000 square feet per year through 2030.
- This projected demand does not include large, anchor "drop-in" uses that fall outside of normal market conditions and often result from regional or State marketing such as the Volkswagen plant in Chattanooga or the huge Ford complex planned for the Memphis Area Mega-site. The Mega-site took many years of marketing and huge public investments in order to secure the proposed 5,400-job Ford facility.

* See Appendix A for full market analysis

- Local and State government have invested in development and marketing of the new 330-acre Spring Branch Industrial Park, located just across US Highway 74 from the SR306 Corridor site. Spring Branch has only begun to attract private investment, with the construction of a plant for Cannon Automotive Solutions. Including Spring Branch, there are at least an estimated 2,560 acres of industrial land around Cleveland, some of which has infrastructure in place and is ready for development. In addition, while available industrial building space been in short supply, construction is planned on speculative buildings while some existing space will become available soon. Altogether, there is 744,000 to 864,000 square feet of existing or planned industrial building space that may be available in the Cleveland market in the next few years.
- With improvements to the SR-306 corridor, it could provide ready access to I-75, Highway 74, and Cleveland's other industrial areas. The Corridor could also improve access to the labor force in north and east Cleveland. Being located just minutes from the VW plant and growing industries in the Chattanooga region helps promote the viability of Corridor sites for industrial development. With very little industrial building space available in the Cleveland market, there are opportunities for new construction to accommodate growth.
- That being said, a new industrial park in the SR306 corridor would be competing with existing sites at Spring Branch and at other locations around Cleveland, along with planned building space, at least initially. The market analysis indicates that the SR306 Corridor has potential to capture about 200,000 to 260,000 square feet of industrial absorption by 2030 (or 22,000 to 29,000 square feet per year, on average), but most of that activity would only start to occur towards the later part of the decade assuming that demand has taken up most other available serviced land in the Cleveland market by that time. A downturn in the economic cycle is also likely to stall industrial real estate demand, at least for a few years, around that same time.
- Ultimately, phasing and timing will play a critical role in the development of SR306 and determine when it can leverage further industrial development. In the short term, it will be in the City's interests to ensure that existing parks like Spring Branch and other sites with existing infrastructure continue to supply the market before additional land is released. But for longer-term planning, the SR306 Corridor will provide a logical location for industrial expansion in the Cleveland market.



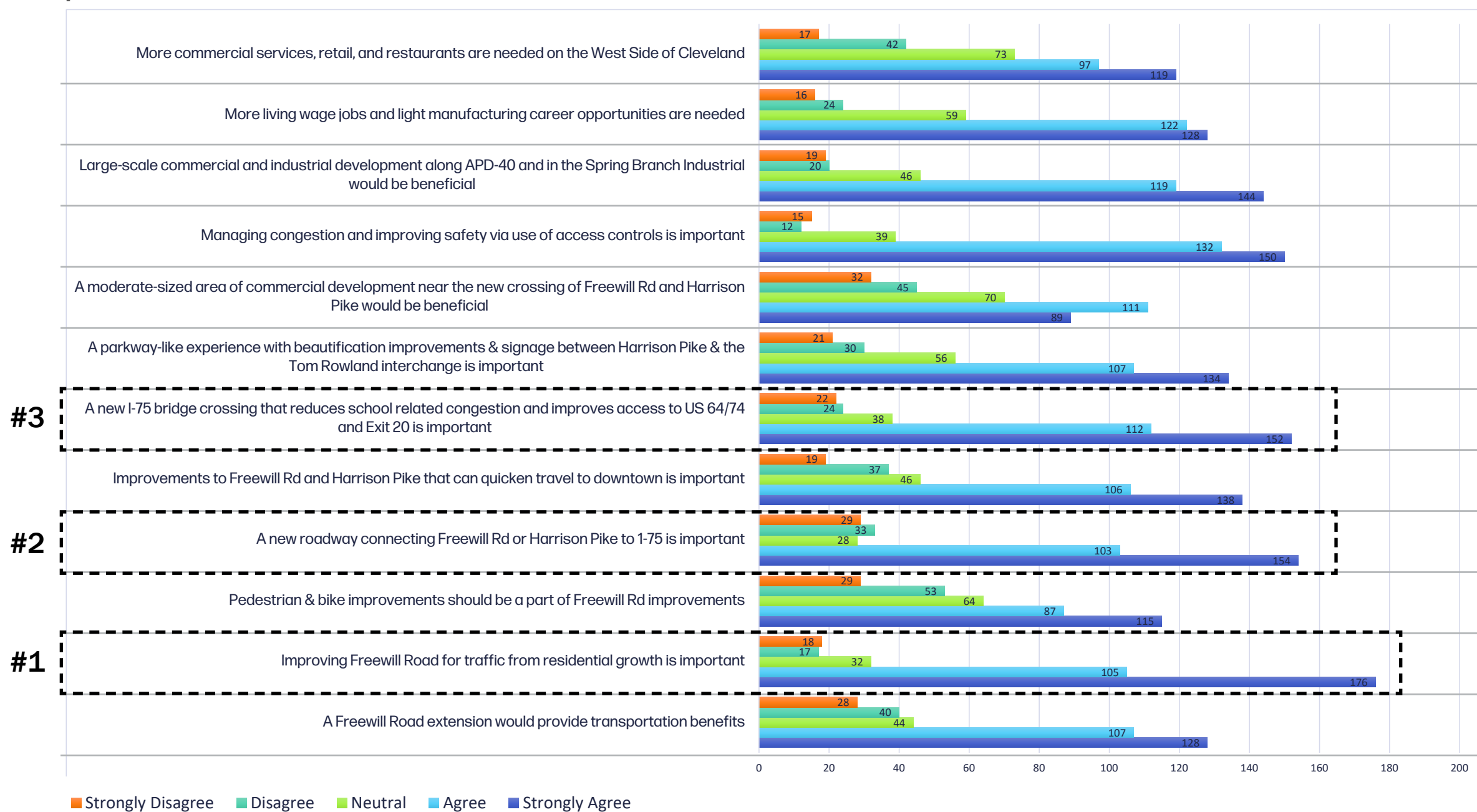
Stakeholder input for the corridor study included a digital online survey. The survey questionnaire was developed and endorsed by city and county leadership to reach constituents with direct links and distribution through internet channels. The survey received strong response that included almost 350 participants. The following is a summation of survey results. (Note: Questions in chart are summarized, complete results can be found in Appendix B)

Top 3 'Strongly Agree' Votes:

#1: Improving Freewill Road for traffic from continued residential growth is important
176 'Strongly Agree' votes

#2: A new roadway that could help drivers get quickly from Freewill Road or Harrison Pike to I-75 Exit 20 would be an important segment for improvement.
154 'Strongly Agree' Votes

#3: A new I-75 bridge crossing that moves the extended Freewill Road further from Prospect Elementary School, reducing school related congestion and improving access east into town and south to US 64/74 and Exit 20 would be an important project goal.
152 'Strongly Agree' Votes'





Open House Community Prioritization Exercise:

The Steering Committee and consultant analyzed nearly three hundred-fifty responses to an online survey gathering general impressions on how respondents across the community utilize the study corridor and would prioritize potential improvements. This information as well as data from the inventory and analysis phase shaped Preliminary Findings and Recommendations that were presented to the public and the Cleveland MPO Board and Technical Steering Committee at a publicly noticed meeting held November 3rd, 2021 in Cleveland City Council Chambers. Twenty-five to thirty residents, land owners, owner representatives, and local officials participated in an exercise encouraging them to prioritize “big ideas” from the Preliminary Findings and Recommendations in each of four functional categories; economic development, land use/community character, transportation/utility infrastructure, and multi-modal connectivity/greenways. Attendees worked individually and collaboratively to identify preferred concepts in each category. The top-rated idea was expanding the Spring Branch Industrial Park (40 pts.), followed by Freewill Road improvements (24 pts.), and two ideas pertaining to the creation of a mixed-use gateway district in the Exit 20/APD-40 area (19 pts.). Rounding out the top five ideas was support for exploring new greenway opportunities in the study area (17 pts.), closely followed by the creation of a new interchange or bridge crossing of I-75 near Harrison Pike to serve the proposed corridor and provide interstate connectivity (14 pts.). The complete results of the exercise are recorded in the Appendix with the five most supported ideas summarized here.





OVERALL MOST SUPPORTED IDEAS:

Recommendation #6

Expand the spring branch industrial park to include approximately 228 acres near the I-75/APD interchange (exit 20).

Recommendation #9

Improve existing Freewill Road from Georgetown Road to Harrison Pike to accommodate existing traffic and future growth. Improvements could include curb and gutter, stormwater control, pedestrian and bicycle provisions, and improved intersections with turning lane and crosswalk opportunities.

Recommendation #2

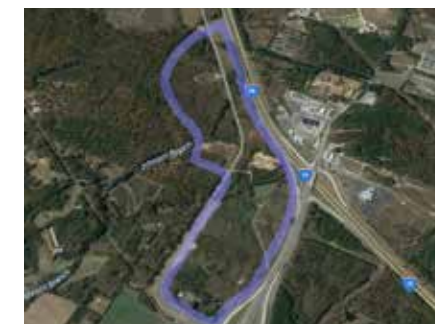
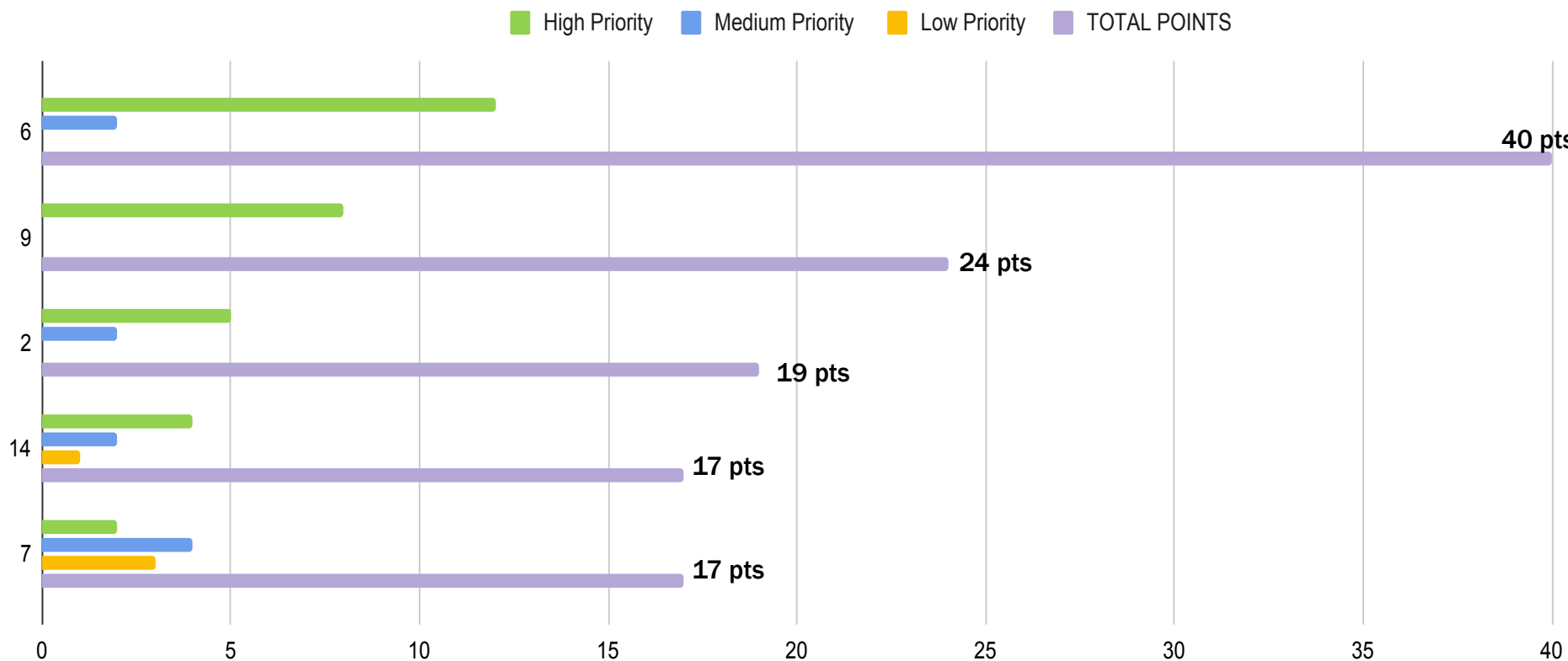
Brand the I-75/APD -40 interchange as a gateway district for Cleveland. This will require major planning and development of a visionary overlay future land use district that includes a new mixed-use zoning classification and an economic development strategy for higher end commercial/office use and high-density residential

Recommendation #14

Extend greenway opportunities through Fletcher Park and Candies Creek and Harris Creek drainageway. Utilize this greenway as a natural conservation zone for health, recreation, and environmental quality.

Recommendation #7

Create a new gateway, mixed-use district between I-75 and 64 (Lee Highway) along the APD expressway. This gateway district would consist of approximately 270 acres with high visibility, multi-level buildings providing a mixture of high end destination retail, lodging and restaurants along with class A office space and high density residential.

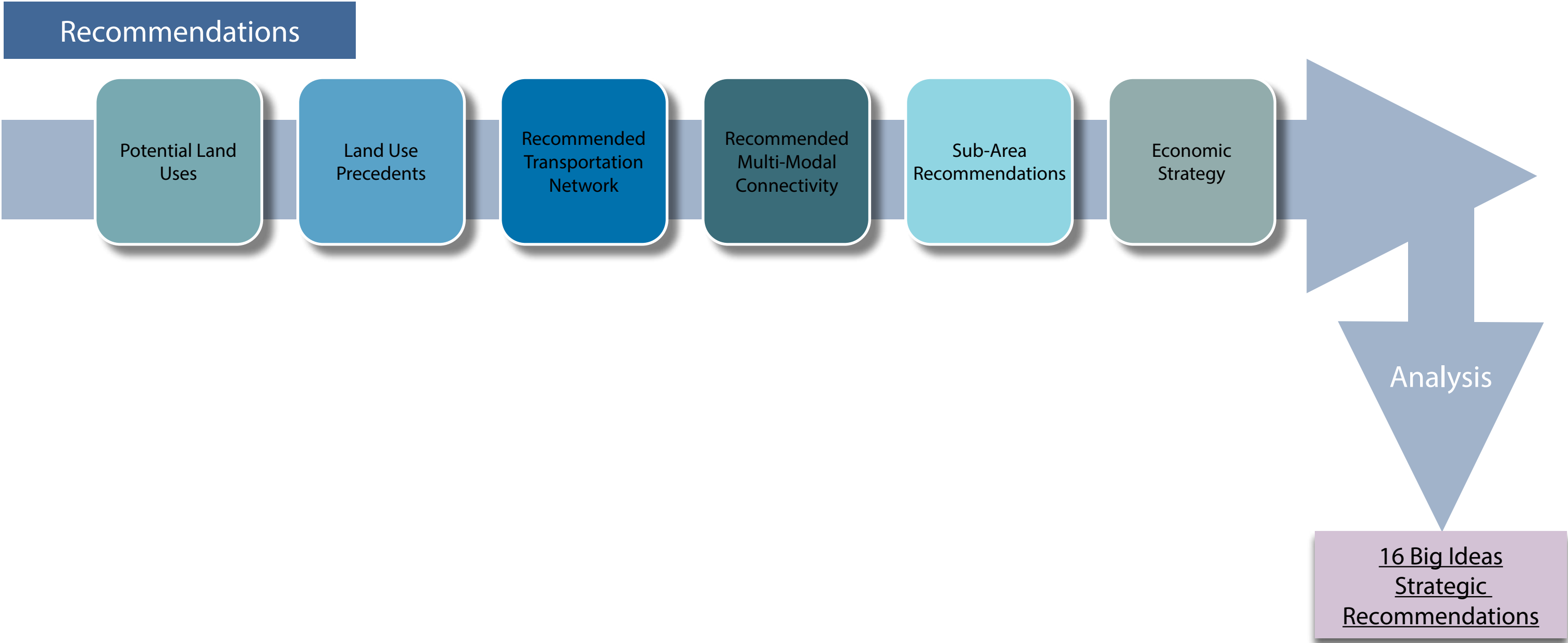


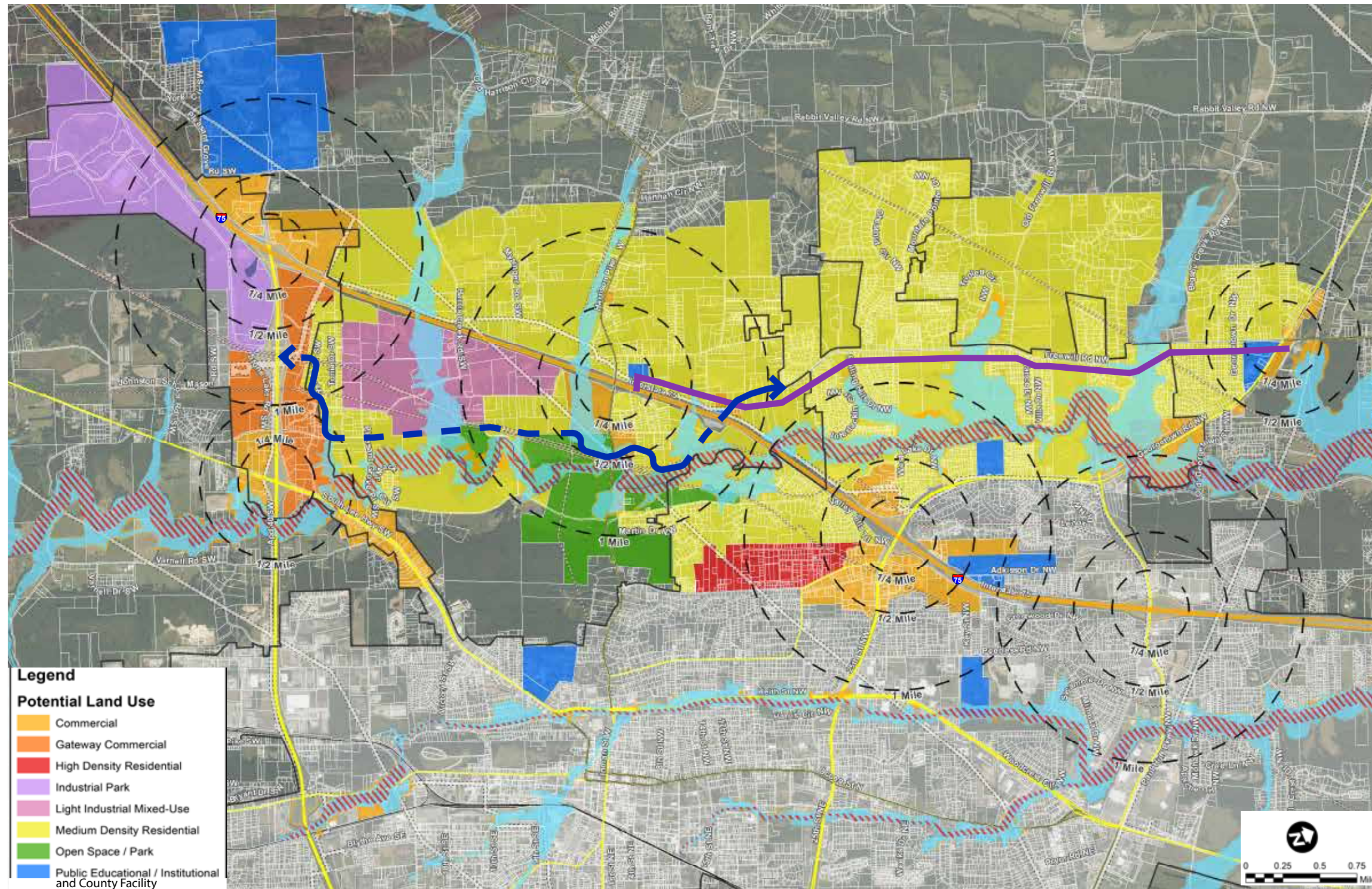


Existing Land Use:	Existing Transportation Network :	Multi-modal Connectivity and Greenways:	Economic Development:
<ul style="list-style-type: none"> • Growth will continue in this corridor given the existing infrastructure and surrounding land use patterns • City of Cleveland and Bradley County leadership recognizes the opportunity to shape a well planned land use vision for this corridor that captures industrial, commercial, and office opportunities in addition to the residential growth that will naturally fill in this area. • This corridor has potential to become part of a planned gateway into Cleveland, especially in connection with the highly visible APD -40 expressway and connection to Chattanooga Commerce and the Ocoee/ Hiwassee recreation areas. • There is a desire and opportunity to preserve natural areas, agricultural heritage sites and recreational land along the eastern edge of the corridor and along existing streams and drainageways. • Land use planning for this corridor should be done in concert with Cleveland's plan to continue development and investment in it's historic downtown core. 	<ul style="list-style-type: none"> • The corridor has strong connections to the interstate at the APD-40 Expressway, SR 60 (Georgetown Road) and Paul Huff Parkway, but lacks connections at the area surrounding Harrison Pike. • TDOT typically requires interstate interchanges with intervals closer than 5 miles to be in urbanized areas. Specific TDOT criteria for interchanges will need to be satisfied. • North-South arterial connectors are currently lacking in the corridor study area. Suburban residential growth and peak volumes from school traffic has increased congestion on the existing arterial road network. A stronger future local road network is needed to accommodate future growth. Now is the time to plan for this network. • Existing Freewill Road traffic volumes are anticipated to continue to increase. This road already serves as one of the few primary North-South connectors in this corridor. Consideration should be given to improve this road with defined curb and gutter edges, storm drainage improvements and multi-modal opportunities for pedestrians and bicycles. • Specific TDOT criteria for any future state route opportunities in this corridor will need to be considered. 	<ul style="list-style-type: none"> • Greenway extensions and connection should be part of the future anticipated transportation network. This should include connections to neighborhoods, schools, parks and places of commerce, and connections to the existing Mouse Creek Greenway. • All future road improvements should consider design opportunities for multi-modal transportation, including improvements to Freewill Road and future road connections • Candies Creek and Fletcher Park are key opportunities for future greenway expansion and natural resource preservation • Greenway and multi-modal community infrastructure makes sense for a community that is promoting recreation, health, commerce and safe routes to schools. This infrastructure is currently lacking in the corridor. 	<ul style="list-style-type: none"> • Manufacturers have been and remain among Cleveland's largest employment base (22% of employment base). • Overall the analysis suggests that the Cleveland MSA will add industrial employment generating demand for about 675,00 to 700,00sf of industrial space by 2030. This net demand will be generated for manufacturing, warehousing, and flex industrial space with the greatest demand being generated by distribution users. • Absorption in the existing Spring Branch Industrial park should factor into timing of any expansion or new industrial development. • The SR 306 corridor area is a logical location for some type of industrial and/or light manufacturing expansion in the Cleveland market, especially because of its excellent transportation access and proximity to the Chattanooga market. • Future industrial park areas do not necessarily need high visibility at interstate interchanges as long as there is a strong truck route connection to major transportation networks. • There is potential to capture a unique blend of mixed-commercial development in the corridor especially at the I-75/APD interchange and western beltway with high visibility and high volumes of commuting and pass through traffic.



SECTION 2 - Strategic Recommendations





Overview:

Future Potential Land Uses have been evaluated on the larger parcels in the study area for:

- Economic Development Potential
- Future impacts on the transportation network
- Areas where existing land uses are likely to continue or grow
- Areas where land uses may change and or intensify

The following potential new land use areas were evaluated with the goal of exploring the economic development potential of the study area and possible benefits of master planning on the future transportation network:

- Future Light Industrial expansion of the Spring Branch Industrial Park area
- A Gateway Mixed-Use Commercial area along APD-40 centered around the Tom Rowland interchange
- A Light Industrial / Mixed-Use area between Harrison Pike and APD-40 along a projected new north-south connector linked to Freewill Road

These potential new land uses form the basis for the economic and market analysis portions of the study.

Existing uses indicated on the map that are projected to remain or expand into adjacent properties include:

- Agriculture, parks, open space, and flood areas
- Medium and low density suburban residential use



Land use typologies are provided to communicate general descriptions of land use on the potential land use map. These are broad categories that describe land use character. They are not rezoning classifications or suggestions that existing land use must change, rather they are projecting ideas that may happen in the future along with changes to the transportation network in the SR 306 / Freewill Road corridor.

High Density Residential:

Consistent with the R-3 zone in the City of Cleveland or the PUD or Cluster Development provisions in Bradley County with higher per acre densities when served by sewer and water utilities. Could consist of a variety of housing types, including single-family, townhouses, duplexes, and apartments in context with adjoining land use and available infrastructure.



Public Education/Institutional:

Site for public or semi-public facilities, including governmental offices, police and fire facilities, hospitals, chamber of commerce, parks, public and private schools.



Medium Density Residential:

Consistent with the R-A and R-1 zones in the City of Cleveland or FAR and R-1 zones in Bradley County; 5-6 lots per acre with standard setbacks when serviced by sewer and water utilities.



Gateway / Commercial:

A new mixed use zone or overlay district allowing for a combination of walk-up restaurant, retail, and entertainment uses, high density residential, hotel/lodging, professional office, and service commercial. Buildings and landscape improvements oriented to create a walkable street scape with street parking and off-street parking behind buildings and landscape buffers.





Industrial Park:

Consistent with the I-1 and I-2 zones in Bradley County or IL and IH zones in Cleveland City, allowing for manufacturing and assembly plants, industrial processing, warehousing, and wholesale distribution.



Open Space/ Park/ Conservation:

Heritage Agricultural Properties, high value forest, wetlands, and habitat areas, parks, greenways, and other critical cultural, recreation, and environmental resources.



Historic Spring House at Fletcher Park



Rural Residential:

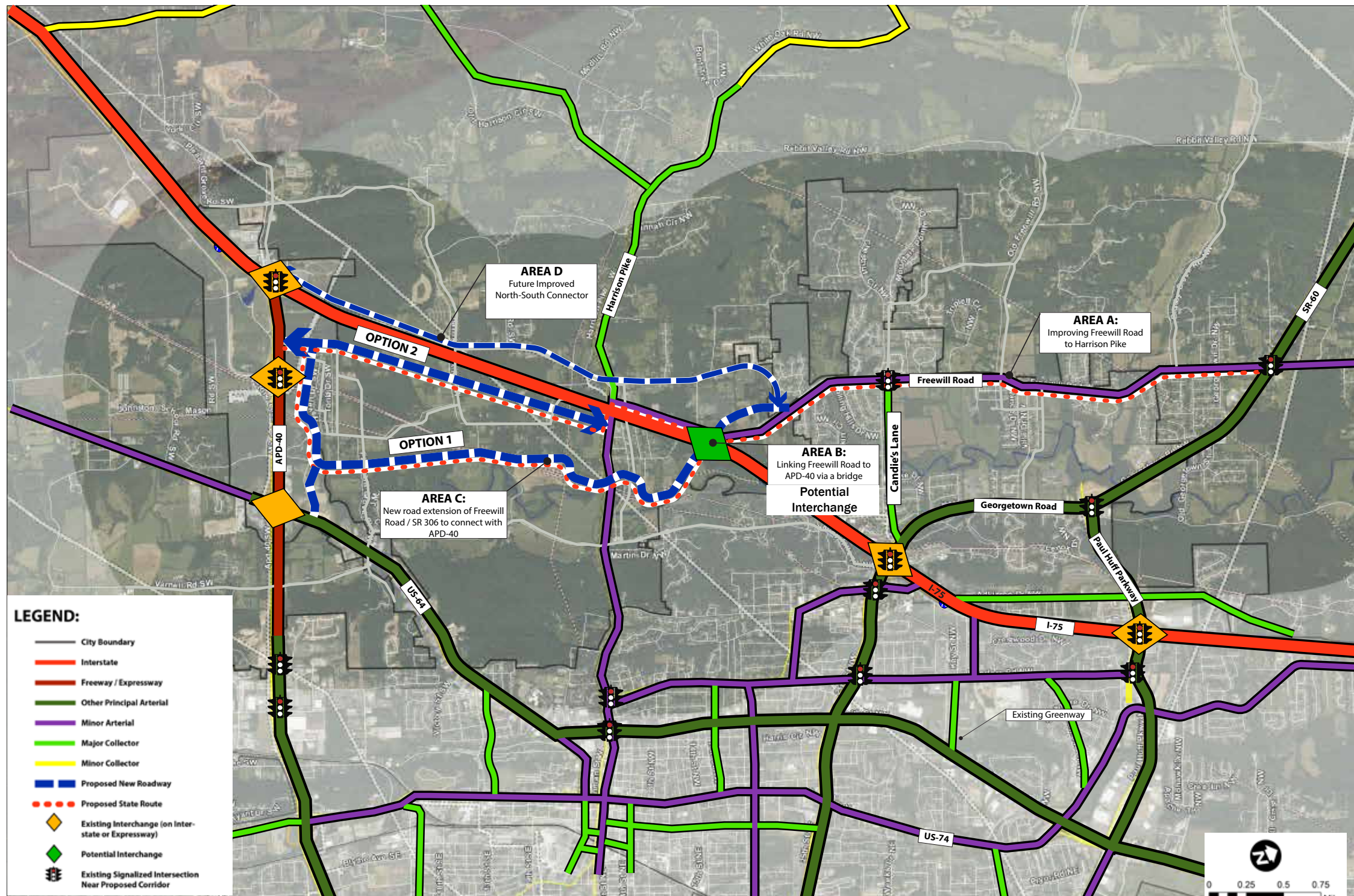
Rural FAR and R-1 Development patterns currently allow for 7500 sq ft lots where sewer and water services is available. Cluster Developments require 20% open space. There is little differentiation between residential zones in Bradley County.



Undeveloped/Agricultural

Preserve legacy farms, provide appropriate zoning for retail sale of agricultural products. Promote ability for commercial sales of agricultural products and experiences (produce stands, u-pick operations, corn mazes, wine tasting and tours, and holiday fairs) to sustain family farms and attract seasonal tourism





Overview:

Area A

- Prioritize access management and connections between developments
- Find area to smooth transitions, add turn pockets, and improve intersection designs
- Develop a comprehensive multi-use mobility plan

Area B

Depicts potential new bridge crossing at a location that could accommodate a future interchange. These improvements would require significant further study including demonstration of compliance with FHWA Access Point Criteria.

Investment in the planning, market analysis, development of new land uses, multi-modal improvements, and improved local road connections are likely a prerequisite to meeting FHWA Access Point criteria and justifying associated costs.

Area C

Two options for a possible alignment of an extension of Freewill Road connecting to the Tom Rowland interchange on APD-40.

The preferred option will need to balance the needs of the local neighborhood with regional economic development and transportation objectives.

Coordinate future site specific land use and transportation plans and include multi-use and multi-modal components in consideration of both options.

Area D

Depicts a third alternative route for a connection between APD-40 and Freewill Road reflecting public input.

This option utilizes portions of existing Harris Creek Trail and a section of new road construction crossing Harris Creek to connect with Village Boulevard near Toyota of Cleveland.

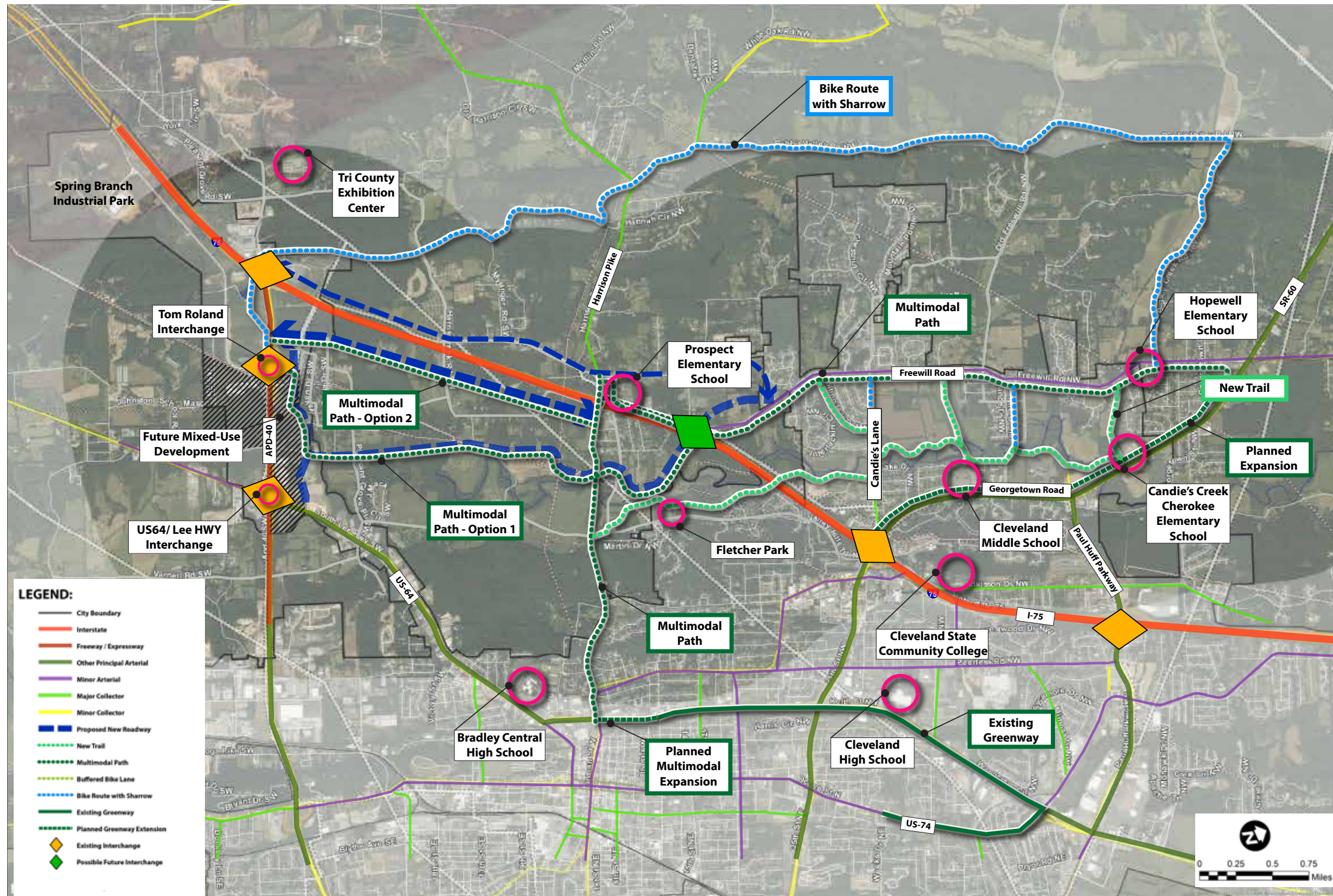
Potential advantages include: timing, ROW acquisition, bear term economic development potential.

This alternative would not provide access to commercial development that will occur on APD-40 at the Tom Rowland interchange.



Potential Improvements:



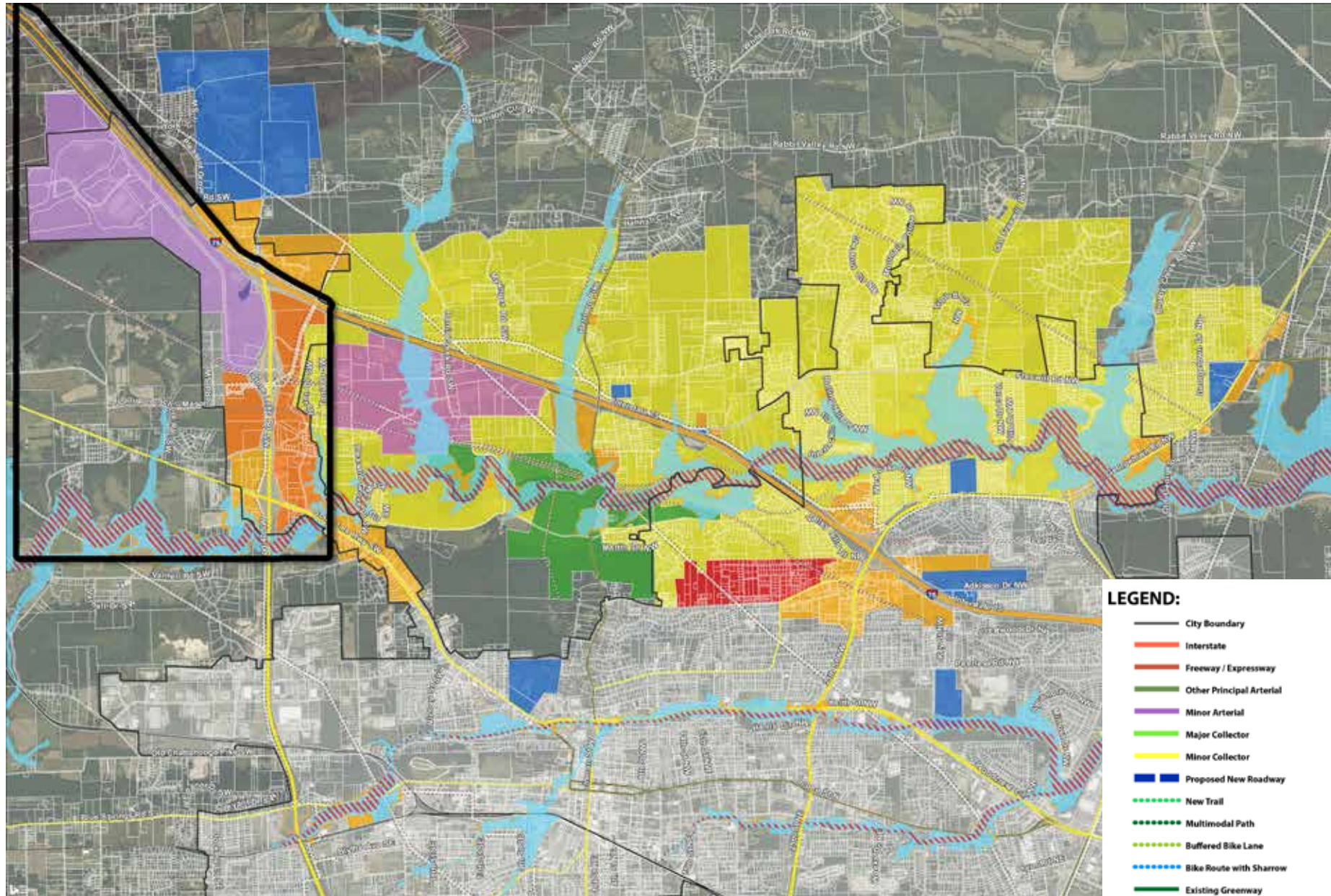


Overview:

- The proposed road network improvements can catalyze connectivity in the study area while improving community mobility for people and freight, through a road network with strategically connected nodes serving vehicular pedestrian, bicycle, and possibly even transit users.
- The study area for the corridor includes Candie's Creek, Fletcher Park, no fewer than four public schools, and a critical mass of additional institutional and recreational resources. Most or all would be connected by the proposed system of new Greenways, multi-use paths, and neighborhood connectors.
- As the road network is upgraded along the corridor, a Multi-use path should be established, providing a complimentary spine for pedestrians and cyclists to move freely through this growing portion of the community.
- Consistent with the community's existing Bike/Walk Cleveland planning documents, a new greenway should be established along Candie's Creek, putting Cleveland permanently on the map as a city that prioritizes multi-use mobility, quality of life, and a prime recreational destination.
- Building another multi-use path segment along SR 312 / Harrison Pike combined with already planned improvements along SR 60 / Georgetown Road would position the west side of Cleveland as having well connected and livable neighborhoods. Designate additional east-west bike and pedestrian connections from neighborhoods to the existing and proposed Greenways in a comprehensive plan for striping, paving, sidewalks, and soft surface trails connecting Freewill Road and SR 60 / Georgetown Road.
- Equal attention to multi-use community infrastructure makes sense for a community that is already a recreational gateway to the Cherokee National Forest. Linking new Gateway Commercial, Mixed-Use Industrial, and Neighborhood Commercial land use nodes with integrated multi-use design will enhance chances for successful mixed-use development and transit-oriented design.



Context Map



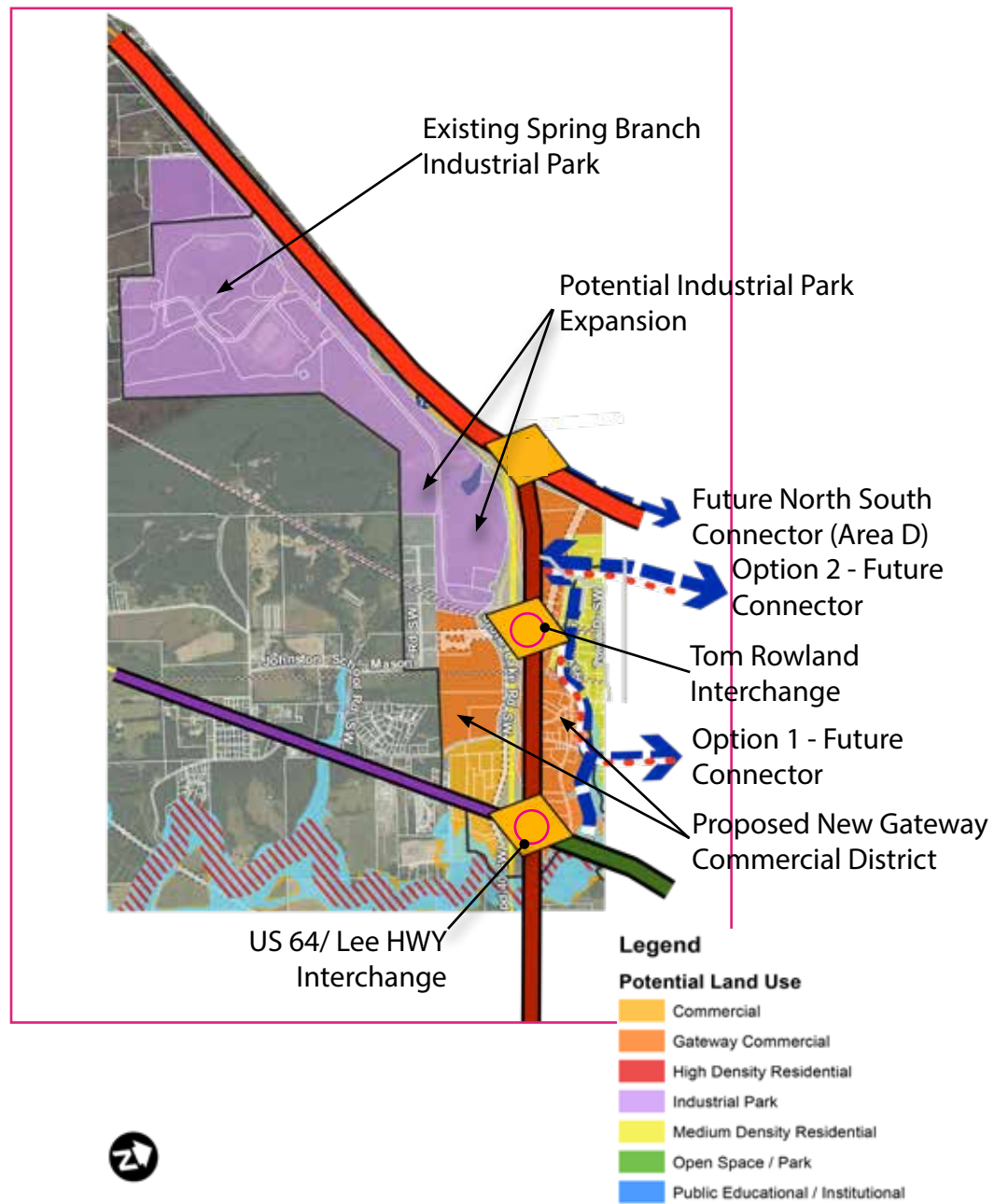
Spring Branch Segment:

Character Area One is a rapidly changing area at the interface of Cleveland and Bradley County. It is bounded by Interstate 75 to the west, Lee Highway to the East, Spring Branch Industrial Park at the southern edge, and extends just north of APD-40 and the Tom Rowland Interchange. The City of Cleveland municipal boundary extends south along Spring Branch Road to include the recently created Spring Branch Industrial Park. This center for light industrial and manufacturing uses is being actively marketed to potential tenants and is less than a quarter occupied. As the park fills over time, a series of parcels extending north from the industrial park along Spring Branch Road could provide for logical expansion of light industrial employment base. Depending on market velocity and absorption at Spring Branch Industrial Park, this Character Area could provide several decades of growth in the industrial and manufacturing employment base.

This area's ease of access to the regional and national highway system (APD-40 and I-75) and its location as a Gateway to the City of Cleveland and the Tanasi / Cherokee National Forest are the two strongest and at times competing influences on land use. Most of the highway frontage on both APD-40 and Lee Highway is zoned Highway Commercial. Traffic Data shows a steady linear increase on APD-40 and Lee Highway in this area. Highway-oriented strip commercial uses already dominate the interchange at APD-40 and Lee Highway. Establishing a Gateway Mixed-Use Commercial Zone or Overlay District with defined block patterns and preferred uses and parcel boundaries would provide a wide array of community benefits including a more predictable traffic pattern and utility demand. A more aesthetic and walkable entry to the Cleveland Area: opportunities to develop a gridded street pattern, and a neighborhood feel with synergies between hotel/lodging, restaurant, retail, and higher density residential uses. In the regional context, this Character Area will remain a transitional neighborhood from the intensity of use in the APD-40 corridor to the rural residential and rolling farmland of southern Bradley County.



Area 1 Enlargement:



Precedent Images



Woodstock, GA - Gateway Commercial

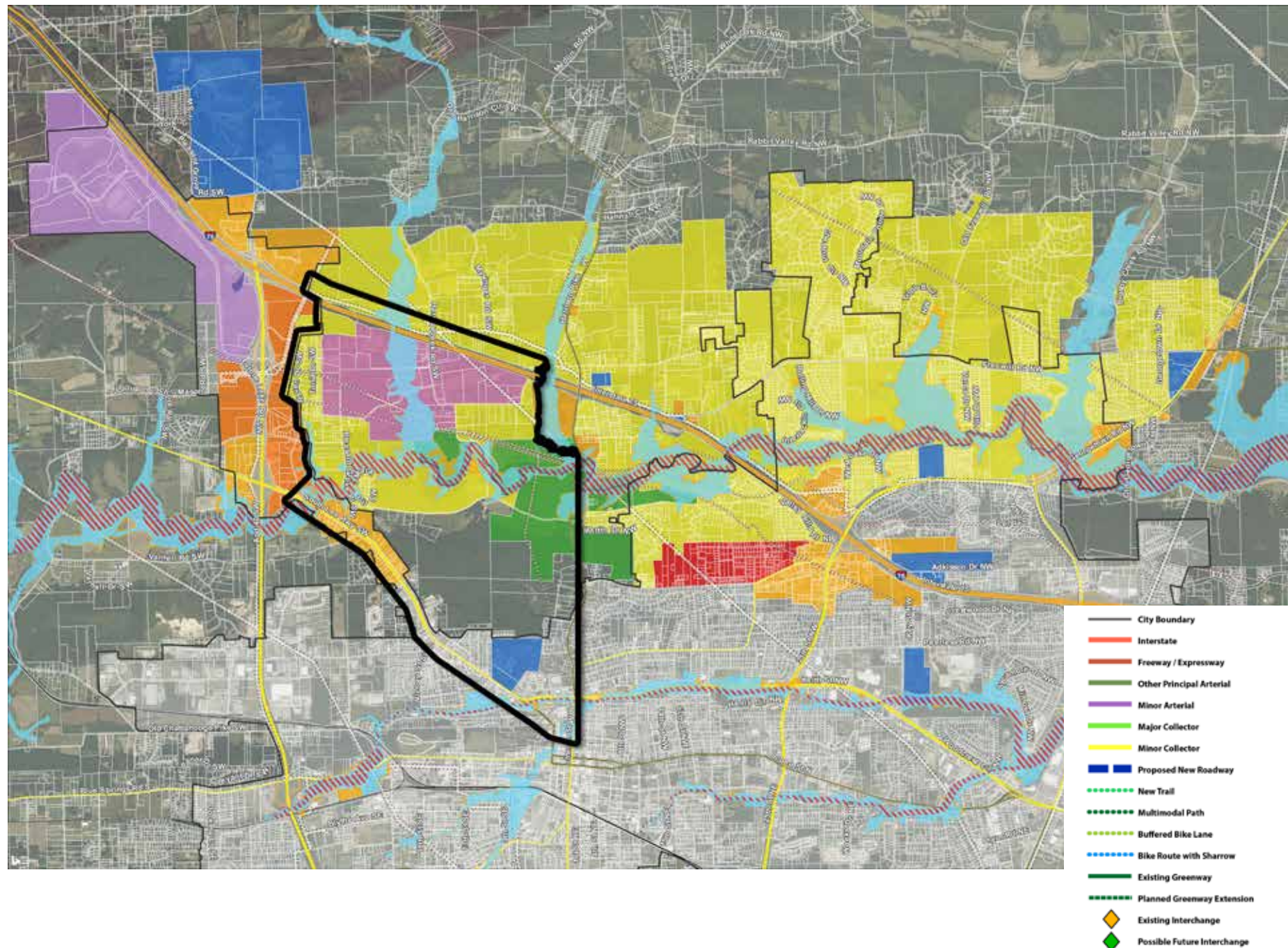


Murfreesboro, TN - Gateway Commercial





Context Map



Harrison Pike South

Character Area 2 is a rapidly changing area at the interface of Cleveland and Bradley County. It is bounded by Interstate 75 to the west, Lee Highway to the East, Harrison Pike to the north, and APD-40 at the southern edge. Historically this area has been a rural buffer area to the City of Cleveland that has been anchored by the Blythewood Farm, Candies Creek, and other agricultural and rural residential uses. This agricultural legacy is proudly recognized in the Bradley County Comprehensive Plan and should be preserved with support from the community as long as the landowners desire. Today, the expansion of commercial uses along Lee Highway, the construction of APD-40 and the Tom Rowland Interchange, and proximity to exit 20 from Interstate 75 have become defining features that will impact future development in this area. Most of the highway frontage on both APD-40 and Lee Highway is zoned Highway Commercial. Traffic Data from TDOT indicates 20,000 trips per day on APD-40 and 9,159 trips per day on Lee Highway in this area. Highway-oriented strip commercial uses already dominate this stretch of Lee Highway.

A Light Industrial Mixed-Use Zone bordering the west frontage of a potential new connector road could provide opportunities for easily accessed Light Industrial, Retail Warehousing, Service Commercial, Office, and Higher Density Housing uses to co-locate. This sub-area could provide a platform for future job creation and economic growth with attainable housing built into the neighborhood.

Future growth along Lee Highway should be planned with the understanding that this route functions as a primary southern gateway into downtown Cleveland.

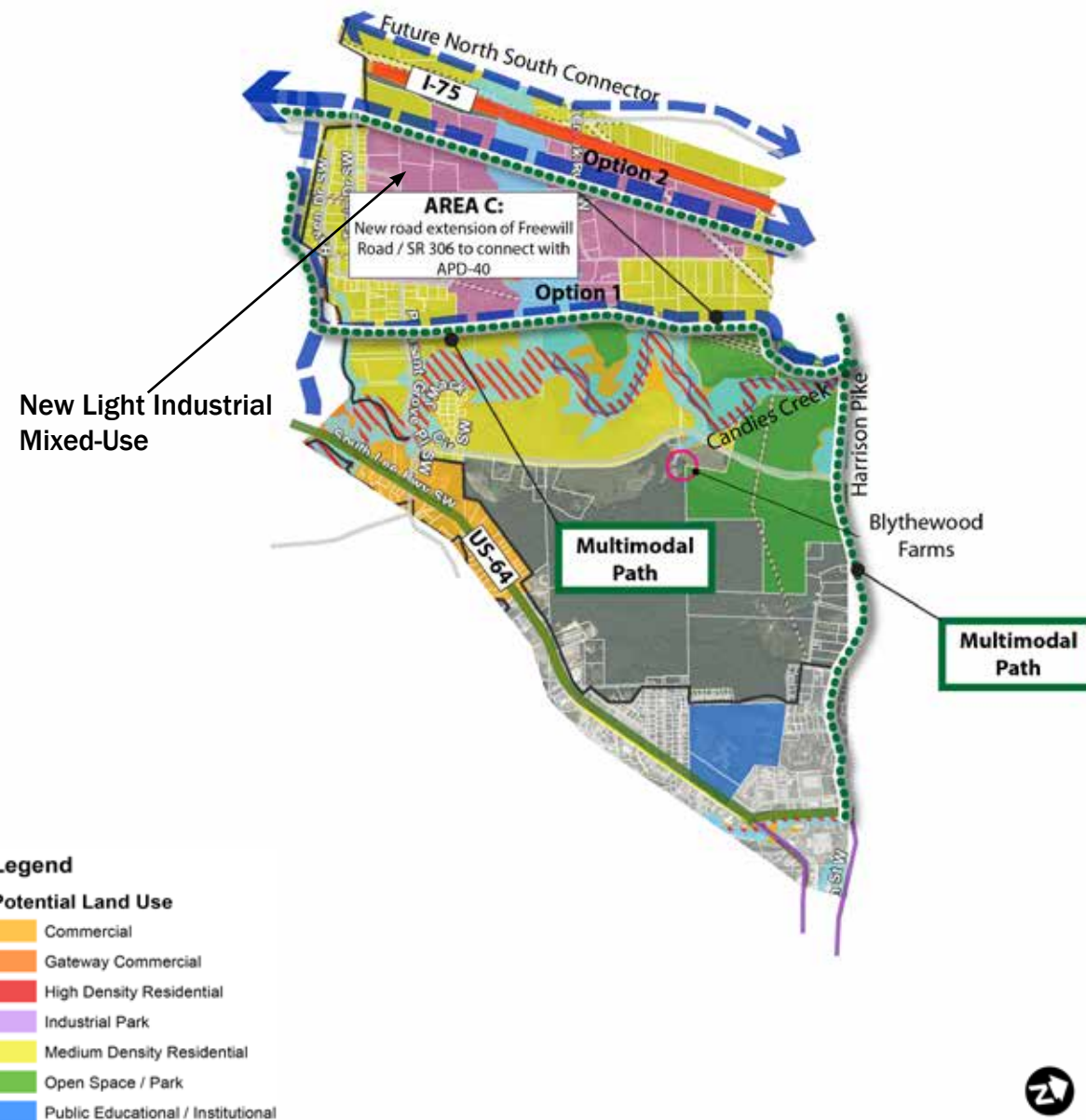


Area 2 Enlargement:

Innovation Village in Harrisonburg, VA and the Camp Hall Village Center Industrial Park outside Charleston, SC provide recently developed examples of the benefits that can be realized by incorporating mixed use into industrial developments.

By co-locating industrial and office-based employment with housing, food and entertainment, and support commercial services (daycare, medical office, grocery, etc), communities are more attractive to potential employers can fill gaps in their housing market and preserve flexibility to adapt to changing community needs and market dynamics over time. As an additional benefit, working towards a master plan adds predictability to utility demand, access design and traffic projections, and other infrastructure requirements.

Farming, conservation, recreation, and rural residential uses are a logical buffer to Candies Creek along Blythewood Road. These uses will help preserve the area's legacy, and resiliency as more intense uses are developed. The flood plains along Candies Creek are not a good place for more intense commercial and residential development. However, they provide valuable land for farming, recreation, non-vehicular transportation connections, stormwater management, and other uses that can be designed appropriately to accommodate periodic flooding.



New Light Industrial Mixed-Use

Precedent Images:



Light Industrial Mixed-Use Concept - Innovation Village, Harrisonburg, VA



Legacy Agriculture - Blythewood Farm



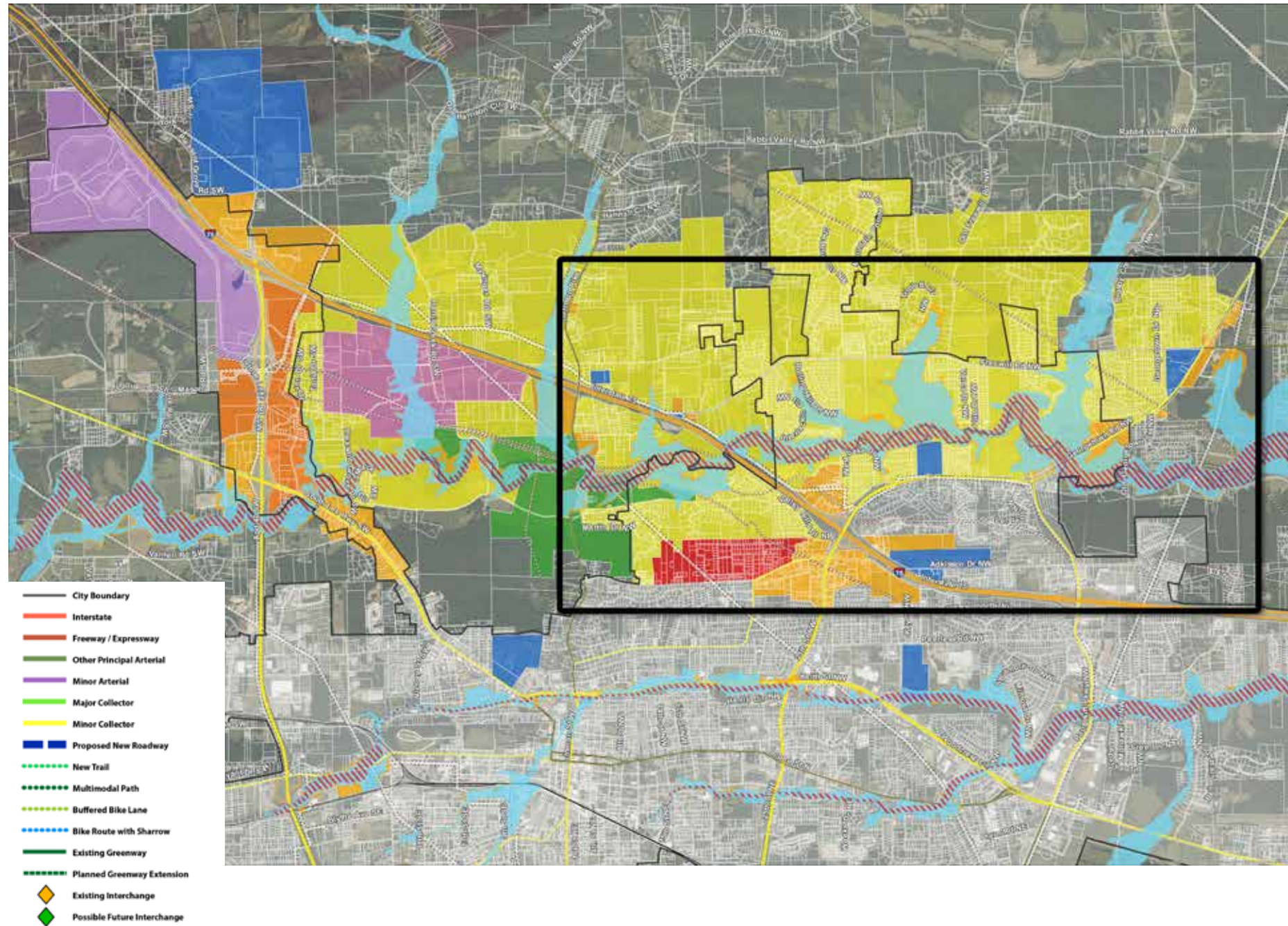
Light Industrial Mixed-Use Site Plan (Innovation Village)



Integration of storm water management, floodway protection, and recreation / greenway improvements.



Context Map



Freewill Road

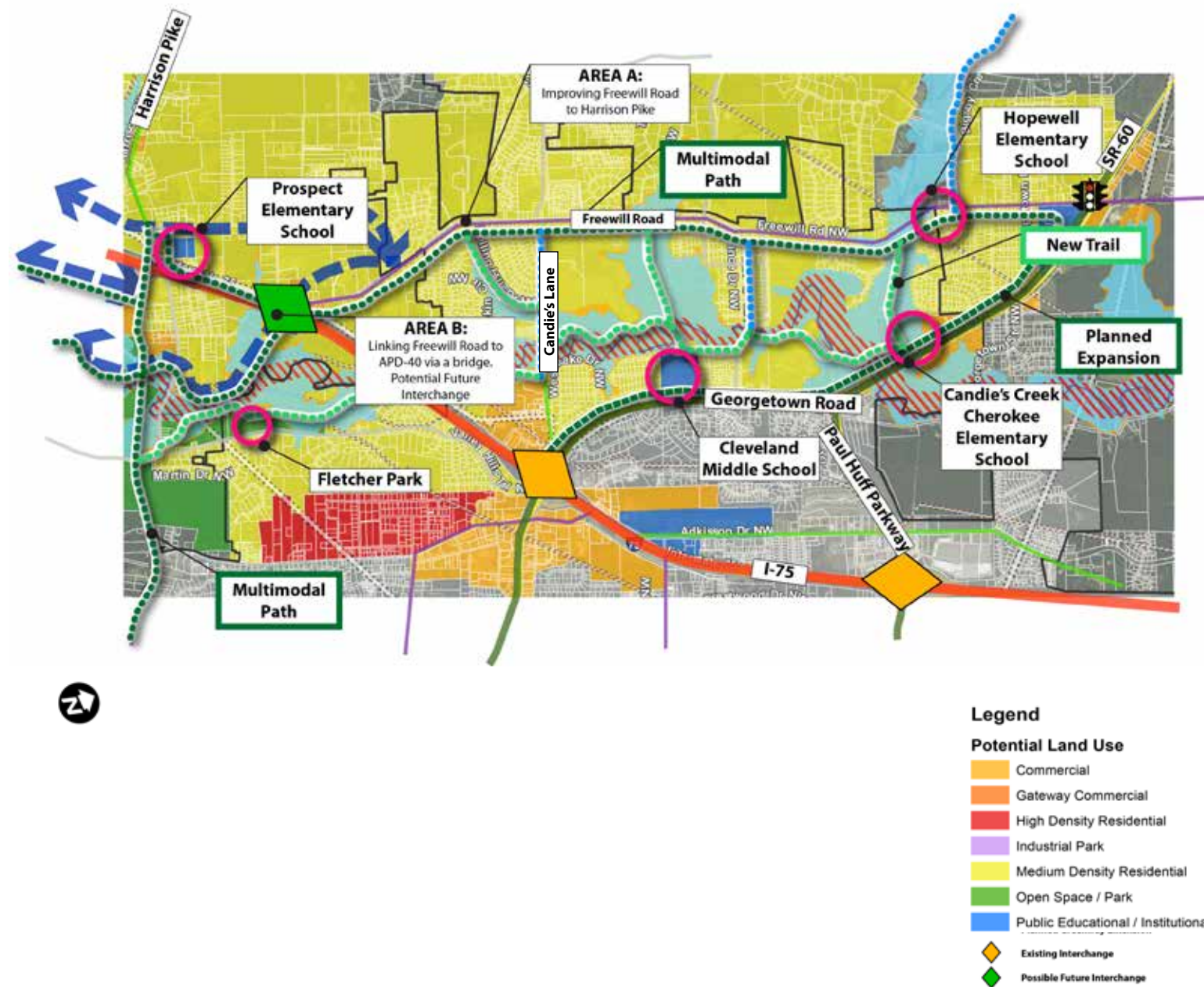
This existing section of Freewill Road extending north from Harrison Pike to SR 60 is lined with low-density rural properties and suburban neighborhoods. It is bookended by two popular elementary schools (Prospect and Hopewell). Two more schools, Candies Creek Elementary and Cleveland Middle School are proximate enough to influence traffic patterns and strategic decision-making for the corridor. Candies Creek parallels Freewill Road for the entire corridor, and flood areas emanating from the creek intersect the road in low-lying areas.

The emphasis for Area A will be to improve the road design and construction to provide better traffic efficiency, safety controls, stormwater management, and multimodal transportation options. The emphasis for Area B is focused on an additional bridge crossing to better connect the East and West side of the corridor. Community leaders would also like the planning and design of this segment to anticipate incorporating a new I-75 exit and interchange.

Existing intersections at SR 60 (to the north) and Harrison Pike / SR 312 (to the south) cap the two ends of Character Area 3. SR 312 / Harrison Pike and SR 60 already carry significant traffic volumes into town as these routes are essential east-west arterials. The critical opportunities for this Study Area include planning for future transportation network that adequately anticipates existing and projected suburban growth. This planned infrastructure can dramatically improve mobility, health and economic outcomes, and the quality of life for residents in this transitioning residential area.



Area 3 Enlargement:



Precedent Images



Parkway landscape islands with integrated storm water quality controls.



Conservation Subdivision and Access Management



Typical Road Section with pedestrian pathway, landscape enhancement, and integrated storm water management.



Typical Road Section with protected bike and pedestrian pathways and, intentional signage and lighting design.



Strategic Recommendations:

Several recommendations are made for marketing and development of the SR 306 study area based on the findings of the industrial market analysis as well as the commercial opportunities assessment.

Industrial Park Extension And Phasing

The City and County have invested in development of the new Spring Branch Industrial Park. It is strongly recommended that phasing of any industrial development in the study area allow for at least 50% completion of Spring Branch. Thus, at an FAR of 0.2 and average annual absorption of 75,000 square feet, 50% of Spring Branch's 160 remaining developable acres would require another nine (+/-9) years of absorption before new industrial land should come online. It would be logical that the grant funding process, infrastructure construction, approvals process, and marketing period would likely require six to eight years anyway. So a nine-year start seems reasonable. If absorption at Spring Branch accelerates, then opportunities along SR 306 will increase.

It is therefore recommended that portions of the study area be provided with truck access to the I-75 interchange (not necessarily adjacent to it) and set aside as a growth "extension" of the Spring Branch industrial park for long-term industrial development. As with Spring Branch, it is also recommended that speculative industrial space be developed as part of marketing efforts in order to accommodate companies that are looking for existing "move-in" space. Given that the market is favoring growth in both the transportation equipment and distribution sectors, marketing would be oriented to providing land and space to accommodate ease of access and ample truck parking. Locations should be considered that would not generate undue truck traffic pressures on local residential roads.

Interchange Identity Marketing

The I-75 interchange offers short-term opportunities for high-exposure commercial development. But this interchange also forms a "gateway" into Cleveland from Chattanooga, so the identity that it projects is important to establishing a high-quality brand for the city. Commercial development at this location should be subject to a higher design standard as part of a broader, master planned concept. There may also be opportunities over the longer term for high-value commercial activity which might include corporate and administrative office space. Thus, creating a high value and well-planned gateway can help leverage commercial product that supports the city's economic development. Given that

Cleveland is also a gateway to the Ocoee whitewater recreation area, efforts should be made to establish linkages that help to leverage lodging and services for travelers. Neither the retail/office commercial or tourism concepts have been tested in the market at this location, but there may be opportunities to explore these concepts further.

High-Value Neighborhood Developments

Portions of the Study Area located further to the north and east should be oriented to the development of residential neighborhoods that help knit together the city's development patterns and strengthen the market for downtown revitalization. The presence of a high school helps to leverage demand for family housing nearby. Commercial development within the site should avoid creating competition to downtown but aim instead to establish walk-able neighborhoods with convenient nodes along key thoroughfares. This effort may also require the upgrading of U.S. 64 such as through stronger design standards that help to support the commercial, industrial and residential uses that might occur within the study area. Ultimately, high-quality housing and schools in walk-able neighborhoods help to attract a labor force that, in turn, supports industrial and economic development.

One challenge that will need to be addressed is the potential for competing traffic uses along SR 306. Commuters, site residents, industrial trucking, and commercial traffic in a mixed-use environment could potentially create a less-than-desirable outcome. Thus, restricting industrial use to the southwest portions of the study area can reduce conflicts with neighborhood residential and convenience uses to the northeast. Destination commercial uses being restricted primarily to the interchange and along I-75 will also help reduce conflicts among uses.

Use of Amenities

The study area appears to be traversed by waterways including Harris Creek and Candies Creek that can potentially leverage amenity value for residential neighborhoods and high-quality business development. Every effort should be made to protect and celebrate these waterways such as with landscaped buffering and the addition of parks and trails and bring access and amenity value for potential neighborhood residents. Recreation is increasingly ranked among the top factors influencing millennials in their relocation decisions, so making recreation amenities available in both residential and work environments can help with labor recruitment.



Summary

An Economic Impact Assessment was completed to project the economic and fiscal benefits of the proposed extension of Freewill Road in the SR 306 Corridor. One part of the impact assessment examined the benefits of short-term industrial development as forecast through 2030 by the Industrial Market Analysis. Another part of the impact assessment examined the benefits at full build-out of a significant portion of the study area for industrial and mixed-use development. While the impacts of the entire build-out program were tested, the market viability of complete build-out of the study area has not been tested. Therefore, the economic and fiscal impacts in the full build-out projections are speculative and based only on long-term physical carrying capacity and a conceptual development program identified by Ragan Smith.

Market-Supported Industrial Development

Based on the findings of the Industrial Market Analysis, an industrial park leveraged by the extension of Freewill Road in the SR306 Corridor could absorb up to 260,000 square feet of industrial development by 2030 (not including any large “drop-in” uses achieved through economic development incentives), or up to 20 acres of land absorption. That estimated \$16.4 million investment would yield nearly 300 permanent jobs with \$17.3 million in annual earnings, and output of nearly \$20 million in the local economy. The industrial development would generate about \$250,000 in real property taxes per year to the Cleveland Bradley County governments.

Full Build-Out Conceptual Program

The proposed extension of Freewill Road / SR 306 Corridor could enhance opportunities for long-term development of up to 16.5 million square feet of commercial and industrial uses on an estimated 821 acres of developable land near downtown Cleveland. Based on estimates of the maximum physical build-out capacity of that land, a conceptual development program was projected that includes a “Mixed-Use Gateway” with attractive retail/commercial, office, hotel, and residential uses as a high-quality entrance into Cleveland. The program concept also includes a new Industrial Park (“Spring Branch North”) and Industrial/Mixed-Use (Harris Creek) area offering infrastructure, services, and associated amenities with direct interstate highway access.

If the land along the corridor could be fully developed to the extent estimated above, this \$1.6 billion investment could generate almost 10,300 construction jobs and 18,500 permanent jobs in the area over the full build-out period. Those permanent jobs would provide a total of almost \$1.15 billion in annual earnings for Cleveland-area workers and their families and spin-off \$1.5 billion in output in the regional economy, again over the entire build-out period for construction. Development could also be oriented to diversifying Cleveland’s economic base and creating new housing opportunities close to jobs, thus reducing travel times and the

cost of sprawl. This level of development would generate annual fiscal benefits to local and county governments including \$5.2 million in retail sales taxes, \$341,000 in lodging taxes, and \$20.6 million in real property taxes at full build-out.

Full Build-Out Development Program

The concept for build-out of the SR 306 Corridor study area would include a 270-acre “Gateway” mixed-use district that would include a mix of residential, retail/commercial, hotel, and office uses as a high-quality entry to the City of Cleveland from I-75. Also located on the site would be a 551-acre industrial / mixed-use area (Spring Branch North and Harris Creek) that would complement existing industrial areas and increase the long-term capacity for industrial growth.

Table 1. DEVELOPMENT ENVELOPE BY LAND USE, SR 306 STUDY AREA			
Site/Land Use	Square Feet	Acres	Share of Total
Gateway Mixed-Use	5,470,134	270	33%
<i>Retail/Commercial</i>	906,789		6%
<i>Office & Flex</i>	1,940,598		12%
<i>Residential</i>	2,416,927		15%
<i>Hotel</i>	205,821		1%
Industrial / MU	10,979,472	551	67%
<i>Mfg./Warehouse/Svc.</i>	10,641,795		65%
<i>Residential</i>	337,677		2%
<i>Industrial Occ. by 2030</i>	260,000	13	2%
TOTAL	16,449,606	821	100%
Source:	Ragan Smith.		



Freewill Road/SR 306 Corridor Study

Economic Impact Assessment

Based on mapping of the corridor, it is estimated that about 820 acres have some development potential. Assuming some 2-3 story structures the Gateway area could physically support nearly 5.5 million square feet, including 900,000 square feet of retail/commercial, 1.9 million square feet of office and flex space, and about 2.4 million square feet of residential space. Residential yields in the Gateway area could approach several thousand units in a combination of condominium apartments, townhouses, and single family homes. The mixed-use Gateway area would therefore account for about one-third of the total build-out of the study area.

The 551 acres of industrial park (Spring Branch North) and mixed-use area (Harris Creek) would yield about 10.0 million square feet of manufacturing, warehousing, and other industrial space accounting for 65% of the total build-out for industrial uses and the potential for another 337 residential units of various types representing 2% of build out. However, based on historic absorption trends as well as on the Industrial Market Analysis completed for this plan, it is more likely that the area would capture market demand for about 260,000 square feet or 20 acres of industrial space by 2030 (2% of total build out), not including any large-scale “drop-in” uses that are leveraged through economic development incentives.

Economic Impacts

An economic impact analysis was completed to project the possible economic benefits of development leveraged by the completion of SR 306, which would enhance access to about 1,100 acres of land near downtown Cleveland and with direct exposure from I-75 and the Bypass. The impact analysis determined the economic benefits of development during the construction period as well as upon build-out on a static annual basis. Given uncertainty about the commercial and residential development potential of the land; the impacts were also determined on a more limited basis just for industrial development through 2030, based on the Industrial Market Analysis.

Construction Period

If all Future Land Use Areas were fully developed and supportable in the market, the total 1,100 acres of land studied could generate up to 15 million square feet of industrial, retail/commercial, residential, hotel, and office use. The investment value of this development could approach \$1.59 billion in today’s dollars and up to \$2.45 billion in spin off, accounting for the “multiplier effect” on the regional economy. Based on high-level conceptual estimates provided by Ragan Smith, three critical transportation projects to support the plan could represent more than \$102.6 million in public investments. Additional public investments in transportation and utility infrastructure would undoubtedly be required and should be further analyzed. Development partners for these types of projects likely seek incentive packages which should also be factored into future assessments of the level of public investment necessary to catalyze a successful

mixed-use plan. Construction would require up to 10,300 construction “worker years” spread out over the various phases of development, plus 11,600 temporary jobs throughout the region as part of the multiplier effect. The public sector component will generate an estimated 665 direct worker years, based again on the Ragan Smith cost estimates, and 750 jobs through the multiplier effect. These temporary jobs would in turn generate about \$636.1 million in direct earnings (\$41 million for infrastructure projects) in the form of salaries and wages, with a multiplier effect of \$481.9 million on the regional economy.

The impacts of a realistic short-term industrial development scenario are based on the findings of the Industrial Market Analysis. The market analysis forecast 260,000 square feet absorbed by 2030. This development would yield a total investment of about \$16.4 million (and \$25.3 million in total spin-off), 106 direct construction jobs (120 spin-off jobs), and \$6.6 million in direct earnings (plus another \$5.0 million in spin-off in the regional economy).

Annual Benefits*

The annual economic benefits generated by the SR 306 Corridor extension were determined assuming full build-out, and maximizing development potential within the areas identified on the Potential Land Use Map. This program would yield about 18,500 permanent

Factor	Direct Investment	Multiplier Effect	Direct Earnings	Multiplier Effect	Direct Jobs	Multiplier Effect
Public Infrastructure						
New Road Section	\$ 27,600,000	\$ 42,600,000	\$ 11,040,000	\$ 8,364,000	179	202
Existing Road Reno	\$ 39,000,000	\$ 60,195,652	\$ 15,600,000	\$ 11,818,696	253	285
Interstate Bridge	\$ 6,000,000	\$ 9,260,870	\$ 2,400,000	\$ 1,818,261	39	44
New I-75 Interchange	\$ 30,000,000	\$ 46,304,348	\$ 12,000,000	\$ 9,091,304	195	219
Private Dev. Envelope						
Gateway Mixed-Use	\$ 795,862,098	\$ 1,228,395,847	\$ 318,344,839	\$241,180,818	5,162	5,820
New Industrial Park	\$ 691,706,751	\$ 1,067,634,333	\$ 276,682,700	\$209,617,220	4,486	5,058
TOTAL	\$ 1,590,168,849	\$ 2,454,391,050	\$ 636,067,540	\$481,890,299	10,314	11,628
Notes:	Direct Employment expressed in worker years. Total Output based on final demand multiplier. Basic Capital Costs exclude certain soft costs and contingency.					
Sources:	Ragan Smith; U.S. Bureau of Economic Analysis; and Randall Gross / Development Economics.					



jobs and \$1.15 billion in annual earnings. Retail sales of \$320.9 million could be generated on site, with total output of \$1.3 billion.

Much of the job and wage benefit would be generated by industrial uses, should the full 551 developable acres be built out for 10.6 million square feet in the new industrial park. Industrial uses would generate about 9,700 jobs with earnings in excess of \$577.5 million, yielding output of \$652.7 million per year.

Based on the findings of the Industrial Market Analysis, a more likely short-term scenario would see up to about 260,000 square feet of industrial uses occupied in the area by 2030. This short-term industrial development would generate up to about 300 jobs with \$17.3 million in annual earnings and \$19.5 million in total annual output in the regional economy.

Fiscal Benefits

The annual fiscal benefits at build-out as well as of short-term industrial development were also determined, for the City of Cleveland and Bradley County. Particular focus was given to the yields in retail sales taxes, lodging taxes, and real property tax revenues to these jurisdictions. The long-term build out of all land in the study area would potentially yield about \$26.2 million in annual fiscal benefits to the two jurisdictions, including about \$11.0 million per year to the City of Cleveland.

A total retail sales tax yield of \$5.2 million is projected for Bradley County at full build-out. Another \$9.6 million would be generated to the County and \$11.0 million to the City in real property taxes. Industrial uses will generate the highest economic returns to the region and, if supportable in the market and built out as envisioned, would yield the highest fiscal returns as well. Altogether, retail/commercial uses will generate \$7.2 million in annual revenues, industrial \$10.4 million, office \$4.4 million, hotel \$809,000, and residential \$3.4 million. For the City alone, industrial will generate the highest fiscal returns, yielding about \$11.0 million in annual real property taxes, not including other forms of revenue. Experience with assessments of fiscal cost-benefits suggests that industrial uses will also generate lower annual costs for providing

Table 3. SUMMARY OF ANNUAL ECONOMIC IMPACTS, SR 306 CORRIDOR CONCEPT PLAN ENVELOPE, AT FULL BUILDOUT (AND INDUSTRIAL BY 2030)

PROJECT/CONCEPT: ANNUAL IMPACTS @ BUILDOUT

Impact Type	Retail/Comm	Office/Flex	Residential	Industrial	Hotel	TOTAL BUILDOUT	Market-Supported Industrial by 2030
Jobs	2,098	6,704	12	9,674	370	18,488	289
Earnings	\$ 72,210,691	\$500,418,125	\$ 702,496	\$ 577,520,547	\$ 14,099,478	\$ 1,150,851,858	\$ 17,245,511
Retail Sales	\$ 189,518,801	N/A	N/A	N/A	N/A	\$ 189,518,801	N/A
Total Output	\$ 218,837,359	565,522,523	793,891	652,655,970	15,933,820	\$ 1,453,743,563	\$19,489,152
Other	Destination	Diversification	Time Savings	Growth	Rec. Tourism		
Note:	N/A means Not Applicable.						
Source:	Randall Gross / Development Economics.						

Table 4. SUMMARY OF ANNUAL FISCAL BENEFITS, SR 306 CORRIDOR CONCEPT PLAN ENVELOPE AT FULL BUILD-OUT AND BY 2030

PROJECT/CONCEPT: ANNUAL IMPACTS @ FULL BUILD-OUT

Type of Impact	Retail/Comm	Office	Residential	Industrial	Hotel	TOTAL	Market-Supported Industrial: 2030
Retail Sales Taxes	\$ 5,211,767	N/A	N/A	N/A	N/A	\$ 5,211,767	N/A
Lodging Taxes	N/A	N/A	N/A	N/A	\$ 341,134	\$ 341,134	N/A
Property Taxes							
Bradley County	\$ 945,753	\$ 2,023,984	\$ 1,593,666	\$ 4,806,037	\$ 217,142	\$ 9,586,582	\$ 117,421
City of Cleveland	\$ 1,038,571	\$ 2,339,604	\$ 1,842,181	\$ 5,555,489	\$ 251,003	\$ 11,026,848	\$ 135,732
Subtotal	\$ 1,984,324	\$ 4,363,588	\$ 3,435,847	\$ 10,361,527	\$ 468,145	\$ 20,613,430	\$ 253,152
TOTAL	\$ 7,196,091	\$ 4,363,588	\$ 3,435,847	\$ 10,361,527	\$ 809,279	\$ 26,166,332	\$ 253,152
Notes:	Market-Supported Industrial is revenue projected from industrial absorption based on Industrial Market Analysis. Other totals based on physical capacity of site if fully built out, and not on market analysis.						
Source:	Randall Gross / Development Economics.						

* These benefits would occur beyond the 20 year timeline for this report



Freewill Road/SR 306 Corridor Study

Economic Impact Assessment

municipal services than would other uses including retail and residential. So, the net benefit to Cleveland could be even higher from industrial than from other uses, on a per-unit basis.

For the development program supported by the Industrial Market Analysis through 2030, the two jurisdictions are likely to see an annual fiscal benefit of about \$253,000, including \$136,000 per year for the City of Cleveland. This yield is based solely on a conservative estimate of industrial absorption and does not account for any “drop-in” leveraged industrial investments or commercial and residential development. Nor does the projection include other forms of fiscal revenues such as permits and fees, user charges, or personal property taxes.



16 Big Ideas-Corridor Recommendations

Economic Development:

1. Continue to expand and market growth of the industrial land use in the corridor with the understanding that market absorption for this expanded area will be a long term objective which will require a phased approach.



2. Brand the I-75/APD -40 interchange as a gateway district for Cleveland. This will require major planning and development of a visionary overlay future land use district that includes a new mixed-use zoning classification and an economic development strategy for higher end commercial/office use and high-density residential



3. Promote high value, walkable neighborhood development on the north east side of the corridor that strengthens the market for downtown revitalization and connection to existing schools, and support local neighborhood nodes of commerce



4. Plan and invest in future transportation networks within the corridor with the goals of both increased commerce and improved quality of life opportunities related to less traffic congestion, improved pedestrian and bicycle connections and well designed public space and streetscape.



Land Use & Community Character:

5. Create a new industrial park area between the APD/40 expressway and Harrison Pike along a new road network. This industrial park would capture the potential for approximately 323 acres and would include opportunities for light manufacturing, light industrial, distribution warehousing, and office space.



6. Expand the spring branch industrial park to include approximately 228 acres near the I-75/APD interchange (exit 20).



7. Create a new gateway, mixed-use district between I-75 and 64 (Lee Highway) along the APD expressway. This gateway district would consist of approximately 270 acres with high visibility, multi-level buildings providing a mixture of high end destination retail, lodging and restaurants along with class A office space and high density residential.



8. Establish areas for residential growth along with local parks and preservation of historic agricultural lands



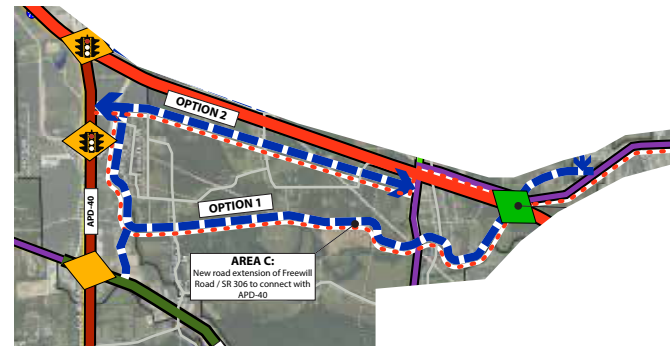


Transportation & Utility Infrastructure:

9. Improve existing Freewill Road from Georgetown Road to Harrison Pike to accommodate existing traffic and future growth. (Area A) Improvements could include curb and gutter, stormwater control, pedestrian and bicycle provisions, and improved intersections with turning lane and crosswalk opportunities.



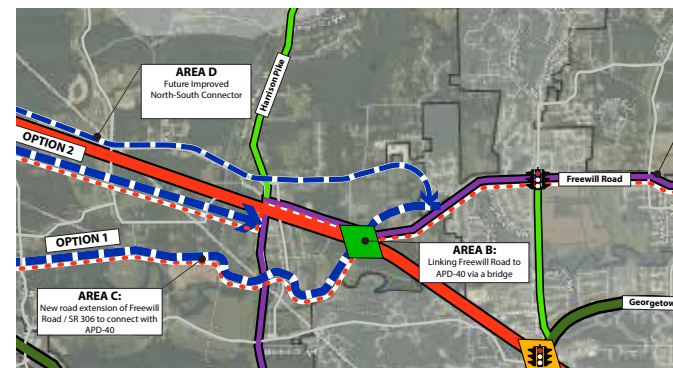
10. Create a new North-South collector or arterial road to connect APD 40 to Harrison Pike. (Area C) This new connector provides new development opportunities and improvements to the local transportation network and would extend SR 306 through the corridor for future growth.



11. Create a new bridge crossing and possible interchange at the juncture of existing Freewill Road and the new North-South arterial connector to provide additional interstate connections and/or crossings. (Area B) This would relieve some of the congestion at existing interchanges and provide a stronger transportation network for future growth.



12. Plan for an additional new North-South connector on the West side of I-75 between Pleasant Grove Road and Harrison Pike (Area D) to strengthen local road networks and alleviate traffic through some of the interchange intersections- this is in anticipation of future suburban growth in the area.



Multi-modal Connectivity, and Greenways:

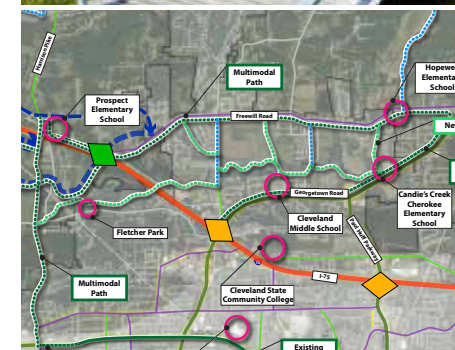
13. Existing Freewill Road and the potential connector road improvements should be designed and constructed with accommodation for pedestrian and bicycle transportation modes. Encourage industrial park area and mixed-use development to provide a multi-modal street network.



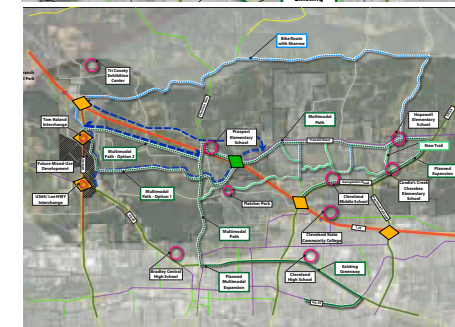
14. Extend greenway opportunities through Fletcher Park and Candies Creek and Harris Creek drainageway. Utilize this greenway as a natural conservation zone for health, recreation and environmental quality



15. Extend the existing Mouse Creek Greenway along Harrison Pike to connect with the SR 306 corridor and potential future greenway opportunities along Candies Creek.



16. Establish a connection of creeks, greenways, potential park space, and legacy agricultural land through the corridor areas and link to a recreational gateway to Ocoee/Hiwassee recreational areas.

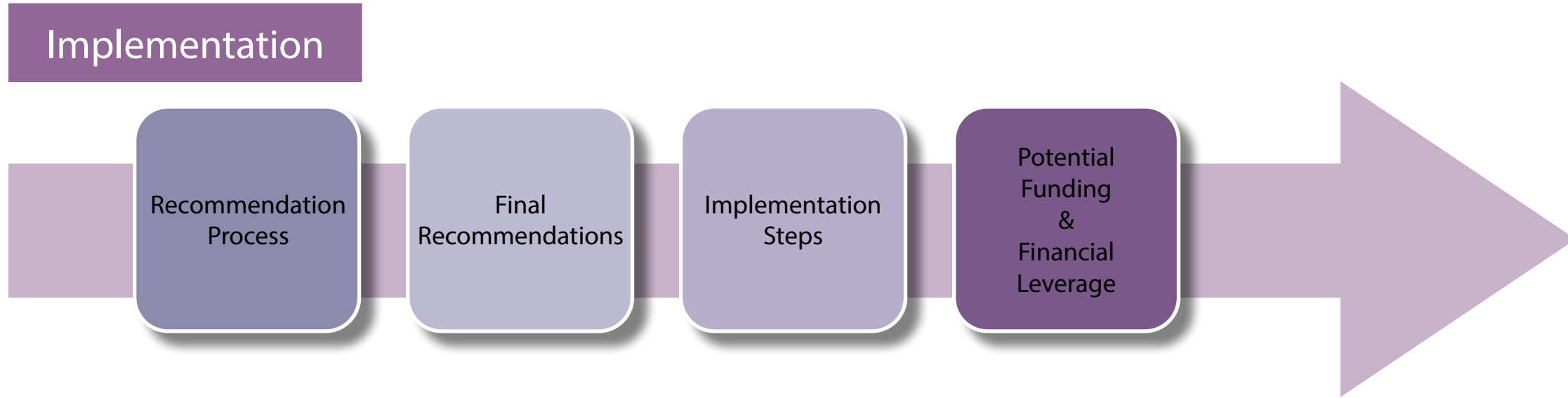




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SECTION 3 - Implementation Strategies





* Colored boxes indicate the top strategic recommendations - see next pages for implementation steps.

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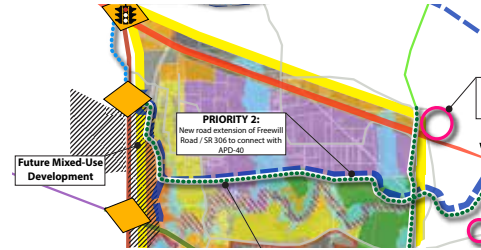
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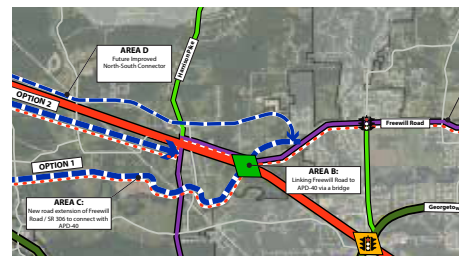
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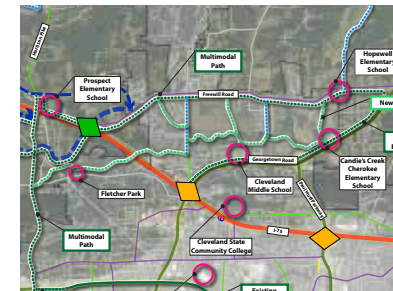
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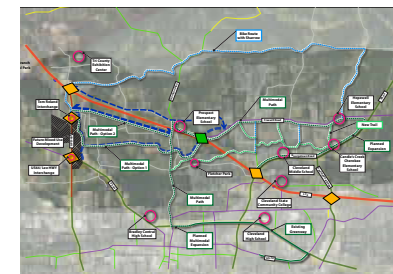
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Options to improve existing segment of SR 306 / Freewill Road

Inventory & Analysis

Key Findings

- Right of Way appears adequate to add some combo of improvements
- Available traffic and incident data suggest that building additional road capacity should not be highest priority
- Residential land use patterns and absence of any sidewalk or bike/ped infrastructure elevates this potential use of ROW

Public Input

Survey & Open House

- Input confirms that overall traffic volumes are acceptable
- Congestion at key intersections and peak period constraints exist
- Support for sidewalks and other bike / ped improvements
- Identification of Harrison Pike intersection needing further study

Refinement & Revisions

City Transportation Planners / Steering Committee

- Support for comprehensive multi-modal approach including a combination of multi-use path, sidewalk, curbs, and crossing improvements
- Support for links to existing greenway, schools, and other community assets and a possible Candies Creek Greenway

Recommendations

- Create a multi-modal plan for the corridor with emphasis on improvements to the existing road
- Examine key intersections (Harrison Pike, SR-60) for potential to improve alignments, flow, and address peak period patterns
- Study options to further organize or eliminate access points to Prospect Elementary School in conjunction w District Management
- In the short term prioritize multi-use, safety (curbs, safe crossings, signage), and quality of experience improvements (landscape and lighting) over creating additional lanes
- Make strategic investments as funding is identified and to coincide with scheduled road maintenance

Evaluate Extension of Freewill Road (Harrison Pike to APD-40)

Inventory & Analysis

Key Findings

- Proposed road will traverse mostly rural and residential properties.
- Soil types and hydrology should factor into locating future infrastructure
- Proposed road has potential to provide additional connectivity within the existing network and improve access to new areas with development potential

Public Input

Survey & Open House

- Survey input was generally supportive of a new road segment and with the goals of improving connectivity, shortening commutes and providing access for economic development activity; preferred location for improvements was more varied
- Open House attendees viewed preliminary recommendations and had more opportunity for open ended input. They preferred new development closer to existing highway infrastructure.
- Open House attendees were less supportive of a new road connection east of I-75 and had site specific concerns based on personal perspective and location.
- Both Open House and Survey input identified the intersection of Harrison Pike and Freewill Road as needing further study.

Refinement & Revisions

City Transportation Planners / Steering Committee

- Direction to two general locations for a future road connection with the need for future analysis.
- A potential connector road west of I-75 was also identified for further analysis as a short range solution.
- Consensus Agreement that a north-south connection between Freewill Road and APD-40 is still a prudent addition to the transportation network as growth occurs over time.
- Highlight potential to distribute traffic between intersections and across the transportation network and to balance traffic impacts over a broader area.

Recommendations

- An extension of Freewill Road to APD-40 should be included in long range transportation plans.
- Further analyze preferred alignment based on further traffic modeling and analysis, potential site and environmental constraints, ability to obtain ROW, and land use decisions.
- Timing should hinge on a) demonstrated need based on traffic modeling b) timing of land use decisions that could increase traffic volumes and, c) desire to distribute trips and accommodate multiple users/modes in this portion of the study area.
- Prioritize further traffic modeling and land use planning ahead of significant investment in design and construction of a new road connection. Consider trip distribution and ability to ease peak period congestion as potential drivers.
- Explore a connection west of I-75 as a near term solution to distribute traffic and connect to APD-40 / I-75 utilizing existing road segments and ROW through properties poised for development.
- Consider a phased approach where related bridge or interchange improvements are anticipated but evaluated individually with respect to timing.



Evaluate Project's Potential to spur Economic Expansion and Job Creation

Inventory & Analysis

Key Findings

- Identification of three areas where existing land use would allow for significant new development. Two potential Industrial Areas, and one Gateway Mixed-Use Commercial Area were identified.
- Existing information on site and environmental constraints considered.
- Accessibility to transportation and utility infrastructure considered.
- Approximate acreage calculated for consideration in Industrial Market Analysis.

Public Input

Survey & Open House

- Survey Input demonstrated broad support for economic development, and targeted expansion of commercial use in the study area.
- With a potential land use map to review, Open House participants were supportive of a potential expansion to Spring Branch Industrial Park and of a Gateway Mixed-Use Commercial area.
- Open House participants felt that the Spring Branch and Gateway areas for economic expansion, as well, as investment in redevelopment opportunities, should be prioritized over a second Light Industrial Area between Harrison Pike and APD-40.

Refinement & Revisions

City Transportation Planners/ Steering Committee

- Consensus to scale back the potential Light Industrial Use between Harrison Pike and APD-40 and to encourage potential for a wider variety of service commercial and community service uses in a smaller Light Industrial Mixed-Use area.
- Economic Analysis considered potential development programs for all three areas proposed for new development / economic expansion.

Recommendations

- Weigh public investment in new infrastructure against potential for economic return both in the next 20 years and over a longer term full projected build-out horizon.
- Keep all three potential new development areas under consideration but proceed deliberately and in coordination with Bradley County and economic development staff at the Chamber of Commerce before pursuing new Industrial Development areas.
- Focus on the potential Expansion of Spring Branch Industrial Park and the Gateway Mixed-Use Commercial area for short term land use planning, market analysis, and traffic modeling based on more immediate development pressure, ability to impact quality of experience, and shorter horizon for potential returns.
- Further evaluating and making land use decisions about Spring Branch and the Gateway will help inform the timing and potential to off-set costs of the specific road and infrastructure projects itemized as potential public investments in this study.

Evaluate feasibility of new Freewill Road Bridge/Interchange at I-75

Inventory & Analysis

Key Findings

- Potential locations discussed with stakeholders and City Staff.
- Past challenges with siting infrastructure at Harrison Pike conveyed by staff (school circulation, proximity to cemeteries, hydrology).
- Truck Parking Area presented as a potential location.
- Soil types and hydrology should factor into locating future infrastructure. Further site specific analysis will be necessary to estimate potential impacts to costs, permitting, and impacts.

Public Input

Survey & Open House

- Survey input was generally supportive of new infrastructure investment that could reduce commute times and increase connectivity. Respondents supported anticipating the potential for a future interchange if feasible.
- Open House attendees were less interested in new roads and infrastructure connections to I-75 and had site specific concerns based on personal perspective and location.
- Both Open House and Survey input identified the intersection of Harrison Pike and Freewill Road as needing further study

Refinement & Revisions

City Transportation Planners/Steering Committee

- Discussion of interchange separation distances highlight a broader need to evaluate potential improvements through the lens of FHWA Access Points Policy.
- FHWA Access Points Policy reinforces the need to prioritize land use planning and decisions, assess and improve the existing transportation networks integration within the corridor, and plan and make bike / ped, and multi-modal improvements as a precursor to attempting to justify new access points to the interstate system.
- Market Analysis indicates a time horizon for absorption of new industrial uses and related economic returns and traffic impacts that also favors a longer horizon for potential bridge or interchange infrastructure investments.

Recommendations

- Inclusion of new Bridge or Interchange at Freewill Road and I-75 is probably not warranted in short range MPO planning documents, but, should be re-evaluated in the future as key land use decisions and related transportation infrastructure choices in the Freewill Road Corridor are finalized.
- Refer to Recommended Implementation Steps and FHWA Access Points Policy Points for guidance on planning and transportation infrastructure development that would help develop a future case for upgrades or additions to interstate access.
- Prioritize Freewill Road improvements and extension, additional traffic modeling, land use master planning, and market analysis as a prerequisite to planning for new interstate related infrastructure.



Economic Development: Next Steps:

Land Use & Community Character: Next Steps:

Recommendation #1:
Market and Expand on Light Industrial Use in the Corridor with a long horizon for absorption.

Recommendation #5:
Study and Develop Plan for Light Industrial Mixed-Use District

Recommendations #2 & #7:
Study and Develop Concept Plan for Gateway Commercial Overlay District

5-10 Years

- Conduct further market analysis for specific industrial market sectors including Light Industrial Mixed-Use
- Assess market / community benefit for co-located uses in a Light-Industrial Mixed-Use District (Workshop/ Office, Warehousing, Government / Medical Services, Workforce Housing, etc.)
- Test available Industrial sites for market sensitivity, to location and available infrastructure, development cost, etc.
- Partner with the Chamber to update Strategic Marketing Plan for Industrial Sites and to continue to assess needs and build capacity for job training

5-10 Years

- Invite and assess Land Owner Participation
- Concept Plan
- Market Study
- Traffic Analysis
- Infrastructure Assessment
- Economic Analysis

5-10 Years

- Invite and Assess Land Owner Participation
- Concept Plan
- Market Study
- Traffic Analysis
- Infrastructure Assessment
- Economic Analysis
- Establish Public Investment / Incentive parameters

10-20 Years

- Develop Concept Plans for Highest Priority Industrial Sites in the corridor
- Coordinate Land Use, Transportation and Utility Master Plans
- Anticipate ability to accommodate a large drop-in or homegrown Industrial Users in Master Plans
- Begin Marketing additional sites

10-20 Years

- RFQ or RFP for Development Partners
- Zoning Changes
- Plan Approvals

10-20 Years

- RFQ or RFP for Development Partners
- Zoning Changes
- Plan Approval
- Development

20+ Years

- Development

Recommendation #6:
Design Expansion of Spring Branch Industrial Park

5-10 Years

- Prepare Concept Expansion Plan
- Landowner Discussions
- Environmental Assessment and Design
- Analyze Utility Capacities
- Internal Strategic Marketing Plan
- Explore funding for site prep

10-20 Years

- Entitlement
- Construction Drawings
- Site Development
- Marketing and End-User Agreements
- Construction



Transportation & Utility Infrastructure: Next Steps:

Recommendation #9:
Phased Improvements of Freewill Road
Est. Cost: \$39,000,000 *includes Multi-Modal in ROW

5-10 Years

- Intersection Analysis and Design Updates
- Update Planning and Zoning code and policy to incentivize connectivity between developments
- Create Access Management Plan
- Coordinate w multi-modal planning
- MPO coordination / State Route Designation Criteria
- Design, Environmental Assessment, Permitting & Construction

Recommendation #10:
Extend Freewill Road to APD-40 - Est. Cost: \$27,600,000

5-10 Years

- Track and assess progress of land use master plans and new entitlements
- Invite & Assess Land Owner Participation
- Prepare Concept Route and Cost/Benefit Analysis for Option 1 & 2
- Update Traffic Models to anticipate projected uses
- Select preferred alignment / ROW Negotiations
- Planning and Environmental Review
- MPO RTP Updates
- Design & Permitting

10-20 Years

- Construction

Recommendation #11:
Corridor Wide Transportation Plan Update and Traffic Study

5-10 Years

- Update Traffic Models & Develop Trip Reduction Strategies
- Coordinate Transit Assessment & Multi-Modal Plans
- Analyze Corridor Data vs FHWA Access Policy Points*

- MPO RTP Updates

Potential New Bridge - Est. Cost: \$6,000,000
10-20 Years

- Site selection
- Environmental Assessment
- Concept Design

20+ Years

- MPO Coordination & Permitting
- Design & Construction

Potential New I-75 Interchange - Est. Cost: \$6,000,000
10-20 Years

- Concept Design
- Environmental Assessment
- Review and Update FHWA Access Policy Points Analysis
- ROW Negotiations

20+ Years

- Permitting
- Additional FHWA & TDOT Review
- Design
- Construction

Recommendation #12:
Plan & Assess West Side Connector

0-5 Years

- Invite and Assess Land Owner Participation
- Non-binding MOU
- Concept Plan
- Traffic Study
- Economic Analysis
- ROW Negotiation
- Design and Construction

Multi-modal Connectivity and Greenways: Next Steps:

Recommendations #13, 14, 15
Create Multi-Modal Master Plan
Est. Cost: Dependent on Scope & Design

5-10 Years

- Partner with Bike / Walk Cleveland to further assess opportunities, community demographics and needs
- Prepare comprehensive inventory of existing assets
- Prepare corridor wide Community Mobility Plan including Complete Streets, paved paths, sidewalks, and soft surface trail improvements linking existing and future community assets
- Identify, design and construct highest priority connections
- Look for synergies and cost savings by coordinating with paving schedules and other infrastructure projects

* See Appendix C for FHWA Policy Points



Economic Development Recommendation #1	Land Use & Community Character: Recommendations #5, #6, #7	Transportation & Utility Infrastructure: Recommendations #9, #10, #11, #12	Multi-modal Connectivity and Greenways: Recommendation #13, #14, #15
<ul style="list-style-type: none"> Possible revenue leveraging to apply to industrial and commercial growth <ul style="list-style-type: none"> - Tax Revenue - City Bonds - Hotel/Motel Tax - Stormwater Assessment Fees - Develop contributions and development fees Create a marketing and branding effort that capitalizes on the Hiwassee and Ocoee River Recreation Areas 	<ul style="list-style-type: none"> Adjust zoning and create potential overlay districts to encourage a high density and mixture of land use in the appropriate locations to fully benefit from infrastructure investments within the corridor Look for opportunities to create public/private collaboration and consider a pilot development program for new development areas Continue to strengthen and expand the Spring Branch industrial park Evaluate the possibility of industrial economic/land use areas to include in the Tennessee certified sites program 	<ul style="list-style-type: none"> Identify federal and state matching grant opportunities TDOT - Urban / Community Transportation Planning Grants FTA - Pilot for Transit Oriented Development TDOT Multimodal Access TDOT Transportation Alternatives Program 	<ul style="list-style-type: none"> Identify federal and state matching grant opportunities TDEC - Recreational Trails Grant TDEC - Local Parks and Recreation Fund TDEC - Land and Water Conservation Fund *match for greenway/trail ROW acquisition Department of health programs for walkable community, greenway, and health-related recreation Team with land trust agencies to acquire key stream corridors and areas with important natural resources and recreational opportunities

TDOT - Urban /Community Transportation Planning Grants
UTUC (Asset-Based Planning Program)



Appendix

Appendix A - Industrial Market Analysis	55-64
Appendix B - Stakeholder Input & Surveys	65-71
Appendix C - FHWA Access Points Policy	73-74



Introduction

This market analysis was conducted to forecast industrial development potential in the study area that might be leveraged by improvements to Freewill Road (SR 306) and extension of State Route 306 south of I-75 to the U.S. 64 Bypass (APD 40) in Cleveland. Ultimately, the findings of the market analysis are meant to inform land use planning around the transportation network, broader economic development efforts, and as a basis for assessing the potential impacts of the SR 306 Corridor improvements if constructed.

Section 1 presents findings from a Site Analysis that examined factors impacting on the overall marketability of the site for industrial and other uses. The site is reviewed in terms of its location and within the broader context of Cleveland's industrial development. Section 2 examines the underlying economic base as well as existing industrial market conditions in the Cleveland area. Industrial demand is forecast in Section 3, based on an analysis of employment and other economic growth drivers as well as industrial absorption trends in the market. Industrial development potential is determined in Section 4, based on the site's relative positioning within the competitive market and other factors. Opportunities for commercial development in the study area are also examined and discussed in broad terms.

Section 1 - Site Analysis

This section provides an analysis of the factors impacting on the general marketability of the study area surrounding the SR 306 / Freewill Road Corridor for industrial and other uses. Such factors include location, transportation access and exposure, physical characteristics, adjacent uses, development and commutation patterns, and others relevant to this market analysis.

Cleveland is located in southeast Tennessee, about 32 miles from downtown Chattanooga. Cleveland is also about 18 miles or 20 minutes from the new Volkswagen-Chattanooga manufacturing plant. The SR 306 corridor study area comprises land on the southwest side of Cleveland, mostly outside of the City limits, roughly bound by Interstate 75 (to the west), SR 312 / Harrison Pike (north), US Highway 64 (east) and US Highway 74 / Appalachian Highway (south).

Transportation Access

The SR 306 Corridor, if built, would provide ready access to I-75, U.S. Highway 74, U.S. Highway 64, and Cleveland's other industrial areas. The Corridor could also improve access to the labor force in north and east Cleveland. Being located just 20 minutes from the VW

plant and growing industries in the Chattanooga region helps promote the viability of Corridor sites for industrial development. With very little industrial building space available in the Cleveland market, there are opportunities for new construction to accommodate growth.

Interstate 75 is a major truck and transportation corridor that links the site south and north through six states from Miami almost to the Canadian border, one of the longest interstate highway routes in the country. In addition to the Miami/South Florida area, key markets accessed directly by I-75 include Tampa-St. Petersburg, Atlanta, Chattanooga, Knoxville, Lexington, Cincinnati-Dayton, Toledo, and Detroit. I-75 also funnels traffic from the northeast (via I-81), east and west (from I-40) towards Georgia and Florida.

I-75 carries about 48,000 vehicles through the Cleveland area, based on 2020 annual average daily traffic (AADT) counts provided by TDOT. By comparison, I-75 carries about 117,700 vehicles to the west near its juncture with I-24 not far from downtown Chattanooga and about 42,000 to the east in central McMinn County.

The site also benefits from its location bounded on two other sides by federal highways – U.S. 64 and U.S. 74. U.S. Route 64 is a 2,300-mile federal highway linking coastal North Carolina west to Arizona. U.S. Route 64 passes through several large cities like Tulsa, Memphis, and Raleigh. The road extends along nearly the entire southern border of Tennessee, from Memphis to Chattanooga, Cleveland, and east where it becomes the 2-lane Ocoee Scenic Byway through a dramatic gorge along the Ocoee River. Cleveland is about 34 miles from the Ocoee River Gorge and the famous Whitewater Center where the 1996 Olympic Kayak events were held. The road carries about 9,200 AADT near the Study Area.

U.S. Highway 74 is a 515-mile federal road between Chattanooga and Wrightsville Beach, North Carolina. The highway connects to Asheville, Charlotte, and Wilmington. US 74 merges with US 64 and SR 60 in Cleveland and is referenced as the US 64 Bypass, the Cleveland Bypass, Veterans Memorial Highway, or APD-40. It is also known as the Appalachian Highway. The Bypass starts at Exit 20 from I-75 and carries about 21,000 AADT near the Study Area.



Harrison Pike (1st Street NW or SR 312) extends along the eastern boundary of the Study Area and carries AADT of 7,800 to 8,200 between downtown Cleveland and I-75. The Study Area is also bisected by several interior roads including Blythewood Road SW, Pleasant Grove Place SW, Pleasant Grove Trail SW, Harris Creek Road SW, Sipes Road SW, and Humphreys Bridge Road SW. It is possible to traverse the study area, albeit indirectly and along slower 2-lane rural roads, without traveling on I-75 or U.S. 64. A spur from within the area can potentially connect west along Lake Road and Harriman Road to the city's new Spring Branch Industrial Park.

Site Characteristics

The Study Area lies primarily outside of the City Limits of Cleveland and is characterized primarily as rural farmland and low-density residential. The topography of the area appears to be fairly benign, with flat pastureland or gently rolling hills and stream beds. There are several small single-family developments such as along J Mack Circle, Tonia Drive, and Haven Drive for example. There is also more intense development in the southeastern corner of the area (see below). But for the most part, large swaths of land are in agricultural use or are oriented to low-density rural residential.

While most of the study area is rural, there are commercial and industrial service uses along portions of U.S. Route 64 from the intersection with the Bypass. Such uses include the Cleveland Ford/Kia dealership, Quik Burger, Young's Auto Body, Scott's Furniture, Second Harvest Thrift Store, Best Buy Metals, Cleveland Animal Hospital, Fuel Mart, and more intense commercial use east of Victory Street (Crown Inn, Rebel Drive-In, CVS, Goodwill Store, Habitat for Humanity, Cleveland Fasteners, Family Dollar, etc.). The Bradley-Central High School is located off of US 64 near Keith Street. The Park Oak Apartments are also located near Keith and 1st Street NW.

Adjacent Uses

SR 312 (1st Avenue NW), which forms the northern boundary of the study area, becomes a main route (Inman Street W) through downtown Cleveland, just a few blocks to the east, intersecting with Broad Street and S. Ocoee Street in the heart of the city. Downtown Cleveland is a hub for Government and commerce, with County Courts, Lee University, UT-Extension, Museum Center, City Government, non-profits, banks, and commercial businesses centered around the downtown area. Several of the city's residential neighborhoods are located to the north and east of the study area.

Much of the area on the south side of the Bypass near the study area is undeveloped, although Spring Branch Industrial Park is developing southwest of the study area along Lake/Harriman Road. Further to the east along Industrial Drive, however,

is a major hub for Cleveland's industrial business base. Even further east are commercial nodes along SE Dalton Pike and nearby areas.

West of the study area along Pleasant Grove Road at Exit 20 is a Pilot Travel Center, UEC Theatres, Mountain View Nissan dealership, Exxon, and other similar uses. The Tri-State Exhibition Center is also located there. Residential development has sprawled north of Harrison Pike along with Freewill Road Corridor and surrounding areas west of I-75.

Commute Patterns

About 44% of working Cleveland residents are employed within the city of Cleveland, while about 18% commute to Chattanooga and 38% commute to other places like South Cleveland, Nashville, Athens, Knoxville, Collegedale, and Dalton. Among those working in Cleveland, just 23% are Cleveland residents and the other 77% commute in from other places including Chattanooga. However, the majority (54%) of Cleveland's workforce is drawn from within Bradley County, with 11% from Hamilton, 5% from McMinn, 5% from Polk, and the rest from Meigs, Rhea, Knox, Catoosa (GA), and others. Thus, a large majority (almost 60%) of Cleveland's workers are drawn from within the Cleveland MSA (Bradley and Polk counties) and the Chattanooga MSA (14%).

Section 2 - Existing Market Conditions

This section examines Cleveland's economic base, in terms of economic drivers, employment trends, and other factors influencing the city's attractiveness for industrial development. Also examined is Cleveland's existing industrial market context, including industrial inventory, occupancy, rent, and absorption trends as well as existing industrial parks and a discussion of the city's economic and industrial development efforts.

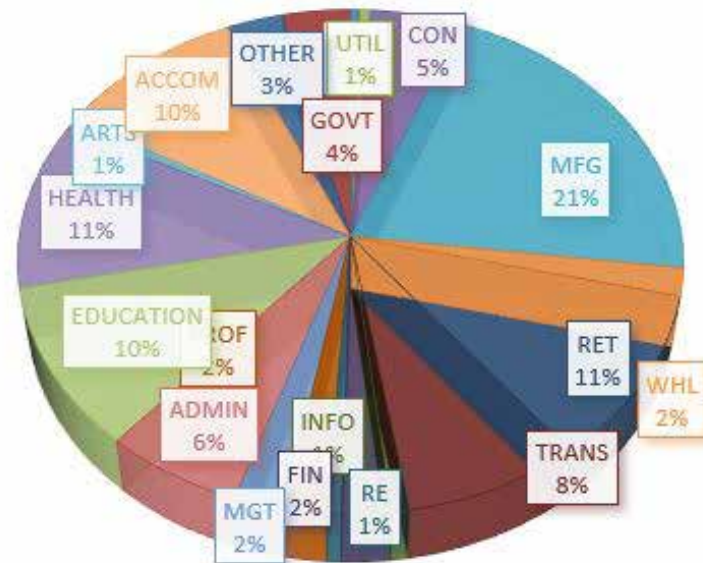
Cleveland Economic Base

Cleveland has a relatively strong and diverse economy, long led by the manufacturing sector. Even as the national manufacturing employment base has eroded over time, about 21% of Cleveland area jobs remain in manufacturing.



CLEVELAND MSA EMPLOYMENT BASE (2018)

SOURCES: U.S. BUREAU OF THE CENSUS AND RANDALL GROSS / DEVELOPMENT ECONOMICS



Manufacturers have long-been and remain among Cleveland’s largest employers. According to the Cleveland/Bradley Economic Development Council, Whirlpool Corporation employs 1,500 people at its Cleveland Division. Other major manufacturing employers include Jackson Furniture Industries (furniture, 1,090), WACKER Polysilicon (650 jobs in Charleston), Mars Chocolate NA. (confections, 575), Beiersdorf (consumer beauty products, 460), Olin (chemicals, 360), and Renfro (socks, 340). Beiersdorf is closing its Coppertone plant in Cleveland in 2022, idling about 130 of its local workers. Cleveland has long been a leader in the production of household appliances, beginning with Dixie Products, a stove company that purchased appliance maker Magic Chef in the 1950s.

Health care is Cleveland’s second largest industry, with about 11% of total employment. Tennova Healthcare is a major medical center with 350 beds and 1,160 employees in Cleveland. Life Care Centers of America, which is headquartered in Cleveland, owns and manages more than 200 skilled nursing facilities and related senior health facilities in 28 states, according to the company’s web site. The company operates a nursing home in Cleveland and employs 450 at its headquarters and local service facilities combined. Retail

also employs 11% of the city’s workforce, mainly in businesses serving the local market including Walmart’s two stores (850), Amazon (790), and others.

Education employs another 10% of Cleveland’s workers. Aside from City and County schools (together employing nearly 1,870), Cleveland is home to Lee University, with over 500 employees and about 5,400 students. Lee offers a faith-based education in business, music, pre-med, and other fields. Another 200 people work at Cleveland State Community College. Accommodation & food service is another major sector, employing 10% of the city’s workforce. Transportation and administration are the two other sectors that employ more than 5% of workers in Cleveland. The largest transportation-related business and the second largest employer overall is Peyton’s Southeastern (1,100 employees), a warehousing and distribution facility supplying Kroger stores. Whirlpool’s call center employed nearly 390 and served as one of the city’s major administrative services employers prior to the COVID Pandemic

Employment Trends

The Cleveland MSA lost 6.1% of its employment, including 30% of its manufacturing jobs, from 2002 through the national recession of 2008-09. But, the Cleveland metro area has more than recovered those jobs with employment growth of 19% between 2010 and 2018, when employment totaled 45,200. Despite stagnation in manufacturing employment overall, the Cleveland area has gained manufacturing jobs since 2010. And, while the COVID Pandemic wreaked havoc on employment rates, the Cleveland area has regained most of the jobs lost in 2020.

Between 2010 and 2018, the area’s fastest growing industry sectors included transportation and warehousing, which added 2,440 jobs or 216% in just eight years. The area gained about 660 management sector jobs, yielding an increase of over 200%. Other rapidly-growing sectors have included construction (80%), arts & entertainment (80%), and accommodation services (46%). Aside from transportation, accommodation services gained the largest number of jobs (about 1,450), followed by construction (1,000), management (660), retail (550), and administrative services (470). These trends are summarized in the table shown below.

The city of Cleveland is the employment hub and job generator for the two-county metro region. Cleveland had about 35,700 jobs in 2018, accounting for 79% of the metro area’s



Table 1. AT-PLACE EMPLOYMENT TRENDS BY SECTOR, CLEVELAND MSA, 2002-2018

Industry Sector	2002	2010	2018	2002-10 Change	2010-18 Change
Agriculture	134	96	192	-28.4%	100.0%
Mining	57	38	21	-33.3%	-44.7%
Utilities	265	283	276	6.8%	-2.5%
Construction	1,628	1,251	2,252	-23.2%	80.0%
Manufacturing	13,440	9,369	9,453	-30.3%	0.9%
Wholesale Trade	1,944	932	807	-52.1%	-13.4%
Retail Trade	4,134	4,314	4,865	4.4%	12.8%
Transport & Whsg	895	1,132	3,573	26.5%	215.6%
Information	331	335	352	1.2%	5.1%
Finance	976	1,165	996	19.4%	-14.5%
Real Estate	397	253	303	-36.3%	19.8%
Professional/Sci	896	855	849	-4.6%	-0.7%
Management	322	330	991	2.5%	200.3%
Administrative Svcs	2,018	2,326	2,794	15.3%	20.1%
Education & Social	3,483	4,653	4,720	33.6%	1.4%
Health Care	4,253	4,889	4,880	15.0%	-0.2%
Arts, Entertain	229	171	308	-25.3%	80.1%
Accommodation	2,616	3,134	4,580	19.8%	46.1%
Other Services	1,509	1,102	1,358	-27.0%	23.2%
Public Administration	957	1,404	1,643	46.7%	17.0%
TOTAL	40,484	38,032	45,213	-6.1%	18.9%
Sources:	U.S. Bureau of the Census and Randall Gross / Development Economics.				

total job base even though the city's population (47,356 in 2020) only accounted for about 38% of the metro area's population (126,164).

Employment in the city was up by 1,780 or 5.2% from 2002. The city lost about 2,000 jobs leading up to and during the recession of 2008-09, including about one-third of its manufacturing jobs. But Cleveland gained nearly 4,000 jobs between 2010 and 2018, including about 300 manufacturing jobs. Overall, the city's share of metro area employment fell slightly, from 83.8% in 2002 to 78.9% in 2018. The city's share of transportation jobs fell from 73% to 52% and its share of wholesale trade employment

fell from 86% to 56%. But Cleveland's share of metro-area finance employment increased from 84% to 92%. Employment trends within the city are summarized in Appendix Table A-1.

Industrial Market Conditions

The Cleveland industrial market is tracked alongside of its much larger neighbor, Chattanooga, and there is some overlap in the markets. The Chattanooga industrial market has about 57.6 million square feet of gross leasable space, according to Co*Star. In addition to this GLA, Chattanooga has large owner-occupied industrial facilities including major manufacturing facilities like the new VW plant. The city has long been a major manufacturing hub in the southeast, thanks in part to its strategic location, rail transportation, and other assets.

The Cleveland industrial real estate market has an estimated inventory of 12.5 million gross leasable square feet of warehouse, manufacturing, and other industrial space, or about 22% of the size of the Chattanooga market.

Occupancy

Vacancy has been declining in both Chattanooga and Cleveland, to the point where there is very little available building inventory. There is about 1.5 million square feet of available space in Chattanooga, yielding a vacancy rate of just 4.5%. But Cleveland's vacancy rate is extremely low, at just 1.7%, according to Co*Star, with only about 176,000 square feet of available space. The Cleveland market has added just about 123,000 square feet of new space over the last five quarters.

Absorption

Even with low vacancy rates, the market has had negative industrial absorption in three of the last five quarters despite expanding warehouse and distribution demand nationwide and absorption of nearly 500,000 square feet in Chattanooga. Some of this negative absorption related to a dearth of new industrial building space available for accommodating expansions and attracting new companies.

Rents

Rental rates have increased dramatically in the last few quarters, again relating both to a spike in demand coupled with a dearth in supply. Cleveland's industrial rate



increased from \$2.00 to \$3.72 per square foot, an increase of almost 90% in one year (since 3rd quarter 2020). Nevertheless, Cleveland’s industrial rates remain competitive in comparison to both Chattanooga (74% higher than Cleveland’s, at \$6.48 per foot) and nearby Dalton, Georgia (18% higher, at \$4.39).

Section 3 - Demand Analysis

Section 3 provides output from an industrial demand analysis that determined the existing and projected demand for industrial real estate in the Cleveland market area. This analysis examined demand from various perspectives, including analysis of industrial demand generated through projected employment growth as well as actual trends and patterns in the absorption of leasable industrial space in the market. Relocations and movements in the market were also considered, based in part on input from local economic development professionals.

Absorption Patterns

Industrial (net) absorption trends and patterns were examined over time in the Cleveland market. These absorption analyses indicate a peak of over 1.0 million square feet per year during



the 2011-2013 period but since that time, there has been stabilization in the market based on moving averages that “smooth” out broad fluctuations in market activity. These trends suggest that net industrial absorption totaled 0 to 200,000 square feet per year in recent years, with an average of 60,500 square feet per year. In a relatively small market, action on a single lease can skew overall absorption. But the moving averages help reduce the impact of individual leases and single-year fluctuations in the market, as noted on the left.

Industry & Employment Projections

Analyses of various industry and employment projections were conducted to assess baseline economic growth and the resulting demand for various types of industrial space in the Metro Cleveland market area. Sources for these growth projections included Woods & Poole Economics, Moody’s Analytics, the U.S. Bureau of Labor Statistics, and the Tennessee Department of Labor & Workforce Development. Overall, the Cleveland MSA is expected to add about 3,400 jobs over the next ten years, including 2,800 by 2026. There will be significant growth in health care, education, accommodation services, administration, retail, and transportation services, as shown in Appendix Table A-2.

Industrial Employment

Particular attention was paid to sectors generating demand for industrial space, including manufacturing, transportation & warehousing, construction, wholesale trade, utilities, and ancillary services associated with other sectors.

As shown above, these industrial sectors are expected to add about 130 net new jobs over the next ten years. Overall, that number is fairly small but certain sectors are more likely to generate demand for industrial space than others. Growth is expected in construction, which will add about 80 to 100 jobs. Wholesale trade will remain relatively static but transportation & warehousing (distribution) will add 640 to 700 jobs in the Cleveland market. Manufacturing is expected to decline, with employment falling by 630 over the ten-year period. However, not all manufacturing



industries will see falling employment. Manufacturers of transportation equipment, textile products, and paper are expected to grow, at least nominally.

Productivity Levels

While employment is expected to fall or fluctuate in certain sectors, productivity is forecast to continue increasing over time with the introduction of new technologies that increase production and reduce labor requirements. Thus, there can be demand for industrial space even as overall employment requirements fall. The dramatic increase in

productivity, coupled with more interdependent cross-border trade, have coincided over several decades to reduce the need for domestic labor in manufacturing.

Demand Forecasts

Industry-driven demand for industrial space was forecast for the Cleveland Metro market area in part based on employment forecasts, coupled with productivity levels, the amount of employment per industry that is housed in industrial buildings, and space requirements per worker. Surveys conducted by the Building Owners and Managers Association (BOMA) contributed regional information that helped inform this analysis.

Overall, the analysis suggests that the Cleveland MSA will add industrial employment generating demand for about 675,000 to 700,000 square feet of industrial space by 2030, or about 75,000 square feet per year. This net new demand will be generated for manufacturing, warehousing, and flex industrial buildings in the Cleveland Metro market. By far the greatest demand would be generated by distribution users (which can include manufacturing companies that have significant distribution capacity at their site). Transportation and warehousing demand would total nearly 1.3 million square feet in the market.

At the same time, there will be negative demand for about 650,000 square feet of “pure” manufacturing space. There is the possibility that some manufacturing space would be converted over to primarily distribution use, or that the “mix” of production and distribution in a given facility continues to favor the latter. Not all manufacturing industries will experience a decrease in demand for space. On the contrary, rising employment in transportation equipment manufacturing will generate demand for more space. The analysis assumes that productivity levels will slow somewhat. But if they continue to rise, the demand for space in certain industries like transportation equipment will grow faster.

Cleveland’s relative positioning near VW and other automotive manufacturers can speed the influx of transportation equipment suppliers above and beyond these forecasts. This projected demand does not include large, anchor “drop-in” uses that fall outside of normal market conditions and often result from regional or State marketing such as the Volkswagen plant in Chattanooga or the huge Ford complex planned for the Memphis Area Mega-site. The Mega-site took many years of marketing and huge public investments in order to secure the proposed 5,400-job Ford facility. But even smaller versions of these facilities sometimes fall outside of normal market parameters.

Industry/Sector	2021	2026	2030	Change (Number)		TOTAL
				2021-26	2026-30	
Ag/Lumber	226	220	219	(6)	(1)	(7)
Mining/Quarrying	6	7	7	1	0	1
Utilities	396	398	397	2	(0)	1
Construction	2,293	2,378	2,378	85	0	86
Manufacturing	8,878	8,595	8,246	(283)	(349)	(632)
Food & Beverages	1,544	1,523	1,490	(21)	(33)	(55)
Apparel	737	703	655	(34)	(48)	(82)
Textile Mills & Prods	157	168	165	11	(3)	8
Leather & Allied Prod	41	44	46	3	2	5
Paper Products	275	292	297	17	5	22
Electrical Equipment	2,206	2,101	1,978	(105)	(123)	(228)
Chemicals	1,048	1,004	955	(44)	(49)	(94)
Plastic Products	343	322	303	(21)	(19)	(40)
Fabricated Metals	289	257	238	(31)	(19)	(51)
Nonmetallic Minerals	604	596	585	(8)	(11)	(19)
Transport Equipment	59	60	60	1	1	1
Furniture	924	885	847	(40)	(38)	(77)
Miscellaneous	99	94	90	(5)	(4)	(9)
Wholesale Trade 1/	786	800	804	14	4	18
Transport/Warehouse	6,280	6,740	6,923	460	183	643
R&D & Tech Services	234	238	238	4	0	4
Repair & Maintenance	678	689	690	11	1	12
TOTAL	19,778	20,065	19,903	288	(162)	126
Sources:	U.S. Bureau of the Census; Woods & Poole; Moody's Analytics; TN DOL&WD; and Randall Gross / Development Economics.					



Correlation with Net Absorption

Historic absorption trends indicate net annual absorption of about 60,000 square feet per year, based on the take-up of gross leasable and marketable industrial space. Total net

Industry	SF/Emp	2021-2026	2026-2030	TOTAL
Ag/Lumber	954	(3,813)	(662)	(4,475)
Mining/Quarrying	954	79	54	133
Utilities	878	278	(38)	241
Construction	878	31,876	104	31,980
Manufacturing	892	(292,222)	(360,870)	(653,092)
Food & Beverages	920	(22,431)	(35,697)	(58,128)
Apparel	704	(27,683)	(39,563)	(67,246)
Textile Mills & Prods	1,552	19,266	(4,697)	14,569
Leather & Allied Prod	755	2,191	2,147	4,338
Paper Products	1,132	21,985	6,393	28,378
Electrical Equipment	821	(100,402)	(116,789)	(217,191)
Chemicals	870	(42,119)	(46,969)	(89,088)
Plastic Products	1,218	(29,196)	(26,770)	(55,966)
Fabricated Metals	964	(34,987)	(20,975)	(55,962)
Nonmetallic Minerals	973	(3,065)	(4,201)	(7,266)
Transport Equipment	999	792	762	1,554
Furniture	1,558	(67,478)	(64,403)	(131,881)
Miscellaneous	892	(5,049)	(4,096)	(9,146)
Wholesale Trade	2,454	40,595	10,440	51,035
Transport/Warehouse	2,509	891,421	355,081	1,246,502
R&D & Tech Services	405	1,617	131	1,747
Repair & Maintenance	296	2,725	372	3,097
TOTAL		672,556	4,611	677,167
<i>Per Year</i>		<i>134,511</i>	<i>1,153</i>	<i>75,241</i>
Sources:	BOMA; US Bureau of the Census, Woods & Poole, Moody's Analytics; TN DOL&WD, & Randall Gross/Dev. Economics.			

demand is likely to average 60,000 to 75,000 square feet per year through 2030, based on the assessment of absorption in the real estate market coupled with industry forecasts for employment and productivity levels. Thus, net demand is likely to total 750,000 square feet over a ten-year period.

Section 4 - Site Potentials

The potential for industrial development in the SR 306 Corridor study area was examined within the competitive market. The market analysis forecast demand for up to about 750,000 square feet over a ten-year period. But the study area would compete with other areas of the Cleveland market for capturing this demand. This section describes the competitive framework that was considered in determining the study area capture of potential demand for industrial space in the Cleveland market. Study area potentials are then described in this context.

In addition to this analysis, an "Opportunities Assessment" was conducted to identify possible opportunities for commercial development in the study area as well. A full Retail Market Analysis was not conducted. Rather, the Opportunities Assessment examined the study area in terms of factors impacting on its marketability for retail and commercial uses, and then suggests the general types of commercial activity that could be likely to occur there if SR 306 were constructed through the area.

Competitive Framework

Local and State government have invested in development and marketing of the new 330-acre Spring Branch Industrial Park, located just across US Highway 74 from the SR 306 Corridor site. About 200 acres in this park are developable. Spring Branch has begun to attract private investment, with the construction of a 231,000 square-foot plant for Cannon Automotive Solutions. Including Spring Branch, there are at least an estimated 2,560 acres of industrial land around Cleveland (according to Cleveland's economic development professional), some of which has infrastructure in place and is ready for development or offers access to the city's airport or freight rail.

In addition, while available industrial building space been in short supply, construction is planned on speculative buildings while some existing space will become available soon. Altogether, there is 744,000 to 864,000 square feet of existing or planned industrial building space that may be available in the Cleveland market in the next few years. For example, there is a 100,000 square foot speculative building under development in the Spring Branch park, pre-leasing at \$7.00 per square foot. The former Cooke Manufacturing Building on King Edward Avenue has another 100,000 to 150,000 square feet of available space at \$2.00 per foot. Another 44,000 square feet in new warehouse



space is coming on line in the APD-40 area, leasable at \$5.00 per foot. Thus, SR 306 would be initially compete with sites and buildings at Spring Branch, existing industrial parks, and at other locations around Cleveland and surrounding areas.

Site Capture

The market analysis indicates that the SR 306 Corridor has potential to capture about 200,000 to 260,000 square feet of industrial absorption by 2030 (or about 22,000 to 30,000 square feet per year, on average), but that most of that activity would only start to occur towards the later part of the decade assuming that demand has taken up most other available serviced land at Spring Branch and elsewhere in the Cleveland market by that time. A downturn in the economic cycle is also likely to stall industrial real estate demand, at least for a few years, around that same time.

Ultimately, phasing and timing will play a critical role in the development of SR 306 and determine when it can leverage further industrial development. In the short term, it will be in the City's interests to ensure that existing parks like Spring Branch and other sites with existing infrastructure continue to supply the market before additional land is released. But for longer-term planning, the SR 306 Corridor will provide a logical location for industrial expansion in the Cleveland market.

Commercial Opportunities

Opportunities for retail and commercial development in the SR 306 Corridor study area were also examined, although a market analysis was not conducted to forecast the development potentials for such uses. The general marketability of the study area for retail/commercial use was examined along with existing market conditions. Opportunities were identified based on this existing condition assessment.

Site Marketability

As noted in Section 1 of this report, the study area has excellent transportation access from I-75 and two federal highways (US 64 and US 74). The site is located at a prominent location near the intersection of I-75 and Cleveland's Bypass. Interstate 75 carries 48,000 AADT and the Bypass has 21,000 vehicles per day, so the site's access

at the Exit 20 interchange could be very attractive for retailers seeking high exposure along I-75 and specifically in this market. There is relatively little existing commercial development at this interchange, other than the Pilot Travel Center, UEC Theatres, Toyota of Cleveland, and Nissan, all located on the western side of I-75. There is also highway-oriented retail, as noted earlier in this report, along U.S. Highway 64 towards downtown Cleveland.

The retail trade area for the SR 306 study area is likely to extend south and west along I-75 and the Bypass. This area is not densely populated at present, but again, exposure from I-75 could draw highway traffic into the site. If SR 306 were extended west through the study area, it is possible that the road would enable greater east-west commuter traffic flow towards Cleveland's industrial areas (south and west on the Bypass) and beyond to I-75 and Chattanooga. (Likely traffic and commutation patterns are still to be determined by Ragan Smith). If such flow were to be enabled, then the retail trade area for the site would include residential neighborhoods to the northeast along Freewill Road (SR 306) towards Hopewell.

Existing Market Conditions

As with industrial, the retail/commercial market in Cleveland is relatively tight. There are relatively few competitive retail spaces available on the market. A search of listings identified about 43,000 square feet of available retail space for lease, including 14,200 square feet in a former Rite Aid location on Paul Huff Highway. Commercial asking rents appear to be averaging in the \$15.00 per foot range for quality space at marketable locations. The market has attracted name brands including Kohl's, Target, Ross, Bed Bath & Beyond, Electronic Express, JC Penney, Belk, AMC Theaters, Hibbett Sports, Walmart (2), Lowe's, TX Maxx, Aldi, Food Lion, Big Lots, Tractor Supply Company, Old Navy, Staples, Taziki's, Food City, BAM, CVS, Walgreens, Cracker Barrel, The Home Depot, Starbucks, Publix, O'Charley's, Outback, Chilis, Kay Jewelers, Zales, and others.

Cleveland also has a vibrant downtown with at least 16 restaurants and more than 40 boutiques, specialty shops, personal service businesses, and fitness facilities. Most of the downtown businesses are independently operated and unique to Cleveland. Cleveland also has a small but emerging office market, centered around County government and the medical center. The city has also seen new lodging facility development thanks to its presence on I-75, relative proximity to Chattanooga, and available financing for hotel development.



Key Opportunities

The SR 306 study area offers opportunities for commercial development largely because of its proximity and exposure to I-75. Such development is likely to be highway-oriented in the short term, given existing conditions, such as filling stations, lodging, restaurants, and similar activities. Over the longer term, extension of SR 306 could help expand the trade area to include commuter households traversing the city from Northwest to Southeast. This would bring exposure to internal portions of the site and help establish opportunities for convenience retail. Of course, if residential development were allowed and demand supported it, then dense residential neighborhoods would also help drive demand for commercial uses. If Cleveland eventually expands south and west, then this area will become increasingly valuable for destination commercial or mixed-use development as a central and accessible location within a broader trade area. These opportunity concepts are identified based on existing conditions and development patterns, but have not been tested in the market.



Appendix

Table A-1. AT-PLACE EMPLOYMENT TRENDS BY SECTOR, CITY OF CLEVELAND, 2002-2018

Industry Sector	2002	2010	2018	2002-10 Change	2010-18 Change
Agriculture	6	6	23	0.0%	283.3%
Mining	18	-	2	-100.1%	N/A
Utilities	238	224	227	-5.9%	1.3%
Construction	732	644	463	-12.0%	-28.1%
Manufacturing	11,782	7,834	8,139	-33.5%	3.9%
Wholesale Trade	1,676	736	455	-56.1%	-38.2%
Retail Trade	3,240	3,266	4,152	0.8%	27.1%
Transport & Whsq.	656	870	1,857	32.6%	113.4%
Information	249	264	202	6.0%	-23.5%
Finance	823	1,058	916	28.6%	-13.4%
Real Estate	281	224	261	-20.3%	16.5%
Professional/Sci	758	663	710	-12.5%	7.1%
Management	322	330	985	2.5%	198.5%
Administrative Services	1,878	2,171	2,249	15.6%	3.6%
Education & Social	3,153	4,272	4,373	35.5%	2.4%
Health Care	3,407	4,340	3,925	27.4%	-9.6%
Arts, Entertain	150	112	190	-25.3%	69.6%
Accommodation	2,231	2,662	3,961	19.3%	48.8%
Other Services	1,401	970	1,157	-30.8%	19.3%
Public Administration	917	1,263	1,448	37.7%	14.6%
TOTAL	33,918	31,909	35,695	-5.9%	11.9%
Sources:	U.S. Bureau of the Census and Randall Gross / Development Economics.				

Table A-2. AT-PLACE EMPLOYMENT FORECASTS, CLEVELAND MSA, 2021-2030

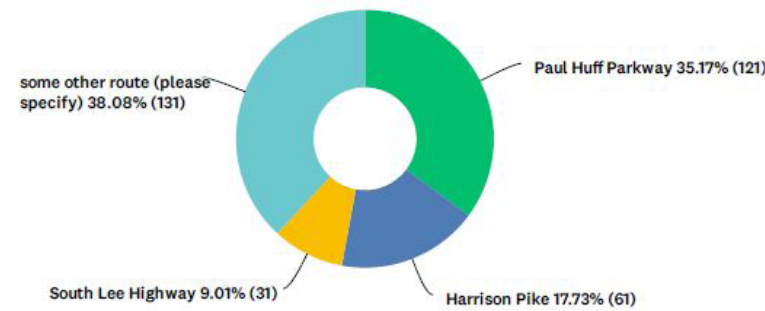
Industry	2021	2026	2030	2021-2026	2026-2030
Agriculture	192	186	185	(6)	(1)
Forestry, Fishing	35	34	34	(0)	(0)
Mining	6	7	7	1	1
Utilities	396	398	397	2	(1)
Construction	2,293	2,378	2,378	85	0
Manufacturing	8,878	8,595	8,246	(283)	(349)
Wholesale Trade	786	800	804	14	4
Retail Trade	5,184	5,447	5,508	263	60
Transport/Warehouse	6,280	6,740	6,923	460	183
Information	234	238	238	4	0
Finance & Insurance	951	974	1,016	23	42
Real Estate	311	324	322	13	(2)
Professional/Tech	658	663	669	5	6
Management	700	710	698	9	(12)
Administration	2,749	3,032	3,249	282	218
Education	4,686	5,330	5,378	643	48
Health Care	4,951	5,654	5,920	703	266
Arts & Entertainment	266	307	305	40	(2)
Accommodation/FS	4,494	4,927	5,091	434	163
Other Services	1,059	1,105	1,126	46	20
Non-Profit/Civic	502	475	452	(28)	(23)
Government	1,574	1,651	1,678	77	26
TOTAL	47,187	49,975	50,623	2,788	649
Sources:	Woods & Poole Economics, Moody's Analytics, U.S. Bureau of Labor Statistics; Tennessee Department of Labor & Workforce Dev.; and Randall Gross/Development Economics.				



Stakeholder input for the corridor study included a digital online survey. The survey questionnaire was developed and endorsed by city and county leadership to reach constituents with direct links and distribution through internet channels. The survey received strong response that included almost 350 participants. The following is a summation of survey results.

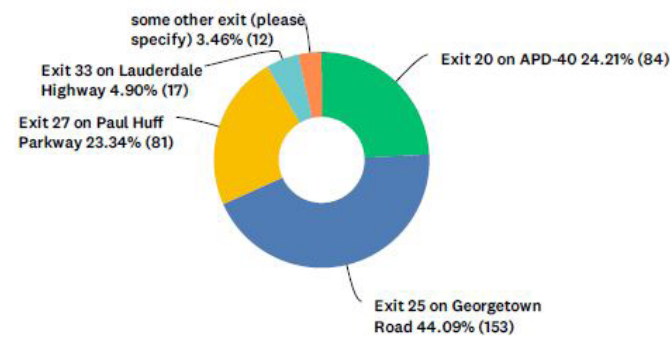
Q1 Thinking about how you get from your home to work, schools, and other essential services and activities in Cleveland, which of the following best describes your primary route:

Answered: 344 Skipped: 5



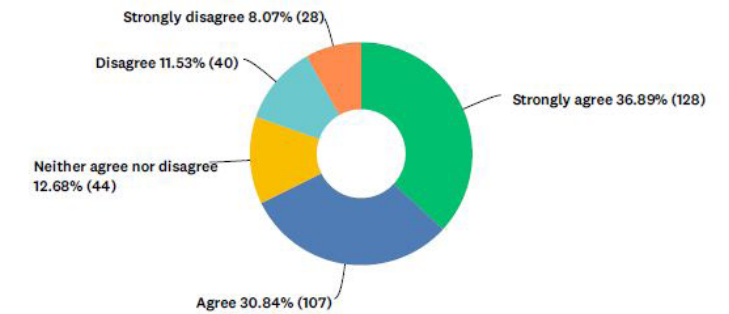
Q2 Traveling directly from your home to I-75 where would you most likely get on the interstate:

Answered: 347 Skipped: 2



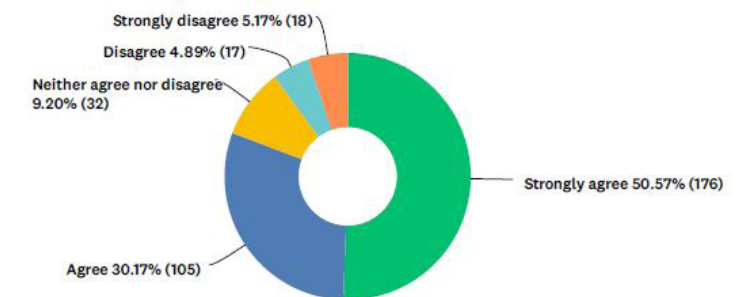
Q3 In general, the Freewill Road SR 306 Extension Corridor described and depicted above would provide transportation benefits to many Cleveland / Bradley County residents.

Answered: 347 Skipped: 2



Q4 Improving Freewill Road for traffic from continued residential growth is important.

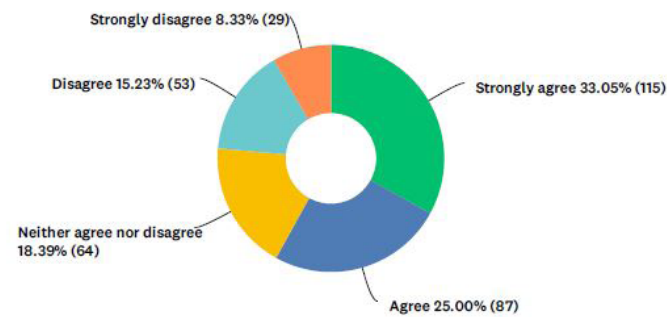
Answered: 348 Skipped: 1





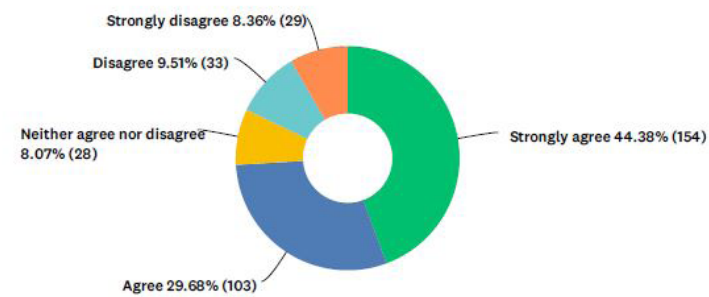
Q5 Improvements for pedestrians and bicyclists should be a part of the Freewill Road improvements.

Answered: 348 Skipped: 1



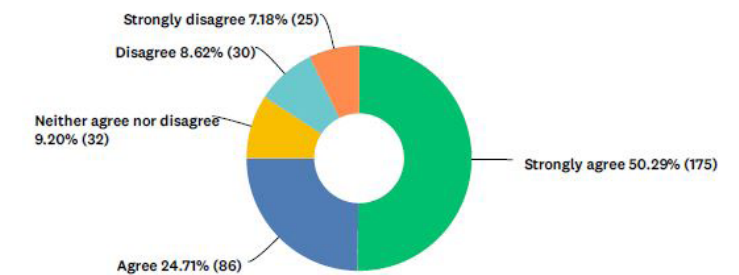
Q6 A new roadway that could help drivers get quickly from Freewill Road or Harrison Pike to I-75 Exit 20 would be an important segment for improvement.

Answered: 347 Skipped: 2



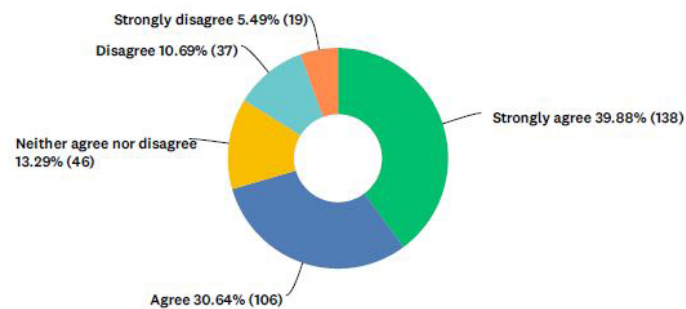
Q9 If feasible, the new I-75 bridge crossing for the project should be designed to accommodate an additional I-75 interchange at or near Harrison Pike.

Answered: 348 Skipped: 1



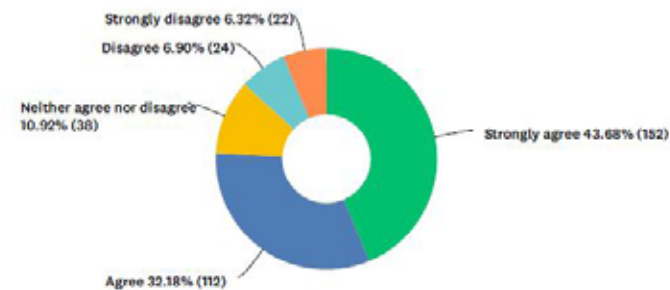
Q7 Improvements to Freewill Road and Harrison Pike that would make that a quicker route into downtown Cleveland would be an important segment for improvement.

Answered: 346 Skipped: 3



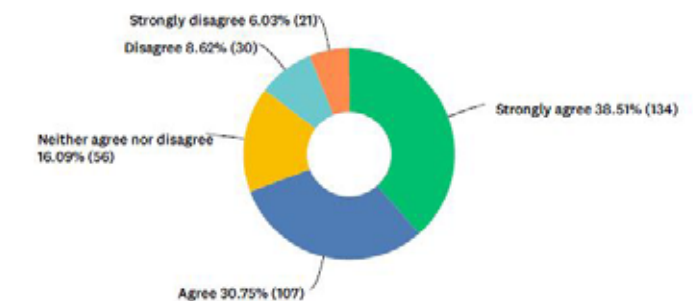
Q8 A new I-75 bridge crossing that moves the extended Freewill Road further from Prospect Elementary School, reducing school related congestion and improving access east into town and south to US 64/74 and Exit 20 would be an important project goal.

Answered: 348 Skipped: 1



Q12 A high-quality parkway like appearance with landscaped medians and edges, dedicated turn pockets, neighborhood identification signage, and street lighting are an important feature of the new roadway extension between Harrison Pike and the Tom Rowland interchange at APD-40 or US 64/74.

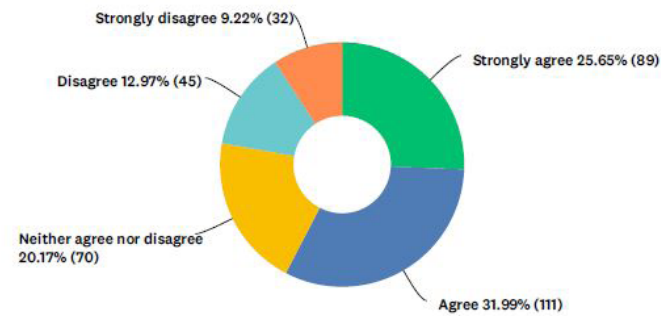
Answered: 348 Skipped: 1





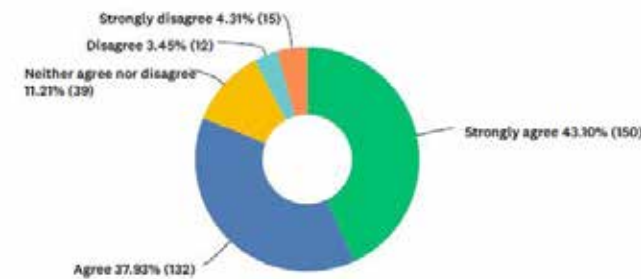
Q10 A moderate-sized area of community scaled commercial development near the new crossing of Freewill Road and Harrison Pike would benefit area residents.

Answered: 347 Skipped: 2



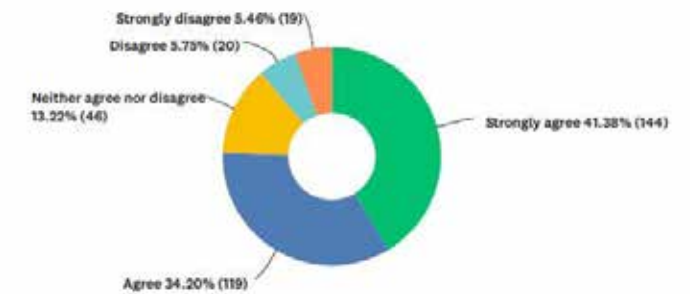
Q11 Managing congestion and improving safety via the use of access controls (limiting driveway encroachments, use of medians and turn pockets, coordination of shared access points for future development, etc.) would be important features for redevelopment of the road infrastructure in this corridor.

Answered: 348 Skipped: 1



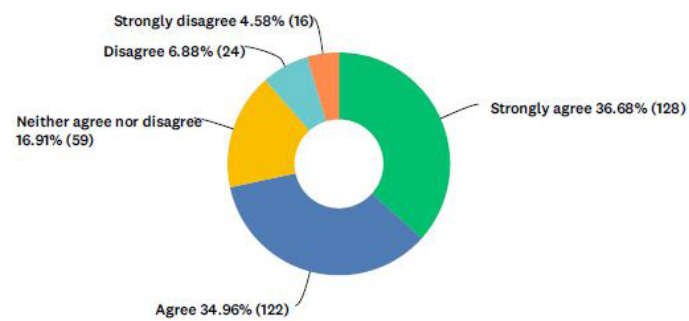
Q15 The proposed project could support large-scale commercial and industrial development in suitable locations along APD-40, and continued development of the Spring Branch Industrial Park. This additional development would be beneficial for the residents of Cleveland/ Bradley County.

Answered: 348 Skipped: 1



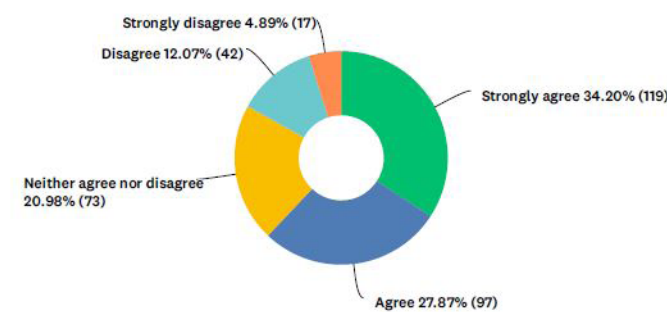
Q13 Cleveland and Bradley County need more living wage jobs and light industrial or manufacturing career opportunities.

Answered: 349 Skipped: 0



Q14 More Commercial Services, Retail, and Restaurants are needed to serve the west side of Cleveland and Bradley County.

Answered: 348 Skipped: 1





ECONOMIC DEVELOPMENT:

1.

Continue to expand and market growth of the industrial land use in the corridor with the understanding that market absorption for this expanded area will be a long term objective which will require a phased approach.

2.

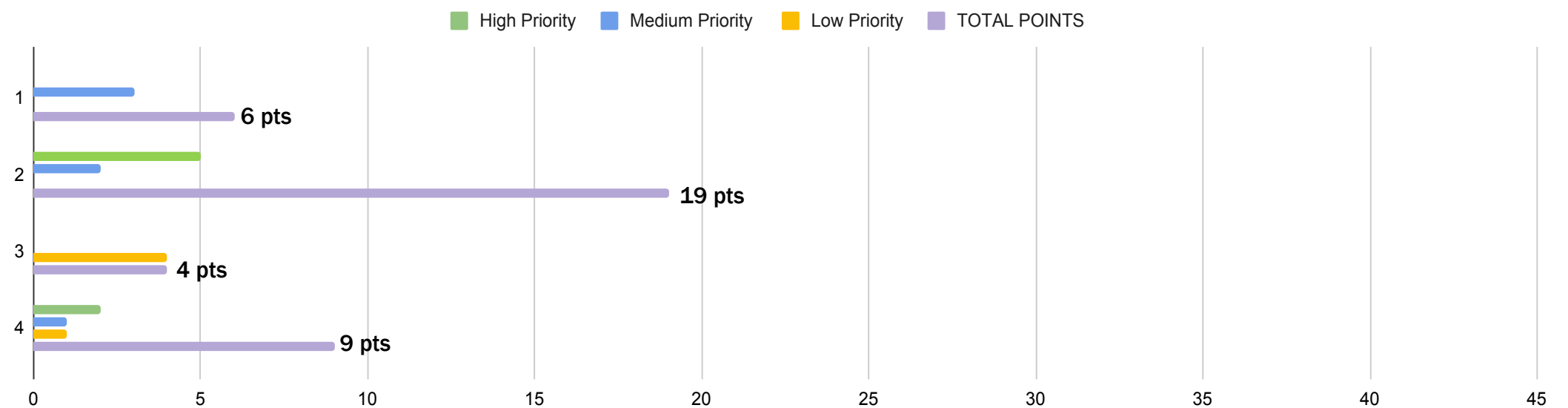
Brand the I-75/APD -40 interchange as a gateway district for Cleveland. This will require major planning and development of a visionary overlay future land use district that includes a new mixed-use zoning classification and an economic development strategy for higher end commercial/office use and high-density residential

3.

Promote high value, walkable neighborhood development on the north east side of the corridor that strengthens the market for downtown revitalization and connection to existing schools, and support local neighborhood nodes of commerce

4.

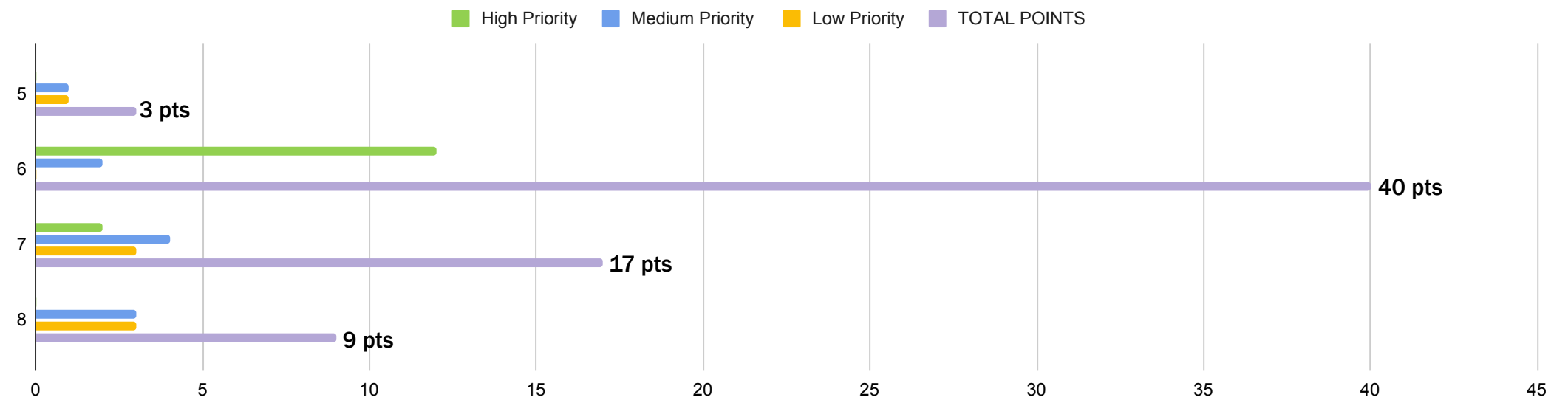
Plan and invest in future transportation networks within the corridor with the goals of both increased commerce and improved quality of life opportunities related to less traffic congestion, improved pedestrian and bicycle connections and well designed public space and streetscape.





LAND USE & COMMUNITY CHARACTER:

5. Create a new industrial park area between the APD/40 expressway and Harrison Pike along a new road network. This industrial park would capture the potential for approximately 323 acres and would include opportunities for light manufacturing, light industrial, distribution warehousing, and office space.
6. Expand the spring branch industrial park to include approximately 228 acres near the I-75/APD interchange (exit 20).
7. Create a new gateway, mixed-use district between I-75 and 64 (Lee Highway) along the APD expressway. This gateway district would consist of approximately 270 acres with high visibility, multi-level buildings providing a mixture of high end destination retail, lodging and restaurants along with class A office space and high density residential.
8. Establish areas for residential growth along with local parks and preservation of historic agricultural lands





TRANSPORTATION & UTILITY INFRASTRUCTURE:

9.

Improve existing Freewill Road from Georgetown Road to Harrison Pike to accommodate existing traffic and future growth. Improvements could include curb and gutter, stormwater control, pedestrian and bicycle provisions, and improved intersections with turning lane and crosswalk opportunities.

10.

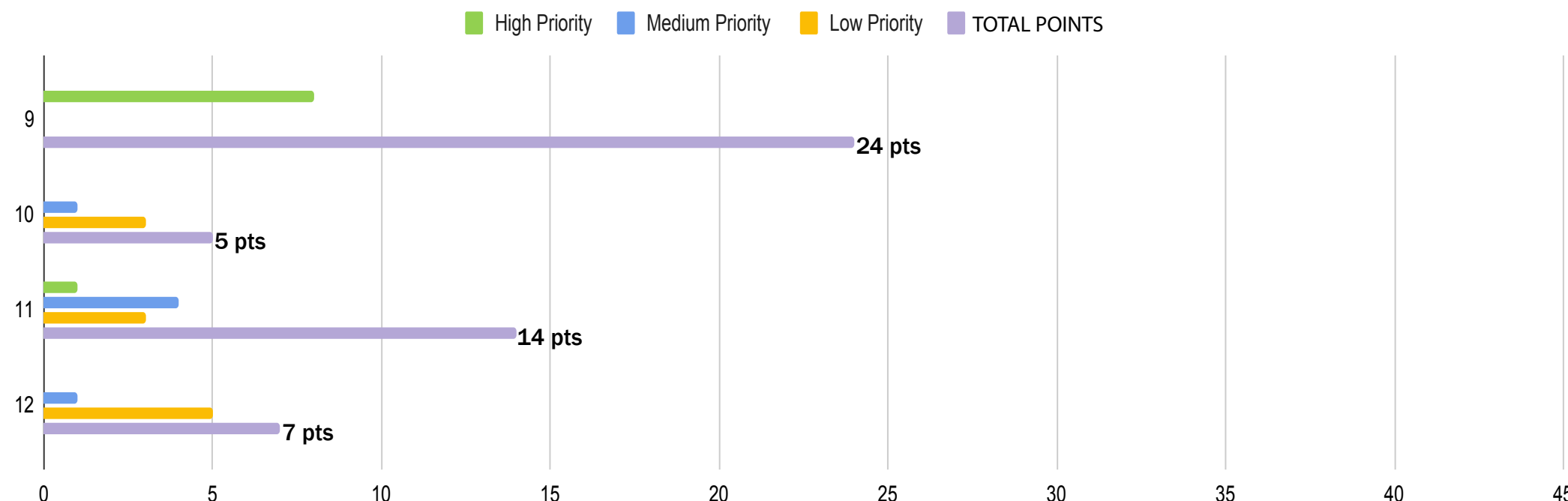
Brand the I-75/APD -40 interchange as a gateway district for Cleveland. This will require major planning and development of a visionary overlay future land use district that includes a new mixed-use zoning classification and an economic development strategy for higher end commercial/office use and high-density residential

11.

Create a new North-South collector or arterial road to connect APD 40 to Harrison Pike. This new connector provides new development opportunities and improvements to the local transportation network and would extend SR 306 through the corridor for future growth.

12.

Plan for an additional new North-South connector on the West side of I-75 between Pleasant Grove Road and Harrison Pike to strengthen local road networks and alleviate traffic through some of the interchange intersections- this is in anticipation of future suburban growth in the area.





MULTI-MODAL CONNECTIVITY AND GREENWAY:

13.

Existing Freewill Road and the potential connector road improvements should be designed and constructed with accommodation for pedestrian and bicycle transportation modes. Encourage industrial park area and mixed-use development to provide a multi-modal street network.

14.

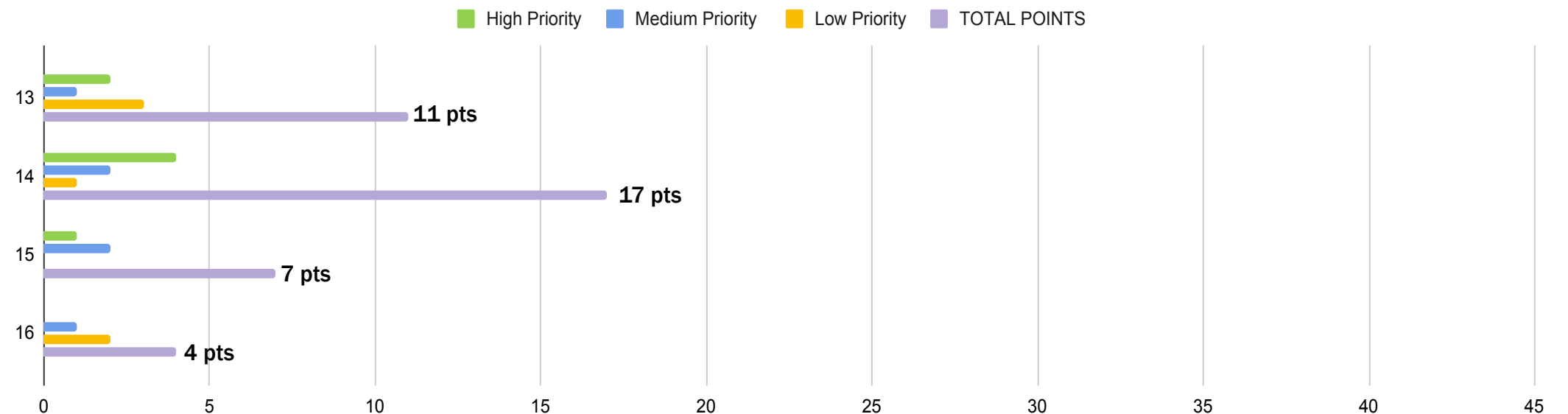
Extend greenway opportunities through Fletcher Park and Candies Creek and Harris Creek drainageway. Utilize this greenway as a natural conservation zone for health, recreation and environmental quality

15.

Extend the existing Mouse Creek Greenway along Harrison Pike to connect with the SR 306 corridor and potential future greenway opportunities along Candies Creek.

16.

Establish a connection of creeks, greenways, potential park space, and legacy agricultural land through the corridor areas and link to a recreational gateway to Ocoee/Hiwassee recreational areas.





- High Priority (3 points)
- Medium Priority (2 points)
- Low Priority (1 point)

Freewill Road/SR 306
Corridor Study

16 Big Ideas-Corridor Recommendations

Economic Development:	Land Use & Community Character:
<p>1. Continue to expand and market growth of the industrial land use in the corridor with the understanding that market absorption for this expanded area will be a long term objective which will require a phased approach.</p>	<p>5. Create a new industrial park area between the APD 40 expressway and Harrison Pike along a new road network. This industrial park would capture the potential for approximately 225 acres and would include opportunities for light manufacturing, light industrial, distribution warehousing, and office space.</p>
<p>2. Brand the I-75/APD-40 interchange as a gateway district for Cleveland. This will require major planning and development of a visionary overlay future land use district that includes a new mixed-use zoning classification and an economic development strategy for higher end commercial/office use and high-density residential.</p>	<p>6. Expand the spring branch industrial park to include approximately 225 acres near the I-75/APD interchange (exit 20).</p>
<p>3. Promote high value, walkable neighborhood development on the north east side of the corridor that strengthens the market for downtown revitalization and connection to existing schools, and support local neighborhood nodes of commerce.</p>	<p>7. Create a new gateway, mixed-use district between I-75 and 64 (Lee Highway) along the APD expressway. This gateway district would consist of approximately 225 acres with high visibility, multi-level buildings providing a mixture of high end destination retail, lodging and restaurants along with class A office space and high density residential.</p>
<p>4. Plan and invest in future transportation networks within the corridor with the goals of both increased commerce and improved quality of life opportunities related to less traffic congestion, improved pedestrian and bicycle connections and well designed public space and streetscape.</p>	<p>8. Establish areas for residential growth along with local parks and preservation of historic agricultural lands.</p>

Freewill Road/SR 306
Corridor Study

16 Big Ideas-Corridor Recommendations

Transportation & Utility Infrastructure:	Multi-modal Connectivity and Greenways:
<p>9. Improve existing Freewill Road from Georgetown Road to Harrison Pike to accommodate existing traffic and future growth. Improvements could include curb and gutter, stormwater control, pedestrian and bicycle provisions, and improved intersections with turning lane and crosswalk opportunities.</p>	<p>13. Existing Freewill Road and the potential connector road improvements should be designed and constructed with accommodation for pedestrian and bicycle transportation modes. Encourage industrial park area and mixed-use development to provide a multi-modal street network.</p>
<p>10. Create a new North-South collector or arterial road to connect APD 40 to Harrison Pike. This new connector provides new development opportunities and improvements to the local transportation network and would extend SR 306 through the corridor for future growth.</p>	<p>14. Extend greenway opportunities through Fletcher Park and Candies Creek and Harris Creek drainage way. Utilize this greenway as a natural conservation zone for health, recreation and environmental quality.</p>
<p>11. Create a new interchange or bridge crossing at the juncture of existing Freewill Road and the new North-South arterial connector to provide additional interstate connections and/or crossings. This would relieve some of the congestion at existing interchanges and provide a stronger transportation network for future growth.</p>	<p>15. Extend the existing Mouse Creek Greenway along Harrison Pike to connect with the SR 306 corridor and potential future greenway opportunities along Candies Creek.</p>
<p>12. Plan for an additional new North-South connector on the West side of I-75 between Pleasant Groves Road and Harrison Pike to strengthen local road networks and alleviate traffic through some of the interchange intersections- this is in anticipation of future suburban growth in the area.</p>	<p>16. Establish a connection of creeks, greenways, potential park space, and legacy agricultural land through the corridor areas and link to a recreational gateway to Ocoee/Hiwassee recreational areas.</p>



FHWA Access Points Analysis:

It was not within the scope of this study to perform an analysis or support study for an Interstate System Access Change based on FHWA Interstate Access Points Policy. However, we were asked to evaluate the potential for such an improvement to occur in the future as one of the potential outcomes of the SR 306 Corridor Study. Based on our Inventory and Analysis, review of existing Data, and assessment of the current specificity in land use and transportation planning documents for the study area; it is RSA's opinion that current conditions likely do not meet FHWA Interstate Access Policy Points criteria for a new interchange. However, there are many other elements proposed as next steps that would both benefit the community and meet partner funding criteria.

Cleveland and Bradley County are at a critical juncture in the land use planning and build out of significant tracts of land adjacent to Interstate 75 and APD-40. The vision and development trajectory for the areas identified on the Potential Land Use Map and Character Area maps will drive transportation planning and economic outcomes. The type, scale, and quality of planning and execution of development in these areas will also be a critical component in how Cleveland is perceived and fits into the regional community and economic market. Further market and traffic analysis should proceed in lock step with land use and zoning decisions.

If Cleveland is diligent, strategic, and pursues a cohesive strategy over the next decade the study area could develop into a major economic engine for the region as well as a complimentary community center to historic Cleveland. This is also the scenario that would be most likely to warrant and provide the economic stimulus necessary to result in serious consideration of another Cleveland area access point on I-75.

FHWA Interstate Access Points Policy:

Policy Point 1: The need being addressed by the request cannot be adequately satisfied by existing interchanges to the Interstate, and/or local roads and streets in the corridor can neither provide the desired access, nor can they be reasonably improved (such as access control along surface streets, improving traffic control, modifying ramp terminals and intersections, adding turn bays or lengthening storage) to satisfactorily accommodate the design-year traffic demands (23 CFR 625.2(a)).

Policy Point 2: The need being addressed by the request cannot be adequately satisfied by reasonable transportation system management (such as ramp metering, mass transit, and HOV facilities), geometric design, and alternative improvements to the Interstate without the proposed change(s) in access (23 CFR 625.2(a)).

Policy Point 3: An operational and safety analysis has concluded that the proposed change in access does not have a significant adverse impact on the safety and operation of the Interstate facility (which includes mainline lanes, existing, new, or modified ramps, ramp intersections with crossroad) or on the local street network based on both the current and the planned future traffic projections. The analysis shall, particularly in urbanized areas, include at least the first adjacent existing or proposed interchange on either side of the proposed change in access (23 CFR 625.2(a), 655.603(d) and 771.111(f)). The crossroads and the local street network, to at least the first major intersection on either side of the proposed change in access, shall be included in this analysis to the extent necessary to fully evaluate the safety and operational impacts that the proposed change in access and other transportation improvements may have on the local street network (23 CFR 625.2(a) and 655.603(d)). Requests for a proposed change in access must include a description and assessment of the impacts and ability of the proposed changes to safely and efficiently collect, distribute and accommodate traffic on the Interstate facility, ramps, intersection of ramps with crossroad, and local street network (23 CFR 625.2(a) and 655.603(d)). Each request must also include a conceptual plan of the type and location of the signs proposed to support each design alternative (23 U.S.C. 109(d) and 23 CFR 655.603(d)).

Policy Point 4: The proposed access connects to a public road only and will provide for all traffic movements. Less than "full interchanges" may be considered on a case-by-case basis for applications requiring special access for managed lanes (e.g., transit, HOVs, HOT lanes) or park and ride lots. The proposed access will be designed to meet or exceed current standards (23 CFR 625.2(a), 625.4(a)(2), and 655.603(d)).



Policy Point 5: The proposal considers and is consistent with local and regional land use and transportation plans. Prior to receiving final approval, all requests for new or revised access must be included in an adopted Metropolitan Transportation Plan, in the adopted Statewide or Metropolitan Transportation Improvement Program (STIP or TIP), and the Congestion Management Process within transportation management areas, as appropriate, and as specified in 23 CFR part 450, and the transportation conformity requirements of 40 CFR parts 51 and 93.

Policy Point 6: In corridors where the potential exists for future multiple interchange additions, a comprehensive corridor or network study must accompany all requests for new or revised access with recommendations that address all of the proposed and desired access changes within the context of a longer-range system or network plan (23 U.S.C. 109(d), 23 CFR 625.2(a), 655.603(d), and 771.111).

Policy Point 7: When a new or revised access point is due to a new, expanded, or substantial change in current or planned future development or land use, requests must demonstrate appropriate coordination has occurred between the development and any proposed transportation system improvements (23 CFR 625.2(a) and 655.603(d)). The request must describe the commitments agreed upon to assure adequate collection and dispersion of the traffic resulting from the development with the adjoining local street network and Interstate access point (23 CFR 625.2(a) and 655.603(d)).

Policy Point 8: The proposal can be expected to be included as an alternative in the required environmental evaluation, review and processing. The proposal should include supporting information and current status of the environmental processing (23 CFR 771.111).