City of Middletown

Transit Development Plan

November 2024

MIDDLETOWN

EXECUTIVE SUMMARY

Information has been presented throughout this report that reflects the nature and scope of past, present, and future public transportation in the City of Middletown, Ohio. The Butler County Regional Transit Authority (BCRTA) is the contractor that provides transit services on behalf of the City. This report was generated with information provided by BCRTA in an attempt to document the adequacy of public transportation services currently provided and to present a supportable rationale to justify the use of federal/state/local monies in the provision of such services.

The report recognizes and addresses Environmental Justice (EJ) requirements, incorporating fixed route service area statistics, current ridership, and the residence and employment characteristics of low-income and minority populations in the City of Middletown. The fixed routes currently serves those census block groups (ACS, 2022) that contain approximately 85.8% of all low-income, 87.2% of all elderly, and 83.4% of all individuals identified as a minority. Local elected officials and the MPO supported the BCRTA contention that expenditures are necessary to maintain public transportation service as an alternative mode of travel, choice, and opportunity servicing the community's transportationally disadvantaged. All vehicles serving the fixed route system are lift-equipped with hydraulic kneeling capability and/or low floors to facilitate travel for the mobility impaired.

In 2023, the Middletown transit system fleet consisted of 6 motorbuses for fixed route service, 2 cutaways for both fixed route and microtransit services, and 8 commuter coaches for commuter route service.

In 2023, the fixed route service area encompassed approximately 27 square miles, and had a total ridership of 215,020.

In 2023, the complementary paratransit program, served an area of approximately 27 square miles and completed 5,723 trips.

Federal and state grant allocations, as well as operational costs, are outlined in Section 10. In 2025, new relief vehicles are planned to be purchased, as well as, the planning phase of renovating the Middletown Transit Station. BCRTA, on behalf of the City of Middletown, is applying for grant funding to renovate the Middletown Transit Station in 2027. Over the next 10 years, additional grants will be needed to replace transit vehicles in 2027, 2028, 2031, and 2035. BCRTA does not foresee any reduction in funding for public transportation in the City of Middletown for the next 10 years.

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SECTION 1 INTRODUCTION

1.1 Rationale

Public transportation within the City of Middletown is primarily provided by the City's Middletown Transit Services (MTS), which is operated under contract by the Butler County Regional Transit Authority (BCRTA). The City of Middletown is considered a small, urbanized area. As a small, urbanized area with a population of less than 200,000 people, the City receives state and federal transit funds from the Federal Transit Administration (FTA). The City of Middletown is outlining a Transit Development Plan (TDP) that assesses current transportation needs and services, which will provide a 10-year plan for how to improve public transit. A TDP needs to be in place in order to determine how state and federal transit funds should be allocated. It is also important to understand the context of transit within Middletown as well as its connectivity to surrounding communities. To identify and assess potential service improvements and capital projects within the service area, data and input collected from the previous tasks were analyzed to determine transit-related deficiencies, needs, and opportunities within the operating context of Middletown. These analyses will be incorporated into the proposed service alternatives for the City.

1.2 Objectives

The objective of this report is three-fold: (1) to document the present nature and scope of public transit services, (2) to assess the adequacy of existing transit services and propose alternatives, and (3) to provide a detailed plan to guide agency decisions and investments for the next 10 years. This report is intended to provide the insights and justification necessary to develop a financially sound public transportation service and to serve as a guide for policy and technical committees.

1.3 Overview

This study is composed of several distinct sections. The Introduction is followed by the results and feedback from community outreach activities. Section 3 provides an overview of the current Middletown fixed route system, including service modes, hours of operation, and frequency. Sections 4 and 5 identify whether current needs are met and examine the need for public transit for the next 5 and 10 years based on socioeconomical trends, demographics and travel patterns. Section 6 highlights the plan consistency with regional partners. Section 7 describes ongoing and future efforts to communicate public transit services. Section 8 provides an overview of service metrics such as efficiency, coverage, access, and affordability. Section 9 provides a vehicle inventory list that includes type, mileage, age, service mode, and remaining service life. Lastly, Section 10 includes the financial budget for the Middletown transit system as well as service developments and improvements.

SECTION 2 PUBLIC FEEDBACK

2.1 Community Outreach

In conjunction with the quantitative data analyses conducted for this Transit Development Plan (TDP), gathering and interpreting public input from the Middletown community is equally important to developing an understanding of the mobility needs of Middletown residents. This section summarizes the public engagement process for this TDP, and the multiple methods used to gather input, including stakeholder interviews, a public input survey, and a public meeting.

2.2 Stakeholder Interviews

The TDP project team selected several organizations to participate in stakeholder interviews, including the Middletown City Council and organizations representing the social services, education, healthcare, and economic development sectors. These interviews provide an in-depth understanding of Middletown constituents' transportation and transit-related needs and goals. This insight can assist the City of Middletown in its decision making related to future improvements.

Interviewers used a set of pre-determined questions to lead the interviews, although interviewers were free to ask questions beyond the script. In total, 15 individuals representing 11 organizations participated and are listed in Fig. 2-1.

FIGURE 2-1 – LIST OF STAKEHOLDERS

Organization	Representative	Title
Atrium Medical Center	Darlene Breedlove	Nurse Care Manager Team Leader
Butler County Board of Developmental Disabilities	Lee Ann Emmons	Superintendent
Butler County Job and Family Services	Michelle Best	Ombudsman
Butler County Job and Family Services	Julie Gilbert	Executive Director
City of Middletown	Lisha Morlan	Director of Community & Economic Development
City of Middletown	Jackie Phillips Carter	Health Commissioner
City of Middletown	Luis Rodriguez	Assistant Director of Community & Economic Development
City of Middletown	Elizabeth Slamka	Mayor
Community Building Institute	Verlena Stewart	Executive Director
Council on Aging of Southwestern Ohio	Judy Eschmann	VP of Community and New Business Operations
Kettering Health	Joshua Michalski	VP of Operations | COO
Miami University - Middletown	Laurel Gilbert	Senior Academic Advisor
OhioMeansJobs	Amy Miller	Operator
Primary Health Solutions	Stephen Roller	President & CEO
The Chamber of Commerce	Rick Pearce	President/CEO

2.3 Stakeholder Themes

The stakeholder interviews conducted for Middletown's TDP reveal several recurring themes that are critical to understanding the community's perception of the transit system and identifying areas for improvement. The feedback highlights both the strengths and challenges facing Middletown Transit Services (MTS) and provides insight into how the system could evolve to better serve the community. The following six primary themes were identified from the stakeholder interviews:

Varied awareness levels about the transit system.

- One of the most common themes among stakeholders is the differing awareness levels among people. Those who rely on MTS, such as low-income individuals or those with disabilities, tend to be more aware and appreciative of its role. It was noted that many medical patients and staff depend on transit for essential travel, especially since MTS offers fare-free service post-COVID.
- However, in other segments of the community, awareness is lower. Some stakeholders pointed out that non-users often lack knowledge about the system. Many residents may not recognize the importance of transit until they personally need it. This divide in awareness suggests that more outreach and education are needed to bridge the gap and normalize transit usage across the community.

Need for extended/improved operating characteristics.

- A prevailing theme is the need for extended hours, particularly for second and third-shift workers in industries like manufacturing and healthcare. Stakeholders emphasized that many workers cannot rely on the current system because MTS service do not extend beyond the standard working hours, which is problematic for employees who work outside traditional 9-to-5 hours.
- This issue extends beyond working hours to encompass the overall accessibility of the system. Stakeholders consistently call for more frequent, bidirectional routes, and routes that don't loop, and better regional connections between Middletown and nearby areas like Hamilton and Monroe. The need for better transportation access is particularly critical for marginalized groups, such as those without access to personal vehicles, minority groups, and low-income individuals.

Safety and comfort are significant concerns.

- Several stakeholders mentioned that the public's unfavorable perceptions of safety, cleanliness, and convenience can act as barriers to ridership, from both the current rider and potential rider perspective. MTS buses are often seen as clean and well-maintained on the outside, but some residents express hesitation about riding due to fears of encountering disruptive behavior or unsafe situations on board.
- There is also a need for improved bus stops, with better shelters and signage to protect riders from the elements and enhance the overall user experience.

Further improvements to paratransit services are needed.

- While the paratransit services offered by MTS are appreciated, stakeholders stress the need for further improvements. Stakeholders advocate for better driver training, particularly in dealing with riders who have developmental or non-physical disabilities. They also emphasize the growing demand for services that cater to older adults and individuals with chronic health conditions. In particular, there is a need for more door-to-door services that help aging adults reach medical appointments, allowing caregivers more flexibility in the workforce. Door-to-door service refers to assistance provided to passengers from the MTS vehicle to the door of their destination or to another assistant or caregiver.
- Expanding paratransit services and ensuring the program is accessible to all residents, including those in rural areas or on the outskirts of Middletown, is a crucial area for development. Many rural residents face challenges in accessing public transit, deepening disparities in healthcare and other essential services.

Targeted marketing and community engagement are needed.

- Stakeholders agree that more targeted marketing and community engagement are needed to increase transit usage. Current efforts leave room for improvement, particularly when it comes to reaching non-users or specific demographics, such as the Hispanic community. They suggest that transit marketing should focus on promoting the practical benefits of the system, such as cost savings, environmental benefits, and convenience. Tailored messaging that speaks to the needs of different groups—such as young people, car owners, and environmentally conscious residents—could help shift perceptions and normalize transit as a viable option for everyday travel.

There is a lack of regional connectivity and current route limitations.

- Middletown is geographically expansive, and many workers and students need transportation that crosses city lines into neighboring areas. However, current routes do not adequately serve these needs, particularly with relatively infrequent service, long runtimes, and limited transfers. Enhancing regional connectivity, especially to areas like Monroe, Hamilton, and other educational and industrial hubs, is essential for making transit a more practical option for many people.

Opportunities for purchased transportation/collaboration exist.

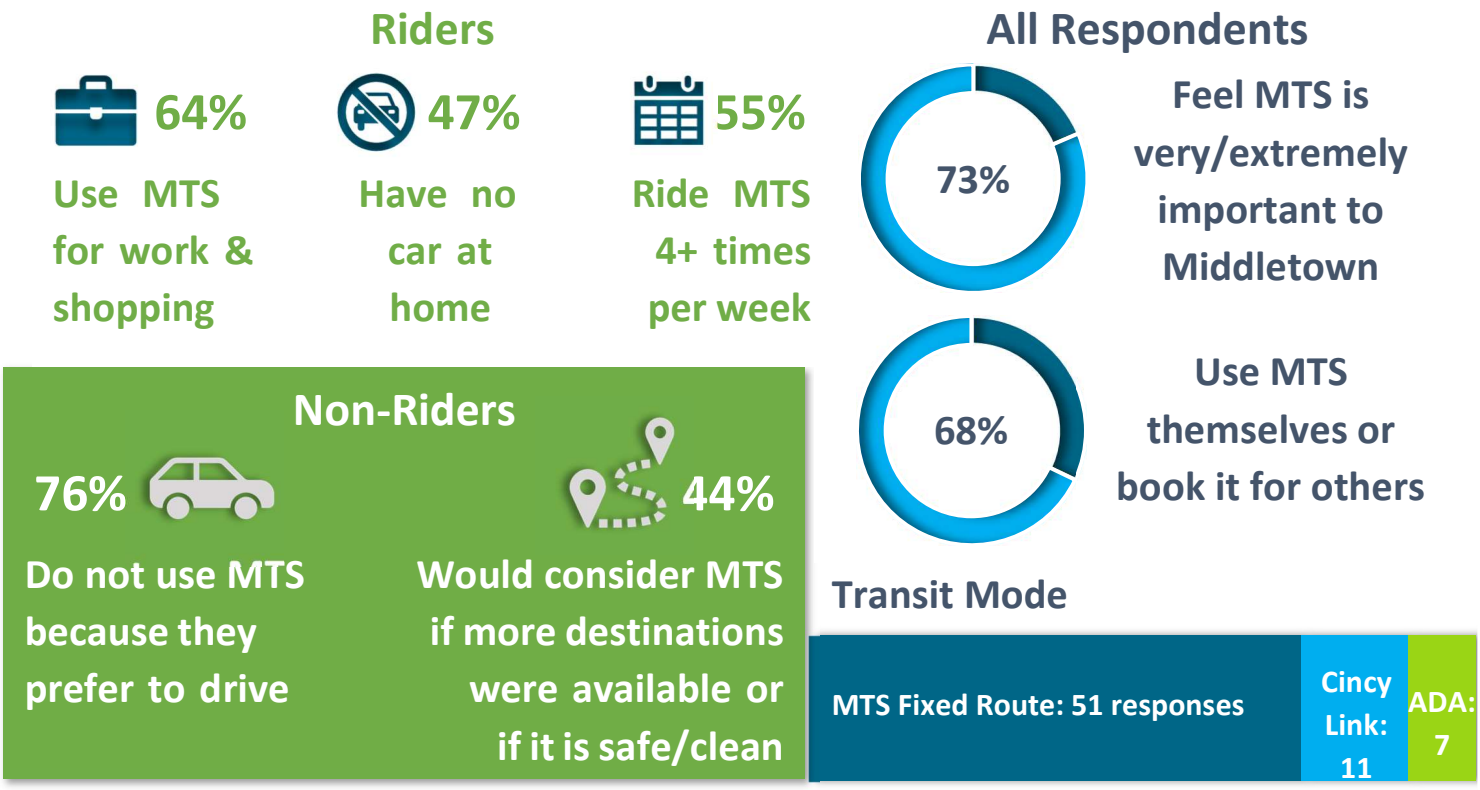
- Some stakeholders noted that they would be willing to contribute financially to MTS in order to get their transportation needs met. This could take the form of contracts, purchased transportation, or other arrangements. Medical and academic stakeholders were most keen to mention financial contributions to facilitate better services for their constituents.

2.4 Public Input Survey

A public survey was conducted to understand the attitudes, preferences, and goals of the community related to MTS. The survey was open from August 16th to September 15th, 2024. The survey was administered digitally via Survey123, accessible via computers, mobile phones, and other electronic devices. The City of Middletown and Butler County Regional Transit Authority (BCRTA) advertised the survey link via social media. It was also advertised on digital displays inside buses and facilities. BCRTA customer service staff aided in advertising the survey with onboard and in-person engagement. To incentivize participation, a $25 gift card raffle to a random survey respondent was held. The information gathered from the survey was used to help evaluate attitudes, preferences, and goals of the community related to public transit services. In total, 78 survey responses were recorded. For summary purposes, respondents who schedule a ride for others are tallied with the rider response group.

2.5 Results

The average survey respondent is a long-time MTS fixed route rider who feels transit is exceptionally important to the community and would recommend MTS to a friend. Survey results revealed that MTS riders' primary reason for using transit is lack of car access or inability to drive. The top two trip purposes are for working and shopping. The most popular transportation options for MTS riders, if transit were not available, are walking/wheelchair or getting a ride from someone. MTS riders say that hours of service (early/late) and ease of trip scheduling are most important to them, while free response comments reinforce that service hours need to be extended for people to get to work. Overall, MTS rider respondents report having zero cars available at home and lower incomes.



On average, non-riders have higher self-reported incomes and access to two vehicles at home. Non-riders still feel transit is important to the Middletown community, but less strongly than riders. Non-riders report their top reason for not using transit is because they prefer to drive, but if something could make them more likely to use transit it would be increased destinations and safe, clean buses.

Overall, the themes from the survey are summarized as follows:

- MTS riders value transit services and are satisfied enough to recommend MTS to a friend.
- MTS riders rely on transit for all daily needs; work and shopping being most popular, but other categories not far behind including medical, personal errands, recreation, and education. This indicates that MTS services provide access to essential needs and quality of life.
- MTS riders' primary reasons for riding transit are lack of access to a vehicle and the top alternative transportation choice would be to walk, get a ride from someone, or simply not make the trip. This could indicate that other transportation options like taxi/Uber/Lyft are cost prohibitive.
- Riders and non-riders have different perceptions of what is most important. Non-riders report perceived safety/cleanliness and available destinations as top improvements to make them more likely to use transit, meanwhile current riders report hours/days of service, ease of scheduling, frequency, and reliability as most important. This indicates a clear disconnect between what actual users experience and what potential users perceive to be valuable.

2.6 Public Meeting

The project team hosted a virtual public meeting on September 4th, 2024, via Zoom. The meeting was advertised via a press release by BCRTA. Two people attended the meeting in addition to the members of the project team. The meeting covered the following topics:

- What is a TDP?
- What transit services are offered in Middletown?
- Analysis of travel flows
- Summary of public engagement activities

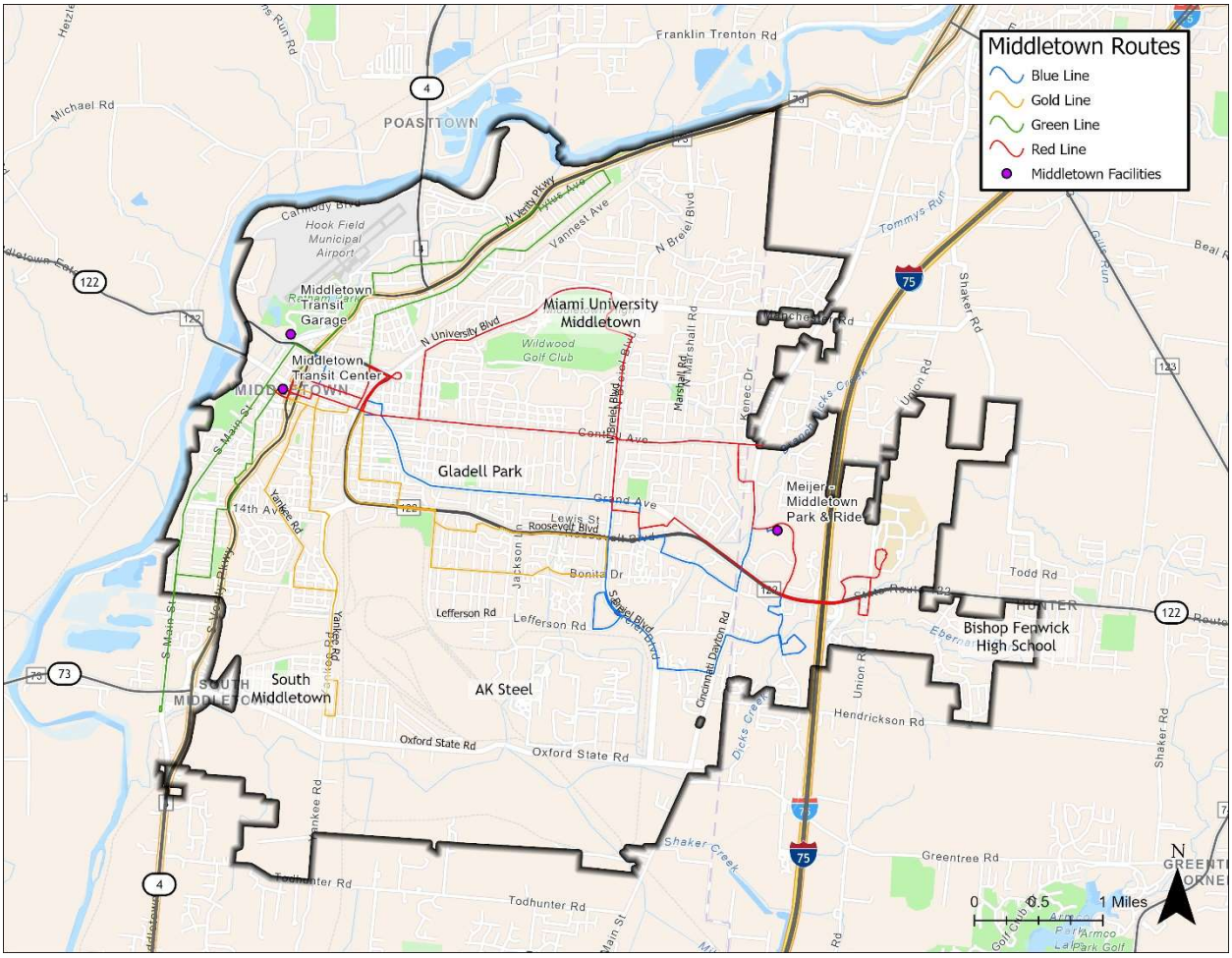
After the presentation, attendees inquired about the details and data sources for travel flow maps. Attendees were especially interested in potential commuter/work-based travel flows.

SECTION 3 EXISTING SERVICES

3.1 Fixed Route Service

There are four fixed routes in the City of Middletown: Blue Line, Gold Line, Green Line, and Red Line (Fig. 3-1). The Blue Line is a loop that travels in a southeastern direction from the Middletown transit center to the I-75 corridor. Gold Line has one loop that travels east and another loop that travels south. The Green Line also has two loops – on in the north direction and another in the south direction. Red Line is a loop that travels in the northeastern direction towards Miami University – Middletown and the I-75 corridor. All Middletown routes start and end at the Middletown Transit Center and operate with one motorbus with 60-minute headways. Hours of operation are 6:30 AM – 6:30 PM during weekdays and 8:30 AM – 4:30 PM on Saturday. In 2023, the fixed route service area encompassed approximately 27 square miles, and had a total ridership of 215,020.

FIGURE 3-1: FIXED ROUTE SERVICE WITHIN THE CITY OF MIDDLETOWN.



3.2 Paratransit Service

Paratransit service is provided along all fixed routes in the City of Middletown (Fig. 3-2). Customers are able to request a ride on their smartphone using the BGo app provided by BCRTA, or by contacting customer service. Paratransit service is available Monday through Saturday during the operating hours of fixed route services. In 2023, the complementary paratransit program, served an area of approximately 27 square miles and completed 5,723 trips, which includes trips in and out of the City.

FIGURE 3-2: PARATRANSIT SERVICE COVERAGE AREA.

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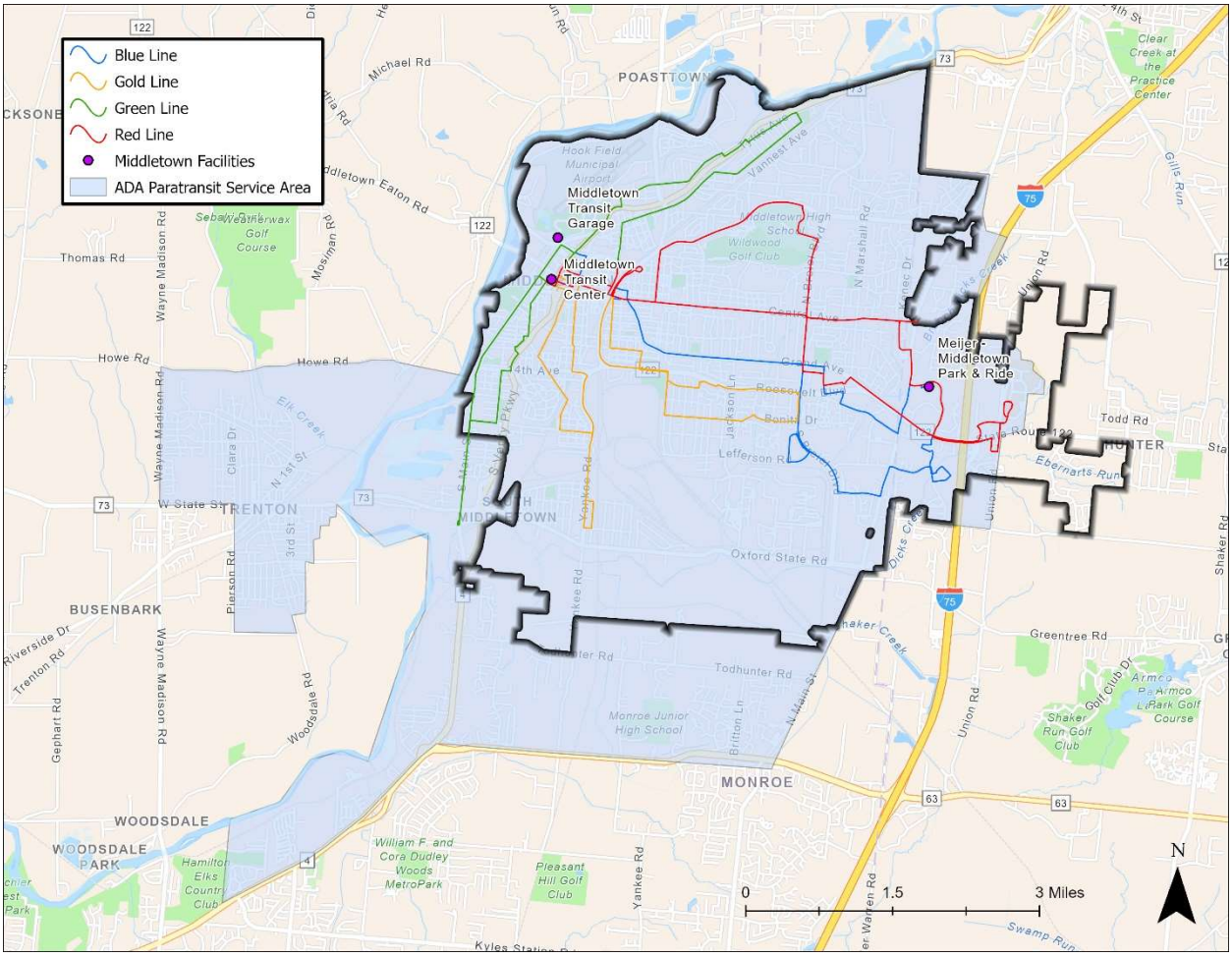
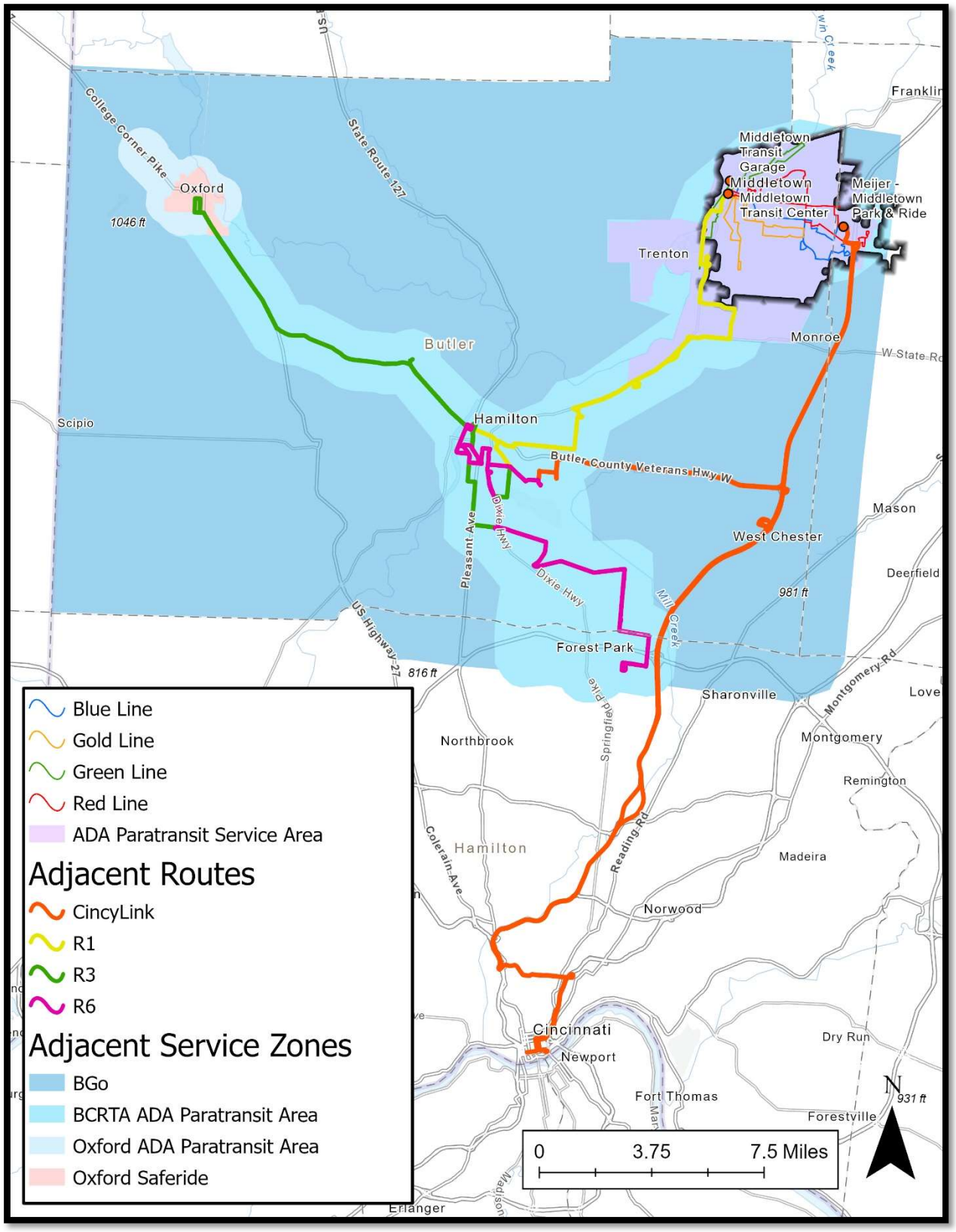


3.3 Neighboring Public Transit Services

There are other fixed route services that connect Middletown routes and transit infrastructure (Fig. 3-3). BCRTA operates regional routes in Butler County, known as, the R1, R3, and R6. These routes provide residents transportation between the major cities in the county as well as to key destinations like grocery stores, educational institutions, hospitals, and employers. In particular, the R1 connects with the Middletown routes at the Middletown Transit Center, which allows passengers to travel to Hamilton to utilize the other regional routes. More recently, as of January 2024, Middletown residents now have access to the new commuter route, CincyLink. This commuter route connects with Middletown routes at the Meijer – Middletown Park & Ride, and travels to downtown Cincinnati.

FIGURE 3-3: NEIGHBORING PUBLIC TRANSIT SERVICES NEAR THE CITY OF MIDDLETOWN, OH.



SECTION 4 TRANSIT MARKET GAP ANALYSIS

A traditional transit market refers to population cohorts that have historically demonstrated a higher demand for public transit to fulfill their mobility needs. Traditional transit users typically include older adults, youth and young adults, and households that are low-income and/or have zero vehicles. Furthermore, traditional transit users are often located in geographic areas with higher levels of density, land utilization, and built infrastructure. Understanding where traditional transit users and transit supporting infrastructure exist allows for a service evaluation that can guide future service improvements and capital projects.

This section presents the gap analysis, which is an evaluation process that compares existing service coverage to areas of potential need using results from a Transit Orientation Index (TOI), Density Threshold Assessment (DTA), and a Travel Flow Analysis for Middletown. This approach is useful for assessing the performance of public transit in meeting the needs of the populations within a service area which are most inclined to use transit.

The gap analysis aims to identify gaps in public transit where travel needs are high, but services are insufficient or non-existent to those areas. This is a process that uses socioeconomic data and geographic analysis. The first step involves determining where pockets of high demand for transit exist within the service area, considering the TOI factors and the population and employment density of local neighborhoods in the form of a DTA. After mapping the TOI, DTA, and travel trends within Middletown and surrounding areas, coverage gaps can be revealed by comparing the trends with current service coverage. The series of maps created within this section gives a picture of the overall state of transit coverage compared to the reality of travel flows within Middletown.

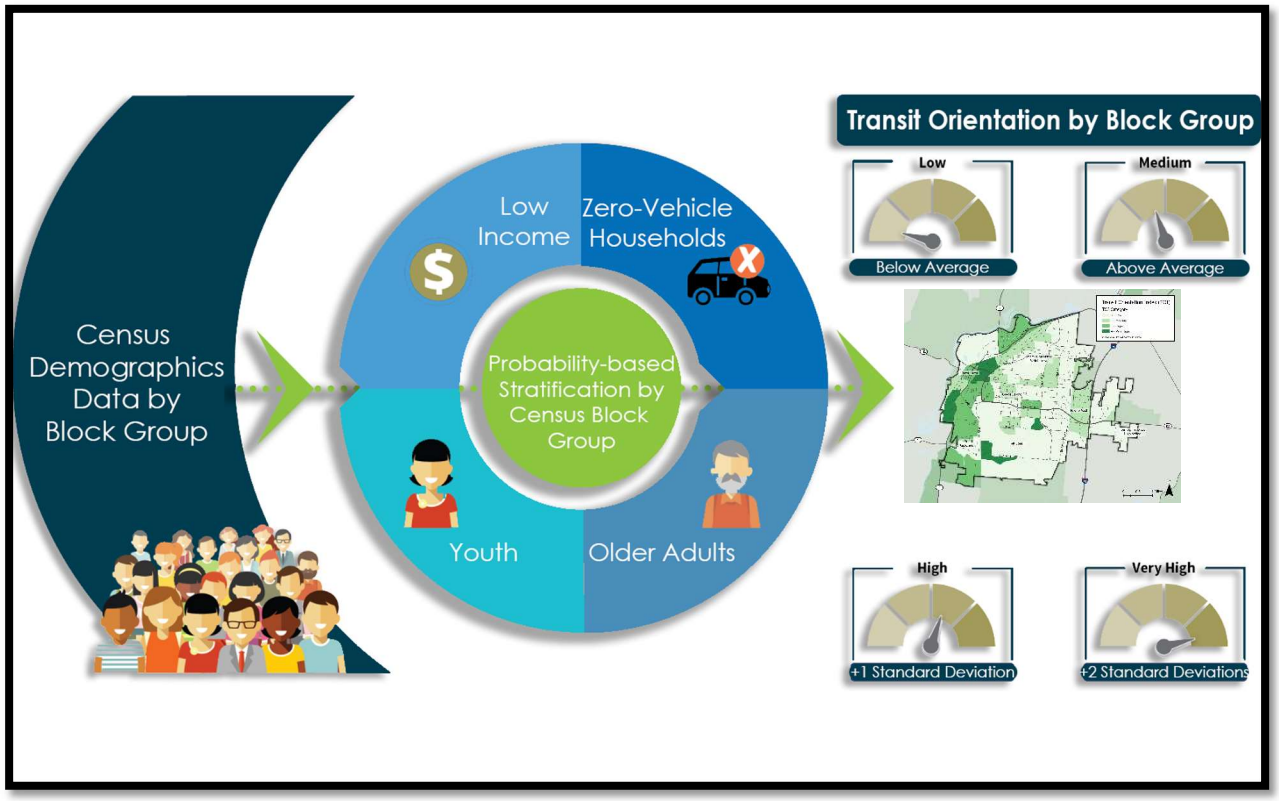
4.1 Transit Orientation Index

A TOI assessment assists in identifying areas where a traditional transit market exists. To create the TOI for this analysis, demographic data from the 2022 American Community Survey (ACS) 5-Year Estimates were compiled at the census block group level and categorized according to each block group's relative ability to support transit based on the prevalence of these demographic characteristics. Four socioeconomic and demographic characteristics traditionally associated with the inclination to use transit were used to develop the TOI and include:

- Proportion of population ages 15-24 (young adults)
- Proportion of population age 65 and over (older adults)
- Proportion of population below poverty level (low income)
- Proportion of households with no vehicles (zero-vehicle households)

Considering the prevalence of these four factors influencing tendency of transit use, the TOI categorizes transit propensity by block group as "low", "medium", "high", or "very high" (Fig. 4-1). This assessment will allow local decision makers to better understand where transit within Middletown reaches the populations with the demographics that fit typical riders.

FIGURE 4-1 – TRANSIT ORIENTATION PROCESS AND FACTORS



The TOI assessment reveals many neighborhoods in western Middletown have a high proportion of its population inclined to use transit, scored as “high” and “very high” in the TOI assessment, compared to the rest of the city.

The entire neighborhoods of Church, Douglass, Lakeside, as well as the eastern part of Amanda/Oneida, the southeast part of Greenfields, and the southern half of South are completely labeled as “very high.” Areas with a “high” TOI score include the neighborhoods of Avalon, Downtown, Lewis/Clifton Farms, Meadowland, Oakland, Prospect, Riverside Village, and Sherman. Much of the “medium” TOI category is made up in areas surrounding Downtown, Miami University Middletown, and Towne Mall. Those neighborhoods include Dixie Heights, El Dorado/Williamsdale, Mayfield, Roselawn, parts of Springhill, Sunset/Park Place, Thorny Acres/Burnham Woods, as well as parts of Greenfields, Highlands, Rosedale/The Oaks, South, Springhill.

FIGURE 4-2 – TRANSIT ORIENTATION INDEX

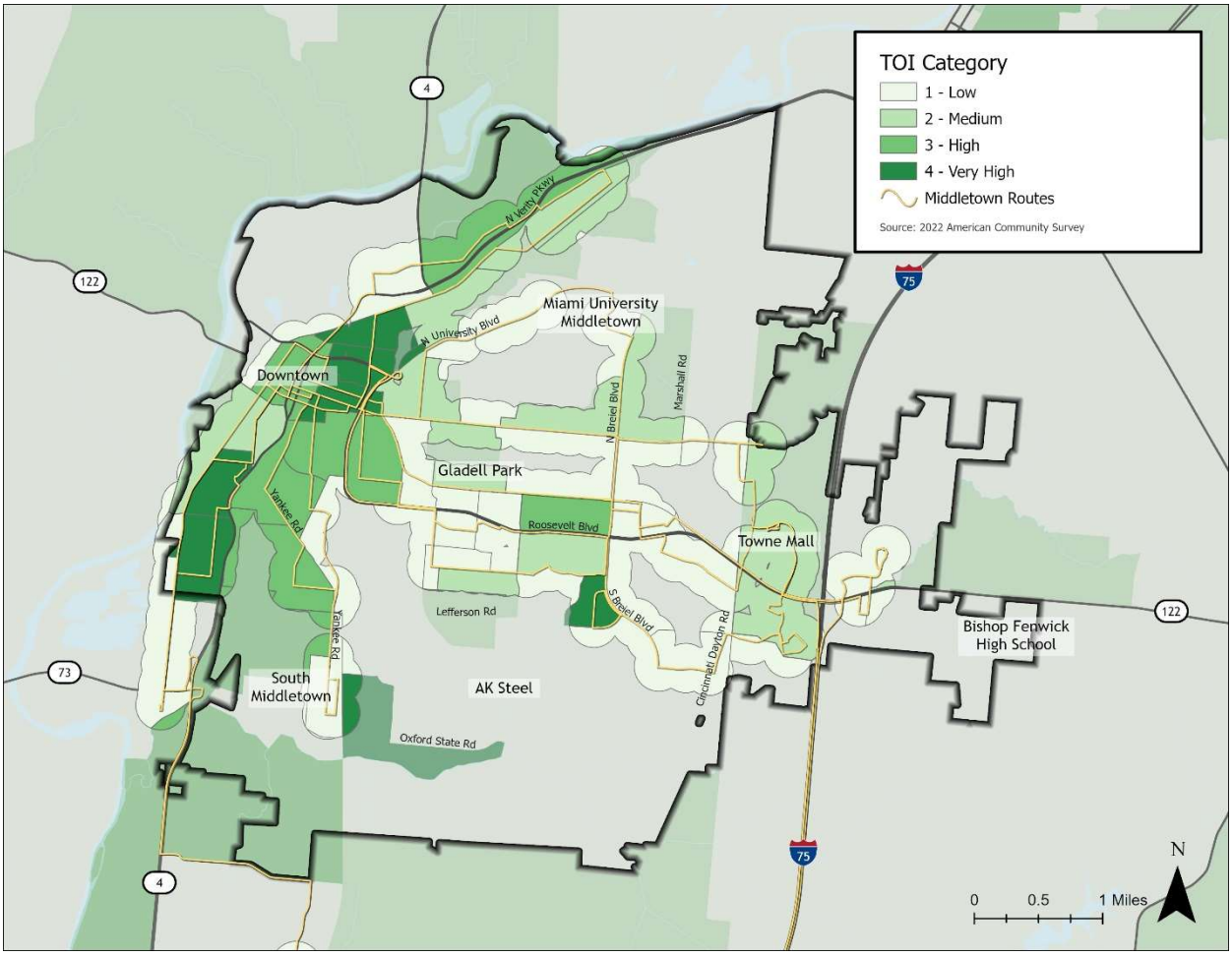
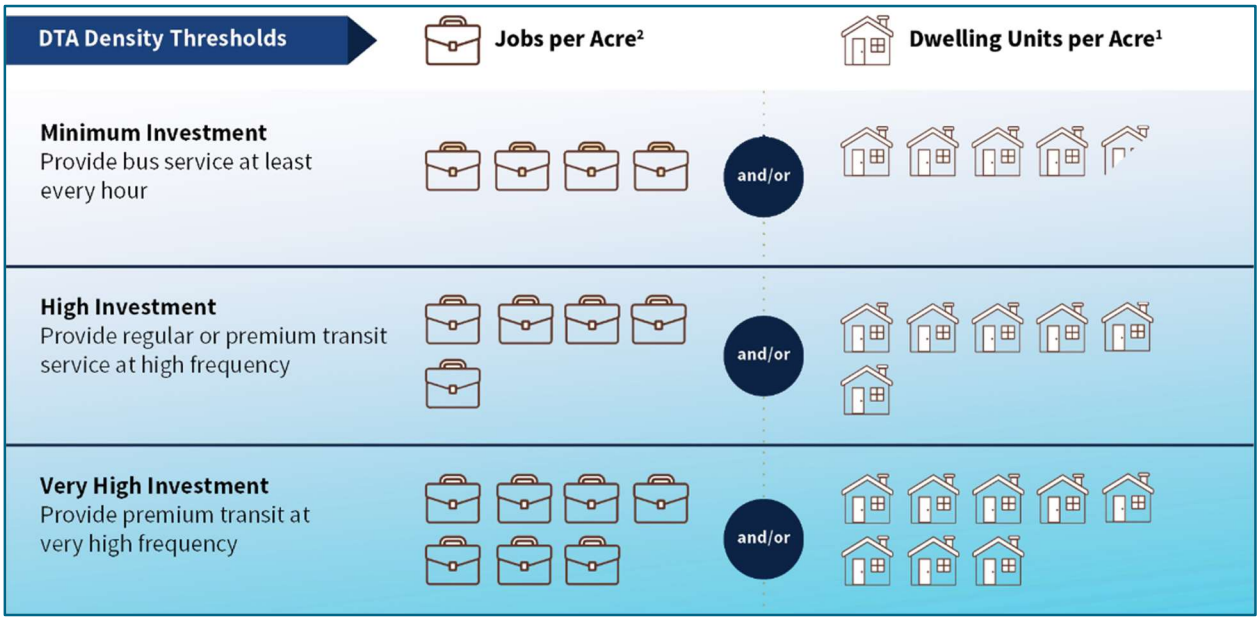


Figure 4-2 shows each TOI Category within Middletown compared to existing MTS routes. All other neighborhoods within Middletown are classified as “low” when it comes to the TOI assessment. Overall, nearly every “medium” or “high” area is currently covered by the existing transit network; however, service near the edge of Middletown, specifically in the southwest and northeast in areas categorized as having a “high” transit-oriented population are not currently accessible via fixed route transit.

4.2 Density Threshold Assessment

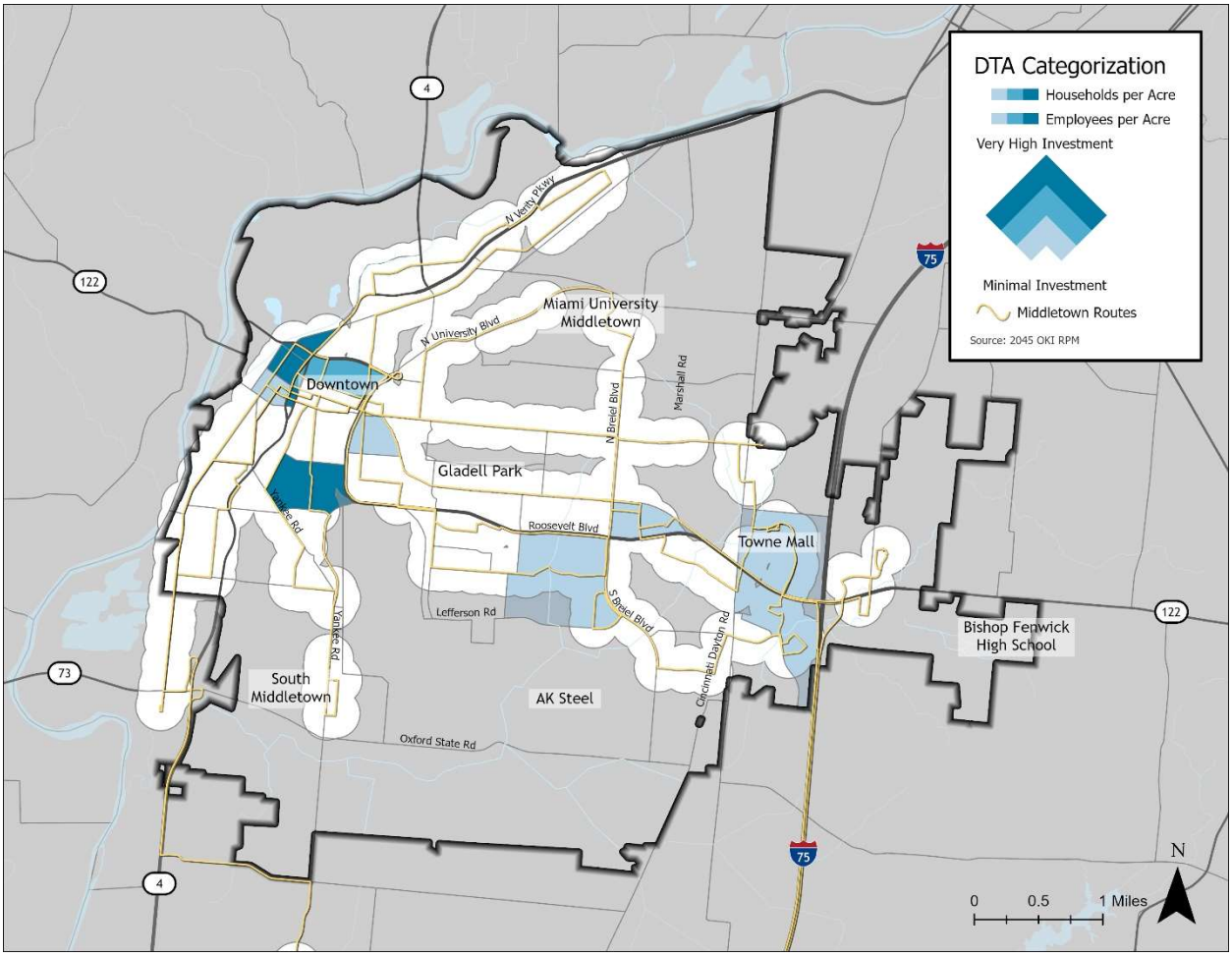
The discretionary market refers to the potential riders living in higher-density areas served by transit who may choose to use it despite having other mobility options. To spatially represent and analyze the discretionary market, a DTA was conducted for Middletown to identify areas that have transit-supportive residential and employment density levels. Employment and housing data was retrieved from a regional planning model from the Ohio-Kentucky-Indiana Regional Council of Governments (OKI), the tri-state and greater Cincinnati area's local Metropolitan Planning Organization. From OKI's dataset, traffic analysis zones are mapped to show dwelling units per acre and jobs per acre at a scale close to neighborhood level. Three density thresholds were developed to indicate whether an area may have sufficient density to sustain a level of fixed route transit operations. The analysis assesses an area's ability to support a "minimum," "high," or "very high" transit service level investment. These thresholds are detailed in Figure 4-3.

FIGURE 4-3 – DENSITY THRESHOLD ANALYSIS LEVELS OF INVESTMENT



[1]Based on review of research on relationship between transit technology and employment densities.
[2]TRB, National Research Council, TCRP Report 16 Volume 1 (1996), "Transit and Land Use Form," November 200, MTC Resolution 3434 TOD Policy for Regional Transit Expansion Projects.

FIGURE 4-4 – DENSITY THRESHOLD ASSESSMENT



In Middletown, the DTA points toward a few key areas where household or employment density is at a "high" level and able to support robust transit services. Specifically, the Downtown and Prospect neighborhoods fit the "very high" category, with Downtown seeing 8.3 employees per acre and Prospect seeing 15.9 employees per acre. Next, the neighborhoods that are categorized as "high" investment are the portions of the Towne Mall and Far Hills neighborhoods that are north of Roosevelt Boulevard. Besides these areas, there are multiple other neighborhoods that meet the "minimum" investment level of the DTA. These include the neighborhoods of Church and Greenfields as well as the northern portion of Sherman. The remaining areas do not have notable levels of housing or employment density. The DTA results are visualized in Figure 4-4. The map shows that the current fixed route service covers nearly all areas where values above the lowest threshold exist.

4.3 Travel Flow Analysis

Understanding travel flows and patterns is critical to transit market segmentation. Of particular importance are commuting flows within Middletown and connecting to adjacent areas within the BCRTA service area. The following travel flow analysis was derived using 2023 BCRTA service data and travel demand data from Replica, a mobility and economic activities data management tool. Replica estimates

travel trends for all modes based on data sources, including but not limited to road traffic, mobile locations, and financial transactions. These data are compiled and estimated to determine changes in mode and purpose, as well as socioeconomic and travel characteristics. To analyze Middletown trips, Replica data for trips with origins and destinations within Middletown were mapped. Furthermore, trips were filtered by purpose to subtract out any commercial (freight) and pass-through traffic trips. The analysis provides an understanding of the magnitude of average daily trips between areas that can be helpful in planning and distributing future transit service provisions.

To supplement the all-mode travel flow analysis, verified paratransit and BGo curb-to-curb trip data from 2023 were also examined. Although paratransit and BGo represent only a portion of total transit activity in Middletown, the data can reveal where there is demand for travel not currently served by fixed route, complementing the Replica dataset also revealing areas of high travel activity, especially those that are automobile centric.

Since 83.8% of residents drive to work in Middletown (ACS, 2022), it is worth exploring trips that include other forms of transportation as part of this transit demand analysis. Using data provided by Replica, patterns of all trips generated within Middletown were mapped to find common points of interest on a typical weekday and weekend. This data can be used to better understand where demand for public transit exists at the block group level within Middletown.

Figures 4-5 and 4-6 examine trips generated by the Replica data within Middletown on a typical weekday or weekend, respectively. Travel flow data are mapped by counting the number of trips generated between two census block groups and creating a line with varying weights to represent the frequency of travel. Heavily weighted lines are the result of a higher total number of trips, while hotspots of traffic for these trips are seen in a haze that gets darker depending on the number of trips traveling through each area. The travel flow lines on these maps are based on the center point of each block group, which is the smallest geography available in Replica's trip estimation process.

FIGURE 4-5 – LOCAL TRIPS GENERATED WITHIN MIDDLETOWN (WEEKDAY)

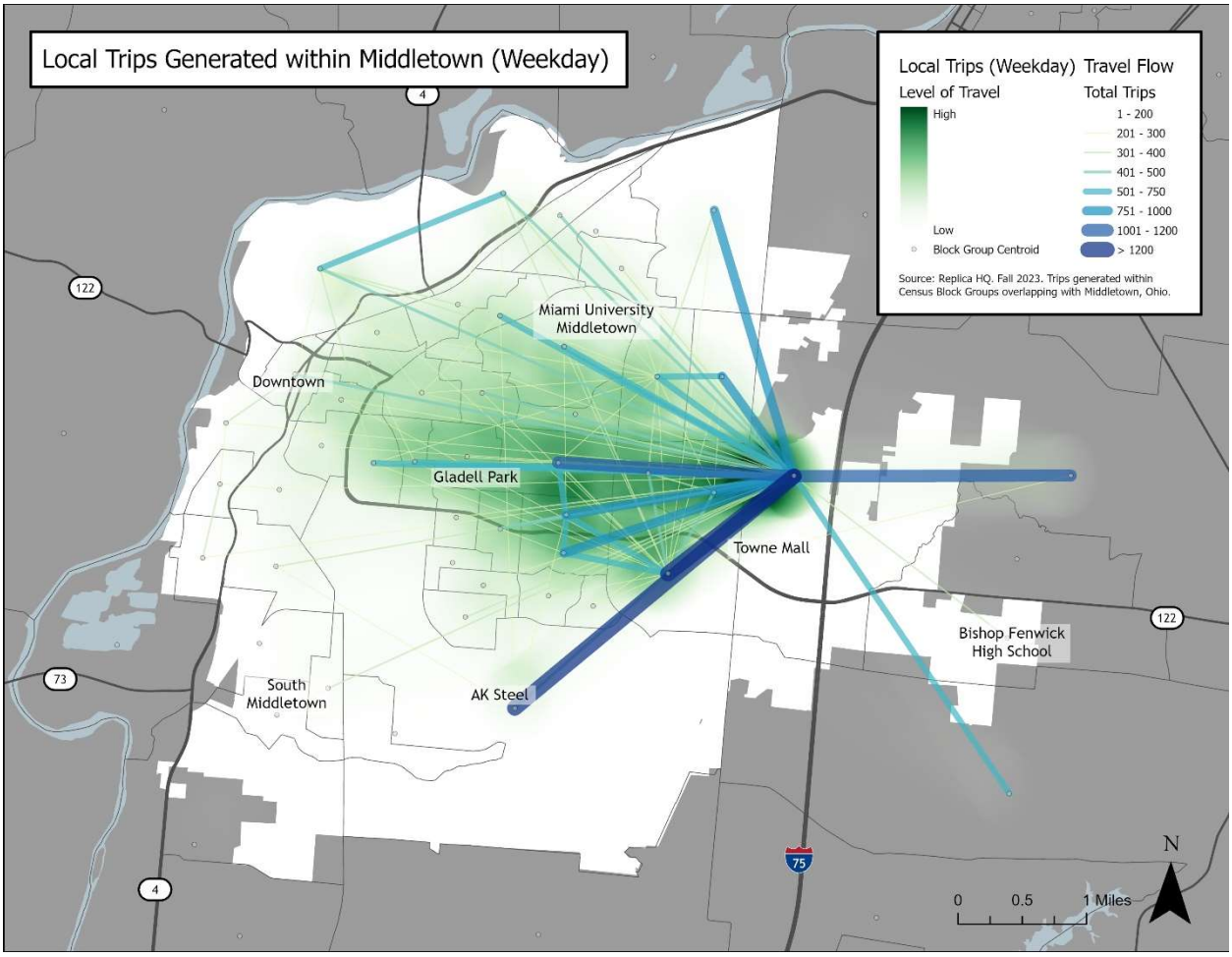


Figure 4-5 shows that Middletown sees many of its trips coming to and from the Towne Boulevard corridor. The block group which holds the Towne Boulevard corridor includes many shopping destinations such as Walmart, Lowes, Kroger, Meijer, as well as Towne Mall itself. This block group attracts residents from all over Middletown, but especially the neighborhoods of Far Hills, MADE/AK Steel, Renaissance, Euclid Heights/Runnymede, Lewis/Clifton Farms, Greenfields, Wildwood, Roselawn, Northeast, Rosedale/The Oaks, and Sherman. There is also a small hub of travel which exists in central Middletown, with local neighborhoods surrounding Roosevelt Boulevard traveling between destinations along the corridor. However, this hub gets nearly completely overshadowed by the Towne Boulevard corridor based on the number of trips.

FIGURE 4-6 – LOCAL TRIPS GENERATED WITHIN MIDDLETOWN (WEEKEND)

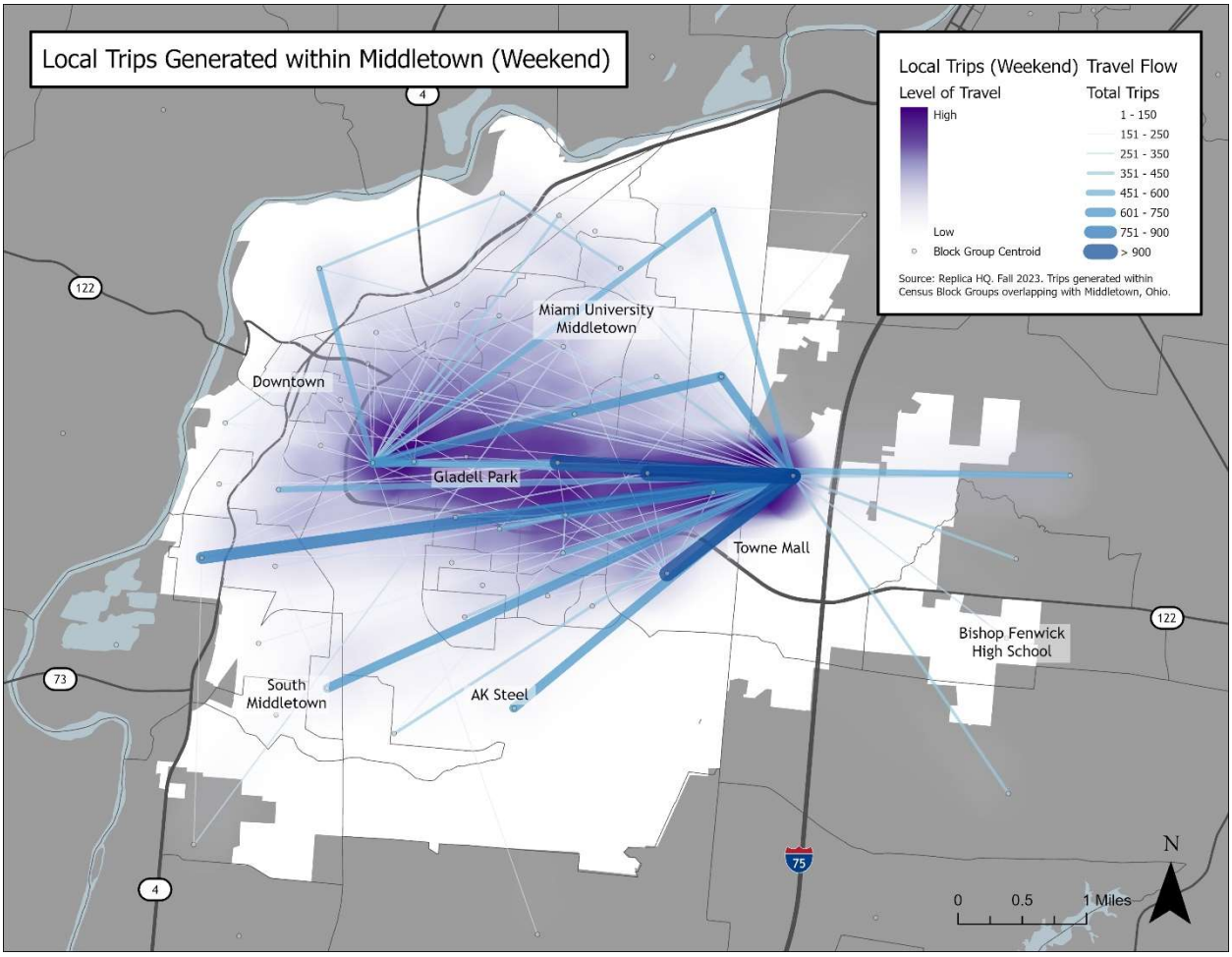


Figure 4-6 shows a similar story to that of the previous map. Middletown sees many of its trips coming to and from the Towne Boulevard corridor; however, there is significantly more traffic generated within central Middletown on weekends compared to weekdays. Neighborhoods north of the Roosevelt Boulevard corridor, such as Sherman, see significantly more trips between each other. However, while more trips are seen from residential and less from industrial and manufacturing areas in this map, it is also worth noting that there are less trips overall on weekends than during the week.

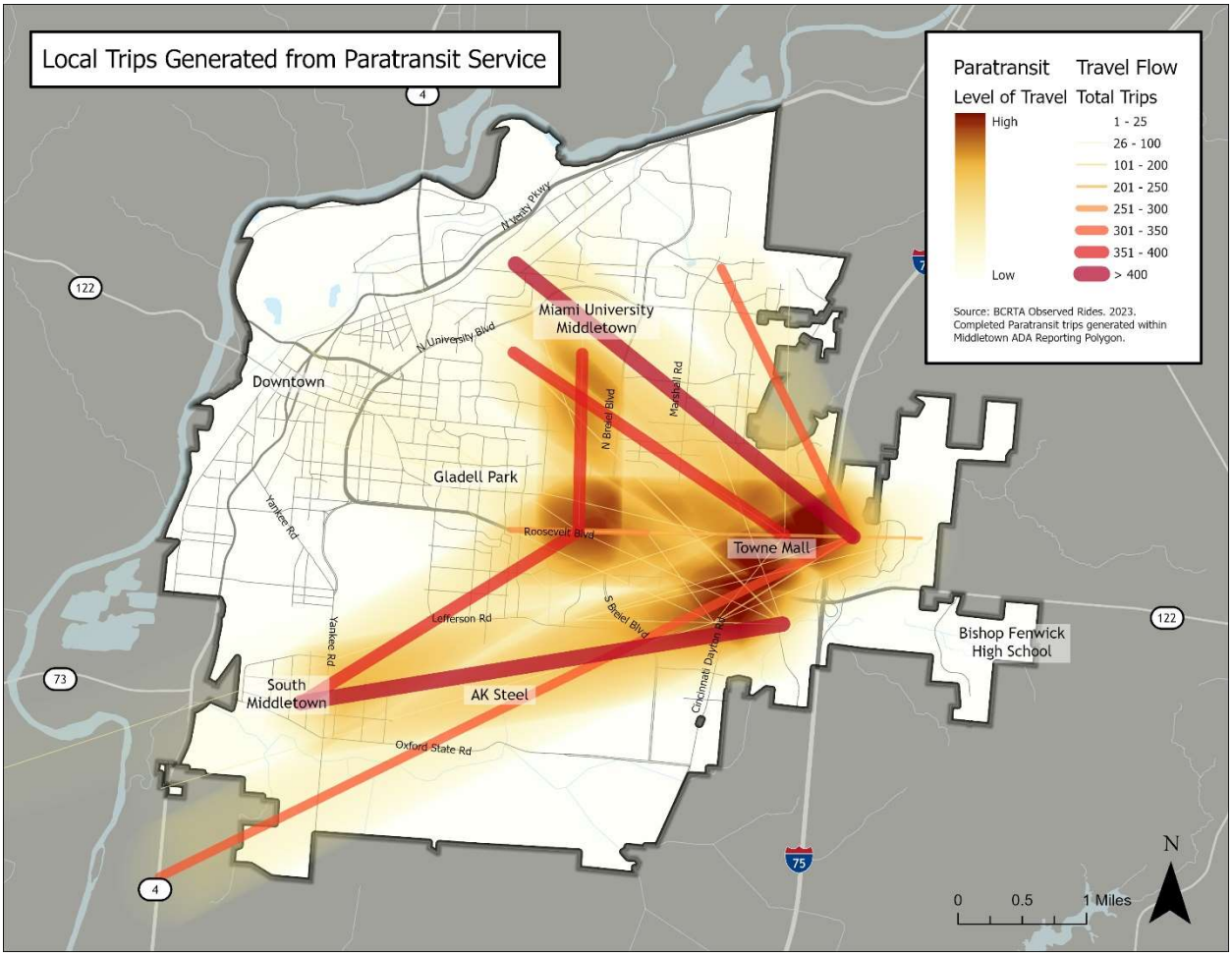
Figures 4-7 and 4-8 illustrate the typical travel flows within Middletown from the BGo curb-to-curb and paratransit services.

BGo is an on-demand transit service available to those living within Butler County, which provides curb-to-curb trips for a five-dollar fare. The service runs from 6:00AM-11:00PM on Monday-Friday, can be scheduled up to a week in advance, and aims to pick residents up within 45-minute windows.

BCRTA's paratransit service is for pre-registered residents who may have trouble using the existing fixed route system due to a disability. The service is available to any area within ¾-mile of a fixed route transit stop.

Figure 4-7 examines trips generated by the BCRTA paratransit service within Middletown. BCRTA observed rides data are shown by grouping nearby trips and destinations, counting the number of trips in each group, and displaying them as lines. Heavily weighted red lines represent higher total trip pairs, while hotspots of trips are seen in an orange haze that gets darker depending on the number of trips traveling through a given area.

FIGURE 4-7 – LOCAL TRIPS GENERATED FROM PARATRANSIT SERVICE



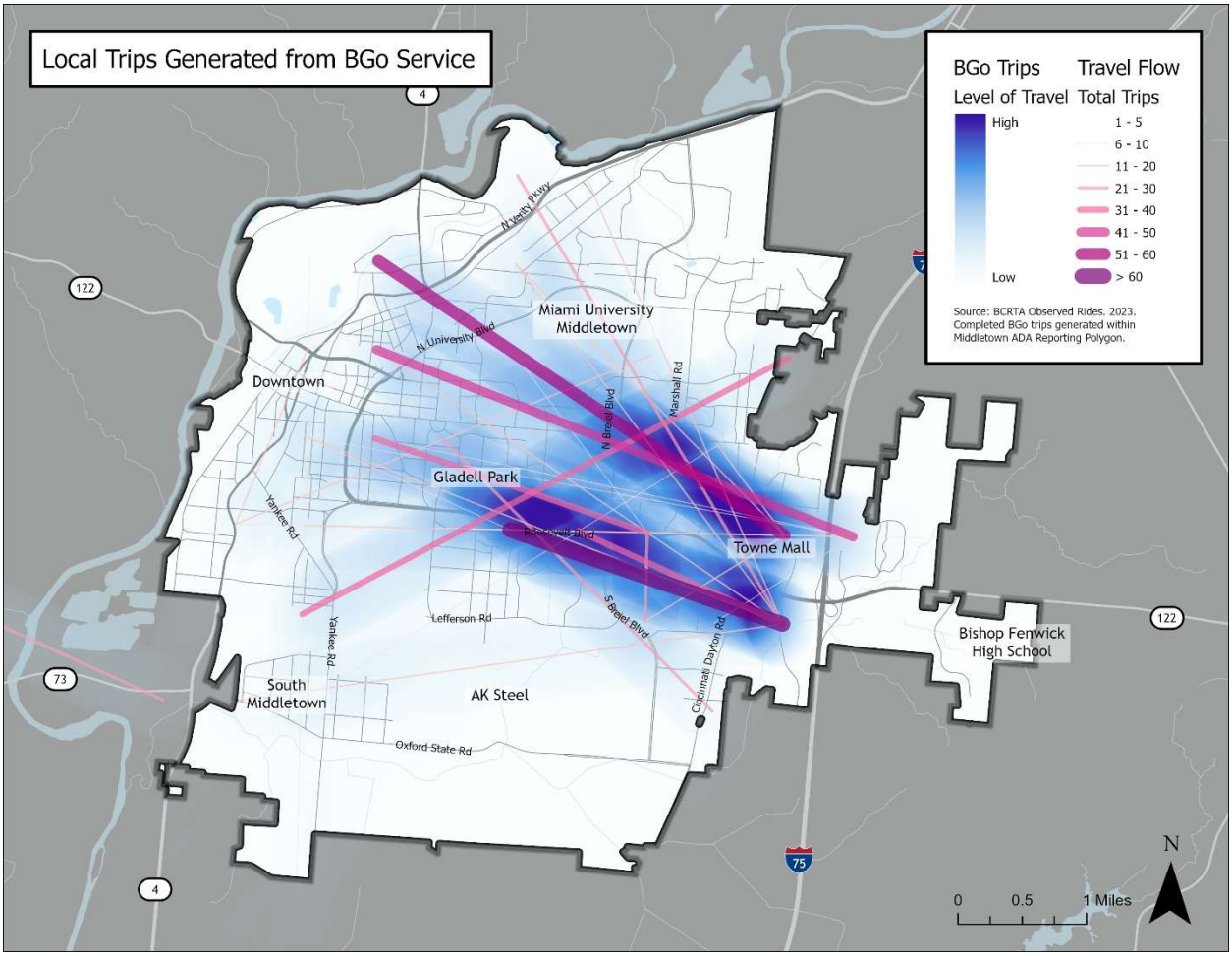
The map shows that Middletown sees many of its paratransit trips coming to and from South Middletown, Sunset/Park Place, and Wildwood going towards the commercial hub along the Towne Boulevard corridor and Lowes/Walmart. It can also be observed that there are significant trips between Dixie Heights, Northeast Middletown, Roselawn, and Spring Hill towards the east side of I-75, near Atrium Medical Center. Another, smaller hub of trips is in Central Middletown, near the Middletown Bureau of Motor Vehicles and Milton's Donuts. Another observation that can be made is that much of the traffic generated from these trips can be seen along Roosevelt Boulevard, Cincinnati Dayton Road, S Breiel Boulevard, and Dixie Highway, especially around the Towne Boulevard corridor and I-75.

Notably, it appears that residents of South Middletown may be underserved by fixed route transit because these residents would need to complete a downtown transfer to get to the popular Towne

Boulevard Corridor. Alternatively, South Middletown residents may be more inclined to use BGo curb-to-curb to avoid the downtown transfer.

Figure 4-8 examines trips generated by the BCRTA BGo service within Middletown. This map utilizes the same BCRTA data and methodology as the previous map. Heavily weighted purple lines are the result of a higher total number of trips, while hotspots of trips are seen in a blue haze that gets darker depending on the number of trips traveling through a given area.

FIGURE 4-8 – LOCAL TRIPS GENERATED FROM BGO SERVICE



This map is similar to Figure 4.7 with only two travel hubs. Atrium Medical Center receives far less trips from BGo compared to paratransit. BGo service trips are often between neighborhoods in central Middletown and the commercial areas around Walmart. It is also common for neighborhoods north of Downtown Middletown to use the service to go to and from the Towne Boulevard corridor. These trips often operate through main corridors such as Roosevelt Boulevard as well as S. Breiel Boulevard, Grand Avenue, Marshall Road, and N. University Boulevard. Gaps that require this system's use are seen when exploring trips between northwest Middletown and the Towne Boulevard corridor. The high level of use in this area may be due to residents on the west side of Middletown wanting a direct trip to resources on the east side of Middletown. The Middletown routes are loop routes that have longer headways compared to routes that have an opposing inbound and outbound patterns.

Figures 4-9 and 4-10 show regional paratransit and BGo trips. As Middletown is situated in Butler County it is within the greater Cincinnati region, which is Ohio's largest metropolitan area. Understanding how Middletown residents travel between southeast Ohio communities allows for necessary and logical improvements to current fixed routes as well as help understand where potential future routes will be best suited. Gaining an understanding of the existing regional travel flow from Middletown may allow the city to explore future transit that crosses into neighboring jurisdictions.

FIGURE 4-9 – REGIONAL TRIPS GENERATED FROM PARATRANSIT SERVICE

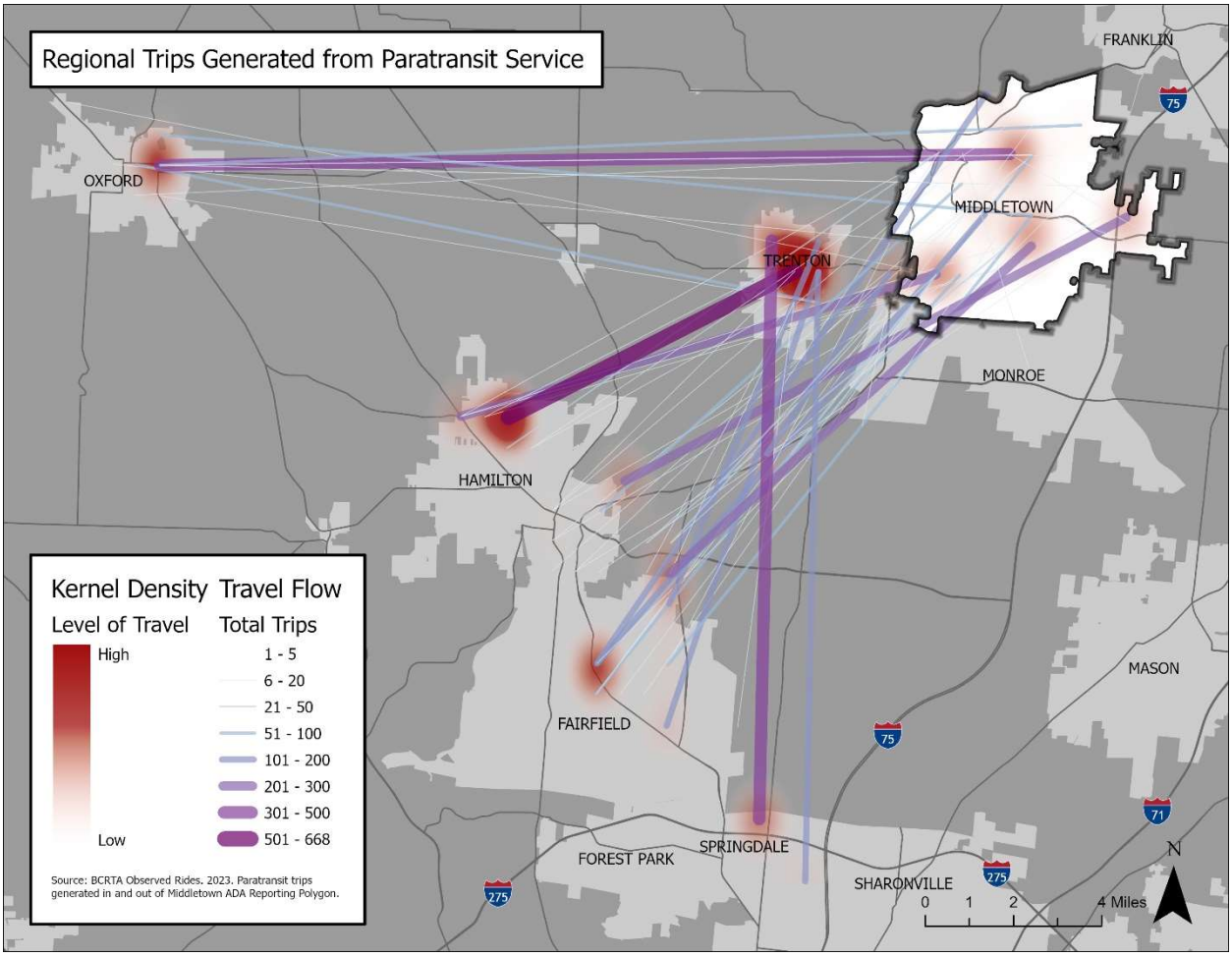


Figure 4-9 examines paratransit trips that either flow in to or out of Middletown, using BCRTA observed rides data from 2023. This dataset includes trips beginning or ending within the Middletown reporting area, which also includes nearby Trenton.

Many trips come from Trenton, specifically heading between Trenton and Hamilton or Springdale. This differs from the trips between Middletown tending to go toward Fairfield, Hamilton, or Oxford. Overall, this map shows a demand for service between jurisdictions within Butler County.

FIGURE 4-10 – REGIONAL TRIPS GENERATED FROM BGO SERVICE

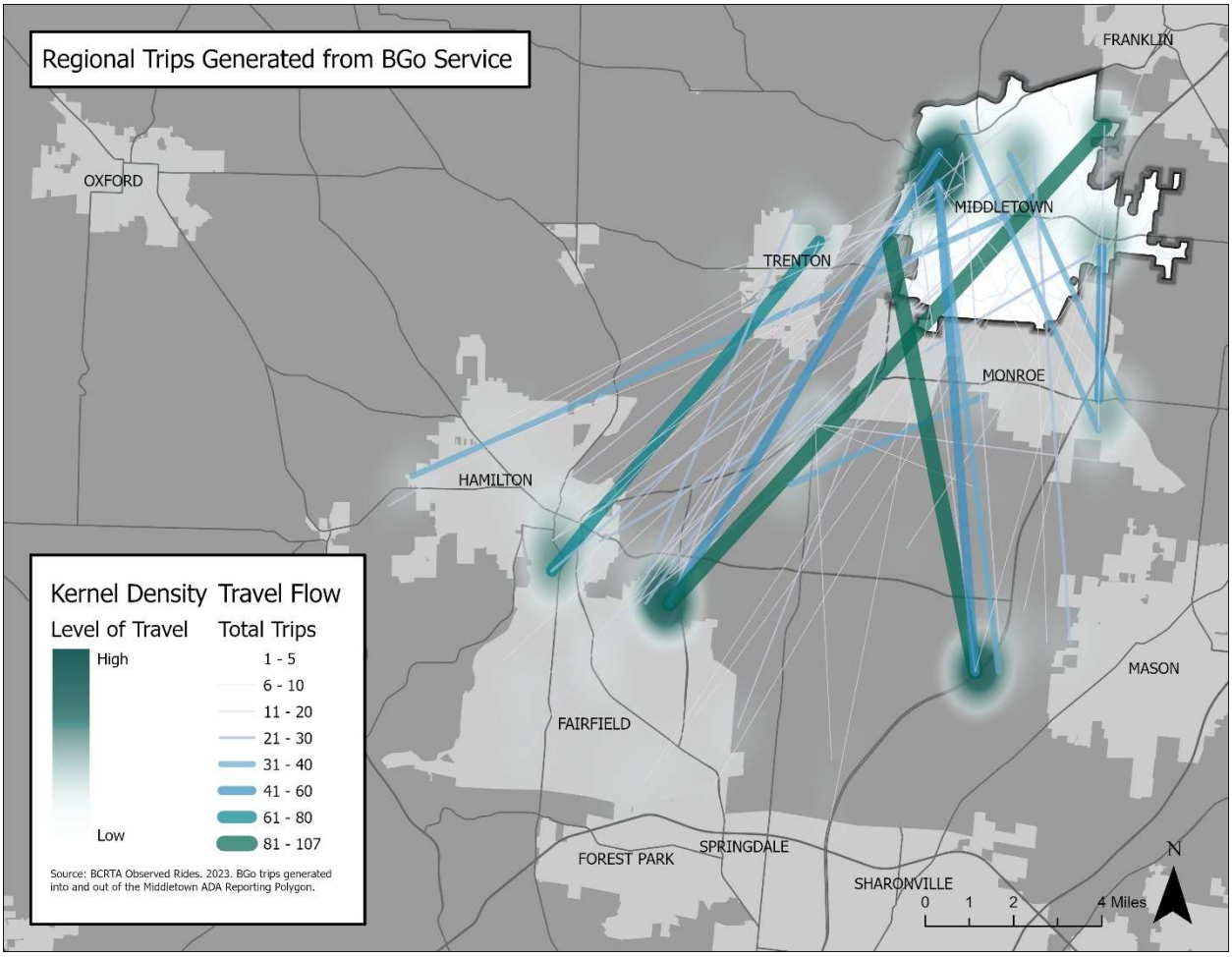


Figure 4-10 examines trips that either flow into or out of Middletown on the BGo service, using BCRTA observed rides data from 2023. This map also includes nearby Trenton within the Middletown reporting area. There are many trips between downtown Middletown and Fairfield as well as downtown Middletown and unincorporated West Chester Township near I-75. Other travel flows worth noting include Trenton to Hamilton and Middletown to Monroe. However, areas with more trips appear to be more influenced by single service users because the number of people who use this service is relatively low compared to paratransit and fixed routes.

Based on the results, the need for public transit has been met. However, there is always a chance to improve frequency and coverage of the system. Improvement plans are outlined in Section 6.

SECTION 5 RIDERSHIP PROJECTIONS

This section presents ridership projections for Middletown Transit Services' fixed routes for the next five and ten years, based on an analysis of ten years of ridership data.

Transit ridership projections are carried out to assist in strategic planning and informed decision-making. These projections will guide the strategic planning and the execution of transit operations, ensuring that Middletown continues to meet its community's evolving mobility needs into the future. By forecasting future demand, Middletown aims to optimize resource allocation, improve service delivery, and ensure financial sustainability.

5.1 Methodology

This methodology outlines the process used to create the regression models for projecting future ridership for MTS based on historical data. The primary goal of the models is to generate realistic and statistically significant ridership forecasts to support strategic planning and service optimization for Middletown. It should be noted that these forecasts are only estimates and are intended only for planning purposes. The ridership projection models do not directly account for demographic, socioeconomic, and roadway conditions, as well as transit service changes.

Separate regression models were developed for each of the four fixed routes in Middletown. The models use historical monthly ridership data, derived from a BCRTA dataset spanning from 2014 to 2024, providing a robust timeline for analysis. To improve the models' accuracy and reliability, the first 21 months following the onset of the COVID-19 pandemic (from March 2020 to November 2021) were excluded. This period exhibited significant disruptions in ridership patterns due to the pandemic, which would have adversely affected the models' performance.

After omitting the pandemic-affected data, the remaining dataset was then used to develop linear regression models. Each model was specified with the month and year serving as the independent variable, and the observed ridership by route for each month as the dependent variable. This approach assumes that ridership trends can be effectively modeled as a function of time, accounting for both gradual changes and seasonal variations.

The regression models were fitted using ordinary least squares (OLS) estimation. The models achieved high R-squared values when fitted to each route, indicating that much of the variability in the ridership data is explained by the model. Additionally, the models' p-values were nearly zero, confirming that the time variable is highly statistically significant in predicting ridership.

The validated regression models were then used to estimate future ridership for MTS over the next five and ten years to assist with future transit planning efforts.

In addition to MTS's four local fixed routes, the City also funds CincyLink, a commuter bus service that connects Hamilton, Middletown, and Cincinnati. Providing four morning round trips and four afternoon round trips each weekday, the service was introduced in January 2024. It charges five dollars for a one-way fare.

Because the service is new, it was not feasible to project ridership using the same methodology as for MTS's local fixed routes. Instead, a new regression model was created but incorporating the total ridership of the four local MTS routes as the new dependent variable. Using this model, CincyLink ridership was projected assuming the service retains its current ridership levels relative to the total ridership of the four local MTS routes.

5.2 Results

Once the configurations of the linear regression models were finalized, the outputs of these models were used to calculate estimated ridership numbers for future years. Graphs are displayed below for all MTS fixed routes and CincyLink, depicting both historical and projected ridership. Specific annual ridership figures are labeled in five-year intervals, beginning in 2015 and ending in 2035.

Figure 5-1 illustrates and compares the historical and projected ridership figures for the Blue, Gold, Green, and Red routes. The projected total ridership for the four routes is also shown. While the actual ridership numbers vary between these routes, their historical trends (and therefore projections) are similar. Since 2014, MTS ridership remained relatively stagnant until 2020, when there was a measurable decrease in ridership at the onset of the COVID-19 pandemic. This ridership decrease was much greater for the Blue route than the other routes. From around late 2021 and early 2022, ridership increased notably across the board, impacting the Blue and Green routes the most. These routes experienced nearly twice the annual ridership than they did ten years ago.

As the regression models considered these trends, each route's ridership was projected to steadily increase in the future. Each route's projected increase in ridership is as much as 5% per year. In 2023, Middletown's total fixed route transit ridership was 215,020. This number is projected to grow to 265,637 by 2025 and 314,713 by 2035, representing 24% and 46% more trips annually than present-day, respectively.

In context, these projections line up with the recent demographic trends in Middletown. In the past few years, the city has experienced an increase in both its total population and the proportion of its population aged 65 years and older. This indicates a growing and aging population. Figure 5-2 shows the rates of annual change in total population and older adult population in Middletown based on ACS 5-Year Estimates from the past ten years of available data, 2013 to 2022. While the total population is only growing slightly, the proportion of the population aged 65 years and older is increasing more substantially. These trends signal that Middletown's transit dependent population will grow into the future, contributing to plausible increases in the demand of MTS services.

FIGURE 5-1 – MTS HISTORICAL AND PROJECTED RIDERSHIP BY ROUTE

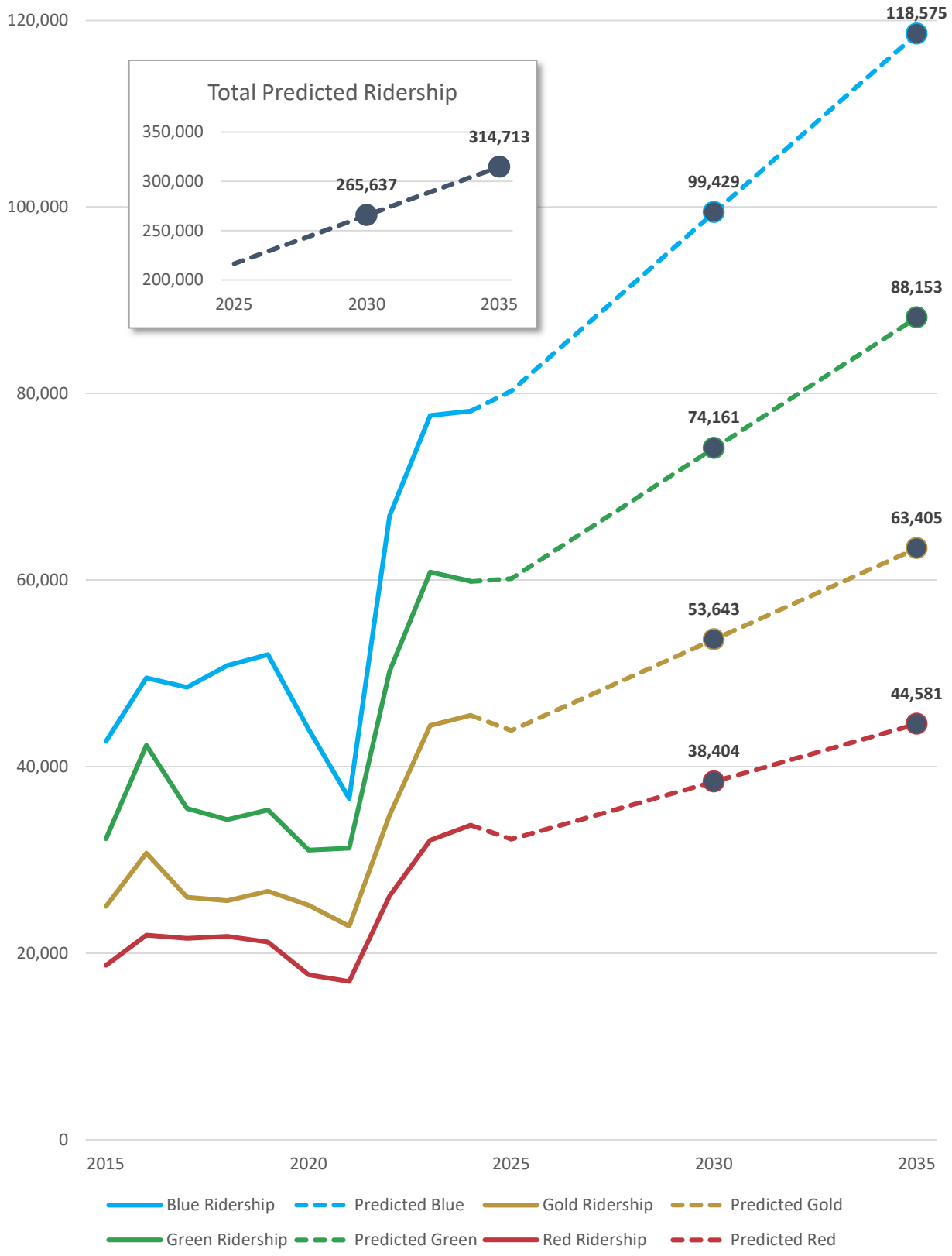
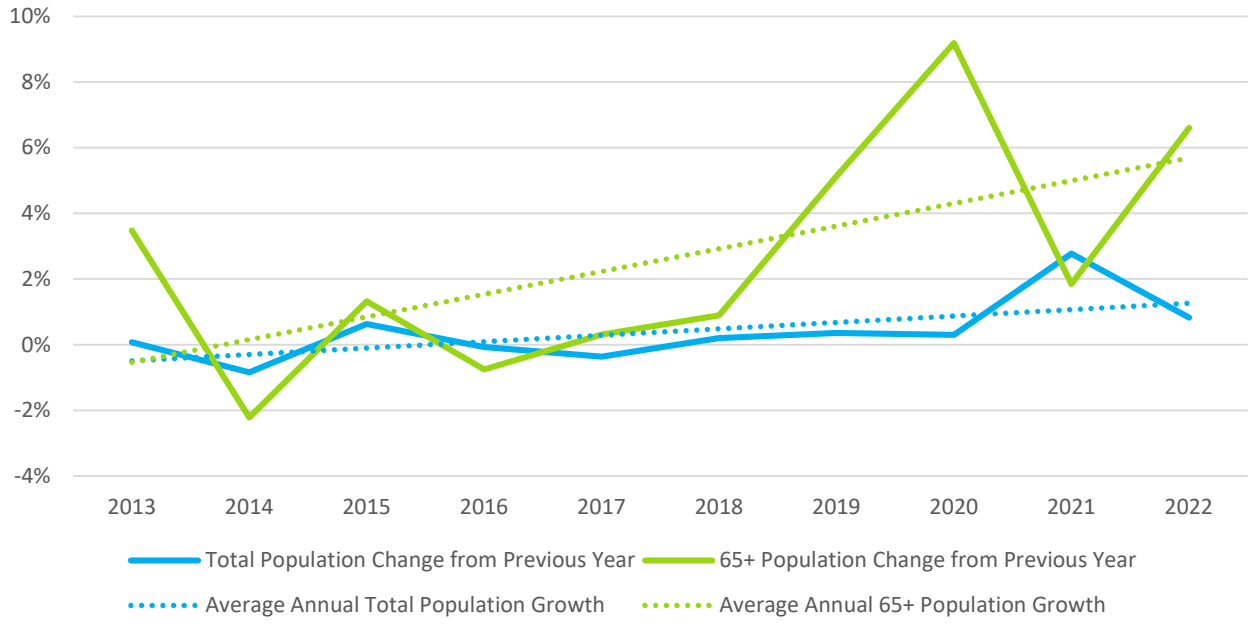


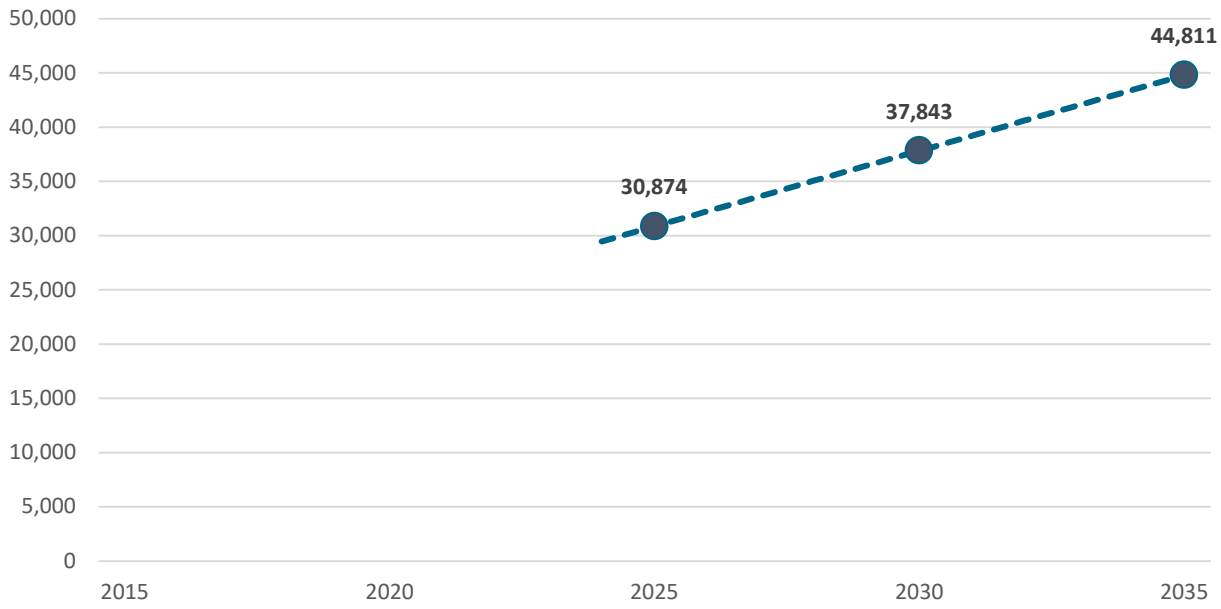
FIGURE 5-2 – RATE OF TOTAL AND OLDER ADULT POPULATION GROWTH IN MIDDLETOWN



Source: US Census ACS, 2022

As explained previously, the total Middletown ridership was incorporated into the adjusted regression model to project CincyLink's ridership because the service is so new and does not have enough history to create a reliable model from. CincyLink's projected annual increase in ridership is between 3% and 5%, adding about 15,000 more trips annually by 2035. CincyLink's projected ridership growth is displayed in Figure 5-3.

FIGURE 5-3 – CINCYLINK PROJECTED RIDERSHIP FIGURES

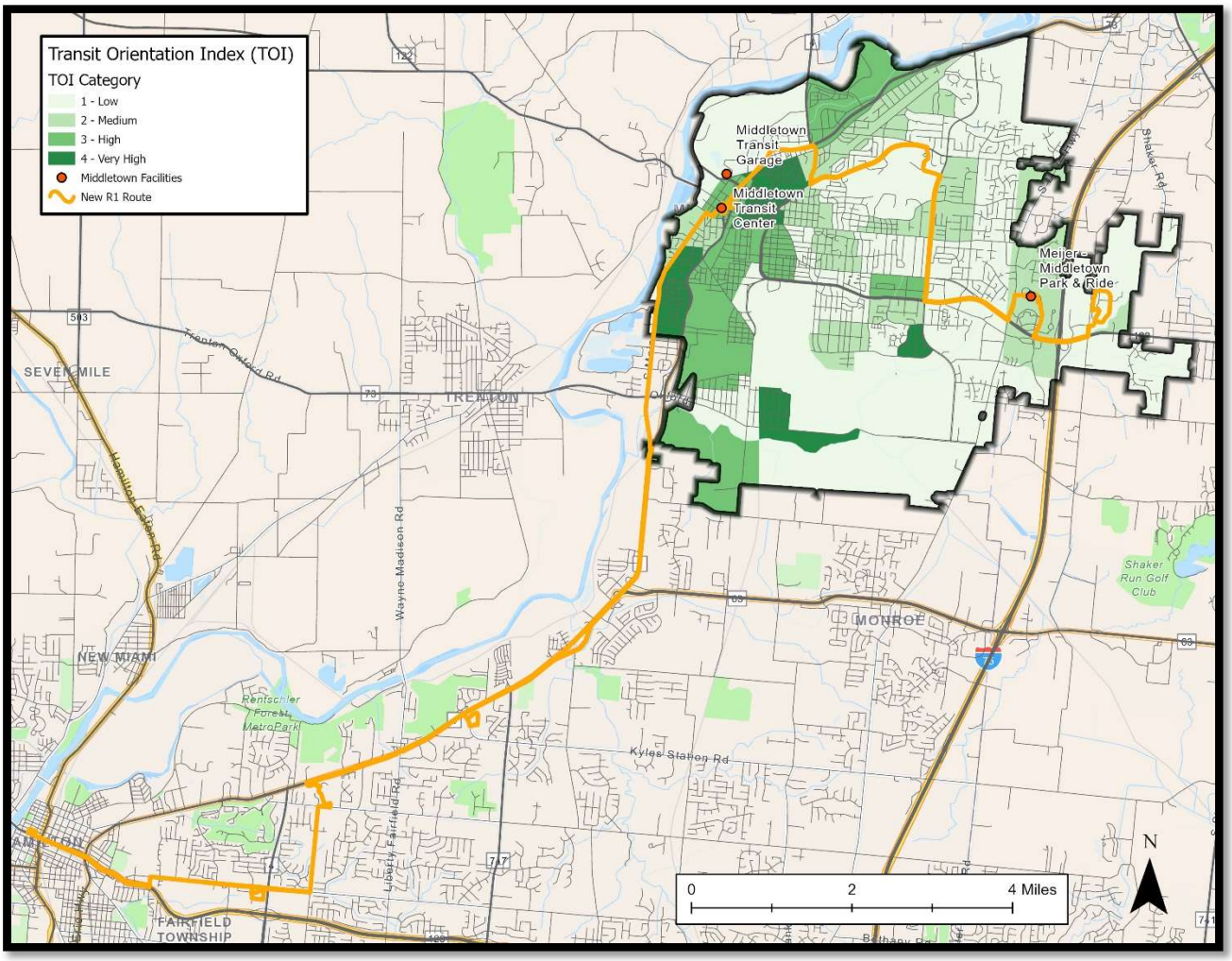


SECTION 6 LOCAL AND REGIONAL TRANSIT PLANNING

As the public transit contractor for the City of Middletown, BCRTA has a plan to change fixed route services in the city to reflect recent socioeconomic and demographic changes observed by the US Census (ACS, 2022). In Q1 of 2024, BCRTA will extend the existing R1 regional route further east into the City of Middletown towards the I-75 corridor (Fig. 6-1). Extending the R1 route has been proposed by the Transit Development Plan of the Butler County Regional Transit Authority (2023), which is consistent with the transportation needs outlined in this TDP.

The R1 extension follows the travel patterns identified in Figures 4-5, 4-6, 4-7, and 4-8, which show popular destinations from downtown Middletown, Miami University – Middletown, and Towne Mall. This route also travels through census block groups that have a high Transit Orientation Index (TOI) score (Fig. 6-1). The proposed R1 route would provide regional bi-directional service between Hamilton and Middletown, via several Butler Tech Campuses located along the Hamilton - Middletown Road corridor (Fig. 6-1).

FIGURE 6-1 – THE NEW R1 WILL EXTEND SERVICE INTO THE EAST SIDE OF MIDDLETOWN.

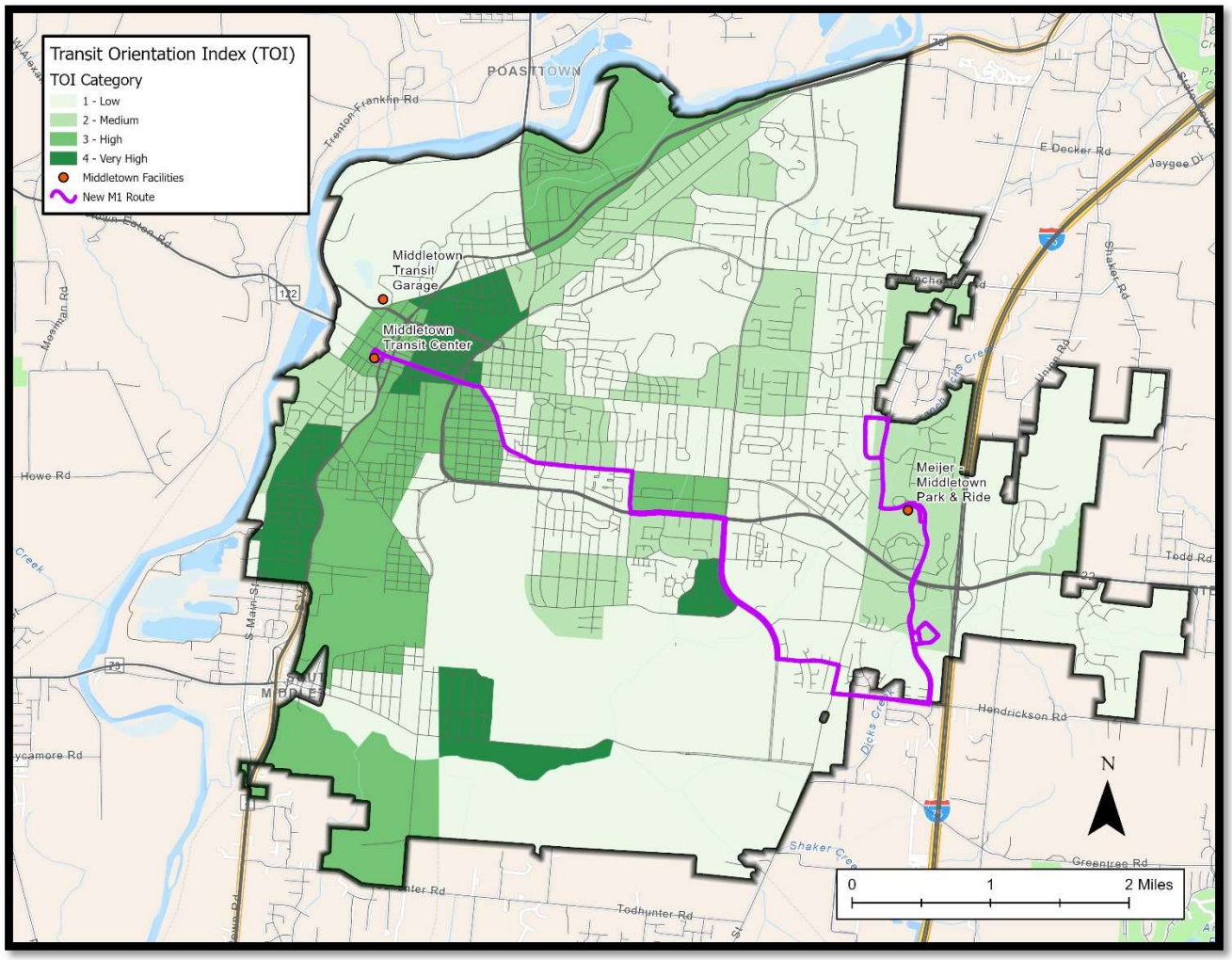


Key destinations include:

- Market Street Station
- Walmart (Princeton Road)
- Butler Tech Fairfield Township Campus
- Lakota Family YMCA
- Kroger (Hamilton Middletown Road)
- Butler Tech Liberty Township Campus
- Kroger (S Main Street, Middletown)
- Middletown Transit Station
- Middletown Regional Flight Training Institute
- Miami University Middletown Campus
- Middletown High School
- Meijer (Towne Boulevard, connection point to CincyLink commuter service to Cincinnati)
- Social Security Administration
- Kroger (Towne Boulevard, Middletown)
- Kettering Health Middletown
- Atrium Medical Center

Stakeholders in Middletown also emphasize the need for better connection options to neighboring cities, and industrial hubs and educational facilities in the region. In addition to the R1 extension, the BCRTA TDP (2023) recommends introducing new routes in Middletown that improve efficiency and meet the needs of stakeholders (Fig. 6-2). The proposed M1 route would provide bi-directional service between Middletown Transit Station and Central Avenue in Middletown, via Walmart and Meijer on Towne Boulevard. At Meijer, the route would provide a connection to the CincyLink commuter service to Cincinnati.

FIGURE 6-2 – THE NEW M1 ROUTE PROVIDES TRANSPORTATION TO HIGH TOI SCORED BLOCK GROUPS.



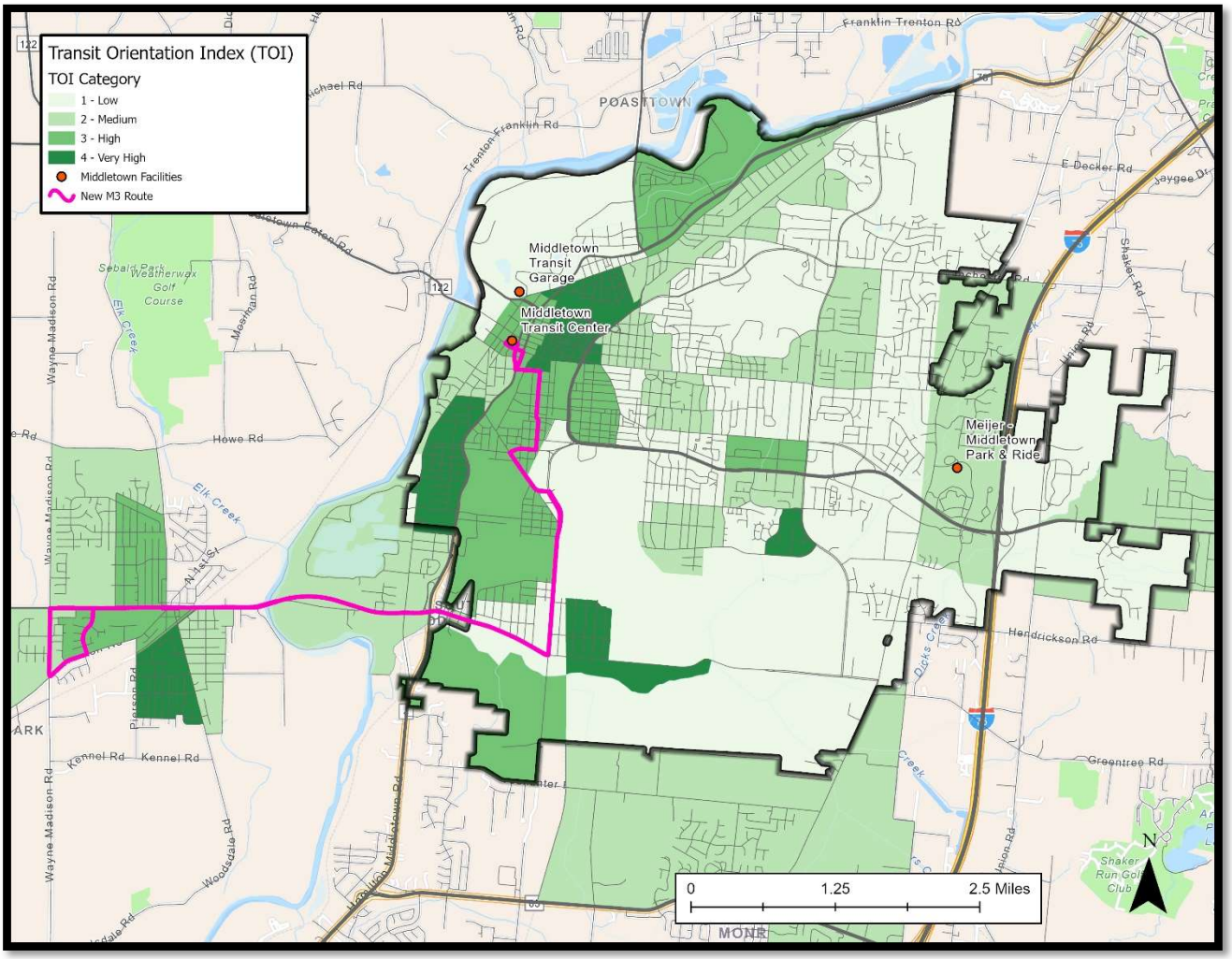
Key destinations include:

- Middletown Transit Station
- Butler County Board of Health
- Liberty Manor Apartments
- Metropolitan Housing Authority
- Nicholas Place Apartments
- Meijer (Towne Boulevard, connection point to CincyLink commuter service to Cincinnati)
- Bavarian Woods Apartments

Route M1 is proposed to interline with Route M3 to provide one-seat service to more destinations in Middletown and Trenton (Fig. 6-3). The proposed M3 route would provide bi-directional service between Middletown Transit Station and Wayne Madison Road in Trenton. TOI data for the surrounding area outside of the City of Middletown (Fig. 6-3) is from the BCRTA TDP. This further supports the need

for the M3 route which will provide transportation to high TOI scored block groups in both the cities of Middletown and Trenton.

FIGURE 6-3 – THE NEW M3 ROUTE WILL PROVIDE TRANSPORTATION TO HIGH TOI SCORED BLOCK GROUPS IN THE CITIES OF MIDDLETOWN AND TRENTON.



Key destinations include:

- Middletown Transit Station
- Middletown Early Learning Center
- Hope House Mission
- Dollar General (Oxford State Road)
- Kroger (Oxford State Road)
- Tamarind Square Apartments
- Trenton Apartments

SECTION 7 COMMUNICATION AND MARKETING

The Middletown Transit System, operated by the Butler County Regional Transit Authority (BCRTA), leverages BCRTA's robust Marketing and Mobility programs to effectively promote its services:

1. Digital Outreach:

   BCRTA actively promotes Middletown Transit services through its website, Facebook, and Instagram, ensuring consistent public engagement.

2. Print Collateral:

   Service schedules for Middletown Transit routes and the new CincyLink regional connector, funded by the City of Middletown, are regularly printed and distributed to riders (Fig.7-1).

FIGURE 7-1 – MIDDLETOWN BUS SCHEDULE THAT IS AVAILABLE ON OUR WEBSITE AND AS A HARDCOPY OF THE VEHICLE AND AT THE MIDDLETOWN TRANSIT STATION.

Middletown Transit Station

Monday – Friday Bus Schedule

GOLD LINE

	FIRST A.M.	LAST P.M.
EAST		
MTS Transit Station	06:30	17:30
First @ Baltimore	06:32	17:32
Crawford @ Logan	06:35	17:35
Crawford @ Grand	06:38	17:36
Roosevelt @ Eaton	06:43	17:43
Bonita @ Emerald Green Apts	06:45	17:45
Bonita @ Burbank	06:47	17:47
Burbank @ Lamberton	06:48	17:48
Burbank @ Highland	06:50	17:50
University @ Woodlawn	06:52	17:52
Manchester @ Iglehart	06:54	17:54
MTS Transit Station	06:55	17:55
SOUTH		
MTS Transit Station	07:00	18:00
Yankee @ Curtis	07:04	18:04
Yankee @ Kunz	07:05	18:05
Baltimore @ Lafayette	07:06	18:06
Yankee @ Meadow	07:08	18:08
Yankee @ Glenn	07:09	18:09
Mohawk @ Waneta	07:10	18:10
Mohawk @ Oneka	07:11	18:11
Yankee @ Lawn	07:14	18:14
14th @ Railroad Crossing	07:15	18:15
Baltimore @ Jacoby	07:17	18:17
Baltimore @ Forest	07:19	18:19
Baltimore @ Fairmount	07:21	18:21
Baltimore @ Girard	07:24	18:24
MTS Transit Station	07:30	18:30

GREEN LINE

	FIRST A.M.	LAST P.M.
SOUTH		
MTS Transit Station	06:30	17:30
S Main @ 5th	06:32	17:32
S Main @ 14th	06:34	17:34
S Main @ McGuire	06:36	17:36
S Main @ Elm Grove Terrace SB	06:37	17:37
Main @ Oxford State SB	06:38	17:38
Engles Corner SB	06:39	17:39
Kroger's	06:40	17:40
Main @ Moose Lodge	06:41	17:41
Main @ Elm Grove Terrace NB	06:43	17:43
Lafayette @ Trailbridge Apts	06:45	17:45
Minnesota @ 16th	06:47	17:47
Woodside @ Garden	06:49	17:49
9th @ Yankee	06:50	17:50
Middletown Library	06:52	17:52
Verity @ City Building	06:54	17:54
MTS Transit Station	06:59	17:59
NORTH		
MTS Transit Station	07:00	18:00
Charles @ Clayton	07:05	18:05
Tytus @ Nelbar	07:08	18:08
Tytus @ Eldora	07:10	18:10
Jewell @ Browning	07:13	18:13
Tytus @ Hawthorne	07:13	18:13
Wilbraham @ Germantown	07:18	18:18
Elwood @ Verity	07:20	18:20
Verity @ Senior High Rise	07:25	18:25
MTS Transit Station	07:30	18:30

BLUE LINE

	FIRST A.M.	LAST P.M.
MTS Transit Station	06:30	17:30
First @ Baltimore	06:31	17:31
Central @ Sulphin	06:33	17:33
Grand @ Kensington (East)	06:38	17:38
Roosevelt @ Woodridge	06:44	17:44
Meijer	06:51	17:51
Towne @ Kroger	06:54	17:54
Lowe's	06:58	17:58
Walmart-Middletown	07:00	18:00
Lefferson @ Mt Vernon	07:02	18:02
Cinc-Day @ Sunoco	07:02	18:02
Caprice @ Cinc-Day	07:04	18:04
Aaron @ Food Mart	07:10	18:10
Breiel @ McDonald's	07:15	18:15
Grand @ Kensington (West)	07:18	18:18
Sulphin @ Central	07:21	18:21
Manchester @ Grimes	07:23	18:23
Clark @ Trinity Place	07:25	18:25
Verity @ Post Office	07:27	18:27
MTS Transit Station	07:30	18:30

RED LINE

	FIRST A.M.	LAST P.M.
MTS Transit Station	06:30	17:30
Central @ Dollar General	06:34	17:34
Central @ Shafer EB	06:35	17:35
University @ Needler's Market	06:37	17:37
University @ Richardson	06:38	17:38
MU Middle-town Campus	06:41	17:41
Breiel @ Rosedale	06:46	17:46
Central @ Marshall	06:49	17:49
Towne @ Meijer	06:54	17:54
Kettering Medical Center	07:00	18:00
Atrium Medical Center	07:03	18:03
Market St @ McDonald's	07:05	18:05
Marie @ Kitty Hawk Plaza	07:12	18:12
Breiel @ Grand	07:14	18:14
Central @ Highview	07:17	18:17
Central @ Moore	07:19	18:19
Manchester @ Clark	07:22	18:22
MTS Transit Station	07:24	18:24

- All Times are APPROXIMATE (Within 5 minutes).
- Buses run at same times once an hour.
- All routes operate from **6:30 a.m.** to **6:30 p.m.** **MONDAY – FRIDAY** and **8:30 a.m.** to **4:30 p.m.** on **SATURDAY**
- **GOLD** & **GREEN** Lines return to terminal every half hour. **RED** & **BLUE** lines returns to terminal once an hour.

3. Community Education:

   BCRTA collaborates with the Middletown School District to educate teachers, staff, and students on how to use transit services for accessing employment, medical appointments, and schools (Fig. 7-2, 7-3).

FIGURE 7-2 – EXAMPLE OF OUTREACH MATERIAL IN COLLABORATION WITH MIDDLETOWN SCHOOL DISTRICT.

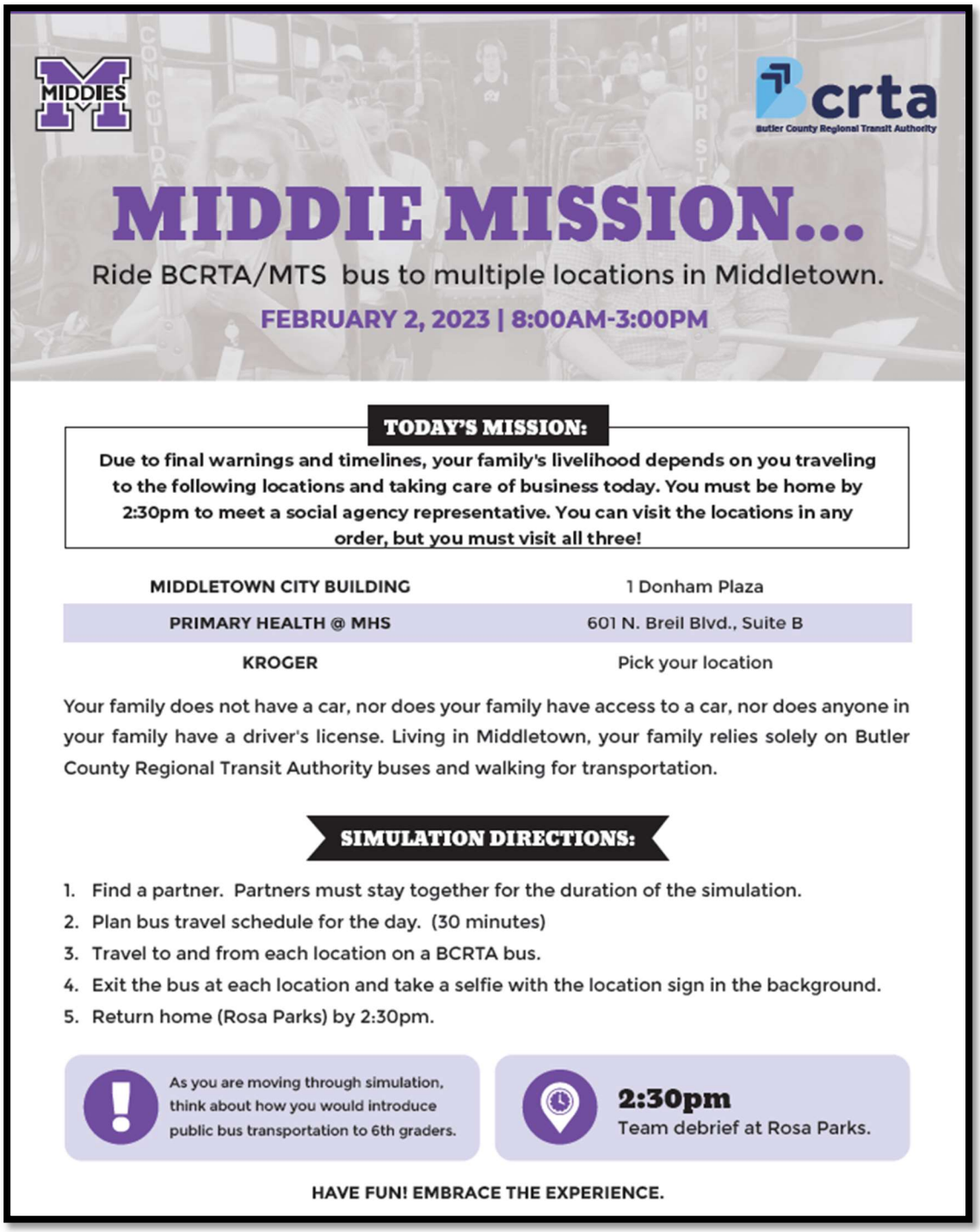


FIGURE 7-3 – AN EASY 10 STEP GUIDE FOR HOW TO RIDE THE BUS.

4. Strategic Campaigns:

   A 2025 strategic marketing campaign is planned to raise awareness about the affordability and connectivity of CincyLink services to Cincinnati (Fig. 7-4).

FIGURE 7-4 – EXAMPLE OF STRATEGIC MARKETING MATERIAL PLANNED FOR 2025.

5. Agency Partnerships:

   The BCRTA Mobility Management Specialist works closely with local organizations, including the Middletown Safety Council, The Robert Sonny Hill Community Center, and Atrium Hospital, to enhance awareness of transit options.

6. Professional Support:

   BCRTA contracts a professional marketing agency to ensure ongoing, innovative advertising efforts for Middletown Transit.

These strategies ensure the public is well-informed about Middletown Transit services and how they meet community transportation needs.

SECTION 8 METRICS

8.1 Service Coverage

As of 2023, the City of Middletown has a service area population of 51,673. The service area is approximately 20 square miles. In 2023, there were 220,743 unlinked passenger trips (UPT) served that resulted in 222,114 vehicle revenue miles (VRM) and 15,613 vehicle revenue hours (VRH) (Fig. 8-1).

FIGURE 8-1 – MODAL CHARACTERISTICS ACCORDING TO THE FEDERAL TRANSIT ADMINISTRATION, NATIONAL TRANSIT DATABASE (NTD).

Mode	Annual UPT	Vehicles Operated	Purchased Vehicles	Annual VRM	Annual VRH
Fixed Route	215,020	4	0	208,606	13,921
Paratransit	5,723	1	0	13,508	1,692
Total	**220,743**	**5**	**0**	**222,114**	**15,613**

8.2 Service Efficiency and Effectiveness

In 2023, total operating expenses (OE) per VRM was $5.42, and per VRH was $77.18. Total UPT per VRM was 1.0, and per VRH was 14.1. Annual OE per UPT was $5.46 (Fig. 8-2).

FIGURE 8-2 – SERVICE EFFICIENCY AND EFFECTIVENESS ACCORDING TO THE FEDERAL TRANSIT ADMINISTRATION, NATIONAL TRANSIT DATABASE (NTD).

Metrics	Service Efficiency		Service Effectiveness		
Mode	**OE per VRM**	**OE per VRH**	**UPT per VRM**	**UPT per VRH**	**OE per UPT**
Fixed Route	$4.92	$73.69	1.0	15.4	$4.77
Paratransit	$13.26	$105.90	0.4	3.4	$31.31
Total	**$5.42**	**$77.18**	**1.0**	**14.1**	**$5.46**

Formulas for Figure 8-2:

- OE per VRM = Total OE/Sum of modes VRM
- OE per VRH = Total OE/Sum of modes VRH
- UPT per VRM = Sum of modes UPT/Sum of modes VRM
- UPT per VRH = Sum of modes UPT/Sum of modes VRH
- Oeper UPT = Total OE/Sum of modes UPT

SECTION 9 FLEET

In 2023, transit services in Middletown were accomplished with 8 vehicles (Fig. 9-1). All fleet vehicles are stored and maintained in the City of Middletown transit garage. The City of Middletown mechanics are responsible for repairing the transit vehicles in Middletown, but BCRTA mechanics are always willing to help when necessary to keep transit services in operation.

FIGURE 9-1 – MIDDLETOWN TRANSIT FLEET, AS OF 2023.

Unit #	Model Year	Make	Model	Type	Total Seating	Wheelchair Accessible Seating	Service Mode	Mileage	Date Acquired	Useful Life (months)
640	2016	Gillig	Low Floor	35' Heavy Duty	29	2	Fixed Route	188878	9/2016	144
641	2016	Gillig	Low Floor	35' Heavy Duty	29	2	Fixed Route	213427	9/2016	144
642	2016	Gillig	Low Floor	35' Heavy Duty	29	2	Fixed Route	203114	9/2016	144
643	2016	Gillig	Low Floor	35' Heavy Duty	29	2	Fixed Route	197097	9/2016	144
644	2016	Gillig	Low Floor	35' Heavy Duty	29	2	Fixed Route	154199	9/2016	144
749	2017	Ford	Eldorado	Aerotech	14	3	Fixed Route/Paratransit	218154	11/2016	60
750	2017	Ford	Eldorado	Aerotech	14	3	Paratransit	138905	11/2016	60
645	2021	Gillig	Low Floor	35' Heavy Duty	29	2	Fixed Route	61407	3/2022	144

The fleet vehicles will need to be slowly replaced in a few years as proposed in Section 10 Finance. BCRTA and the City of Middletown will investigate the feasibility of investing in alternative fuel vehicles. Due to on-going supply chain issues in the market, and a limited budget, the only feasible alternative fuel vehicle at this moment would be propane vehicles. When investigating alternative fuel vehicles, transit leadership needs to consider the following costs:

- Retrofit fleet maintenance and storage garage(s).
- Training and/or hiring fleet mechanics familiar with proposed alternative fuel vehicles.
- Training trainers and vehicle operators on how to operate alternative fuel vehicles.
- Installation of alternative fuel source near transit facilities.
- Refueling/charging frequency and mileage of alternative fuels.

SECTION 10 FINANCE

10.1 Projected Revenues

Projected revenues in Fig. 10-1 are relatively consistent year to year with approximately $3 – 4 million. Large spikes in projected revenues are contingent on being awarded federal capital funds to replace transit vehicles and/or renovating the existing Middletown Transit Station.

FIGURE 10-1 – PROJECTED REVENUES FOR 2025- 2035.

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Fares	$ 96,000.00	$ 105,600.00	$ 110,880.00	$ 114,206.00	$ 117,632.00	$ 121,160.00	$ 124,794.00	$ 128,537.00	$ 132,393.00	$ 136,364.00	$ 140,454.00
E&D	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Gain on Sale of Assets	$ 4,500.00	$ 4,500.00	$ -	$ 22,500.00	$ -	$ -	$ 4,500.00	$ -	$ -	$ -	$ 18,000.00
Other Non-Transit Revenue	$ 1,000.00	$ 1,200.00	$ 1,224.00	$ 1,260.00	$ 1,297.00	$ 1,335.00	$ 1,375.00	$ 1,416.00	$ 1,458.00	$ 1,501.00	$ 1,546.00
Agency Contributions	$ 758,280.00	$ 804,312.00	$ 866,163.00	$ 922,083.00	$ 926,851.00	$ 971,598.00	$ 999,207.00	$ 1,030,845.00	$ 1,063,963.00	$ 1,094,257.00	$ 1,129,080.00
Business Contributions	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Federal Operating 50%	$ 1,619,335.00	$ 1,372,975.00	$ 1,397,096.00	$ 1,404,320.00	$ 1,472,119.00	$ 1,513,951.00	$ 1,561,887.00	$ 1,612,066.00	$ 1,657,966.00	$ 1,710,728.00	$ 1,765,553.00
Federal Operating 100%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Federal PM 80%	$ 200,000.00	$ 172,251.00	$ 175,000.00	$ 210,000.00	$ 175,000.00	$ 183,750.00	$ 185,000.00	$ 185,000.00	$ 194,250.00	$ 195,000.00	$ 195,000.00
Federal PM 100%	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
ADA Operating 80%	$ 190,000.00	$ 200,000.00	$ 204,000.00	$ 210,120.00	$ 216,423.00	$ 222,915.00	$ 229,602.00	$ 236,490.00	$ 243,584.00	$ 250,891.00	$ 258,417.00
State ADA Assistance	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
State Operating	$ 1,146,606.00	$ 520,000.00	$ 550,000.00	$ 525,000.00	$ 530,000.00	$ 525,000.00	$ 540,750.00	$ 540,900.00	$ 550,000.00	$ 530,000.00	$ 520,000.00
Planning	$ 170,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Federal Capital	$ -	$ -	$ 3,160,000.00	$ 2,240,000.00	$ -	$ -	$ 800,000.00	$ -	$ -	$ -	$ 3,200,000.00
State Capital	$ 138,000.00	$ -	$ 790,000.00	$ 560,000.00	$ -	$ -	$ 200,000.00	$ -	$ -	$ -	$ 800,000.00
Reimbursements	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Local Funds	$ -	$ 200,000.00	$ 100,000.00	$ 100,000.00	$ 120,000.00	$ 120,000.00	$ 130,000.00	$ 150,000.00	$ 160,000.00	$ 200,000.00	$ 230,000.00
Total Revenues	**$ 4,323,721.00**	**$ 3,380,838.00**	**$ 7,354,363.00**	**$ 6,309,489.00**	**$ 3,559,322.00**	**$ 3,659,709.00**	**$ 4,777,115.00**	**$ 3,885,254.00**	**$ 4,003,614.00**	**$ 4,118,741.00**	**$ 8,258,050.00**

10.2 Projected Expenses

Projected expenses in Fig. 10-2 are consistent for the next 10 years to pay for contractual services and staff wages and benefits. Public transit in the City of Middletown is contingent on continued support from state and federal funds to cover operational costs (Fig. 10-2) and capital improvements (Fig. 10-3).

FIGURE 10-2 – PROJECTED EXPENSES FOR 2025 – 2035.

	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Personnel:											
Salaries & Wages	$ 22,100.00	$ 22,763.00	$ 23,218.00	$ 23,914.00	$ 24,631.00	$ 25,369.00	$ 26,130.00	$ 26,913.00	$ 27,720.00	$ 28,551.00	$ 29,407.00
Overtime Wages	$ -	$ 5,500.00	$ 2,777.00	$ 2,860.00	$ 2,945.00	$ 3,033.00	$ 3,123.00	$ 3,216.00	$ 3,312.00	$ 3,411.00	$ 3,513.00
PERS	$ 3,094.00	$ 3,956.00	$ 3,639.00	$ 3,748.00	$ 3,860.00	$ 3,976.00	$ 4,095.00	$ 4,218.00	$ 4,344.00	$ 4,474.68	$ 4,608.00
Medicare - City Share	$ 321.00	$ 300.00	$ 306.00	$ 315.00	$ 324.00	$ 333.00	$ 342.00	$ 352.00	$ 362.00	$ 372.00	$ 383.00
Total - Personal Services	$ 25,515.00	$ 32,519.00	$ 29,940.00	$ 30,837.00	$ 31,760.00	$ 32,711.00	$ 33,690.00	$ 34,699.00	$ 35,738.00	$ 36,808.68	$ 37,911.00
Contractual Services:											
Utililities (Gas & Electric)	$ 10,900.00	$ 10,508.00	$ 10,718.00	$ 10,825.00	$ 10,933.00	$ 11,042.00	$ 11,152.00	$ 11,263.00	$ 11,375.00	$ 11,488.00	$ 11,602.00
Telephone Line Charges	$ 15,180.00	$ 9,364.00	$ 9,551.00	$ 9,837.00	$ 10,132.00	$ 10,435.00	$ 10,748.00	$ 11,070.00	$ 11,402.00	$ 11,744.00	$ 12,096.00
Municipal Garage Charges	$ 250,000.00	$ 187,272.00	$ 191,017.00	$ 194,837.00	$ 200,682.00	$ 206,702.00	$ 212,903.00	$ 219,290.00	$ 225,868.00	$ 232,644.00	$ 239,623.00
Radio Maintenance	$ 2,755.00	$ 5,202.00	$ 5,306.00	$ 5,465.00	$ 5,628.00	$ 5,796.00	$ 5,969.00	$ 6,148.00	$ 6,332.00	$ 6,521.00	$ 6,716.00
Other Professional Services	$ 3,380,000.00	$ 2,844,797.00	$ 2,901,692.00	$ 2,988,742.00	$ 3,078,404.00	$ 3,170,756.00	$ 3,265,878.00	$ 3,363,854.00	$ 3,464,769.00	$ 3,568,712.00	$ 3,675,773.00
Maintenance of Vehicles	$ 30,000.00	$ 114,600.00	$ 115,746.00	$ 89,218.00	$ 91,894.00	$ 94,650.00	$ 97,489.00	$ 100,413.00	$ 103,425.00	$ 106,527.00	$ 109,722.00
Maintenance of Equipment	$ 15,300.00	$ 15,606.00	$ 15,918.00	$ 16,395.00	$ 16,886.00	$ 17,392.00	$ 17,913.00	$ 18,450.00	$ 19,003.00	$ 19,573.00	$ 20,160.00
Maintenance of Facilites	$ 18,000.00	$ 10,200.00	$ 10,404.00	$ 10,716.00	$ 11,037.00	$ 11,368.00	$ 11,709.00	$ 12,060.00	$ 12,421.00	$ 12,793.00	$ 13,176.00
Property Taxes	$ 2,200.00	$ 2,312.00	$ 2,358.00	$ 2,428.00	$ 2,500.00	$ 2,575.00	$ 2,652.00	$ 2,731.00	$ 2,812.00	$ 2,896.00	$ 2,982.00
Other Operating Costs	$ 65,500.00	$ 77,645.00	$ 79,197.00	$ 81,572.00	$ 84,019.00	$ 86,539.00	$ 89,135.00	$ 91,809.00	$ 94,563.00	$ 97,399.00	$ 100,320.00
Memberships & Periodical	$ 1,020.00	$ 1,040.00	$ 1,060.00	$ 1,091.00	$ 1,123.00	$ 1,156.00	$ 1,190.00	$ 1,225.00	$ 1,261.00	$ 1,298.00	$ 1,336.00
Total - Contractual Services	$ 3,790,855.00	$ 3,278,546.00	$ 3,342,967.00	$ 3,411,126.00	$ 3,513,238.00	$ 3,618,411.00	$ 3,726,738.00	$ 3,838,313.00	$ 3,953,231.00	$ 4,071,595.00	$ 4,193,506.00
Commodities:											
Office Supplies	$ 1,200.00	$ 1,200.00	$ 1,224.00	$ 1,248.00	$ 1,272.00	$ 1,297.00	$ 1,322.00	$ 1,348.00	$ 1,374.00	$ 1,401.00	$ 1,429.00
Cleaning Supplies	$ 3,600.00	$ 3,600.00	$ 3,672.00	$ 3,745.00	$ 3,819.00	$ 3,895.00	$ 3,972.00	$ 4,051.00	$ 4,132.00	$ 4,214.00	$ 4,298.00
Supplies to Maintain Equip.	$ 500.00	$ 500.00	$ 510.00	$ 520.00	$ 530.00	$ 540.00	$ 550.00	$ 561.00	$ 572.00	$ 583.00	$ 594.00
Supplies to Maintain Bldgs	$ 500.00	$ 500.00	$ 510.00	$ 520.00	$ 530.00	$ 540.00	$ 550.00	$ 561.00	$ 572.00	$ 583.00	$ 594.00
Total - Commodities	$ 5,800.00	$ 5,800.00	$ 5,916.00	$ 6,033.00	$ 6,151.00	$ 6,272.00	$ 6,394.00	$ 6,521.00	$ 6,650.00	$ 6,781.00	$ 6,915.00
Total Expenses	**$ 3,822,170.00**	**$ 3,316,865.00**	**$ 3,378,823.00**	**$ 3,447,996.00**	**$ 3,551,149.00**	**$ 3,657,394.00**	**$ 3,766,822.00**	**$ 3,879,533.00**	**$ 3,995,619.00**	**$ 4,115,184.68**	**$ 4,238,332.00**

10.3 Capital Outlay

The Middletown Transit Station needs to be renovated to upgrade the security system, redesign office and training space, improve the layout of the customer service area, and enhance the public lobby. In addition, transit vehicles will need to be replaced in years 2027, 2028, 2031, and 2035 (Fig. 10-3). These planned projects are contingent on local funds and being awarded state/federal capital funds.

FIGURE 10-3 – PROJECTED EXPENSES FOR CAPITAL PROJECTS.

Capital Outlay	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035
Purchase of Vehicles	$ 138,000.00	$ -	$ 950,000.00	$ 2,800,000.00	$ -	$ -	$ 1,000,000.00	$ -	$ -	$ -	$ 4,000,000.00
Transit Construction Projects	$ 170,000.00	$ -	$ 3,000,000.00	$ -	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Total Capital Outlay	**$ 308,000.00**	**$ -**	**$ 3,950,000.00**	**$ 2,800,000.00**	**$ -**	**$ -**	**$ 1,000,000.00**	**$ -**	**$ -**	**$ -**	**$ 4,000,000.00**

According to the Title VI Plan for the City of Middletown transit services, when a bus stop meets a certain daily ridership threshold it will need certain bus stop amenities to be installed (Fig. 10-4). Bus stop amenities would include a concrete pad, trash bin, bench, shelter, or real-time signage.

FIGURE 10-4 TITLE VI PROGRAM BUS STOP AMENITIES THRESHOLDS.

Bus Stop Amenities	Average Daily Ridership Thresholds
Concrete Pad	25 or more
Trash Bin	25 or more
Bench	25 or more
Shelter	50 or more
Schedule Holder and Real-time Display	100 or more

As of 2023, only two bus stops meet one of these bus stop amenity thresholds:

1. Kroger at Oxford State Road on Green Line.
2. Main St at City Building on Green Line.

Both stops have an average daily ridership of 25 or more passengers, which requires that these stops have a concrete pad, trash bin, and bench. The Kroger at Oxford State Road stop already has the amenities installed. However, the Main St at City Building stop does not include any amenities. BCRTA and the City of Middletown will work together to address the need for bus stop amenities at this stop and others that meet the thresholds in the future. BCRTA will also seek partnerships with local public agencies and private companies that may reduce costs for such amenities.

10.4 Unobligated Funds

The City of Middletown has planned activities for the unobligated funds listed below. STBG funds will undergo budget revision to purchase an expansion small bus. City of Middletown has been awarded 2023 CRP FLEX funds for transit station planning, but this project has not been started yet. Funds used for operating assistance will require the City of Middletown to provide local matching funds which the City has already agreed to in order to support transit services. All other funds do not require local matching funds.

Funds	Source	Planned Action	Action Date
$475,541	FFY 2022 5307	Operating assistance	FFY 2026
$1,574,366	FFY 2023 5307	Operating assistance	FFY 2026
$1,860,895	FFY 2024 5307	ADA complimentary paratransit assistance and operating assistance	FFY 2026 - 2027
$138,000	FFY 2024 5339	Purchase replacement small bus	FFY 2026
$120,000	FFY 2023 5307	ADA complimentary paratransit assistance	FFY 2025
$1,200,000	FFY 2022 5307	Operating assistance	FFY 2025
$117,345	STBG	Budget revision for expansion small bus	FFY 2026
$125,000	2023 CRP FLEX	Transit Station Planning	FFY 2025

10.5 Service and Operational Changes

BCRTA developed a county-wide transit development plan in 2023 that includes replacing the current routes in Middletown with more efficient routes that meet the current needs of the City residents. In addition to the R1 expansion, BCRTA plans to introduce the M1 and M3 routes (Fig. 6-2). Before introducing the new M1 and M3 routes or adjusted service hours, BCRTA will seek public comment and final approval from city council members and staff. According to BCRTA's county-wide transit development plan, these changes are budget neutral and will improve efficiency and reliability of the system.