

Transportation

5.1 Introduction

With the exception of road paving, beginning in the 1930s, the construction of Interstate 90 in the 1950s, and the construction of the Five Points Roundabout, the transportation network in Leroy Township has changed little throughout the last few decades. It appears that transportation is not a critical issue in Leroy Township, as there is very little traffic, but Leroy Township still faces challenges regarding transportation.



Through traffic on collector roads, increased traffic on roads leading to the Vrooman Road and Interstate 90 exit, as well as the lack of bicycle and pedestrian accommodation, can diminish the potential quality of life for Township residents. A scattered, low-density population results in more roads that are spread amongst fewer houses, with property owners facing a larger tax burden for road maintenance, as compared to urban and suburban areas. With little commercial development, residents face longer vehicle trips for commuting and daily errands. Leroy Township is not alone, as many other exurban communities are facing these issues.

Transportation infrastructure is relatively expensive, especially for an exurban area with a small tax base, and it has major impacts on how residents live. It both influences and is influenced by land development. Future transportation plans must consider a diverse range of users, including residents of all ages and abilities, business commuters, visitors, commercial traffic and those traveling by foot or bicycle.

An effective transportation plan should not be measured by how it will potentially decrease travel times or increase traffic speed, but rather how it will shape future development, improve the quality of life for residents, and preserve the unique and rural character of the Township. In addition to the potential impacts of a transportation plan within the Township, transportation plans must consider how roads in the community function as part of the regional and cohesive transportation network, and how traffic from the community affects other cities and townships. The Transportation element will

evaluate existing conditions, identify challenges, and present goals and policies that address current and future mobility issues in the Township.

5.2 Roads

As stated elsewhere in the plan, a relatively large quantity of roads is required to serve the scattered population in Leroy Township. Excluding I-90, there are 54.6 miles of road in the Township, or about 94.43 feet of road for each of the 3,053 residents. By comparison, in neighboring Concord Township, 117.27 miles, or 36.06 feet of road per resident, serves a population of 18,178 residents. In Painesville Township, 88.6 miles of public road surface, or about 27.72 feet of road per resident, serves the 16,874 residents inhabiting Painesville Township.

Leroy Township is the second lowest in the amount of local roads. Perry Township has three miles less than Leroy Township. The Township has good maintenance percentage. They are only maintaining 37.5% of the roads while the County Engineer is maintaining 44.2% and ODOT is maintaining 18.3% of the roads. Major subdivision activity is currently not accruing in present time, the amount of local roads will not be increasing in the near future.

Leroy Township does not have the commercial and industrial tax base that would help offset the cost of road maintenance to the same extent as other communities. Thus, Township residents bear a heavier tax burden to maintain their roads, compared to homeowners in other communities.

Road Type	Local Mileage	County Mileage	State Mileage	Federal Mileage
Concord Twp.	63.1	33.3	14.48	6.39
Leroy Twp.	22.12	26.11	5.58	5.24
Madison Twp.	52.03	50.59	10.01	9.74
Painesville Twp.	48.63	19.83	13.95	6.6
Perry Twp.	19.83	22.37	5.03	5.22

There are several non-standard intersections in Leroy Township that make vehicle travel unsafe. The intersections of Callow Road and Painesville Warren Road and Girdled Road and Painesville Warren Road are two examples. Callow Road and Girdled Road do not intersection Painesville Warren Road at 90 degrees. This makes it difficult to enter on Painesville Warren safely.



Traffic counts

Road	Segment	Direction	Traffic volume 1972	Traffic volume 2009	%Δ 1972-2009
Painesville Warren Road	Concord Township line and Five Points	east/west	4040	2880	-0.29
Painesville Warren Road	Five Points and Brakeman Road	east/west	2760	7880	1.86
Painesville Warren Road	Brakeman Road and Geauga County line	east/west	1240	4330	1.94
Carter Road	Concord Township line and Vrooman Road	east/west	290	837	1.89
Carter Road	Vrooman Road and Paine Road	east/west	580	1472	1.54
Ford Road	Blair Road and Trask Road	east/west	370	1042	1.82
Ford Road	Trask Road and Madison Township line	east/west	320	623	0.95
Balch Road	Trask Road and Madison Township line	east/west	110	221	1.01
Huntoon Road	Concord Township line and Five Points	east/west	170	239	0.41
Leroy Center Road	Five Points and Brakeman Road	east/west	420	1136	1.7
Leroy Center Road	Brakeman Road and Kniffen Road	east/west	180	676	2.76
Leroy Center Road	Brockway Road and Geauga County line	east/west	93	1,491*	15
Girdled Road	Concord Township line and Painesville Warren Road	east/west	380	1654	3.35
Vrooman Road	Perry Township line and I-90	north/south	1770	5359	2.03
Vrooman Road	I-90 and Roundabout	north/south	1730	5619	2.25
Blair Road	River Road (Perry Twp) and Ford Road	north/south	490	882	0.8
Blair Road	Ford Road and Seeley Road	north/south	390	1272	2.26
Paine Road	Blair Road/Taylor Road and Carter Road	north/south	410	1247	2.04
Paine Road	Carter Road and Leroy Center Road	north/south	250	493	0.97
Brakeman Road	Leroy Center Road and Painesville Warren Road	north/south	280	640	1.29
Brakeman Road	Painesville-Warren Road and Radcliffe Road	north/south	510	739	0.45
Kniffen Road	Leroy Center Road and Painesville Warren Road	north/south	250	205	-0.18
Trask Road	Ford Road and Balch Road	north/south	200	591	1.96
Trask Road	Balch Road and Brockway Road	north/south	80	376	3.7
Trask Road	Brockway Road and Geauga County line	north/south	90	102	0.13
Brockway Road	Trask Road and Leroy Center Road	north/south	90	223	1.48
Leroy-Thompson Road	Gauga County line and Painesville Warren Road	north/south	510	820	0.61

(NOACA, 2009)

The amount of traffic present on most street segments in Leroy Township increased at a greater percentage than the Township population. According to traffic counts from 2009, Painesville Warren Road, between 5-Points and Brakeman Road, is the busiest section of road in the Township. In 1972, this section of road carried 2,760 vehicles per day. In 2009, the daily traffic count increased to 7,880 vehicles per day, equating to a 186.00% increase. Another Township road that experiences relatively large quantities of traffic is Vrooman Road. Vrooman Road connects to Painesville Warren Road, which carries an increasing amount of traffic into Geauga County. Leroy Center Road, which distributes

traffic along north-south roads, experienced significant residential development throughout the last few decades, as well as Carter Road, which carries traffic westward to growing residential subdivisions in Concord Township.

In addition to population growth, several factors have contributed to the increase of traffic in the Township throughout the last few decades. Changing lifestyles through the years have resulted in increased vehicle traffic, among them two-income families, children who have access to automobiles, and increased recreational activities (sports leagues, extracurricular activities) for children. These trends also affect adjacent communities, resulting in increased through traffic in Leroy Township. As exurban areas continue to experience growth, it is predicted that traffic will increase in Leroy Township and surrounding communities.

Vrooman Road Bridge

The Vrooman Road crossing over the Grand River has a significant effect on the residents of Leroy Township. As of August 2015, the Vrooman Road Bridge is under construction, but construction has stopped because of legal and environmental issues. No time table has been given for completion. The project is necessary to replace the aging bridge, enhance public safety with better intersection geometry, more effectively align the bridge for travel in snowy and icy conditions, and to eliminate flood hazards. Bridge improvements are likely to provide much safer and quicker access to surrounding communities.

South from SR 84 (Riverside Drive/South Ridge Road) in Perry Township, Vrooman Road descends down the side of a ravine into the Grand River valley. Prior to the beginning of construction, a very tight turn led the road over a deteriorating two-lane bridge, the former Vrooman Road Bridge. This bridge was often closed to the public due to flooding or maintenance issues. The road makes another sharp, almost 90-degree turn to the left before rising out of the valley. The former Vrooman Road crossing over the Grand River was closed to truck traffic, provided little room to accelerate before ascents and was unable to handle heavy loads. The construction of the new crossing is expected to alleviate these issues.

The 1960 Lake County Comprehensive Plan proposed realigning Vrooman Road, following Lane Road south from Perry Township across a new high-level bridge spanning the Grand River valley, connecting to Vrooman Road. The concept of a high-level bridge was reintroduced in the 1984 Township Plan, although a proposed route was not mentioned. In 2004, the Lake County Engineering Department again began to investigate replacement of the Vrooman Road crossing. The favored route involved the construction of a high level bridge, which is currently being implemented. The impacts of this project will be realized upon completion of the bridge.

5.3 Access Management

Access management is the planning, design and implementation of land use and transportation strategies that control the flow of traffic between the road and surrounding land, as well as the control of driveways and access points between streets and private property. Access management is a critical issue facing Leroy Township.

When access management is poor, there are increased conflict points, which are areas where vehicle travel routes cross paths. A large amount of conflict points results in an unpredictable traffic pattern, lower traffic speeds, and an increased potential for accidents. The investment the public has made in roadways, and their careful design, is degraded.

Conflict points should be minimized and spaced as far apart as possible. Separation of conflict points provides more time and space for drivers to react to unexpected events. Conflict points and other poor access features also increase speed differential, which is the speed of the fastest traffic on a road versus the speed of the slowest traffic entering a road, between through traffic and turning traffic.

Greater speed differential results in more rear end collisions. According to the Ohio-Kentucky-Indiana Regional Council of Governments, 50% to 60% of all vehicle accidents are access-related.

Leroy Township has no access management policy or requirements. In many communities, access management is a problem because there are individual driveways for each business, with many having multiple driveways. In Leroy Township, the problem is worse, as most businesses do not even have defined driveways or curb cuts. There is no separation of the street and private property and business parking lots touch the street along the entire property frontage.

The continuous curb cuts, as such access is called by traffic engineers, result in an infinite amount of vehicle conflict points. Continuous curb cuts create a very unsafe pedestrian



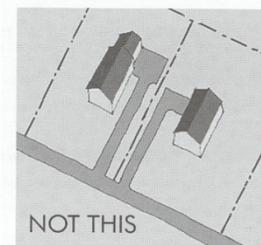
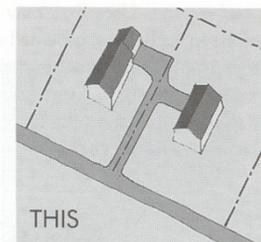
environment, because vehicles can cross a pedestrian path anywhere. Continuous curb cuts make it difficult for a driver to spot the correct entrance to a business. They also increase stormwater runoff, eliminate any visual buffer between the street and a building, and present an unkempt and makeshift appearance of a commercial district.

Leroy Township can adopt commercial access management requirements by an amendment to its Zoning Regulation, working in conjunction with the Lake County Engineer. A barrier to implementation, though, may be resistance from businesses who feel controlled access creates a perception of more difficult access among their customers. Studies performed by many state transportation departments have concluded strong access management policies do not hurt local businesses.

Common Driveways and Private Streets

Access management issues are also a concern in residential areas. Houses on lots fronting on long collector roads usually have their own driveways. The minimum road frontage for a residential lot in the township is 60'. If lots were created at the maximum permitted density and minimum permitted frontage, driveways could, in theory, be more common along the Township's collector roads than in more built-up suburban areas.

The proliferation of driveways results from the land division pattern in the township; small lots fronting on collector roads are split off from larger lots. Over time, this development pattern results in a row of houses and driveways along a road, behind which is the large undeveloped portion of the original lot, or "bowling alley" lots where the house and any outbuildings are close to the road, and the rear left unused. Lots are usually subdivided in this pattern to avoid a more formal subdivision review process, and save money by using existing roads to access lots.



Encouraging common driveways for residential uses can reduce the number of access points on collector roads and arterials. It can also protect the rural character of developing areas by making development further from a main road possible, thus reducing visual impact on the streetscape. This also has the effect of making building sites more private. Lots can be platted with more flexibility, and "bowling alley" lots can be avoided, resulting in larger side yards and increased spacing between houses.

A common drive can either be permanent access easements or tracts dedicated for use as private roads. Ohio state law gives developers the right to build private streets. State law does not prohibit access easements. Covenants address maintenance of shared driveways, including grading, plowing, patching and so on, along with fees. Common driveways can also be used with commercial and industrial uses, to reduce the number of access points along a road and lower pavement maintenance and plowing costs.

5.4 Pedestrian and Bicycle Accommodation

A 1906 United States Geological Survey map of Leroy Township shows a network of roads that is almost identical to today's network. However, 100 years ago Leroy Township residents navigated their roads by foot, horse, or cart, not motorized vehicles. Today, there is no accommodation of pedestrians or bicycles in the Township transportation network, likely due to the low density of population and housing.

Rural Roads

Pedestrians walking on rural roads without sidewalks may occasionally have to step off the paved surface to let traffic pass. With higher vehicle volumes, a pedestrian could spend more time off the road than on pavement. Since drainage ditches and soft shoulders are unsuitable for safe, comfortable walking, pedestrian travel is discouraged on rural roads.

A road profile designed with some pedestrian accommodation, with a wider shoulder and bicycle markings, should be considered when a rural road is reconstructed. A wider shoulder would maintain the rural character of the streetscape, while still providing a maintained, paved area for pedestrians and bicycles.

Bicycle Trails

There is only one marked bicycle route in Leroy Township. A portion of the American Youth Hostel (AYH) cycle route crosses the Township on Carter Road, Paine Road and Ford Road. The AYH trail is part of a national trail system. The AYH cycle route is meant for intermediate riders who are comfortable riding on rural roads and can handle hills. A road profile designed to accommodate pedestrians, with a somewhat wider shoulder, may also accommodate bicycle traffic.

5.5 Public Transportation

Laketrans, the public transit agency serving Lake County, operates a Dial-a-Ride service. The service offers door-to-door, assisted transportation for all Lake County residents, including those in Leroy Township. Dial-a-Ride picks up users at their homes, and drops them off at work, medical appointments or any other destination in Lake County. It also provides transportation to medical appointments at Euclid Hospital, Euclid Medical Park, Richmond Mt. Sinai East, University Hospitals and Cleveland Clinic in Cuyahoga County.

Dial-a-Ride is not intended for regular commuters, but rather for senior citizens and those who are physically challenged. It can be used as temporary transportation for those whose vehicles have broken down.

Leroy Township is not served by a fixed bus line. The Laketransit Plan shows no plans to extend fixed route bus lines into the Township. The low population density and scattered development makes fixed route public transit service impractical and very costly. Buses that could serve Leroy Township would find heavier use along an existing fixed route bus line, or a new route in a more urbanized part of the Laketransit service area.

Transportation

TR-1 The transportation network should continue to reflect the rural character of Leroy Township and be improved only in a way that does not threaten that character.

TR-1-01 Continue the gradual improvement of roads in the Township. Improvements to Township collector and local roads should be performed to benefit Township residents.

TR-2 An access management policy will be implemented.

TR-2-01 Collaborate with the Lake County Engineer and the Ohio Department of Transportation to institute access management policies for commercial and industrial land uses. Requirements should include prohibition of continuous curb cuts, spacing of curb cuts along a road and from intersections, limiting number of curb cuts on a road based on lot width and use intensity, limiting driveway width, reducing conflicts between pedestrians and access drives, required shared driveways where feasible, requiring connections between parking lots on adjacent properties, internal access to outparcels, and eventual retrofitting and elimination of continuous and nonconforming curb cuts.

TR-2-02 Collaborate with the other townships in Lake County and the County Engineer to create and implement an access management policy or regulations.

TR-3 Limited public transportation will remain an option for Township residents.

TR-3-01 Promote Dial-A-Ride as a transportation option for senior citizens and the mobility-impaired.

TR-4 Make the road network safer in Leroy Township

TR-4-01 Redesign the intersections of Girdled Road and Painesville Warren Road and Callow Road and Painesville Warren Road to eliminate the odd intersections. The Lake County Subdivision Regulations could be utilized to move roads if adjacent property is subdivided.