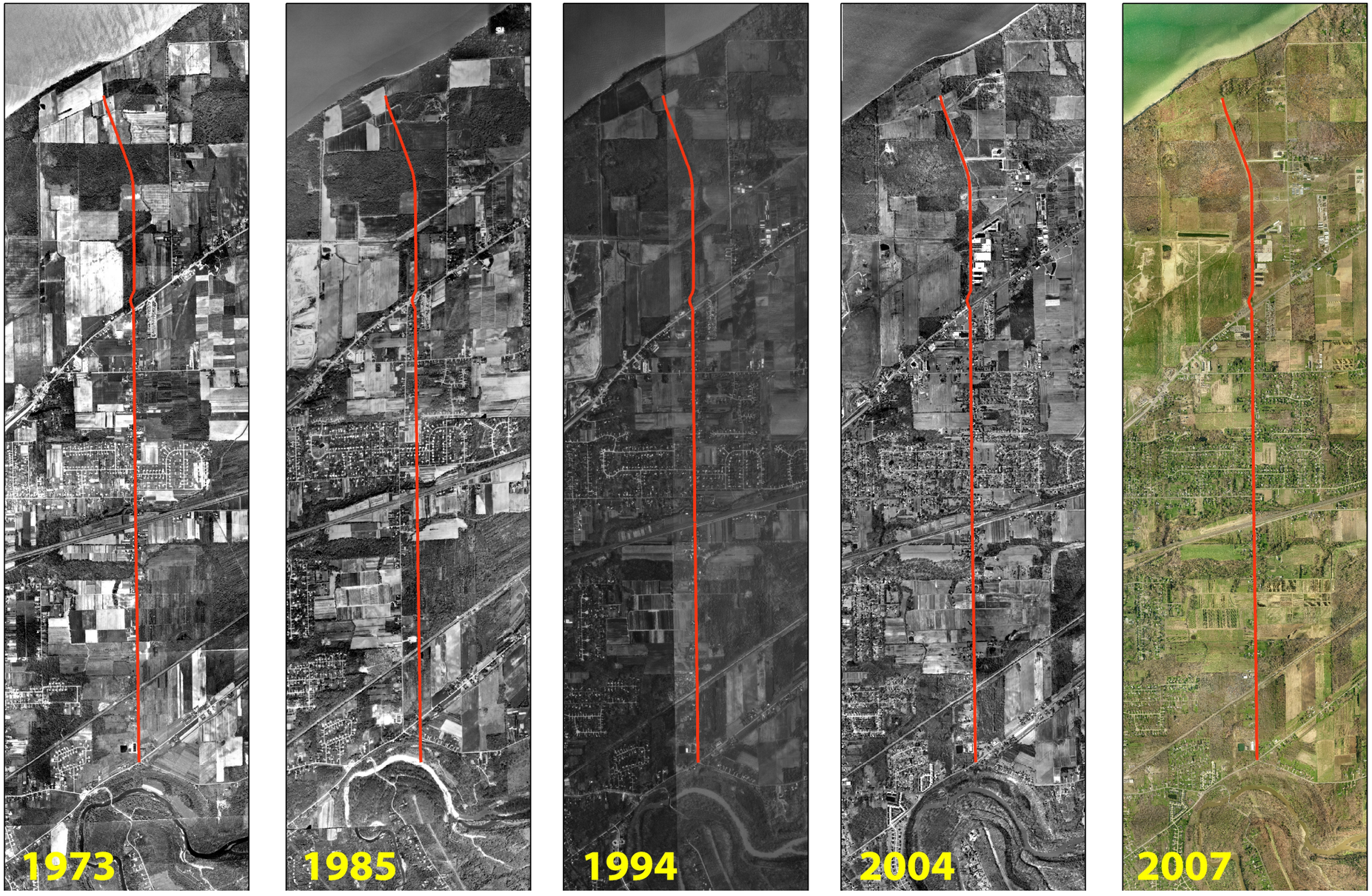

LANE ROAD CORRIDOR PLAN *month 2009*

Prepared for the Perry Township Trustees

PERRY TOWNSHIP

LAKE COUNTY PLANNING COMMISSION

ACKNOWLEDGEMENTS

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1 Introduction

1.1 Project Description / goals

The Lane Road corridor, a semi-rural north south county road, is facing the potential issues associated with traditional suburban expansion. Increased traffic, loss of agricultural lands, and increased development pressures are possible in the coming years. Potential large scale transportation upgrades in the area will stimulate interest in commercial development along the corridor and areas accessible via the supporting road network.

This study is a major planning effort intended to assist local decision-makers (zoning commission and trustees) with current and future land use, zoning, traffic and economic development proposals. More specifically, the plan will assist with accomplishing the following goals established in the Perry Township Comprehensive Plan:

- Preserve the agricultural / horticultural economy.
  - *This was the overriding theme throughout the meeting.*
- Create an acceptable balance among land uses.
- Expand and diversify the tax base for Perry Township.

Similarly, the following specific recommendations in the plan were noted:

- Direct and manage growth and development.
- **Protect the Lane Road corridor.**

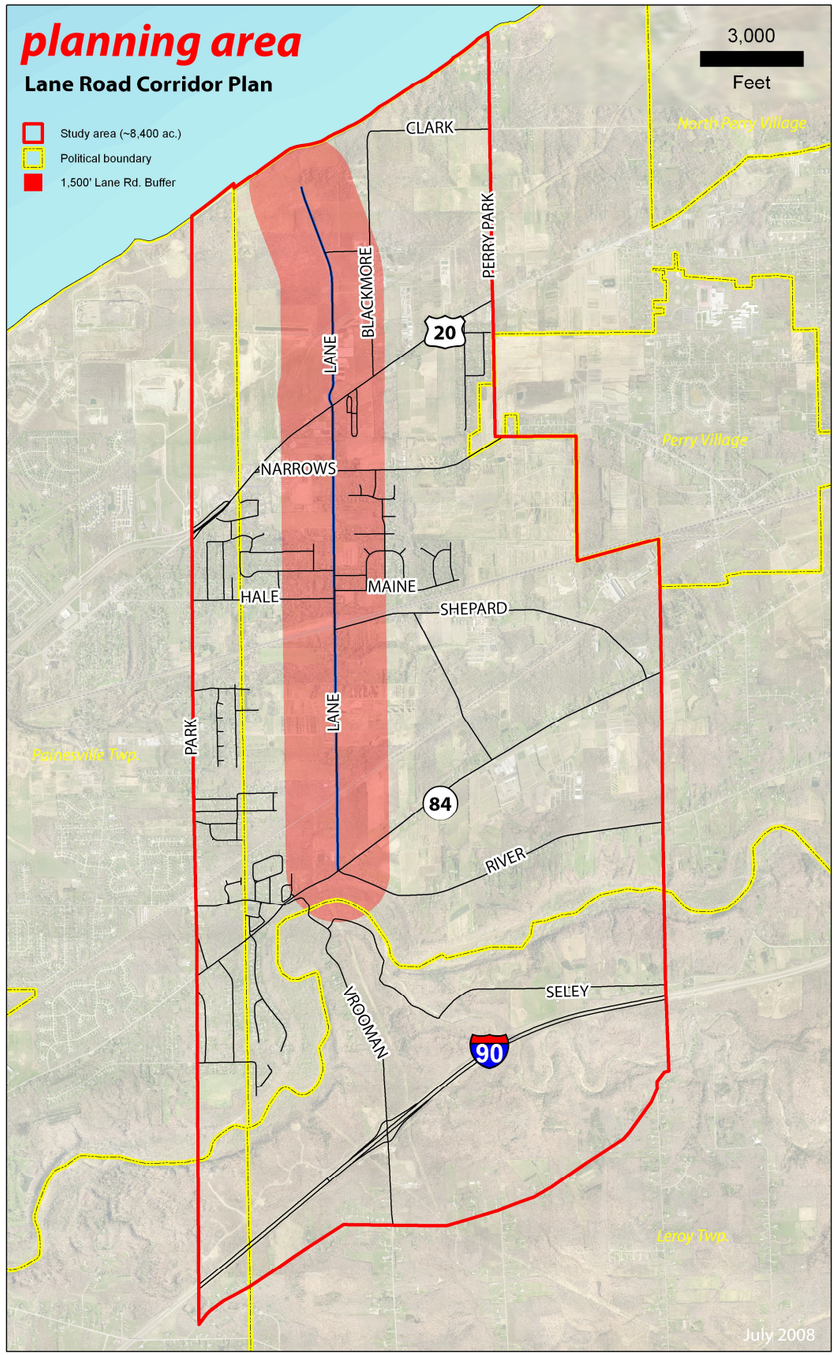
1.2 Planning Area

Lane Rd., from SR 84 to Lake Erie is the primary focus of the project (Map 1.1). This area and those immediately adjacent total approximately 1,500 acres. The secondary study area was expanded to capture a more complete analysis of the area from a land use, zoning and traffic perspective. This area includes approximately 8,400 acres. A small percentage of this area is in Leroy and Painesville Township.

Land uses range from agricultural/vacant to residential to light industrial. The area is primarily residential and agricultural in the bottom two-thirds of the study area. The northern portion is vacant, but zoned for manufacturing and industrial uses. These uses are part of the seven zoning districts in the area (discussed in greater detail in Chapter 4). Federal, state, county, and township roads exist in the area, all of which have experienced increased traffic volume in the last 20 years.

Residential growth has been relatively flat in recent years in the study area. According to the U.S. Census Bureau, from 2000-2007, Perry Township's population has grown approximately 1.4% to over 6,900 residents. Population is estimate d at approximately 4,600 in the study area. New businesses have located to the area due to the Lane Road extension project known as Wind Point Reserve.

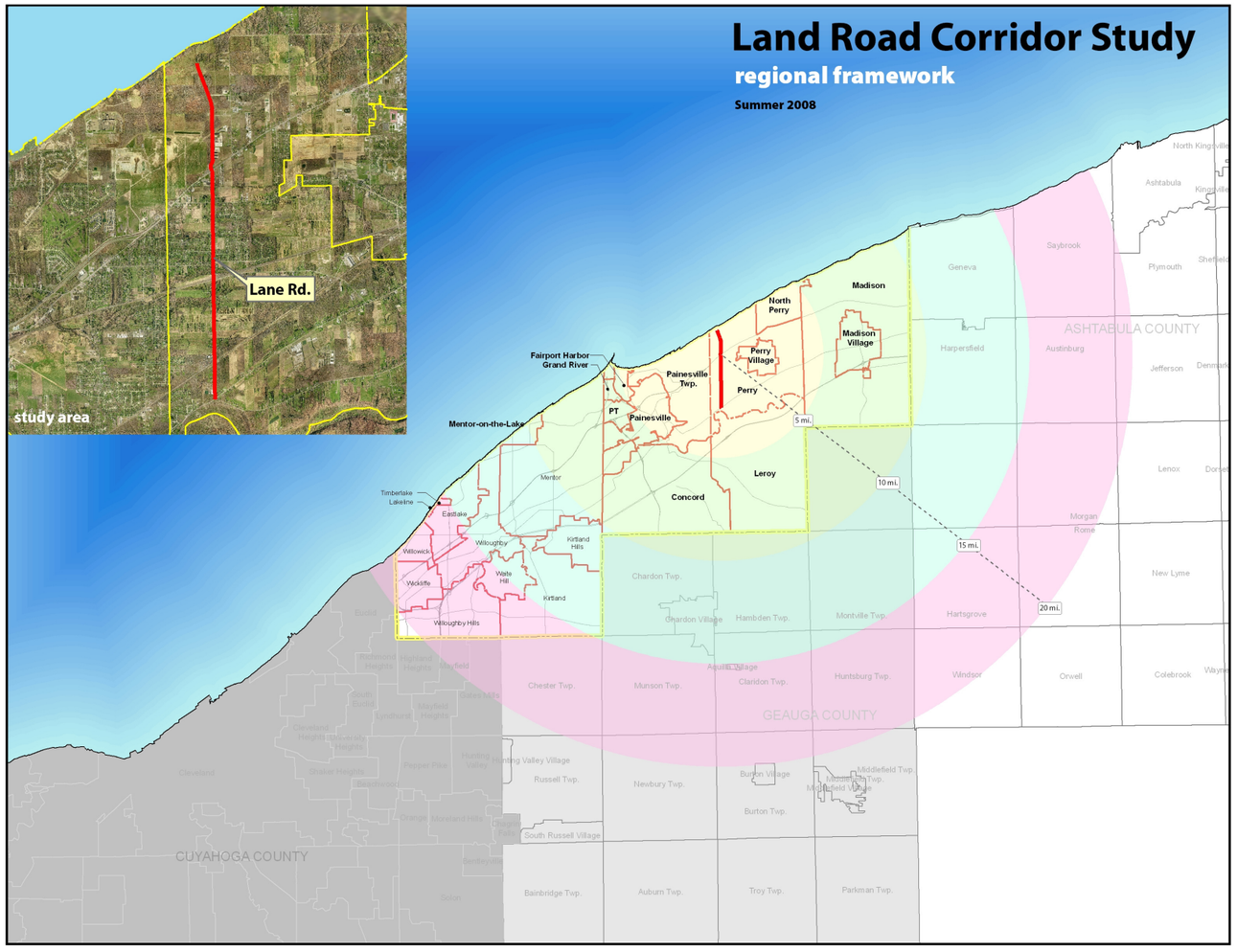
Map 1.1: Study Area



Regionally, the study area is centrally located in Lake County and approximately 35 miles from the central business district of Cleveland (map 1.2). A 20-mile radius of the Lane Rd. / US 20 intersection encompasses the entire County, the northern half of Geauga County to the south and the more rural areas of western Ashtabula County to the east. Direct access to I-90 is available via Vrooman Rd., but not accessible to all types of traffic. State Route 528 and SR 44 provide secondary options to access I-90.

Lane Rd. is considered the only "primary" north-south arterial in the Perry Township Comprehensive Plan. It intersects with two major east-west roads, US 20 (North Ridge Rd. and SR 84 (South Ridge Rd.).

Map 1.2: Regional Location



A 50- mile market encompasses:

- 50% of U.S. population
- 40% of Canada's population
- 55% of U.S. manufacturing plants
- 60% of U.S. effective buying income

1.3 Planning Process

The plan was developed through a cooperative effort between Perry Township, Lake County Planning Commission and the local Stakeholder Committee. The committee was comprised of agricultural representatives, zoning officials, engineers, township leaders and economic development officials. This plan was completed in a 5-month time frame.

Survey-analysis-plan. This is the basic method used in the planning field. This plan expands on these three points while following the 9-step rational model:

1. Identify issues and options.
2. State goals and objectives; identify priorities.
3. Collect and interpret data.
4. Prepare plans.
5. Draft programs for plan implementation.
6. Evaluate potential impacts of plans and implementing programs, and modify the plans accordingly.
7. Review and adopt plans.
8. Review and adopt implementation programs.
9. Administer plan-implementing programs, monitor their impacts, and amend plans in response to feedback.

A very important part of the planning process is public participation; that those who live and work in the area have a role in charting its future. Publicly announced meetings were facilitated by Planning Commission staff to solicit local thoughts about the current and future state of the corridors.

The Plan is a flexible planning tool that is not carved in stone. While the plan presents goals and policies to be pursued, future events, broad changes in community values, or the availability of financing could cause township leaders and residents to focus on other goals. However, it is good civic stewardship to ensure that revisions conform to the spirit of the plan and sound planning principles, and consider the best interest of the community as a whole. It is important to review plans on a regular basis, and keep them up to date.

"It's not the plan that's important, it's the planning."
Dr. Gramme Edwards

2 Background

2.1 History of Planning Area

The 1937 photos reveal an extremely rural area with large tracts of forested and agricultural areas, primarily nursery stock (Map 2.1). US 20 and SR 84 were (and still are) the primary east/west routes through the community. Lane Road was the main north/south connector.

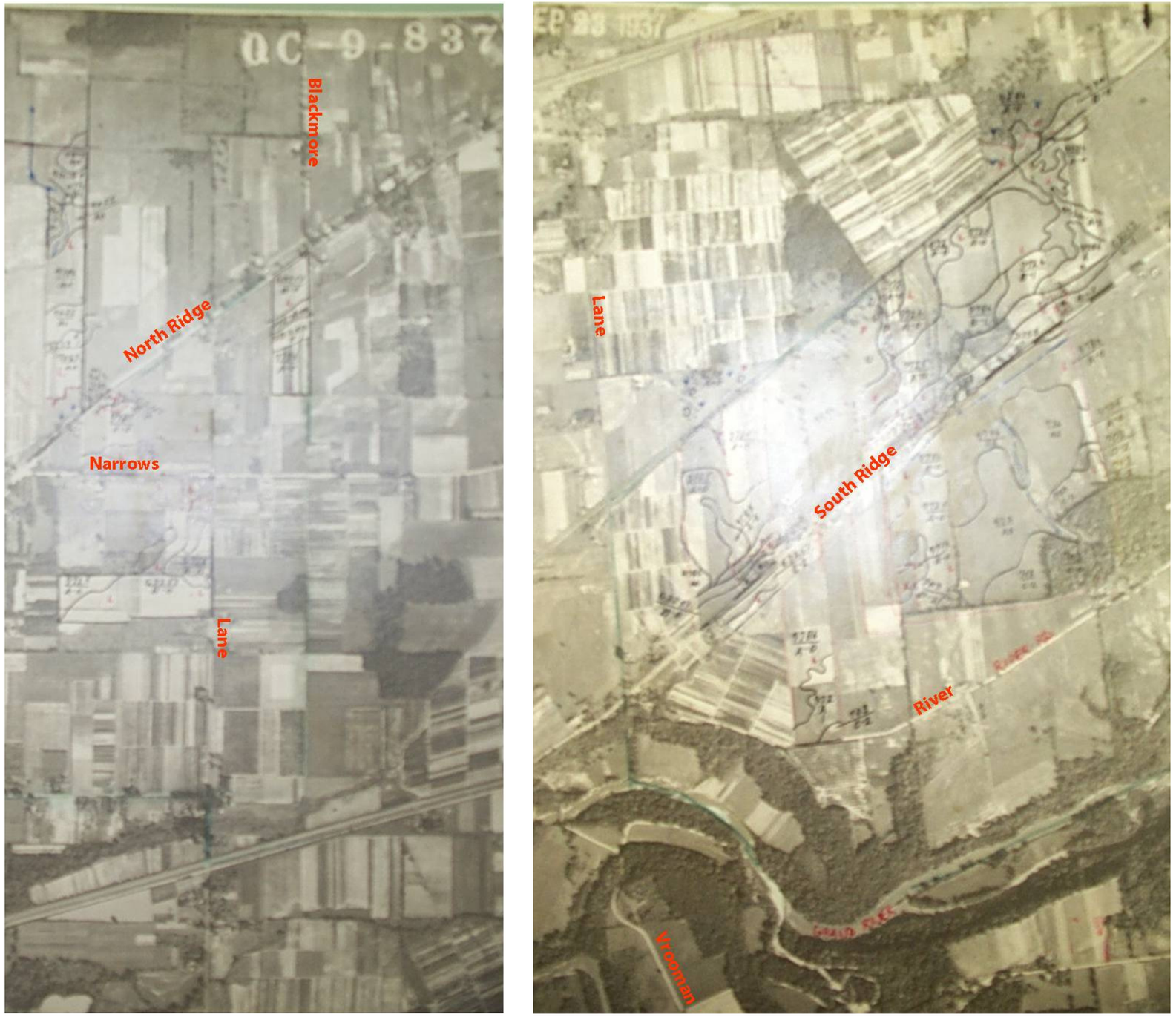
The land use pattern and corresponding road network of the Lane Road corridor remained relatively unchanged up until the 1950-60's when residential subdivisions were platted (Map 2.2). Throughout northeast Ohio, the post WWII era was the first wave of residential expansion. Early subdivisions included:

- W.A. and J.A. Brown Subdivision (1954), Larchview Dr.
- Sivon Acres Allotment (1956), Maine Avenue, Vermont Avenue
- Sivon Acres Allotment #2 (1957), Florida Street, Oregon Street, Iowa Court
- Halewood Park Estates (1961), Redwood Drive, Norway Avenue

Similar residential developments were occurring off Park Rd. in Painesville Township during the same time period. This increase in rooftops began and the traffic volume created by State Route 2 created a market for commercial land uses at the Lane Rd./North Ridge Rd. intersection. A small scale commercial center, gas station and financial institutions occupy this node.

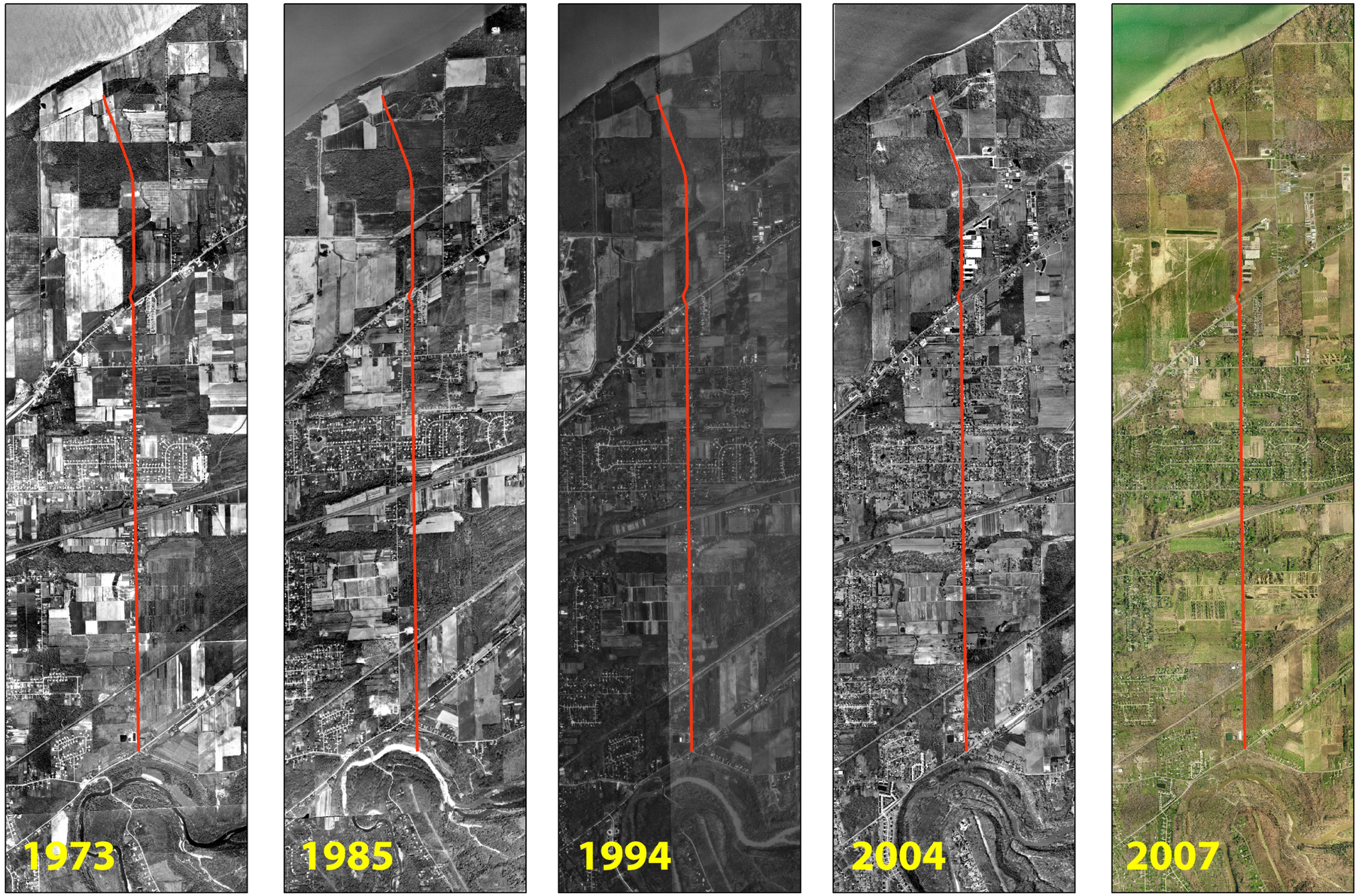
The dedication of Lane Rd. extension in 1996 was the first step in attracting light industrial and manufacturing land uses to the corridor. Known as Wind Point Reserve, this industrial park has hundreds of acres capable to serve the northeast market.

Map 2.1: 1937 Aerial of Corridor



Intersection enhancements to the North Ridge Rd./Lane Road intersection occurred in 2004. The industrial subdivision, forecasted increased traffic volumes and corresponding accidents were key variables to this improvement. Along Lane Rd. traffic volume has doubled at all key intersections since 1972 (see Chapter 4 for more detail).

Map 2.2: Lane Rd. Aerials 1973 - 2007



Lane Road Corridor Plan *aerial analysis*

2.2 Previous Plans

A site-specific study has never been conducted for Lane Road. Previous plans have been at the Township or County level, often with a more generalized format (Table 2.1).

Table 2.1
Previous planning efforts

Year	*Plan*	*Relevance to Lane Road*
1960	Lake County Comprehensive Plan	- 1st plan identifying proposed grade separation along Lane Road with both sets of railroad tracks. - Identified potential industrial land uses in what is currently Wind Point Reserve. - Identified both the value of the unique agricultural industry and the issues it faces with residential and industrial expansion. - 1st plan to identify major north/south transportation improvements from Vrooman Rd. Specifically calls for a controlled access highway west of present day Lane Rd.
1976	Perry Area Development Plan of 1976	- Addresses the importance of the agricultural industry to the community and calls for preservation of the "most productive lands…" - Indicates extension of Vrooman Rd. to US 20 in an area east of present day Lane Rd. - States "…extension of Route 2 and Vrooman Road would aid considerably in through traffic movement. Such highway development would aid in transport of workers to and from nearby industrial/commercial development. - Endorses industrial development in the northwest quadrant of the Township.
1982	Perry Township Amendment to the Lake County Comprehensive Plan	- Confirms importance of agricultural lands - States "…extension of Route 2 and Vrooman Road would aid considerably in through traffic movement. Such highway development would aid in transport of workers to and from nearby industrial/commercial development. - Removes the extension of Vrooman Rd. through interior of the Township, but does indicate a new Grand River Valley crossing to I-90 from Vrooman Rd. to Lane Rd. - Endorses industrial development in the northwest quadrant of the Township.
1993	Perry Township Comprehensive Plan	- Goal #1: "Preserve the agricultural/horticultural economy. - Re-enforces findings of previous two plans. - Begins to note traffic volume concerns along North Ridge Rd. Road widenings and signalization programs are recommended.
2003 (2006 update)	Perry Township Comprehensive Plan	- Plan specifically recommends to "Protect the Lane Road Corridor." Screening/mounding and increased setbacks are recommended. - Goal #1: "Preserve the agricultural/horticultural economy. - Re-enforces findings of previous two plans. - Addresses the importance of the lakefront as an asset for future growth potential. - Intersection upgrade are recommended for Lane Rd./North Ridge Rd., Lane Rd./Shepard Rd., Lane Rd./River Rd./South Ridge Rd.

2.3 What We Know

Lane Road is similar to countless former rural farm roads that have evolved into a primary transportation corridor for local and regional traffic. The continued population shift to eastern Lake County, Wind Point Reserve Industrial Park and a potential bridge over the Grand River Valley mark the initial stages of a transitional area.

A large amount of property in the northern portion of the study area is vacant, yet predominately serviced by capital improvements. Most suburban/rural areas do not have this luxury of "city services" often lending itself to development of a lower denominator. This provides a tremendous opportunity for the local decision makers to foster quality development patterns that will have a positive economic impact on the entire Perry area. With utilities in place, the committee wishes to direct growth to the north end and preserve the agriculture sector south to the highest extent feasible. Table 2.2 provides highlights from the stakeholder meetings.

Table 2.2 What we know

Variable	*Comment*
Sewer	- Sanitary exists in the northern portion of the study area (Sheets Gas Station north through Wind Point Reserve Industrial Park). - Capacity exists for future build-out of Wind Point Reserve. - The Lake County Department of Utilities will not install sewers to areas to the south on a speculative basis. Landowners along Lane Rd. may petition the Commissioners for installation via assessment to the owner based on road frontage.
Water	- Entire study area has access to public water.

Land Use	- Three distinct patterns exist immediately along Lane Road:
	  - Industrial / vacant north
	  - Residential central
	  - Agricultural dominates south/east
	- Area outside immediately vicinity of Lane Rd. is a mix of vacant, residential, agricultural and parkland.

Zoning	- Manufacturing (heavy and light) on the north end and along the rail corridor in the eastern section of the study area. - Commercial along the Route 20 corridor (predominately vacant with the exception of the intersection area. - Residential in central portion of study area (3/4 to 1 acre lot size requirement)
Traffic	- Average daily volume along US 20 has been relatively stable along US 20 in the study area. - Level of service classification (LOS) is C (acceptable) along US 20. - Average daily volume has increased along all segments of Lane Rd. since 1980, but current volumes do rank on NOACA's Congestion Management Process (CMP) network. - Demand will increase with potential bridge from Lane Road to Vrooman Rd. This includes tractor trailers services in the industrial north, nursery industry and commercialized areas of US 20 to the east. - Access management regulations do not exist in study area. - Primary accident point is US 20 / Lane Rd, but does not rank as a top 20 accident location by NOACA (data collected over a 3 year period from 2002-2004).

2.4 Market Conditions

Population

As indicated in Table 2.4 Perry Township's 2000 population was estimated at 6,220. This represented a 25.81% increase from 1990, the largest increase of any community in Lake County. Lake County's population grew 5.57% during that time. For comparison, Ohio's population grew 4.7% between 1990 and 2000, slower than the national rate of 13%. This is one of the lowest rates in the nation. The Perry Township Comprehensive Plan indicates a population of range of 8,700-9,300 by 2020, a 40% increase from 2000. The Census Bureau projects Ohio's population will grow three percent between 2000 and 2020; only two other states have a slower projected growth. This is considerably slower than the 18 percent projected for the nation as a whole.

Table 2.3 Population 1910-2000

	1910	*1920*	*1930*	*1940*	*1950*	*1960*	*1970*	*1980*	*1990*	*2000*
Concord Township	608	623	710	795	1,440	3,860	5,948	10,335	12,432	15,282
Eastlake	◢	◢	◢	◢	7,486	12,467	19,690	22,104	21,161	20,255
Fairport Harbor Village	2,263	4,211	4,972	4,528	4,519	4,262	3,665	3,357	2,978	3,180
Grand River Village	203	248	314	305	448	477	613	412	297	345
Kirtland	1,047	957	1,159	1,333	1,723	4,709	5,530	5,969	5,881	6,670
Kirtland Hills Village	◢	◢	206	237	235	292	452	506	628	597
Lakeline Village	◢	◢	75	77	183	269	223	258	210	165
Leroy Township	644	693	683	827	937	1,502	1,759	2,505	2,581	3,122
Madison Township	2,013	1,992	2,340	2,725	3,891	8,494	12,455	15,378	15,477	15,494
Madison Village	863	893	927	979	1,127	1,347	1,678	2,291	2,477	2,921
Mentor *	1,977	2,112	3,542	4,725	8,432	24,548	36,912	42,065	47,358	50,278
Mentor-on-the-Lake	◢	◢	230	538	1,413	3,290	6,514	7,919	8,271	8,127
North Perry Village	◢	◢	316	318	470	658	851	897	824	838
Painesville	5,501	7,272	10,944	12,235	14,432	16,116	16,536	16,391	15,699	17,503
Painesville Township	1,634	2,288	2,433	3,404	6,102	10,316	10,870	12,348	13,218	15,037
Perry Township	***1,784***	***1,220***	***1,154***	***1,380***	***1,819***	***3,291***	***4,634***	***5,126***	***4,944***	***6,220***
Perry Village	◢	473	602	615	665	885	917	961	1,012	1,195
Timberlake Village	◢	◢	◢	◢	236	670	964	885	833	775
Waite Hill Village	◢	◢	237	289	305	360	514	529	454	446
Wickliffe	◢	1,508	2,491	3,155	5,002	15,760	20,632	16,790	14,558	13,484
Willoughby *	4,370	4,177	10,640	10,957	10,967	15,058	18,634	19,329	20,510	22,621
Willoughby Hills	◢	◢	◢	◢	◢	4,241	5,969	8,612	8,427	8,595
Willowick	◢	◢	667	915	3667	18,749	21,237	17,834	15,269	14,361
Lake County total	22,927	28,667	41,674	50,020	75,979	148,700	197,200	212,801	215,499	227,511

(US Census Bureau)
◢ - Not incorporated at time of Census. Population of area may be included in population of underlying township, or city later created from township.
* - May include unincorporated areas or villages that later became part of the city.

Table 2.4 Population growth rates 1910-2000

	1910-1920	*1920-1930*	*1930-1940*	*1940-1950*	*1950-1960*	*1960-1970*	*1970-1980*	*1980-1990*	*1990-2000*
Concord Township	2.47%	13.96%	11.97%	81.13%	168.06%	54.09%	73.76%	20.29%	22.92%
Eastlake	✱	✱	✱	✱	66.54%	57.94%	12.26%	-4.27%	-4.28%
Fairport Harbor Village	86.08%	18.07%	-8.93%	-0.20%	-5.69%	-14.01%	-8.40%	-11.29%	6.78%
Grand River Village	22.17%	26.61%	-2.87%	46.89%	6.47%	28.51%	-32.79%	-27.91%	16.16%
Kirtland	-8.60%	21.11%	15.01%	29.26%	173.30%	17.43%	7.94%	-1.47%	13.42%
Kirtland Hills Village	✱	✱	15.05%	-0.84%	24.26%	54.79%	11.95%	24.11%	-4.94%
Lakeline Village	✱	✱	2.67%	137.66%	46.99%	-17.10%	15.70%	-18.60%	-21.43%
Leroy Township	7.61%	-1.44%	21.08%	13.30%	60.30%	17.11%	42.41%	3.03%	20.96%
Madison Township	-1.04%	17.47%	16.45%	42.79%	118.30%	46.63%	23.47%	0.40%	0.30%
Madison Village	3.48%	3.81%	5.61%	15.12%	19.52%	24.57%	36.53%	8.12%	17.92%
Mentor *	6.83%	67.71%	33.40%	78.46%	191.13%	50.37%	13.96%	12.58%	6.17%
Mentor-on-the-Lake	✱	✱	133.91%	162.64%	132.84%	97.99%	21.57%	4.45%	-1.74%
North Perry Village	✱	✱	0.63%	47.80%	40.00%	29.33%	5.41%	-8.14%	1.70%
Painesville	32.19%	50.50%	11.80%	17.96%	11.67%	2.61%	-0.88%	-4.22%	11.49%
Painesville Township	40.02%	6.34%	39.91%	79.26%	69.06%	5.37%	13.60%	7.05%	13.76%
Perry Township	***-31.61%***	***-5.41%***	***19.58%***	***31.81%***	***80.92%***	***40.81%***	***10.62%***	***-3.55%***	***25.81%***
Perry Village	✱	27.27%	2.16%	8.13%	33.08%	3.62%	4.80%	5.31%	18.08%
Timberlake Village	✱	✱	✱	✱	183.90%	43.88%	-8.20%	-5.88%	-6.96%
Waite Hill Village	✱	✱	21.94%	5.54%	18.03%	42.78%	2.92%	-14.18%	-1.76%
Wickliffe	✱	65.19%	26.66%	58.54%	215.07%	30.91%	-18.62%	-13.29%	-7.38%
Willoughby *	-4.42%	154.73%	2.98%	0.09%	37.30%	23.75%	3.73%	6.11%	10.29%
Willoughby Hills	✱	✱	✱	✱	✱	40.75%	44.28%	-2.15%	1.99%
Willowick	✱	✱	37.18%	300.77%	411.29%	13.27%	-16.02%	-14.38%	-5.95%
Lake County total	25.04%	45.37%	20.03%	51.90%	95.71%	32.62%	7.91%	1.27%	5.57%

(US Census Bureau)
✱ - Not applicable.
*May include unincorporated areas or villages that later became part of the city.

Notes: 1. July 2007 Census estimate (released in August 2008) shown an increase to over 6,900 residents (1.4% increase since 2000).
2. Approximately 4,680 people live within the study area (see Map 1.1) (based on census 2000 block group data). In 1990, approximately 4,390 residents lived in the study area.

Of course, population growth in the area will not continue indefinitely. Limits to growth include very slow growth of the Cleveland metro area population, which limits how many people will eventually move to exurban areas; distance from professional employment centers, cultural institutions and centers of higher learning; rising energy prices; and decreasing supplies of fossil fuel and natural gas. Despite these obstacles, residential, commercial and industrial growth in the corridor is expected in the coming decades.

Income

Table 2.5 reflects a median household income of $54,904, well above county, state and federal indicators.

More recent per capital income data from the Ohio Department of Development indicates Lake County falling below the national average beginning in 2001. The reduction in manufacturing jobs is a key contributor to this statistic.

Table 2.5 Median household Income 1999 dollars

Community	*dollars*
Perry Township	***54,904***
Madison Township	45,631
Concord Township	69,256
Painesville Township	47,751
Painesville City	38,842
Mentor City	57,230
Leroy Township	61,100
Chardon Township	63,094
Chardon Village	46,074
Lake County	**48,763**
Geauga County	**60,200**
Cleveland PMSA	**42,089**
Ohio	**40,956**
United States	**41,994**

(US Census Bureau)

Table 2.6 Per capita income 1999 dollars

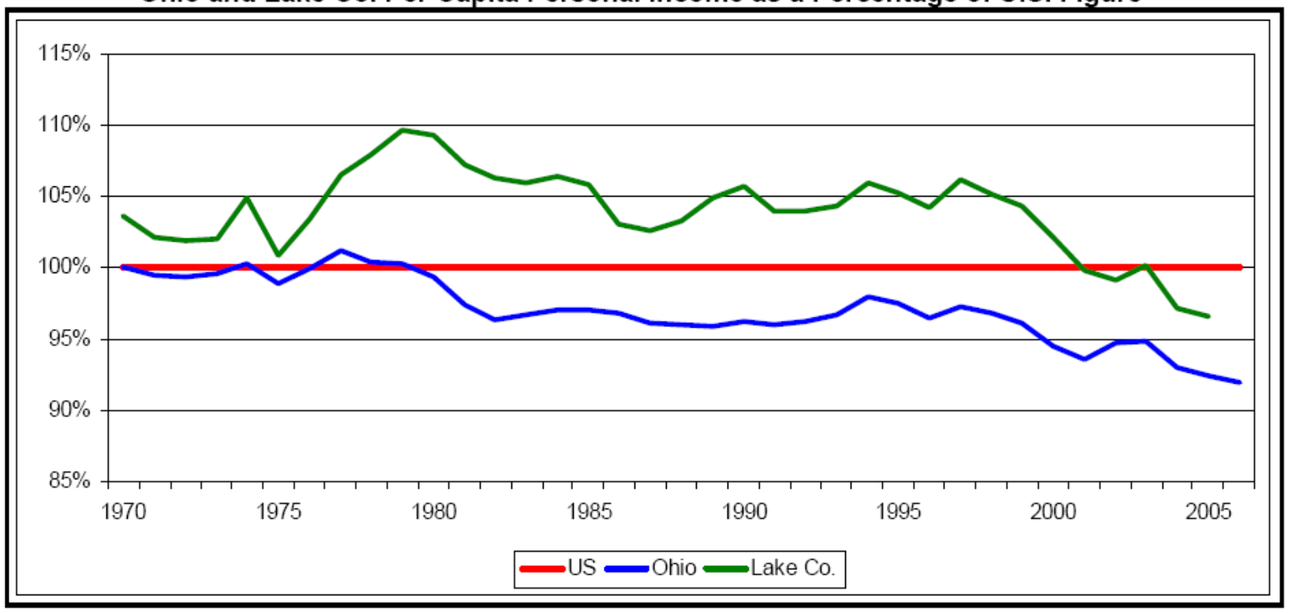
Community	*dollars*
Perry Township	***22,100***
Madison Township	19,478
Concord Township	31,922
Painesville Township	22,479
Painesville City	15,391
Mentor City	24,592
Leroy Township	21,758
Chardon Township	29,729
Chardon Village	21,845
Lake County	**23,160**
Geauga County	**27,944**
Cleveland PMSA	**22,321**
Ohio	**21,003**
United States	**21,587**

(US Census Bureau)

Per Capita Personal Income; Selected Years

	1970	1980	1990	2000	2001	2002	2003	2004	2005	2006
US	$4,085	$10,114	$19,477	$29,843	$30,562	$30,795	$31,466	$33,090	$34,471	$36,276
Ohio	$4,086	$10,046	$18,743	$28,205	$28,583	$29,187	$29,826	$30,763	$31,860	$33,338
Lake	$4,235	$11,055	$20,588	$30,493	$30,500	$30,513	$31,515	$32,153	$33,298	---

Ohio and Lake Co. Per Capita Personal Income as a Percentage of U.S. Figure



Unemployment

In Ohio, the unemployment rate has increased to 7.8 percent in December 2008. In December 2008, Lake County's unemployment rate was 6.6%. All economic indicators show future increases in local, state and national unemployment figures.

Table 2.7 Unemployment rates

	Dec. '08	*Jul'08*	*Jun'08*	*Jul'07*
Lake County	6.6%	6.1%	6.9%	52%
Ohio	7.8%	7.2%	6.6%	5.6%
U.S.	7.2%	5.7%	5.5%	4.7%

Source: Ohio Labor Market Information, Sept.2008

Snap Shot of the Regional Retail Environment

In 2000, the Northeast Ohio Areawide Coordinating Agency released the "Northeast Ohio Regional Retail Analysis." While the focus is retail based, the following points are important statements for the foundations of this plan.

- In 1999, the 6 1/2 county region of NE Ohio had 135 million square feet of retail floor space.
- In 1999, Lake County had approximately 11.1 million sq. ft. of retail space, Mentor accounts for 5.9 million sq.ft.
- While retail space has increased by more than 200 percent during the past 15 to 20 years, consumer demand has only increased by approximately 50 percent.
- Lake County has added an average of 175,000 sq. ft of retail per year, resulting in more retail area than current demand.
- According to the NOACA Northeast Ohio Regional Retail Analysis, communities planning to use retail development as the focus of an economic development strategy would be better served by trying to sustain and/or attract industrial and office-based business. Mixed use style developments are also recommended.

The Perry Shopping Center is the primary retail area in the study area. Additional space may be warranted with future residential growth or the development of the industrial areas.

Snap Shot of US Employment Trends

The following charts clearly confirm the employment trends evident in the US and NE Ohio; decrease in manufacturing and an increase in computer technologies, professional offices and specialty services. Nationally, seven manufacturing type business are listed in the "most rapid decline" category (table 2.4). According to the Ohio Workforce Development office, northern Ohio manufacturing jobs are projected to decrease 10.9% (-15,300 jobs) from 2004-2014. Similar to national trends, professional and business services are projected to gain the most employment.

Perry Township has seen a slight increase in manufacturing, contrary to national trends. Nonetheless, this data can be used for economic development planning and job creation through permitting these types of businesses in the community.

Figure 10: Northern Ohio Projections to 2014 by Industry Sector

Industry Sector	2004 Annual Employment	2014 Projected Employment	Change in Employment 2004-2014	Percent Change 2004-2014
Total Employment	**1,076,800**	**1,134,100**	**57,300**	**5.3%**
Goods-Producing	**185,600**	**174,600**	**-11,000**	**-5.9%**
Natural Resources and Mining	5,500	5,000	-500	-9.1%
Construction	39,000	43,900	4,900	12.6%
Manufacturing	141,000	125,700	-15,300	-10.9%
Service-Providing	**820,400**	**888,800**	**68,400**	**8.3%**
Trade, Transportation and Utilities	183,100	191,500	8,400	4.6%
Wholesale Trade	48,800	54,000	5,200	10.7%
Retail Trade	105,100	106,400	1,300	1.2%
Information	19,200	19,400	200	1.0%
Financial Activities	78,600	81,200	2,600	3.3%
Finance and Insurance	62,400	64,500	2,100	3.4%
Real Estate and Rental and Leasing	16,200	16,700	500	3.1%
Professional and Business Services	124,100	146,500	22,400	18.0%
Professional, Scientific & Technical Services	49,500	57,200	7,700	15.6%
Management of Companies and Enterprises	15,600	17,500	1,900	12.2%
Administrative and Waste Services	59,000	71,800	12,800	21.7%
Education and Health Services	154,800	177,800	23,000	14.9%
Educational Services	23,000	26,500	3,500	15.2%
Health Care & Social Assistance	131,800	151,400	19,600	14.9%
Leisure and Hospitality	86,200	92,600	6,400	7.4%
Arts, Entertainment & Recreation	13,400	15,300	1,900	14.2%
Accommodation and Food Services	72,700	77,300	4,600	6.3%
Other Services	41,800	44,300	2,500	6.0%
Government	132,600	135,600	3,000	2.3%
Federal Government	18,100	17,600	-500	-2.8%
State Government	6,700	6,900	200	3.0%
Local Government	107,800	111,000	3,200	3.0%
Self-Employed, Private Household and Unpaid Family Workers	**70,900**	**70,600**	**-300**	**-0.4%**

2.5 Study Area Business Environment

All commercial and industrial business activity occurs in the northern 1/3 of the study area due to public utilities, transportation network, zoning distribution and the Perry Joint Economic Development District (JEDD).

A joint economic development district (JEDD) is an economic development tool that allows incorporated communities and townships to collaborate on business growth and development initiatives. A JEDD provides a long-term opportunity to promote beneficial economic development through regional cooperation. The JEDD offers opportunities for additional sources of revenue to the communities not previously available by accelerating development of industrial, business, and commercial areas that creates additional jobs, payroll taxes, and corporate net profit taxes.

Table 2.7 Commercial / Business Square Footage

Type	*Sq. Ft.*
Shopping Center	47,916
Bank	4,428
Gas Station (Convenience)	5,160
Medical/Dental Office	4,028
Service Station	4,158
Restaurant	2,350
Office	5,358
General Retail	7,928
Agriculture Retail	8,854
	90,180

Notes:
1. Gas Convenience are the new type of gas stations with the convenience store
2. Service Stations are the old gas stations with two bays to repair vehicles and an office.
3. Agriculture Retail is West fruit stand

All industrial activities are located in the Wind Pointe Reserve industrial park. Dependent of the location of the proposed Vrooman Road/Grand River Valley bridge and its proximity to Interstate 90, the Lane Road corridor and Wind Pointe Reserve industrial subdivision could be in a favorable position for future business creation. Current businesses are typically medium to large scale size manufacturers. Approximately 300 acres are shovel ready sites for new businesses.

Approximately 90,000 square feet of non-industrial business area is centered on the Lane Rd. / US 20 intersection. The Perry Shopping Center constitutes over half of this amount and rarely has long-term vacancies. Office and medical/dental uses are primarily located along the frontages of US 20 and Lane Rd., just south of US 20.

Agriculture is often overlooked as a key industry in Lake County and is a major component in the of the study area. Approximately, 2,000 acres is currently used as agriculture. The Township has consistently indicated their position to actively support the agricultural business community. Agricultural Security Areas is a tool available to the landowner (see Chapter 5). Protecting farmland helps communities maintain their semi-rural atmosphere and aids in reducing future demands for costly new community services, including road maintenance. Local, state and national studies have shown the economic balance and benefit provided with active agriculture in a community (see Chapter 6).

Employment Prospects for Lake County (Office of Workforce Development, March 2007)

The table below looks at industry classifications and is color coded to more quickly identify those sectors most important to the region. The left column ranks all 22 sectors shown by their employment levels in 2005. The top ten sectors in this column are printed in blue. The right column ranks sectors by the net number of new jobs created since 2005. The top ten growth sectors in the second column are printed in red. Sectors that appear at the top of both lists are printed in purple. Sectors with high employment levels are often a major source of job openings because seven of ten openings are expected to be replacement needs.

In terms of employment, manufacturing is the single largest sector, accounting for over 21 thousand workers in the area. Unfortunately, manufacturing also suffered the greatest job losses in the last five years, losing nearly 6,000 positions. Retail trade is another large employment sector with over 14 thousand jobs. Local government was another large employment sector that also had significant job growth from 2000 to 2005. The sector to add the most jobs in this period was health care and social assistance, creating about 1,500 new jobs. This is hardly surprising given the strong nationwide demand for health care, due in part to the aging baby boom population and new emerging medical technologies.

Figure 13: Employment Prospects by Industry Sector

2005 Employment	New Jobs: 2000-2005
Manufacturing	Health Care and Social Assistance
Retail Trade	Accommodation and Food Services
Local Government	Local Government
Health Care and Social Assistance	Education Services
Accommodation and Food Services	Wholesale Trade
Construction	Management of Companies and Enterprises
Administrative and Waste Services	Professional, Scientific and Technical Services
Wholesale Trade	Arts, Entertainment and Recreation
Professional, Scientific and Technical Services	Real Estate and Rental and Leasing
Other Services, except Public Administration	Transportation and Warehousing
Finance and Insurance	Finance and Insurance
Education Services	Retail Trade
Arts, Entertainment and Recreation	State Government
Management of Companies and Enterprises	Mining
Real Estate and Rental and Leasing	Agriculture, Forestry, Fishing and Hunting
Agriculture, Forestry, Fishing and Hunting	Other Services, except Public Administration
Transportation and Warehousing	Construction
Information	Federal Government
Utilities	Information
Federal Government	Administrative and Waste Services
Mining	Utilities
State Government	Manufacturing

3 Transportation

3.1 Introduction

Perry Township is not alone in the area of increasing transportation concerns. In exurban areas where homes, businesses and schools are widely scattered and commuting distances are often long, traffic problems will have more of an impact on travelers' day-to-day lives than their suburban and urban peers.

While Lane Road Corridor is not considered congested and dangerous by traffic engineering standards, the proposed Vrooman Bridge project may cause additional residential and industrial development pressures and increase the traffic volumes. There are viable solutions to correct current and future traffic problems. This chapter will discuss existing conditions and Chapter 6 will address potential solutions.

3.2 Lane Road

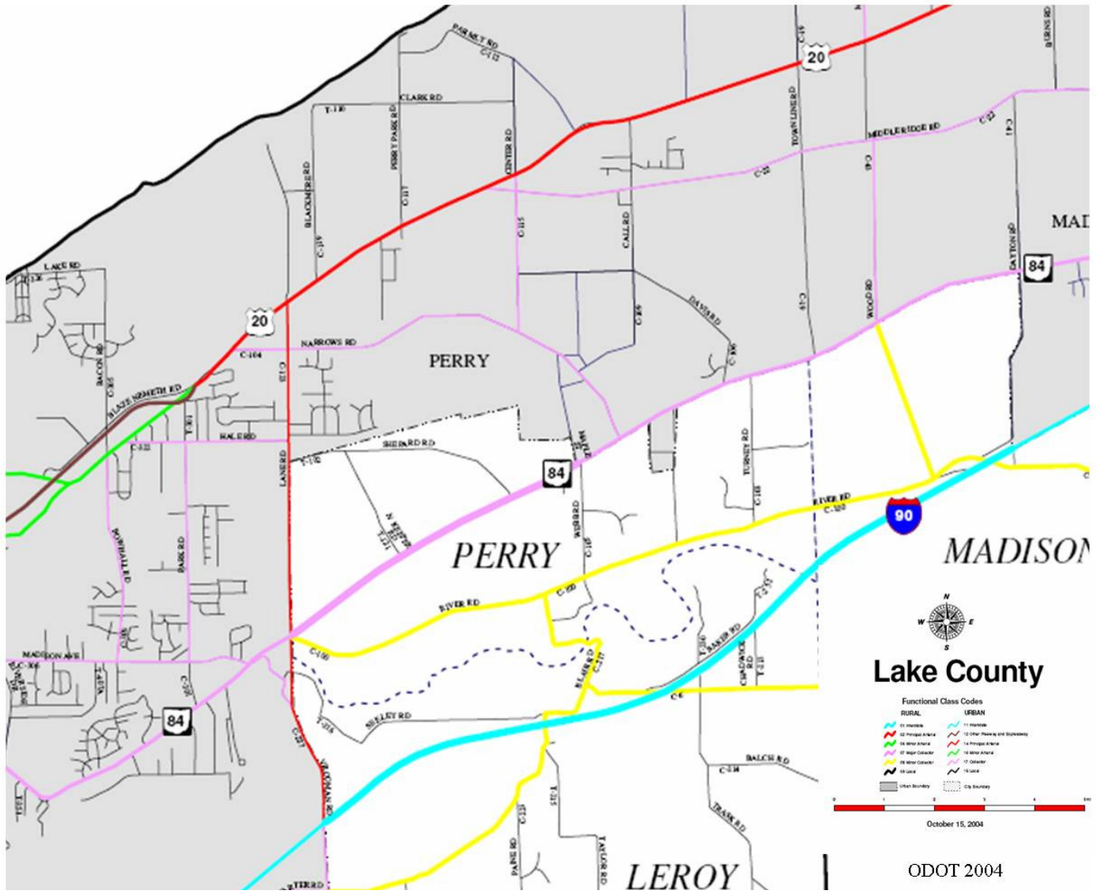
Existing Conditions

Lane Road has been classified as an arterial road by the Ohio Department of Transportation and the other two major roads in the study area, Narrows Road and Hale Road, are considered to be collector roads. Arterials interconnect with and augment the principal arterials. They serve trips of moderate length at somewhat lower level of travel mobility than principal arterials. They distribute traffic to a smaller geographic area than those served by a principal arterial. Arterials provide more land access than principal arterials without penetrating identifiable neighborhoods. Collectors serve both land access and traffic circulation in residential and commercial/industrial areas. They distribute and channel trips between local streets and arterials.

The intersection of Lane Road and US 20 was upgraded in 2004. Even with the upgrade, issues remain with semi-trucks making the right hand turn from US 20 eastbound to Lane Road south bound. There is not a proper turn radius to allow the trucks to make the turn and they run over the curb.

Further south, three minor roads (Maine, Vermont and Larchview) and a collector road (Hale Rd.) intersect with Lane Road in an 800' long section of road potentially creating future safety issues with the current road layout. Grade level rail crossings and the intersection of Lane Road and Shepard Road is the third major concern from a transportation perspective. The intersection is only 75' from the tracks. Shepard Road can become blocked to traffic when trains are crossing.

Map 3.1: Road Classification Map



Right-of-Way

Lane Road has a unique mix of right-of-way widths throughout the study area (see Map 3.2). A 40′ right-of-way exists between U.S. 20 and Narrows Road. The right-of-way increases to 50′ from Narrows Road to South Ridge Road. At the southern intersection of U.S. 20 and Lane Road the right-of-way expands to 60′ and it increases up to 120′ on northern side of the intersection to accommodate intersection upgrades. The width is reduced to 60′ north of US 20 into Wind Point Reserve.

Physical pavement is the main occupant of the right-of-way. Width of the pavement is 20 feet from U.S. 20 to South Ridge Road. The pavement does increase at the intersection of U.S. 20 to allow for turn lanes. North of U.S. 20, the pavement increases to allow for turn lanes and then reduces to 25 feet. The main reason for the two different widths of pavement is because the northern part of Lane Road was built in 1993 and in 2000 as an industrial park. The southern portion is road that has existed since the original surveying of the Western Reserve.

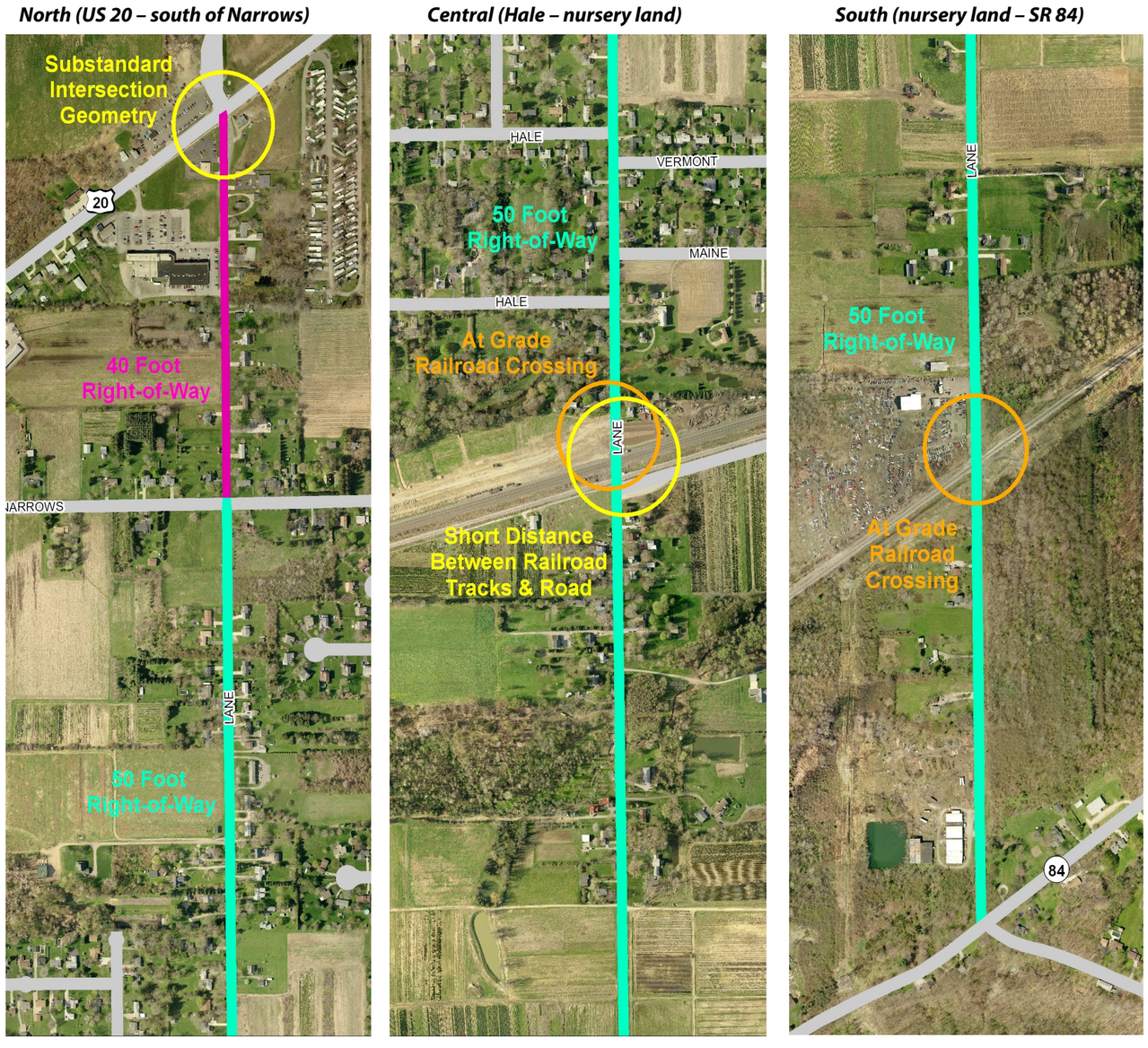
Drainage ditches are sporadic on both sides of the right-of-way. Lane Road does not have drainage ditches running on both sides of the road from U.S. 20 to South Ridge Road. There are very few ditches north of the CSX tracks and Shepard Road.

If the Lane Road right-of-way width is increased, it will affect the setbacks of buildings along the road. In 2006, Perry Township increased the front setback along Lane Road to 115′ from the centerline of the road, which would be 95′ from the current right-of-way line. Prior to that time, the setback was 80′ from center or 50′ from right-of-way, whichever is greater.

There are many buildings long Lane Road that were constructed using the pre-2006 setback. Most structures would have a setback that is 35′ or greater along new right-of-way of 60′. There are 19 structures that would have setback of 10′ to 35′ if the right-of-way increased to 60′. Also, as you increase the right-of-way by 10′, the setback decreases by 10′. Therefore a 70′ right-of-way would yield the smallest front yard setbacks of 5′.

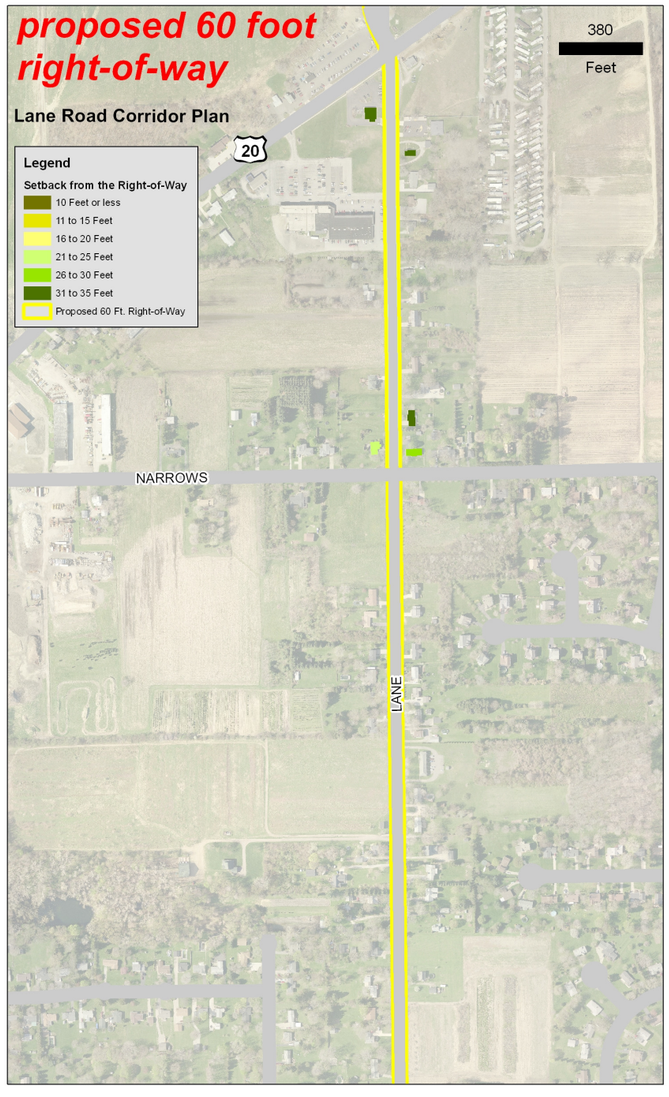
Setbacks would be reduced along the road if the right-of-way is increased. The 95′ from the right-of-way line would be reduced to 90′ if the right-of-way is increased to 50′. It would be reduced to 85′ if the right-of-way is increased to 60′ and 80′ for a 70′ right-of-way.

Map 3.2 : Existing Road Conditions

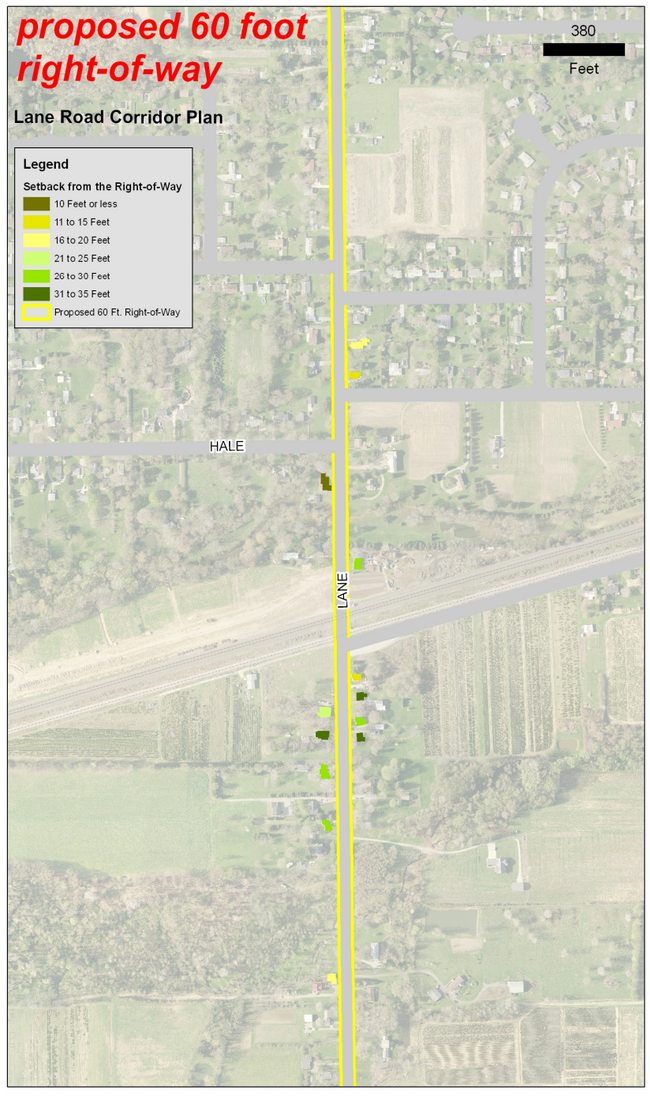


Map 3.3: Proposed 60' Right-of-Way (potential building setbacks)

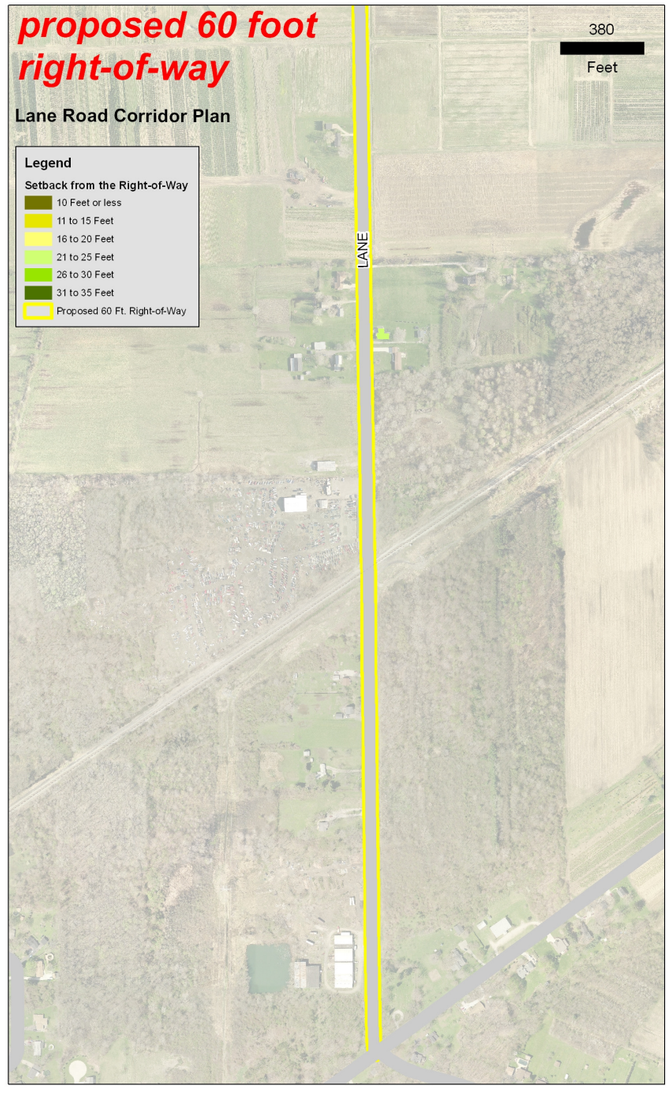
North (US 20 – south of Narrows)



Central (Hale – south of Shepard)

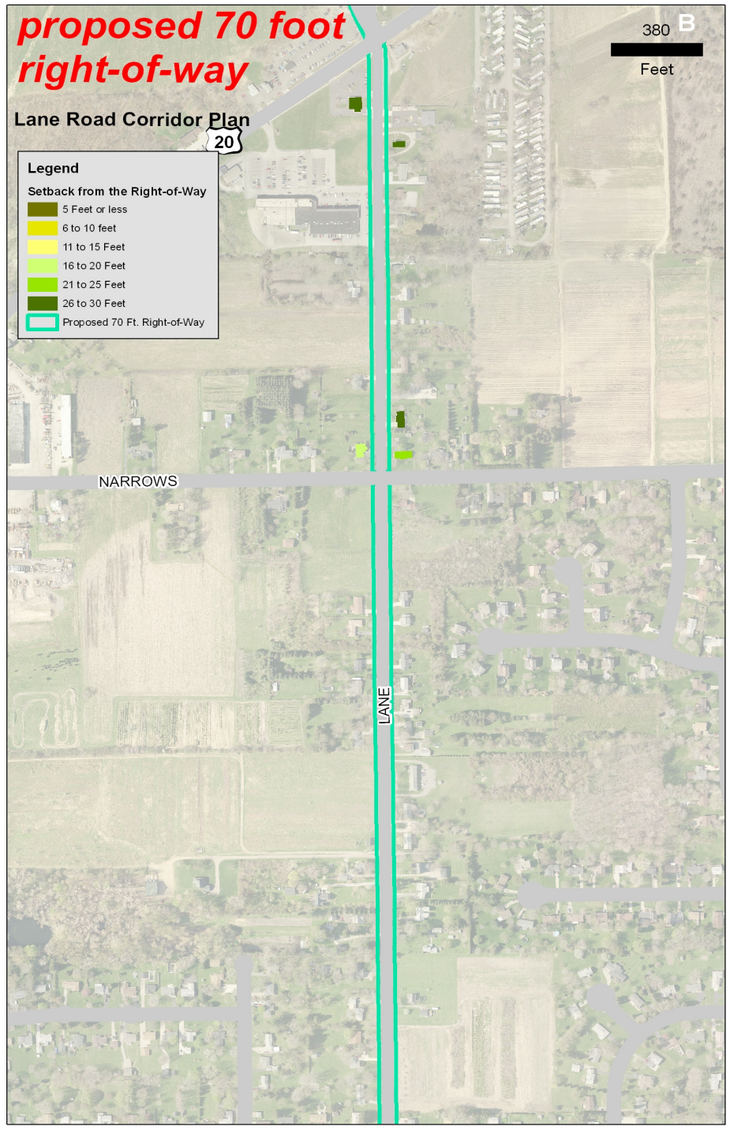


South (south of Shepard – SR 84)

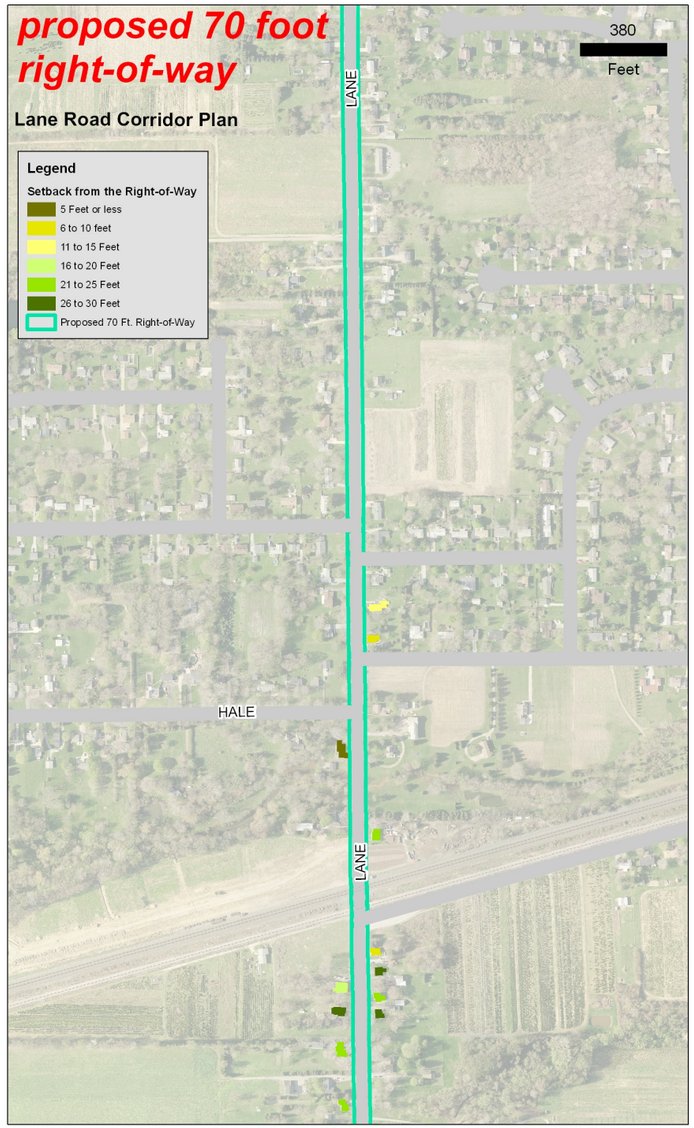


Map 3.4: Proposed 70' Right-of-Way (potential building setbacks)

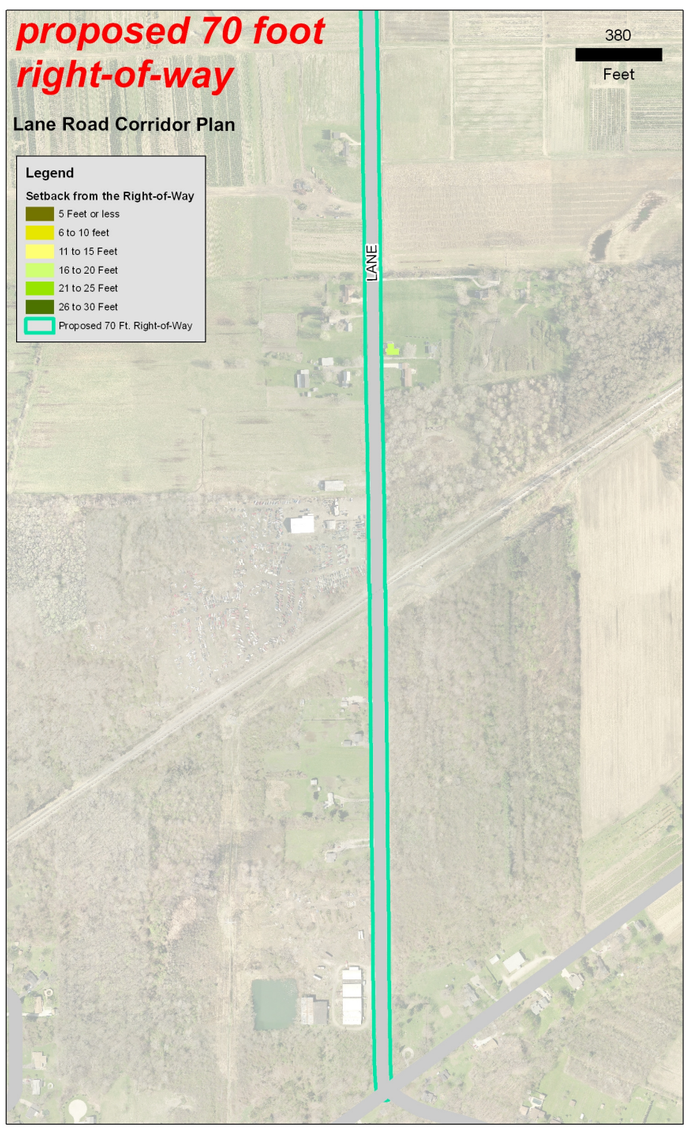
North (US 20 – south of Narrows)



Central (South of Narrows – Shepard)



South (South of Shepard – SR 84)



Traffic Volume

As expected, average daily traffic volumes has increased since 1980 along Lane Rd. and supporting arterials (Table 3.1). Along Lane Rd. higher growth rates (44.6% and 87.4%) are evident north of Hale Rd. due to the number of homes and easy access to US 20. South of Hale Rd., traffic grew at a smaller rate of 8.7% since 1980. Contrary to local opinions, the traffic volumes are not as high as other two land roads in the county. Table 3. 2 provide a comparison of average daily traffic volumes.

Table 3.1: Traffic volumes

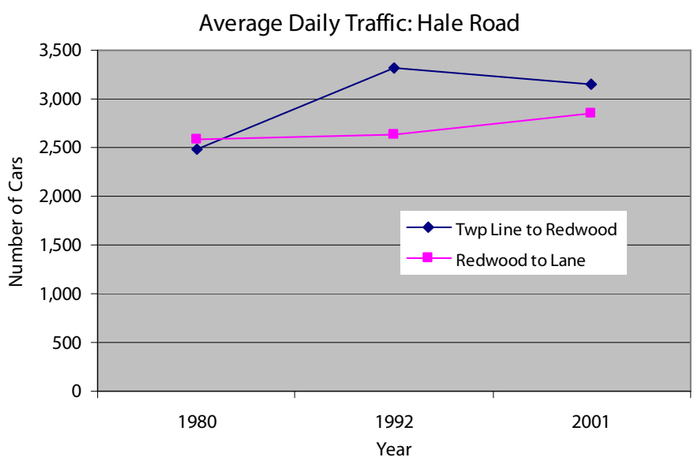
	1980	*1992*	*2001*	*2007*	*% change '80-'07*
Lane Road					
SR 84 to Hale	2,010	2,630	2,950	2,185	8.7
Hale to Narrows	3,030	3,575	4,050	4,380	44.6
Narrows to US 20	2,295	3,555	4,025	4,300	87.4
Narrows Road					
East of US 20	2,260	2,470	2,400	2,500	10.6
East of Lane Rd	2,760	2,720	3,650	3,700	34.1
Hale Road					
Twp Line to Redwood	2,480	3,320	3,150	-	27.0
Redwood to Lane	2,580	2,630	2,850	-	15.5

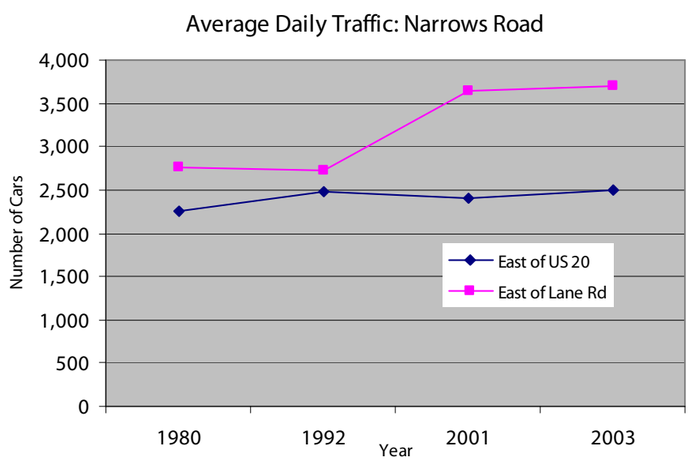
-Lake County Engineer

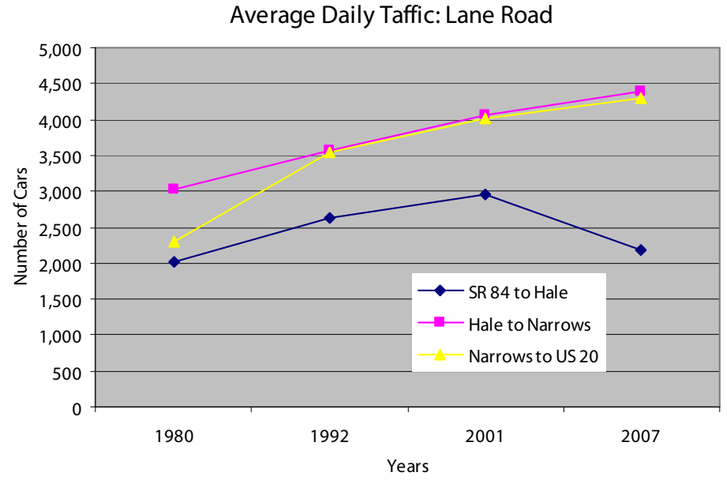
Table 3.2: Traffic volume comparison – Lane Rd. with two lane roads in Lake County

Roadway segment	*Location*	*ADT 2002*
Heisley Rd – OH 283/Lakeshore Blvd. to OH 2/Lakeland Freeway	Mentor	19,030
Heisley Rd – OH 2/Lakeland Freeway to Hendricks St	Mentor	15,000
OH 84/Johnny Cake Ridge Rd – Button Rd to OH 44	Concord Township	14,730
OH 84/Johnny Cake Ridge Rd – Little Mountain Rd to Button Rd	Mentor, Concord Township	12,600
Andrews Rd	Mentor-on-the-Lake	11,700
OH 84/Johnny Cake Ridge Rd – OH 615/Center St to Little Mountain Rd	Mentor	11,600
Hubbard Rd – US 20 to Westwind Dr	Madison Township	9,800
Jackson St – township boundary to OH 44	Painesville Township	9,450
US 20/North Ridge Rd – Dock Rd to County Line Rd (4 lanes)	Madison Township	9,360
OH 6/Chardon Rd – OH 174/River Rd to OH 306/Chillcothe Rd	Willoughby Hills, Kirtland	9,750
Auburn Rd.	Concord	4,450

-NOACA, Lake County Engineer





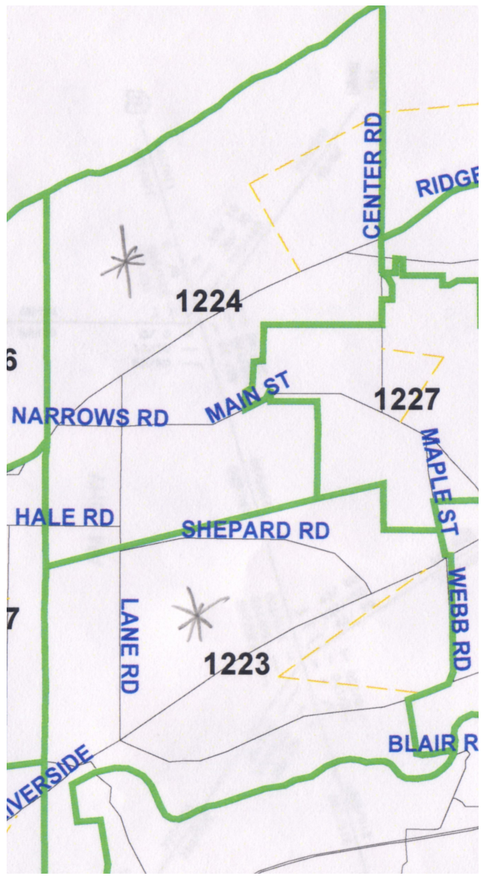


Traffic Forecasting

Utilizing information from the Institute of Transportation Engineers Trip Generation, Tables 3.3, 3.4 and 3.5 are traffic forecasts for various land use types planned for the future of the corridor. The data is intended for general planning purposes. For this study, forecasts were calculated for Light Industrial, Heavy Industrial, Manufacturing, Industrial Park and Single Family homes. The tables display Average Weekday Vehicle Trip Ends (AWDVTE) based on square footage of a potential facility or number of employees. AWDVTE is the average 24-hour total of all vehicle trips counted to and from a study site from Monday through Friday.

It is important to note these figures do not indicate all uses will travel the entire Lane Rd. corridor. Site specific analysis will be required to analyze directional traffic patterns If accurate figures are necessary due to an influx of business. For example, we can forecast approximately 382 trip ends with a 100,000 sq. ft. manufacturing facility, but it cannot determine how many vehicles will use US 20, Lane Rd., Blackmore Rd. and so on.

Map 3.5: NOACA TAZ



A wide range of building sizes were selected due to the uncertainty of business types that may locate to the study area. In general, the larger the structure, the larger the daily traffic associated with its use. Based on existing businesses in the industrial areas, a forecast between the 50,000 – 200, 000 sq. ft. range are a likely comparison. According to the planning level forecast, Light Industrial / Industrial Park uses (see definition box below) will yield the highest amount of traffic. A 50,000 sq .ft. structure will generate approximately 350 trip ends. A 500,000 sq. ft. (~11 acres) business will generate approximately 3,400 trips ends on a weekday.

Table 3.4 was prepared using potential employment levels. Similar to the square footage method, the Light Industrial and Industrial Park uses will yield higher traffic numbers.

Table 3. 3 : Trip Generation per 1,000 sq. ft. of Gross floor area (weekday)

Square feet	*Light Industry*	*Heavy Industry*	*Manu-facturing*	*Industrial Park*
50,000	349	75	191	348
100,000	697	150	382	696
200,000	1,349	300	764	1,392
500,000	3,485	750	1,910	3,480

Table 3. 4: Trip Generation per Employee (weekday)

Employees	*Light Industry*	*Heavy Industry*	*Manu-facturing*	*Industrial Park*
25	76	21	53	84
50	151	41	107	167
100	302	82	213	334
200	604	164	426	668
500	1,510	410	1,065	1,670

Table 3.5: Single Family Development

# of units	
10	95.7
50	478.5
100	957

Employment Allocation data from the Northeast Ohio Areawide Coordinating Agency (NOACA) transportation program can be used to provide a more detailed traffic forecast. This is based on projected available employment per NOACA's Traffic Analysis Zones (TAZ). The TAZ model used by NOACA provides a socio-economic forecast to the year 2030. The forecast results are based on underlying zoning, land use and the year 2000 demographic figures. Zones 1223 and 1224 are included in the study area (Map 3.5).

Zone specific indicators were extrapolated from national and regional figures. This includes year 2030 employment in the TAZs. Available employment is categorized by Basic *(industrial, manufacturing)*, Service (finance, real estate, government), and Retail (retail trade).

NOACA's model indicates the following in year 2030 based on the existing industrial zoning pattern evident in zones 1223 / 1224:

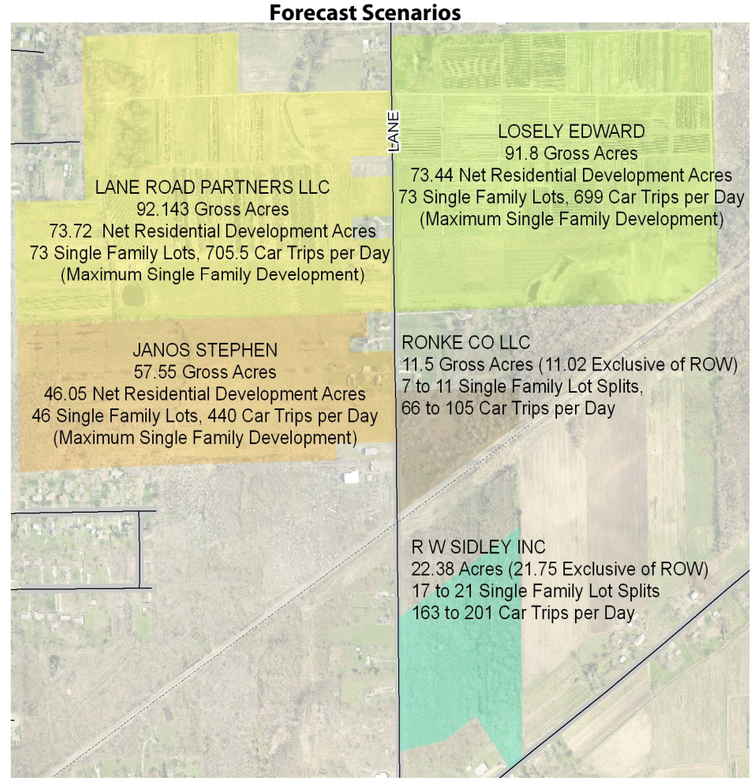
TAZ 1223: 926 "Basic" jobs available = 2,796 potential trip ends in the area (using forecast rates for Light Industrial uses)
(Employment Allocation model forecasts 1,429 available jobs in 2030)
TAZ 1224: 2,879 "Basic" available = 8,694 trip ends in the area (using forecast rates for Light Industrial uses)

*(Employment Allocation model forecast 3,781 available jobs in 2030)*These forecasts are based upon the large amount of industrial zoned land and do not take into account limiting features of the zones (wetlands, lack of sewer to the south, etc.) It is assumed that this level of employment growth will not occur by 2030.

Table 3.5 indicated potential traffic generating by single family units commonly found in the corridor. In general, a single unit generates 9.57 trips per day. Five specific traffic forecast were calculated for potential single family developments in between the rail corridors along Lane Rd. The figures on Map 3.6 are based on existing 1 acre lot zoning. Acreage is deducted for future right-of-ways and natural features to provide a more representative figure.

Approximately 2,000 vehicle trips will be generated assuming complete build out of the color shaded areas on Map 3.6. All vehicles will utilize Lane Rd. from the north or south based on the existing transportation network.

Map 3.6: Residential Development Traffic Forecast Scenarios



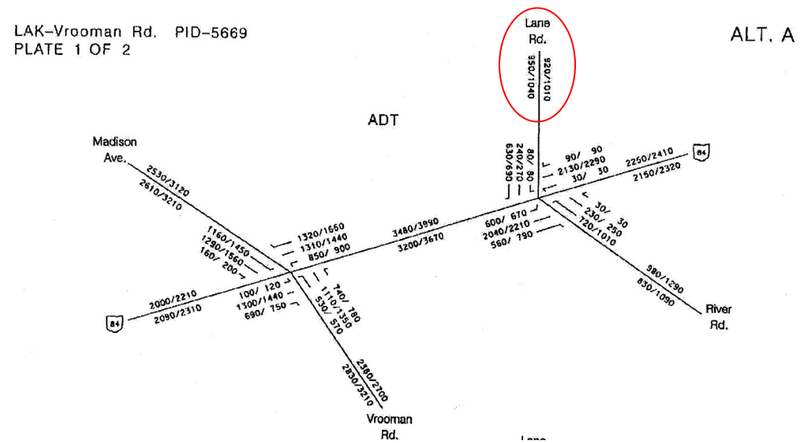
Vrooman Road Bridge Impact on Lane Rd. Traffic

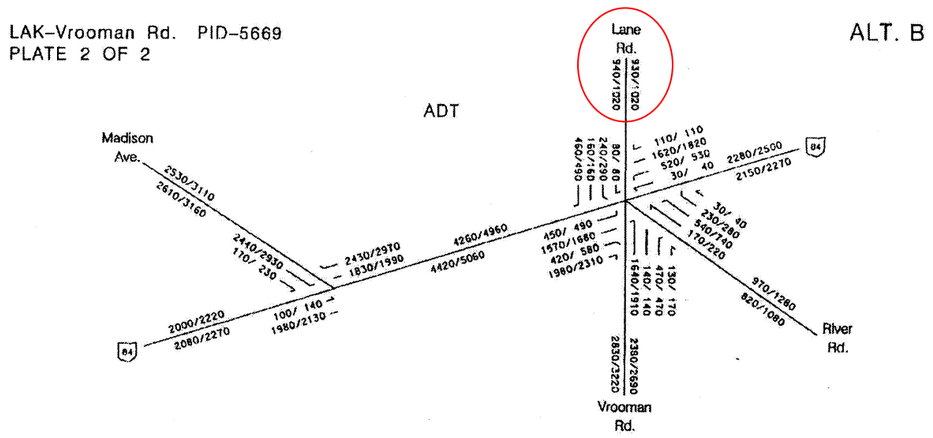
Traffic forecasts are based on current traffic, volume and existing land use. Relevant traffic data presented to the stakeholder committee indicates the following for Vrooman Rd.:

- Modest growth projection for the area based on current land use.
- 5,200 vehicles per day - Present day average daily traffic
- 5,200 vehicles per day – ODOT's opening year (2012) forecast
- 5,700 vehicles per day – NOACA's opening year (2012) forecast
- 5.900 vehicles per day – ODOT's design year (2032) forecast
- 6,600 vehicles per day – NOACA's design year (2032) forecast
- 480 trucks per day – NOACA opening year (2012) truck forecast
- 710 trucks per day – NOACA design year (2032) truck forecast
    - NOACA assumes 75% of truck traffic will use Vrooman Rd. instead of SR 528 in Madison. This figure could increase depending on the long-term build out of the industrial north. Actual travel patterns are difficult to predict, but the amount of truck traffic may be significant due to industrial development and access to SR 2 and US 20.

Map 3.7 indicates 2012 and 2032 traffic volumes for Alternatives A (connection to Madison Ave.) and B (connection to Lane Rd.) of the potential Vrooman Rd. bridge in Leroy Township. The maps indicate potential transportation movements and specific forecasts for Lane Rd. The areas in red circles indicate average daily traffic for Lane Rd. The first number represents 2012 traffic and the second number represents 2032 traffic (2012/2032).

Map 3.7 ODOT Average Daily Traffic Counts for Vrooman Road Bridge Alternatives
(Alt A-Madison Avenue / Alt B- Lane Road)





Traffic Accidents

According to the Ohio Department of Transportation (District 12), there have been 21 accidents at the intersection of US 20 and Lane Road from January 1, 2006 and ending December 31, 2008. There were 11 accidents in 2006, 7 in 2007 and 3 in 2008. Eight of these accidents or 38.1% involved an injury. 52% of the accidents were rear end crashes; the second most common was left turn crashes.

Data from the Lake County Sheriiff's Office is consistent with ODOT's data indicating a low frequency of accidents along the corridor (Table 3.6). In 2007, 14 motor vehicle crashes were reported along the corridor (12 property damage, 2 injury). In 2008, there was a slight increase to 17 crashes (15 property damage, 2injury). The intersections along Lane Rd. do not rank among the highest in crashes among other county roadways.

Table 3. 6: Lane Road intersections (crash data)

	2007	*2008*
Lane / US 20	7	8
Lane /Narrows	3	3
Lane/Hale	0	0
Lane/Shepard	2	3
Lane/S. Ridge	2	3

Congestion and Accidents

A state of "congestion" is often in the eye of the beholder. Complaints about congestion are commonplace in urban, suburban, and even exurban and rural areas, but there is little agreement about what congestion actually is, how it can be measured, how much is tolerable, how much it costs, and how to characterize the extent of the problem. The severity of congestion depends on definitions, statistics, behavioral tolerances, personal values, and comparisons.

A road is considered congested when the traffic flow approaches or becomes greater than the traffic-carrying capacity of a roadway. Congestion is defined in TEA 21 as "the level at which transportation system performance is no longer acceptable due to traffic interference." The term "acceptable" depends on factors such as the type of road, its setting, and the time of day.

Traffic engineers use a ranking system called the *level of service*, or LOS, to classify flow conditions along a road segment; the efficiency of a roadway segment at moving motor vehicles through the zone. Level of service grades do not take into consideration the comfort or safety of pedestrians, bicycles or other non-motorized users of a road. There are six level of service grades used:

- **LOS A**: free flow, with low volumes and high speeds. The speed of a vehicle is controlled only by the desires of the driver and prevailing conditions.
- **LOS B**: stable flow, with operating speeds beginning to be restricted somewhat by traffic conditions. Drivers still have reasonable freedom to select their speed and lane of operation.
- **LOS C**: mostly stable flow, but speeds and maneuverability are more closely constricted by higher traffic volumes. Driver comfort and confidence will begin to decrease.
- **LOS D**: approaching unstable flow, with tolerable operating speeds. However, driving speed is considerably affected by changes in operating conditions. It becomes more difficult to make left turns or change lanes.
- **LOS E**: condition that cannot be described by speed alone. Operating speeds are lower than in LOS D, with volume at or near the capacity of the highway. There are few gaps between vehicles, and little room to maneuver.
- **LOS F**: breakdown conditions, where uniform traffic flow cannot be maintained, causing a temporary reduction in capacity as queues build. This includes frequent stop-and-go traffic, traffic backed up for two or more changes of a light, blockages caused by traffic turning or lane merges, and traffic volumes much larger than the road was designed to handle.

The Northeast Ohio Area Coordinating Agency (NOACA) has several formulas and criteria for determining the level of service in their Congestion Management System (CMS) Manual of Practice. For US 20, considered a Class I arterial by NOACA, the criteria is:

Arterial class	Range of free-flow speeds (MPH)	Typical free-flow speed (MPH)	Level of service and associated average travel speed					
			A	B	C	D	E	F
I	45-55	50	>42	>34-42	>27-34	>21-27	>16-21	<16

Under the NOACA CMS guidelines, level of service D is considered acceptable. Lane Road is considered to have a LOS of B to C, and it is not included on the NOACA inventory of most congested streets in the Cleveland area.

Road, Railroad and Driveway Intersections

Businesses and homes along Lane Road and cross streets usually have unfettered access to the road. In some cases they often have two or more driveways or curb cuts from the street to provide access. The capacity, flow and safety are affected by curb cuts. The more curb cuts, the greater chance vehicles will enter into the road. This would at the very less slow the traffic down and keep the vehicles on the road longer. At the worst, it can cause an accident.

Currently there are 145 access points in a 3.5 mile section of road. That averages one access point every 135'. Currently, there are still large tracts that have not been subdivided, so the number of access points may increase.

Access Management

Access management is a process for providing access to land development, while preserving traffic flow on surrounding roadways in terms of safety, capacity, and speed. This is done by managing location, design and operation of driveways, median openings, and street connections along a road. It also includes use of dedicated turn lanes or bypass lanes, to keep turning vehicles from blocking through traffic.

Access management is used to improve vehicular and pedestrian safety, maintain road capacity and reduce congestion, and enhance community character and aesthetics.

By maintaining the capacity and level of service of the road, access management protects the substantial public investment in transportation, and reduces the need for expensive improvements. Studies conducted in Florida and Colorado suggest that poor spacing, design, and location of driveways lower average travel speed, and improvements in access management can increase roadway capacity. Research has also shown that access management helps reduce the rate and severity of traffic accidents. Good definition and spacing of driveways also improves pedestrian and bicycle safety, by reducing the potential for conflicts with turning vehicles.

Map 3.8: Curbs Cuts, Intersections and Rail Crossings

North (Lane Rd. Ext. - US 20)

Central (Narrows – CSX tracks)

South (NS tracks – SR 84)

From a land development perspective, access management requirements further the orderly layout and use of land and help discourage poor subdivision and site design. The quality of site access is also important to the success of a development project. The Urban Land Institute *Shopping Center Development Handbook* warns that poorly designed entrances and exits not only present a traffic hazard, but also cause congestion that can create a poor image of the center. Reducing the number and frequency of driveways and median openings also improves the appearance of major corridors. More land is freed for landscaping, the visual dominance of paved areas is reduced, and scenic or environmental features can be protected. Access management requires coordination of land use and transportation objectives. The township can address the interdependence of land division and access and add access management regulations to its zoning resolution. Access management techniques usually include the following:

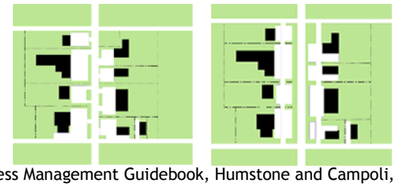
- Regulation of driveway spacing, corner clearance, and sight distance.
- Increased minimum lot frontage and setback requirements along thoroughfares.
- Restriction on the number of driveways for existing lots, and consolidating access wherever possible.
- Requirements for driveway design elements and conditions requiring their use.
- Requiring internal connections, unified circulation and parking plans between adjacent properties.
- Treating properties under the same ownership and those developed as a unified project as one property for the purpose of access control.
- Using frontage and rearage roads to serve as a common access drive for properties along a corridor.
- Minimizing commercial strip zoning and promote mixed use and flexible zoning.
- Minimizing casual lot splits to prevent access and right-of-way problems.

What is access management?

Access management is a group of strategies, tools, and techniques that work to improve the safety and efficiency of roads – not by adding lanes but by controlling where vehicles can enter, leave and cross a road.

For example, consider a commercial strip that has developed over several decades along both sides of a four lane road. Without access management, the businesses with frontage on the road would all have individual curb cuts for their driveways that let drivers get into their often small parking lot. People trying to pull off the street would slow traffic behind them, and if turning left across the oncoming traffic lane, a number of risks arise.

- To cars in the oncoming lane, or cars slowing behind the turning vehicle, who risk accidents.
- To pedestrians trying to walk along the road, at risk when they cross a driveway.
- To bicyclists riding along the shoulder, facing risk as traffic behind the turning vehicle try to use the shoulder to get around the bottleneck.



(Access Management Guidebook, Humstone and Campoli, 1996)

Multiply this by 100 businesses, and there can be a real mess. Safety would be highly compromised, and the resulting traffic snarls frustrate shoppers and commuters alike. The many driveways also reduce the space that could be devoted to landscaping, making the area less attractive. Everyone loses: businesses, residents, and travelers.

This is the situation today along US 20 in Madison Township.

Access management is one solution to this problem. It helps residential developers build safer neighborhoods. It offers ways to group businesses, their customer access, and their parking lots together, reducing costs and maximizing efficiency. It facilitates left turning without slowing traffic or compromising safety. It makes roads safer and more inviting for drivers, pedestrians, and cyclists. It also increases traffic capacity, without having to spend millions to add lanes or build frontage roads.

Driveway Location and Design

Driveway location and design affects the ability of a driver to safely and easily enter and exit a site. If not properly placed, exiting vehicles may be unable to see oncoming vehicles and motorists on the roadway, or not have adequate time to stop. If driveways are too narrow or have a small turning radius, vehicles will be unable to maneuver quickly and easily off the road. If the turning radius and width are very wide, fast maneuvers on and off the site pose safety hazards for pedestrians, bicycles, and vehicles. Without an adequate throat or stacking lane, vehicles may block traffic while waiting to enter a site, or block parking rows while waiting to leave.

Driveway location and design can be regulated by amending parking lot design standards in the zoning resolution.

Driveway Number and Spacing

Reasonable spacing between driveways is also important to the safety and capacity of a road, as well as the appearance of a corridor. Managing driveway spacing is essential on roads intended for higher speeds, such as US 20. At higher speeds drivers have less time and distance to react to unexpected situations. In most access management codes, the minimum distance between driveways increases, based on the classification, design speed, and traffic volume of the road.

Driveway number and spacing should be regulated by the zoning resolution parking area standards. Required shared access, discussed later in this section, can also help fix problems with closely spaced and redundant driveways.

Corner Clearance

Corner clearance is the distance from an intersection to the nearest driveway. Corner clearance standards, and restrictions on driveways in acceleration, deceleration and right turn lanes, preserve good traffic operations at intersections, and the safety and convenience of access to corner properties. Having a larger minimum lot size requirement for corner lots will protect the development potential and market value of corner properties. It will also help assure that these properties do not experience access problems as traffic volumes grow.

Joint and Cross Access

Joint and cross access involves connecting neighboring properties, and consolidating driveways serving more than one property. This allows vehicles to circulate between adjacent businesses and homes without having to re-enter the road. Joint access is also used to connect major developments, reduce the number of driveways, and increase driveway spacing where highway frontage has been subdivided into small lots. This allows more intensive development of a corridor, while maintaining traffic operations and safe and convenient access to businesses.

In many communities, larger parcels are often developed as a unified site, with joint and cross access planned from the start, even if the site will be subdivided into several commercial or residential lots. With lax minor subdivision rules and laws, land is usually subdivided and developed incrementally over a long period, with no unified plan for a site. Each of the resulting lots is developed individually, with no coordination of access.

As a way to implement this concept, the township could require the owner of the original parcel to provide access rights from the old lot to the new. If the original host lot is not immediately developed, the developer of the newer lot may be allowed a temporary driveway, which would be closed when the original lot is developed. The easement or access agreement is recorded with the property records, along with a joint maintenance agreement, and an agreement to close the temporary driveway when the joint access system is complete. As an alternative, property owners can also be required to create a binding joint access and cross easement plan before subdividing their property.

For new development on new and existing lots, access rights and stub-out drive aisles to adjacent parcels would be required by zoning resolution parking requirements, along with the appropriate access easements and/or agreements. For lots that are developed, creating stub-out driveways and recording access easements and/or agreements would be required if the business or use on the property changed, or as a condition of a building permit for major expansion or renovation.

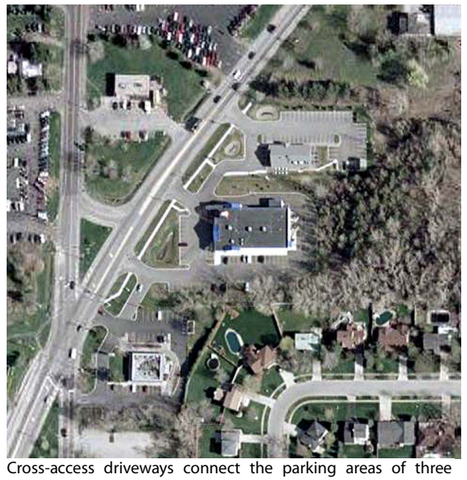
Because access is shared, it will also be easier for businesses to share parking areas. The zoning resolution could be amended to allow reduced or lower number of parking spaces for a use if access is shared.

To implement joint and cross access requirements, the township zoning resolution and county subdivision regulations would need to be amended.

Frontage and Rearage Roads

Frontage roads can be useful for eliminating driveway connections along an arterial or collector road; they would serve almost as a collective driveway to a number of properties. However, if not carefully managed, frontage roads can create operational problems at intersections, especially when combined with high traffic volumes associated with commuter routes and commercial areas. If frontage roads connect close to major intersections, severe congestion, long delays, and high accident rates could result.

Rearage roads behind businesses in suburban Denver, Colorado.



Cross-access driveways connect the parking areas of three separate businesses in Amherst, New York.

This driveway in Mayfield Heights has poor corner clearance, making turns and access awkward and unsafe.

Rearage roads, also called backage roads, function much like frontage roads, only they are placed behind areas to be developed. Rearage roads allow for a greater distance between their connection with cross streets and the intersection of those cross streets with arterial or collector road, eliminating problems with congestion. Rearage roads can be implemented over time by acquiring right-of-way – a process that may be costly – or through a method similar to the cross access corridor scheme described in the previous section.

Possible Business Concerns

Businesspeople may object to access management because they believe it makes access less convenient for impulse customers and delivery vehicles. However, it has no effect on the demand for products and services they offer. Studies show access management generally does not harm local businesses.

Local businesses that depend upon drive-by traffic may raise concerns that their patronage will be hurt by medians and driveway limitations. Others may claim they will be affected because customers and delivery vehicles will find it less convenient turning into a dedicated driveway, rather than just pulling off the road into a parking lot with a continuous curb cut.

Several studies were conducted in the 1990s to find the potential economic effects of access management. Due to the proprietary nature of sales information and the factors that affect business activity, analysis of this issue has been difficult. Most studies have focused on business owner perceptions of impacts, before and after case examples, or generalized comparisons of business activity across corridors.

In 1999, the Kansas Department of Transportation studied 15 businesses that had filed inverse condemnation lawsuits on access related issues. In nearly every case, the landowner had claimed that access management would have devastating effects on their business and the highest and best use of their property. Some had been compensated for potential impacts. Each property was studied to find if the economic impacts had been realized.

In all but one of the cases either the claimant was still in possession of the property and operating the business, the property was being used for the same use by a different operator, or the use of the property had been upgraded. The only exception was where a main road was relocated, and two gas stations remained on the old road, which was converted to a frontage road. In this case, drivers had to go miles out of their way to reach the frontage road, and the gas stations went out of business.

The Texas Department of Transportation conducted a study of the economic impacts of left-turn restrictions in the mid-1990s. Key findings included the following:

- Perceptions of business owners before a median was installed were more pessimistic than what usually happened.
- Business owners reported no change in pass-by traffic after median installations.
- Most business types (including specialty retail, fast-food restaurants and sit-down restaurants) reported increases in numbers of customers per day and gross sales, except for gas stations and auto repair shops, which reported decreases in the numbers of customers per day and gross sales.
- Most adverse economic impacts were realized during the construction phase of the median installations.
- Employment within the corridors experienced upward trends overall, with some exceptions during construction phases.
- When asked what factors were important to attracting customers, business owners generally ranked “accessibility to store” lower than customer service, product quality and product price, and ahead of store hours and distance to travel.
- About 94% of business owners reported that their regular customers were at least as likely or more likely to continue patronizing their business after the median installation.
- Along corridors where property values were studied, the vast majority of land values stayed the same or increased, with very few exceptions.

Iowa State University conducted a statewide study of the effects of access management on business vitality in 1996. Results showed that:

- Corridors with completed access management projects performed better in terms of retail sales than the surrounding communities. Business failure rates along access managed corridors were at or below the statewide average for Iowa. Although this suggests that access management projects generally did not have an adverse effect on the majority of businesses, some businesses may have been negatively impacted.

- 80% of businesses surveyed along access managed corridors reported sales at least as high after the project was in place. Relatively few businesses reported sales declines associated with the access management project, although these business owners clearly felt that they were hurt by the project. The firms perceiving negative impacts were a mixture of business types.
- Similarly, about 80% of businesses reported no customer complaints about access to their businesses after project completion. Those businesses that tended to report most complaints were highly oriented toward automobile traffic.
- In all cases, 90% to 100% of motorists surveyed had a favorable opinion of improvements made to roadways that involve access management. The vast majority of motorists thought that the improved roadways were safer and that traffic flow had improved.

Although several studies assessed the potential economic damage from access management, none have examined the potential long-term economic benefits. Poorly designed access not only hurts the character and efficiency of a corridor, but also its economic vitality over time. Property values that have increased rapidly during commercial development tend to decline after the area is built out, if the character and efficiency of the corridor is hurt in the process. The result is a pattern of disinvestment as successful businesses choose other, higher quality locations. This pattern is seen throughout the region, including Vine Street in Eastlake, Euclid Avenue in Wickliffe, and Mentor Avenue in Painesville Township.
(Studies compiled in *Economic Impacts of Access Management*, Kristine M. Williams, AICP, Center for Urban Transportation Research, University of South Florida, 2000.)

Railroads

Ohio is a national leader in terms of railroad operations. Ohio is home to nearly 40 railroads that operate thousands of trains a day over 5,200 miles of track. Lake County is a vital link in this infrastructure. Twelve of the 23 communities are served by rail. These rails connect Cleveland, Chicago and points west to New York, Pennsylvania and points east. These tracks also provide an easy way to bring coal for the Eastlake Power Plant and they also connect to the Grand River and Fairport Harbor ports and to the Morton Salt Company.

There are three railroads crossing in the study area and all three cross Lane Road at grade. The first crossing is on Lane Road extension in the Wind Pointe Industrial Park. This crossing is a railroad spur that is not used. CSX and Norfolk & Southern have railroad crossings in the study area. CSX has a crossing involving two tracks and NS has a crossing involving one track. Both railroads have been experiencing an increase in rail traffic since the late 1990's.

2008 Data from the Ohio Rail Commission indicate the following:

- **CSX:** 0 day trains / 7 day switching trains / 33 night switch trains
- **NS:** 10 day drains / 0 day switching trains / 10 night switching trains

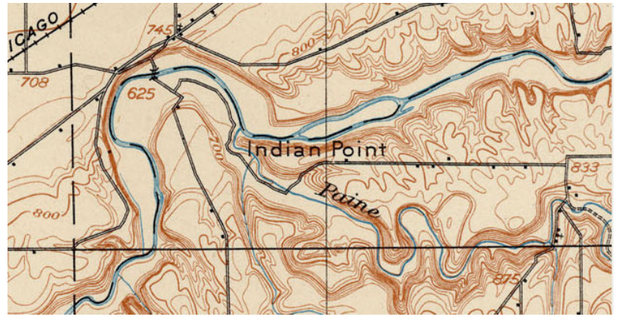
Future traffic increases, notably tractor trailer, may warrant grade separated crossings over the long term.

Table 3.7 Railroad Profiles

Site Information	CSX Transportation	Norfolk Southern
AARDOT:	523816D	472030U
AARDOT Source:	Field	Field
Adj. AARDOT:	914720U	
Adj. AARDOT Source:	Field	Field
Survey Site ID:		LAK017
Init. Agency for Change:	State	State
Reason for Change:	Updated Record	Updated Record
Effective Date:	Mar 5 2008 12:00AM	Mar 4 2008 12:00AM
Railroad Information		
Operating RR:	CSX Transportation, Inc.	Norfolk Southern Corp
Division:	WESTERN	LAKE
Sub-Division:	OHIO	NW
Branch/Line Name:	FPE	CLEVELAND DIS
Milepost:	2.43	151.4
Railroad ID:	353500	
Nearest Time Table Station:	PERRY	PERRY
Parent RR Company:		NS
Crossing Owner:		NS
Location / Classification Information		
County:	LAKE	LAKE
(Nearest) City:	PERRY	PERRY
Street:	LANE RD	LANE RD
Highway and SLM:	CITY	CR123
High Speed Corridor:		
County Map Ref. Number:		
ODOT NLF ID:		CLAKCR00123**C
Latitude:	41.7485516	41.7351605
Longitude:	-81.1811238	-81.1811372
Elevation (ft):	692.43	712.52
Crossing Type:	Public	Public
Position:	*At-Grade*	*At-Grade*
Emergency Contact:		
Railroad Contact:		
State Contact:		
LHA:	LAKE COUNTY	LAKE COUNTY
LHA2:		
Dev. Type:	Industrial	Open Space
Crossing Angle:	60-90 Degrees	60-90 Degrees
Tracks:	2	1
Lanes:	2	2
Warning Devices		
Crossbucks, Standard:	2	2
Crossbucks, Buckeye:		0
Lights, Mast Mounted:	2	2
Lights, Cantilevered:	0	0
Lights, Other:		0
Gates:	2	2
Traffic Information		
Day Thru Trains:	*0*	*10*
Day Switching Trains:	*7*	*0*
Night Thru Trains:	*33*	*10*
Night Switch Trains:	0	0
Date of Train Count:		
Highway AADT:	2185	2185
Date of AADT:	2007	2007
Highway Information		
Distance to Nearest Intersection:		75
Type of Intersection:	Not Surveyed	Unknown
Number of HW-HW Intersections:		0
Source(s):		
http://www.ohiorail.ohio.gov/item.php?ID=7285&f1=LAKE&TypeXinq=3&ParXinq=1&Rearan=2		
http://www.ohiorail.ohio.gov/item.php?ID=827&f1=LAKE&TypeXinq=3&ParXinq=1&Rearan=2		

Vrooman Road Bridge

The Vrooman Road Bridge is located where Vrooman Road crosses the Grand River, which is also the border between Leroy Township and Perry Township. A crossing has existed in the area since the 1800's. The current bridge was built in 1951 and has reached the end of its operational life, thus requiring replacement. The Lake County Engineer is responsible for maintenance and replacement of this bridge. The current design limits its ability to be used 24 hours a day, seven days a week, and 52 weeks a year. The bridge deck level and bridge approaches are in the floodplain, resulting in the frequent closure of the bridge and Vrooman Rd.



Bridge Studies

The Vrooman Road bridge has been the subject of many different studies over the years. In the 1960's, the Lake County Engineer investigated a limited access four lane highway connecting SR 2 and Interstate 90 . Plans were created, but because of lack of funding and the fact that State Route 2 was never extended to Perry Township, this plan never materialized.

In late 1980's and early 1990's, a revised bridge plan study was started. The study was completed in the mid 1990's, but it was delayed because of environmental issues.

In 2004, the Lake County Engineer commissioned a replacement study. This study ended in 2005 with the submission of a planning study to ODOT. The plan initially identified 10 alternatives and ultimately reduced the options to three:

- No build
- Alternative A (connection to Madison Avenue)
- Alternative B (connection to Lane Road)

The planning study (referenced above) was approved by ODOT in 2008. At the time this plan was written, the following items were considered ongoing:

- Build and supplement 2005 planning study
- Perform additional environmental studies
- Prepare preliminary engineering studies and reports
- Identify a preferred alternative

Map 3.9: Potential Vrooman Rd. Bridge Crossing Locations
(Alternative A- Madison Ave. / Alternative B- Vrooman Rd.

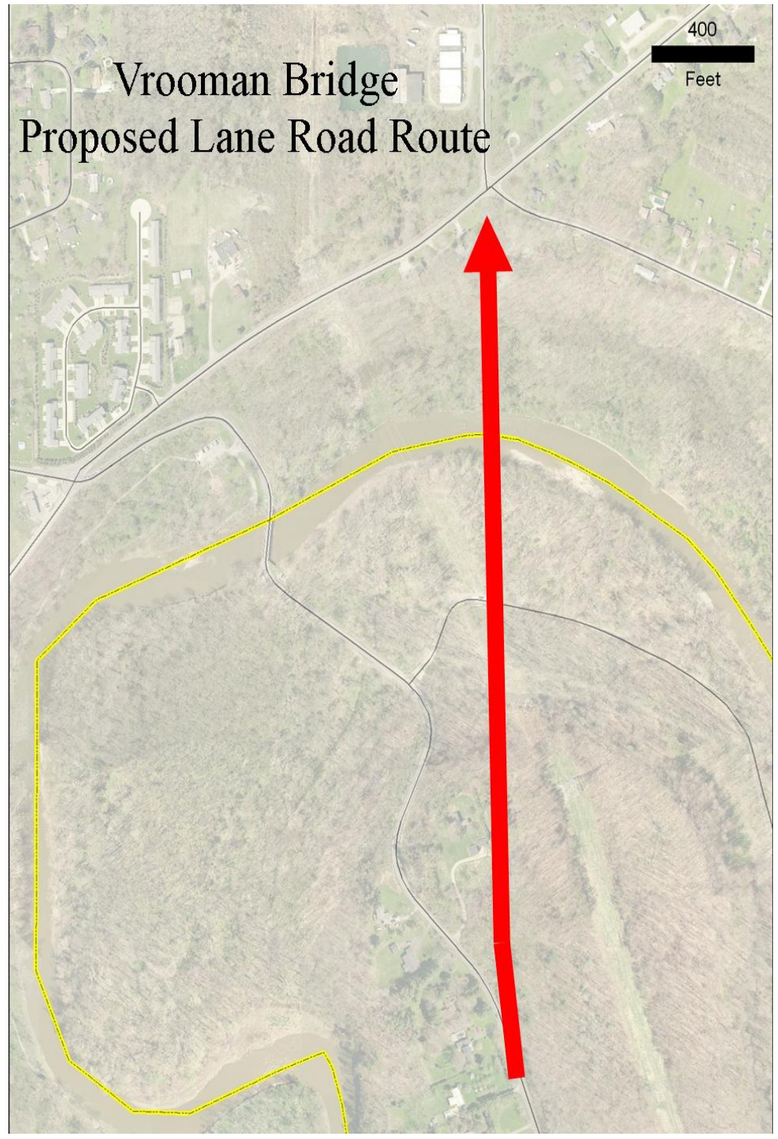
Map 3.9 indicates the general location of Alternatives A (Madison Ave.) and B (Lane Rd.).

Both proposed routes would have an affect on Lane Road. The new bridge would make for easier vehicle movement into and out of the study area, especially for trucks and buses. A high level bridge in either location would increase car and truck traffic, but the direct connection (Alt. B) would have a greater impact on average daily traffics.

A new high level bridge would also be considered an asset to the Lake County Emergency Management Agency. Having a high level bridge in this area would enhance their ability to efficiently and safely move people in the area.

There will need to be additional alterations to the surrounding roads if either one of the alternates is used. For the Lane Road option, River Road and State Route 84 intersection will need to be removed and a cul-de-sac will need to be installed at the new end of River Road. A new connecting road will need to be constructed between State Route 84 and River Road.

For the Madison Avenue Option, State Route 84 will need to be moved to the northwest to provide for a better intersection of Madison Avenue, Vrooman Road and State Route 84.



This plan does not endorse or recommend either option discussed above. The information is presented as support information for the Lane Rd. area.

DESCRIPTIONS OF LAND USE CATEGORIES ("Trip Generation Users Guide, "7th Edition)

Light industrial facilities usually employ fewer than 500 persons, they have an emphasis on activities other than manufacturing and typically have minimal office space. Typical light industrial activities include printing, material testing and assembly of data processing equipment. These are free-standing facilities devoted to a single use.

Heavy industrial facilities usually have a high number of employees per industrial plant and could also be categorized as manufacturing facilities (Land Use 140). The distinction between heavy industrial and manufacturing is vague. However, heavy industrial uses are limited to the manufacturing of large items

Industrial parks contain a number of industrial or related facilities. They are characterized by a mix of manufacturing, service and warehouse facilities with a wide variation in the proportion of each type of use from one location to another. Many industrial parks contain highly diversified facilities- some with a large number of small businesses and others with one or two dominant industries.

Manufacturing facilities are areas where the primary activity is the conversion of raw materials or parts into finished products. Size and type of activity may vary substantially from one facility to another. In addition to the actual production of goods, manufacturing facilities generally also have office, warehouse, research and associated functions.

Single-family detached housing includes all single-family detached homes on individual lots. A typical site surveyed is a suburban subdivision.

4 Utilities

4.1 Introduction

Utility service is an important issue in regards to commercial and industrial development. The extension of sewer and water services into a previously underserved area can make it more attractive for development, including businesses that generate more wastewater than what can be handled by an on-site system. Developing commercial and industrial businesses using on-site systems is also more difficult because approval of the on-site systems must come from the Ohio EPA.

The intent of the utilities element is to use urban-level utilities, or the lack of them, to shape the development pattern along the corridor, and make certain parts of the corridor more attractive to a broader range of commercial uses, while minimizing the potential for scattered strip development.

Please note this is not a capital improvement plan. A capital improvement plan is a budgetary document that links the programming of capital projects, such as public utilities, to the planning goals found in this document.

4.2 Water

Water is provided by and the water lines maintained by the Lake County Department of Utilities. There are existing water lines along the entire study area in Perry Township and Painesville Township, but there is no water service in Leroy Township. Water is supplied directly from the Bacon Road Water Plant.

4.3 Sewer

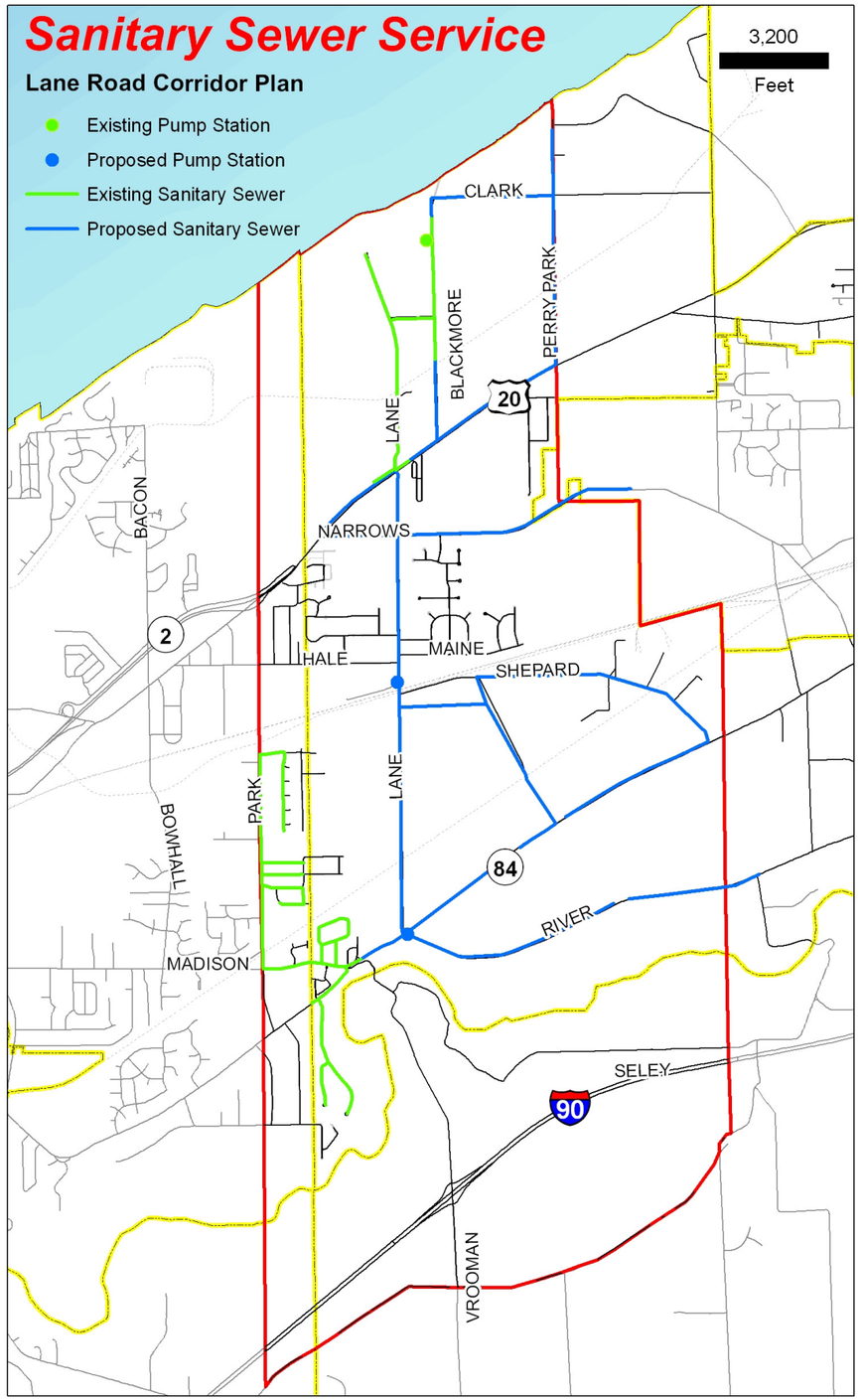
Sanitary lines are maintained by the Lake County Department of Utilities. Currently, there is a 10 inch line extending north along Lane Road starting at the intersection of North Ridge Road. This sanitary sewer services the Wind Point Reserve Industrial Subdivision. There is also an extension of this sewer that serves a limited amount of land on Blackmore Rd. This sanitary sewer is part of the Greater Mentor Sanitary Sewer District.

Areas nearer to the State Route 84 and Lane Road/Vrooman Road intersection are serviced by 8 inch lines. This line runs along SR 84 and receives material from other sewer lines that run south along Park Road and from the neighboring subdivisions off Park Road and SR 84. This sewer line is connected directly to the Heatherstone Treatment Plant in Painesville Township.

4.4 Expansion of Sanitary Sewer

The majority of the Lane Road Study area is currently not served by sanitary sewer. The Lake County Department of Utilities has a master plan for sanitary sewer and this area has been designed to be served by sanitary sewer.

There are three methods of extending sanitary sewer service,: developer build, assessment project or general expansion. Developer build is when a property owner connects to existing sanitary sewer. The property hires their own engineer to develop the plans and pays for the expansion. The extended sanitary sewer must be the width that is stated on the Madison Facilities Plan.



An assessment project is developed by the Utilities Department when they receive a petition from land owners for sewer expansion. The Lake County Sanitary Engineer develops a cost estimate and gives it to the land owners who would be affected by extension. The land owners would vote to decide to build or not build the sanitary sewer. If the land owners decide to build the sanitary sewer, the Sanitary Engineer prepares the plans, hires a contractor and builds the sanitary sewer. If the sanitary sewer is built in this manor, the land owners are assessed for the improvements.

There are cases where the County Sanitary Engineer and the County Commissioners will decide that a sanitary sewer extension is needed to improve sanitary service to an area. In these cases, the County will design and install the sanitary without assessing the land owners. The land owners are still responsible to pay the tap in fees and building their own laterals if they hook into the sanitary sewer.

The goal of the Madison Facilities Plan is to properly serve Madison and Perry Townships, and Perry and North Perry Villages with sanitary sewer to those who want it at an economical price. According to the Madison Facilities Plan, all of US 20 can be serviced by a sanitary sewer; it is only a matter of being built.

5 Land Use

5.1 Introduction

The land use distribution of the study area is very consistent with other northeast Ohio semi-rural communities: *Agricultural lands interspersed with single-family residential development and small scale commercial uses.* The prospect of future industrial development, transportation upgrades and continued residential growth demands may change the face of this corridor. This chapter will evaluate existing conditions and zoning schemes, identify emerging development patterns, and offer potential actions items to encourage growth while preserving the semi-rural atmosphere and most importantly, the agricultural component of the community. Specific recommendations are discussed in Chapter 6.

5.2 Land Use

The study area is approximately y 8,400 acres (shown in black outline). Thirty percent of the land is vacant and located at the extreme north and south ends. The large parcels north of US 20 represent significant economic development potential over the long-term (Table 5.1). Vacant land in the central portion of the study area is considered to be prime agricultural sites and should be considered in future preservation discussions.

Table 5.1 Land use *(entire study area)*

	Acre	***%***
Agriculture	2,011	23.94
Bus. / comm.	177	2.10
Ind. / manuf.	165	1.97
Other	214	2.55
Public	1,123	13.37
Railroad	84	1.00
Residential	1,977	23.54
Vacant	2,649	31.54
Total	***8,400***	***100.00***

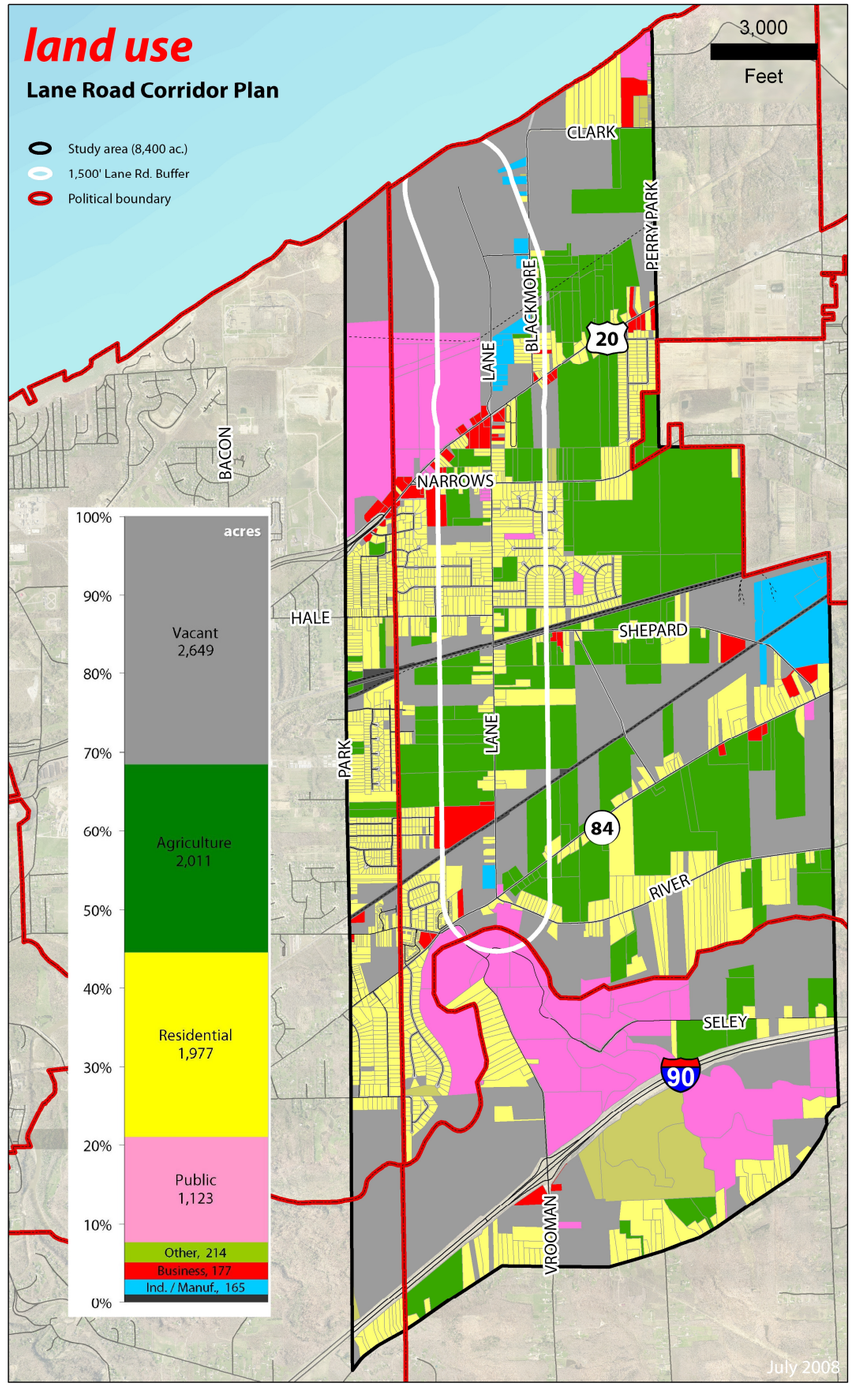
Residential and agricultural land uses each account for 23% of the study area. Single family subdivisions dominate the central portion, notably between Hale Rd. and Narrows Rd. Platted subdivisions in Painesville Township provide minimal impact to Lane Rd. due to lack of direct east-west connectivity. Strip frontage development is prevalent along all the east-west streets. At the time this plan was written, there were no plans for additional residential development in study area.

Agriculture (nurseries) has long been the cornerstone of Perry Township's economy. This trend continues today with over 2,000 acres dedicated to agricultural land uses in the central portion of the site. Smaller, more fragmented production sites are found along US 20, SR 84 and River Road.

Developed by the American Farmland Trust in 1990, cost of community service studies are being completed by communities throughout Ohio. These studies allow community leaders to evaluate how their revenues compare with their expenditures. A 2008 survey in Madison Township concluded for every dollar in property taxes paid by residential property owners in Madison Township, $1.24 in services is required. Services provided to residents are subsidized by commercial and industrial property owners; for every dollar payed in property taxes, they require 33 cents in services. *Nursery owners also subsidize services to residents; for every dollar they pay in property taxes, agricultural uses require 30 cents in services.* Thus, agricultural land uses provide a semi-rural atmosphere and require minimal fiscal requirements from the Townships for services.

Agricultural preservation tools were the key topic discussed with the committee during the planning process and is discussed in Chapter 6.

Map 5.1: Land Use



Commercial/business (177 acres) and industrial (165 acres) uses comprise only 4 % of the study area. Commercial uses are primarily located along US 20 with smaller pockets along SR 84, Shepard Rd. and Lane Rd. Longmeadow Square is the primary shopping destination in the Perry Area. Additional businesses along US 20 include convenience retail, professional office, medical, dental, auto sales, gas station and restaurants. Commercial growth has been relatively flat over the past decade. This is attributable to the lack of buying power, large scale sites and slowing residential growth. Where feasible, strip development patterns should be discouraged. An alternative to strip development patterns is to designate retail clusters or nodes around major intersections and limit uses on the rest of the corridor. Successful nodes can be planned to integrate other commercial, office and housing development, along with retail uses. Perry Township has been proactively planning for this development style along SR 84 and should examine the US 20 corridor as well.

Industrial land is located in two areas, Lane Rd./Blackmore Rd. corridor and Shepard Rd. in between the railroad corridor. Most businesses are positive attributes to Perry; non-intrusive, well maintained and provided significant economic benefit. As noted above, the study area has the capacity to drastically increase the amount of industrial and manufacturing land.

Public land (parks and county landfill) comprise the remaining 1,123 acres (13%) of area, of which a large portion lies outside of the Perry Township border.

5.3 Zoning

The Perry Township Zoning Resolution was adopted in July 1955. Countless text amendments and district updates have been made over the years including edits pertinent to the study area. Important changes relevant to this study include:

- Increased front yard setback for structures along Lane Rd.
- Rezoning the linear B zoning pattern along SR 84.
- Creation of Lakeshore Residential (LSR) along Clark Rd.
- Incorporating riparian setbacks.
- *Additional recommendations are discusses in Chapter 6.*

Nine zoning districts exist in the Perry Township portion of the study area (Map 5.2 and Table 5.2). Five districts directly impact the Lane Rd. corridor: I-3 (Heavy Industrial), I-2 (Heavy Industry), B-2 (Business and Commercial), B (Business and Commercial), R-1 (Residential) and I-1 (Light Industry). Residential and industrial are the dominant zoning districts in the study area. Over 37% of the study area in Perry is zoned for industrial type uses and residential zones account for 37% of the area. With over 2,000 acres zoned for industrial grade land uses, it is important to note that only 137 acres is currently classified as industrial in the land use analysis.

A comparative analysis of zoning patterns throughout Lake County indicates a slightly higher percentage (40%) of land zoned for industrial and business. At 40% industrial/business, Perry is higher than all communities researched including Painesville City and Painesville Township (Table 5.3).

Map 5.2: Zoning

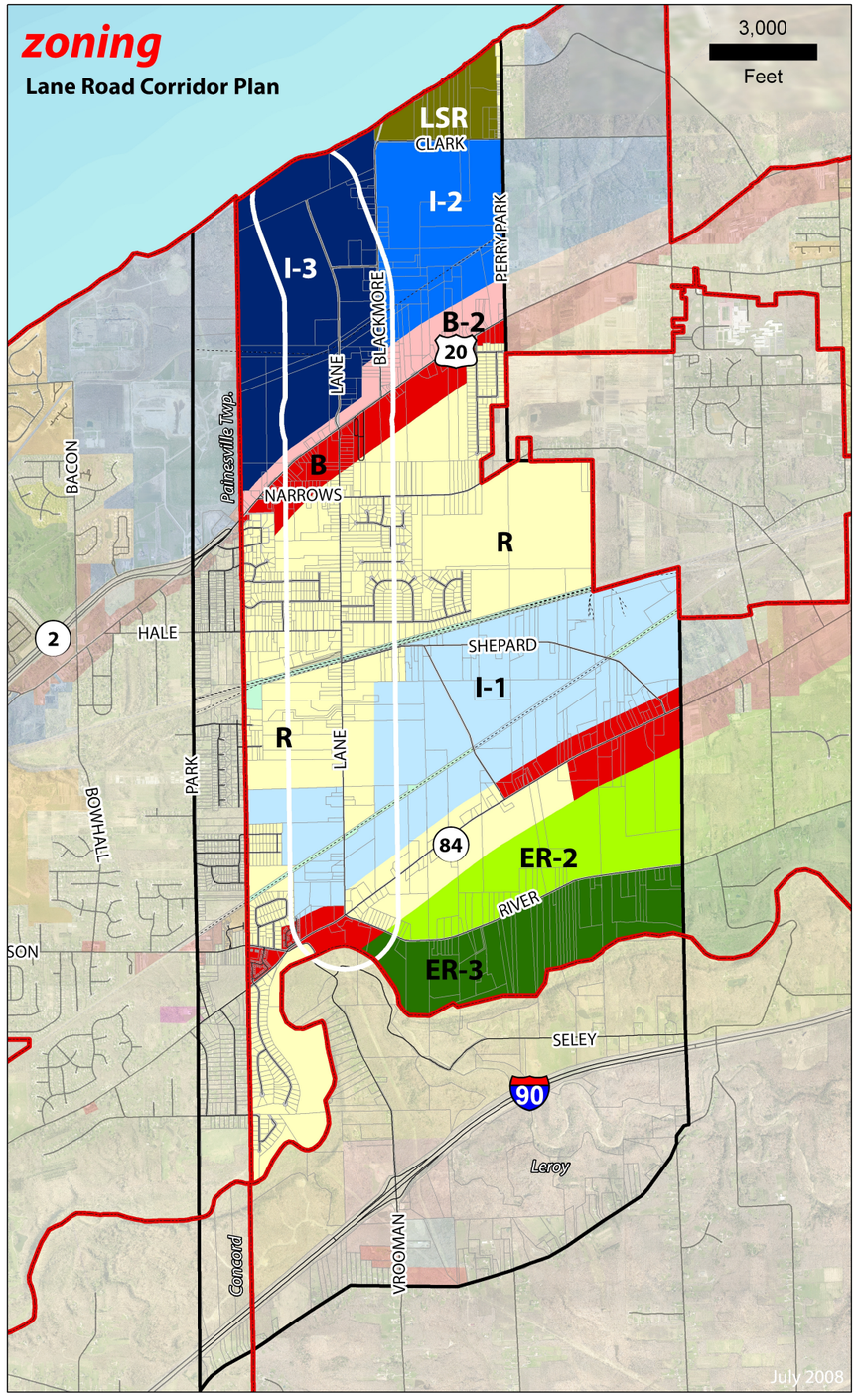


Table 5.2 Zoning *(parcels in Twp. only)*		
Zone	***Acre***	***%***
R	1,915.93	35.34
ER-2	385.06	7.10
ER-3	400.49	7.38
LSR	120.41	2.22
B	396.75	7.32
B-2	143.60	2.64
I-1	999.03	18.43
I-2	388.99	7.17
I-3	669.74	12.35
Total	***5,420.00***	

Zoning Analysis

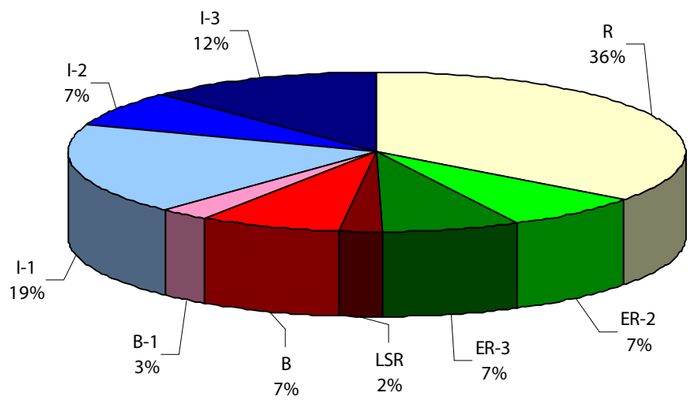


Table 5.3 Comparative Zoning Analysis		
	Residential & Recreational	***Business & Industrial***
Perry Twp	***60%***	***40%***
Kirtland	96%	4%
Eastlake	66%	34%
Concord	94%	6%
Painesville Twp	64%	36%
Madison Twp	86%	14%
Madison Village	84%	16%
Painesville City	70%	30%

Residential Zones

Four different residential zones are located in the study area. Table 5.4 notes the development standards for each district. The Residential (R) zone is the largest of all the zones in the study area at nearly 2,000 acres. The small lot size requirement (3/4 ac or 1 ac.) make this an attractive zone for residential developments. The spatial distribution in the central portion of the study is expected to continue with developers extending existing streets and public infrastructure into vacant R zoned land.

The ER-2 and ER-3 zones provide low density development options in the southern portion of the township and help preserve the semi-rural atmosphere. The primary difference between the two zones is the minimum lot size requirement of 2 or 3 acres. Residential development typically occurs via lot splits in this area utilizing the large amount of road frontage that exist along River Rd. As road frontage is eliminated, developers will be forced to install public roads or utilize the rear lot provisions of the zoning resolution. Common (shared) driveways are encouraged where possible to reduce the number of curb cuts along the major transportation arteries. It is anticipated that future growth in these areas will be minimal as sanitary sewer is not available.

Lakeshore Residential (LSR) is located along the Lake Erie shoreline. Approximately 120 acres are zoned LSR. Similar to the ER-3, this zone permits residential development with 3 acre lot size requirements. The LSR also requires a 100′ setback from the top of bluff line for new construction. This proactive measure will help protect the land owners from the erosion issues associated with this stretch of the Lake Erie coastline.

Table 5.4 Residential zones

Zone	***Lot size***	***Frontage***	***Front SB***	***Rear SB***	***Permitted Uses***
R	- 1 ac. - ¾ ac with sewer and water	- 150′ or 100′ with sewer and water - 60′ (flag) with 150′ at SB line - 50′ on cul-de-sac	50′ or 115′ along Lane Rd.	15′	Single family dwellings, church, school, university, library, public museum, township buildings, publically owned recreational areas, township cemetery, home occupations
ER-2	1 ac.	-150′ - 50′ on cul-de-sac - 60′ (flag) with 150′ at SB	50′	15′	Single family dwellings, church, school, university, library, public museum, township buildings, publically owned recreational areas, township cemetery, home occupations
ER-3	3 ac.	- 200′ - 60′ (flag) with 200′ at SB -50′ on cul-de-sac with 200′ at SB	50′	15′	Single family dwellings, church, school, university, library, public museum, township buildings, publically owned recreational areas, township cemetery, home occupations
LSR	3 ac.	- 200′ - 50′ on cul-de-sac with 200′ at SB	50′	50′ *100′ top of bluff SB	Detached single family dwellings, public recreation, private recreation, open spaces and facilities.

Business / Commercial Zones

Approximately ten percent (500 acres) of the study area is zoned for business or commercial land uses in the B and B-2 zones. Approximately 170 acres are currently classified as business or commercial in the land use analysis indicating a large surplus of commercially zoned land. Similar to all eastern Lake County communities, these zones are located in a linear pattern along US 20 and SR 84 ranging from a depth of 500'-1,000' on either side of the road. On the surface, vacant commercially zoned property is viewed as a positive for future economic development. With the low population density in the area, there is little demand for the large areas of commercial zoned land along North Ridge Road/US 20 throughout eastern Lake County and State Route 84. This may cause the value of commercial real estate to remain depressed, making the corridor a viable location for moderate to low end business uses that may not require sewer and water infrastructure.

A mantra among commercial developers is "retail follows rooftops." However, the population growth in eastern Lake County is considered slow compared to other areas. Among site selection specialists, the small, low-density population base of the area is a liability compared with more populated areas. The presence of a new Wal-Mart store in Madison Township, and the increased traffic the store will generate, may attract the attention of national retailers scouting for new store locations. Increased development of the industrial north may also warrant more support type business. However, they are likely to locate near existing retail centers.

One result of the strip zoning in place is that the commercial and semi-industrial uses along the corridor appear to be randomly scattered among adjacent residences and nurseries. The development pattern and underlying zoning pattern, along with the low population, prevents the development of a concentrated, healthy business district.

An alternative to a strip development pattern, yet still meets the demand for retail space, is to designate *(or build upon existing)* retail clusters or nodes around major intersections and limit retail uses on the rest of the corridor. These nodes can be planned to integrate other commercial, office, and housing development, along with retail uses. Future expansion of the commercial nodes at Lane Rd. and SR 84 and Lane Rd. and US 20 may be warranted. This is discussed in more detail in Chapter 6.

The major challenge in breaking the pattern of strip zoning and creating commercial nodes is downzoning areas outside the nodes, so that only less intrusive commercial uses are permitted. There is no guarantee of profitability with land ownership, and downzoning is not considered a taking. Communities have the right to downzone land as part of implementing a comprehensive plan. However, downzoning may be unpopular with land owners, who may believe that downzoning will severely hurt the value of their land.

The development standards and permitted uses are identical for each zone (see list). The permission of Health Care Facilities in the B zone is the distinguishing variable between the two zones. Facilities such as out-patient centers, resident nursing centers and hospitals are permitted with a conditional use permit. Both zones also permit any use allowed under the R zoning classification. Referred to as pyramid zoning, the township should consider a text amendment to remove future residential construction and the associated land use conflicts that will occur over the long-term.

1. Any use permitted in an R district.
2. Agricultural, sales of equipment, supplies and products.
3. Antique stores.
4. Appliance stores.
5. Assembly and meeting halls.
6. Auction houses.
7. Automobile sales, service and parts.
8. Bakery and doughnut shops.
9. Banks and other financial institutions.
10. Barber and beauty shops.
11. Bars, cocktail lounge, nightclubs and discotheques.
12. Beverage and liquor stores.
13. Boat, outboard motor dealers and marine supplies.
14. Bookstores, record, tape, and video stores.
15. Bowling lanes, billiards, and video arcades.
16. Cafes, restaurants and cafeterias.
17. Computer, electronic equipment, supply and service stores.
18. Dairy product and fast food stores.
19. Department and discount stores.
20. Drug stores.
21. Dry cleaners, laundries and Laundromats.
22. Employment agencies.
23. Fabric, sewing supplies, and pattern shops.
24. Fine art studios and galleries.
25. Fish, seafood sales.
26. Floor and wall coverings.
27. Florist.
28. Funeral homes and mortuaries.
29. Furniture, sales of home furnishings, floor covering, drapery upholstery.
30. Furriers.
31. Garment printing and lettering shops.
32. Gasoline stations.
33. Gift, card and craft shops.
34. Glass, art, windows, mirrors; retail, not manufacturing.
35. Grocery and convenience stores.
36. Gymnasium and fitness centers.
37. Hardware, plumbing, electrical, paint, glass and wallpaper stores.
38. Health food, vitamin and specialty food stores.
39. Heating and air conditioning supplies, sales and service offices.
40. Hotels and motels.
41. Jewelry stores.
42. Leather and luggage shops.
43. Library.
44. Locksmiths, security and fire protection systems.
45. Mobile and modular home dealers.
46. Motorcycle, motor scooters and snowmobile sales, bicycle dealers.
47. Music and musical instrumental sales.
48. Newsstands and tobacco stores.
49. Nurseries and day care centers.
50. Nursery, lawn, and garden supply centers.
51. Office buildings, professional and medical arts offices.
52. Party centers.
53. Pet shops, kennels, and pet grooming.
54. Photo engraving.
55. Photographic equipment and photo processing.
56. Photo studios.
57. Printing, newspaper, and publishing shops.
58. Recreational vehicles and utility trailer sales.
59. Religious books and supply stores.
60. Rental agencies.
61. Retail meat and poultry sales.
62. Schools, private and vocational.
63. Shoe sales and repair shops.
64. Sporting goods and supplies sales.
65. Stamp, coin, and collectable dealers.
66. Stationery and office supply.
67. Studios, recording, art, interior design, dance, etc.
68. Theater (live) and cinemas.
69. Toy, hobby and game shops.
70. Travel agencies.
71. Veterinary hospitals.
72. Wedding and tuxedo shops.
73. Other similar uses may be permitted with a Conditional Zoning Certificate if such use is deemed by the Board of Zoning Appeals to be of the nature and character of the above uses.

Industrial Zones

Over 2,000 acres in the study area is zoned for industrial type uses. The 2008 land use analysis notes approximately 165 acres (8.25%) being utilized as industrial/manufacturing. While there is no absolute ratio to model, the study area may have a surplus of land zoned for manufacturing type business, especially in areas where appropriate infrastructure is not present. Chapter 6 discusses potential zoning recommendations.

Table 5.5 indicates the development standards for each zone. The intensity of the permitted uses is the primary difference between the three zones. Similar to the business zones, pyramid style zoning exists in various portions of the industrial zoning districts. For example, single family residential uses are permitted in the I-1 zone. This should be examined in future zoning discussions.

Table 5.5 Industrial zones

Zone	*Lot size*	*Frontage*	*Front SB*	*Rear SB*	*Notes*
I-1	.5 ac.	-100′ - 50′ on curve with 100′ at SB - 60′ (flag) with 100′ at SB	-50′ or 115′ on Lane Rd.	25′	- Permits uses in the B and R zones (except multi-family and health care facilities) - Considered the lowest impact industrial zone.
I-2	.5 ac.	-100′ - 50′ on curve with 100′ at SB - 60′ (flag) with 100′ at SB	-50′	25′	- Permits non-residential uses that are currently permitted in a B or I-1 district. - Conditionally permits a Continuing Care Overlay district in accordance with Section 318.
I-3	.5 ac.	-100′ - 50′ on curve with 100′ at SB - 60′ (flag) with 100′ at SB	-50′	25′	- Permits many of the uses in I-1 and I-2, plus “any other similar use provided a conditional zoning certificate is obtained in accordance with provisions of Section 213. - Considered the heaviest all the three zones which may generate heavy traffic and require special buffering from residential uses.

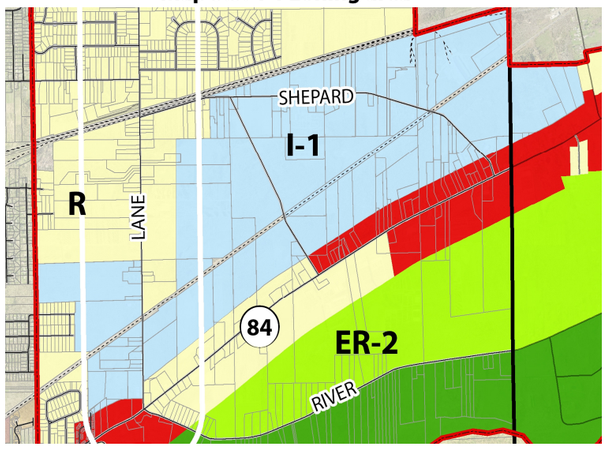
The I-1 (Light Industry) zone occupies 1,000 acres in the central portion of the study area from Lane Rd. east to the Perry Village border (Map 5.3). With the exception of manufacturing businesses abutting this Village line, the vast majority of this zoning district is vacant (grey), agricultural (green) or single family homes (yellow) (Map 5.4). The lack of sanitary sewer and environmental constraints of the site are two possible reasons for the lack of industrial type uses in this portion of the township. The zoning pattern along the rail corridor is indicative of a Post WWII era zoning mindset when local leaders assumed industrial expansion would follow the rail lines from the more urban areas. This expansion did not occur in eastern Lake County. The ability to expand sanitary sewer along with the existing rail spur may provide incentive for industrial expansion in this area.

Within the study area, approximately 390 acres of I-2 zone land is located on unplatted land north of US 20 bounded by Blackmore Rd., Clark Rd. and Perry Park Rd (Map 5.5). The land use analysis and window survey indicate zero industrial uses in this area. The bulk of the land is vacant (grey color shading) or in agricultural (green color shading) production (Map 5.6).

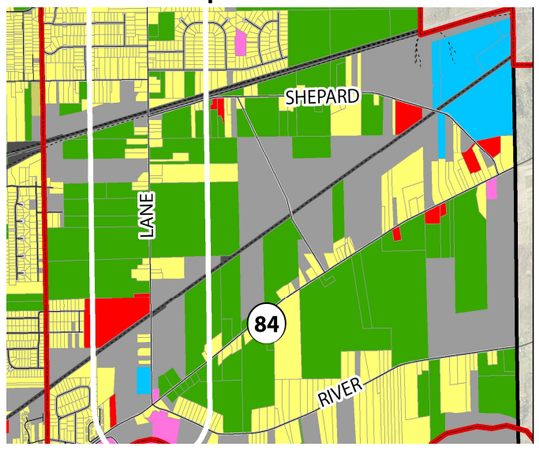
The I-3 zone occupies 670 acres along the Lane Rd. extension, north of US 20. Commonly referred to as Wind Point Reserve, the industrial park is serviced by all necessary capital infrastructure (Map 5.5). The vision for this area is a state of the art industrial park facility.

A closer look at the land uses with the I-3 zone indicates approximately 50 acres currently being occupied. Manufacturing land uses are operational on the east side of Lane Rd., south of the rail corridor, but office/contractor based businesses are found along the west side Blackmore Rd. (Map 5.6). As noted on the land use map, large amounts of vacant land are available for development, but portions may have significant natural constraints to complete build-out of the industrial park (see section 5.4).

Map 5.3: I-1 zoning area



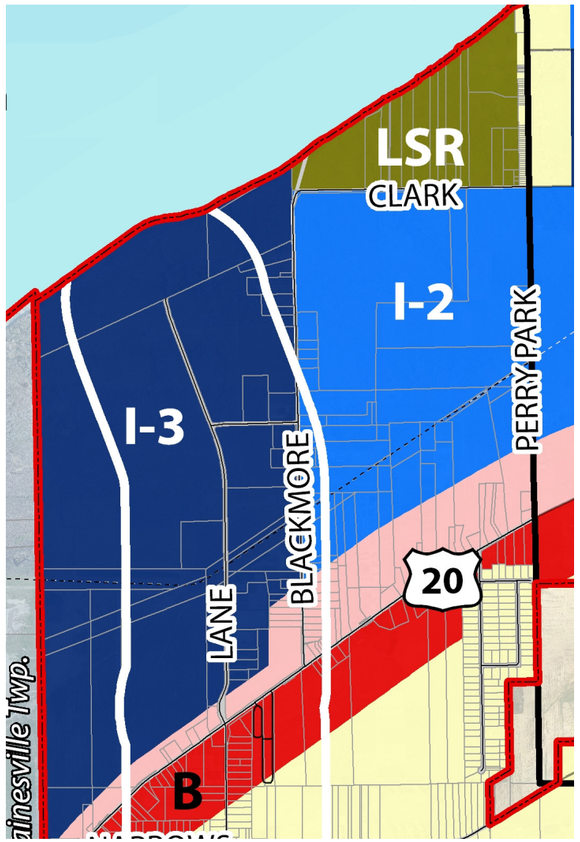
Map 5.4: I-1 area land use



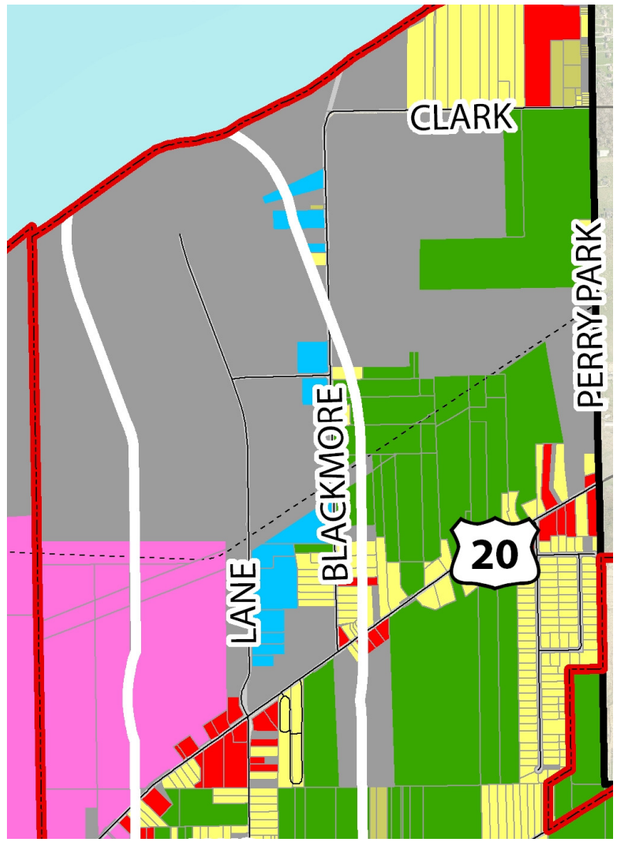
The majority of the land in the I-2 and I-3 zone is included in the Perry Area Joint Economic Development District (JEDD). Over 600 acres of JEDD land exists in the study area, the vast majority of which is available for new businesses (Map 5.7). The JEDD is a tax revenue sharing agreement between North Perry Village, Perry Village and the Township. The JEDD offers opportunities for additional sources of revenue to the communities not previously available by accelerating development of industrial, business, and commercial areas that creates additional jobs, payroll taxes, and corporate net profit taxes.

A JEDD allows for the levying of an income tax in the district, and the provision of municipal services in unincorporated areas. Income tax revenue in the JEDD area can be shared and used for municipal services, new sewer or water lines, road improvements, beautification, or other programs that will benefit the district. JEDD revenue can also be used for "quality of life" projects such as landscaping, public art, upgraded street signage, and sidewalks. To the highest extent possible, the Township should attempt to guide development to areas within the JEDD in hopes of spurring additional economic development activities.

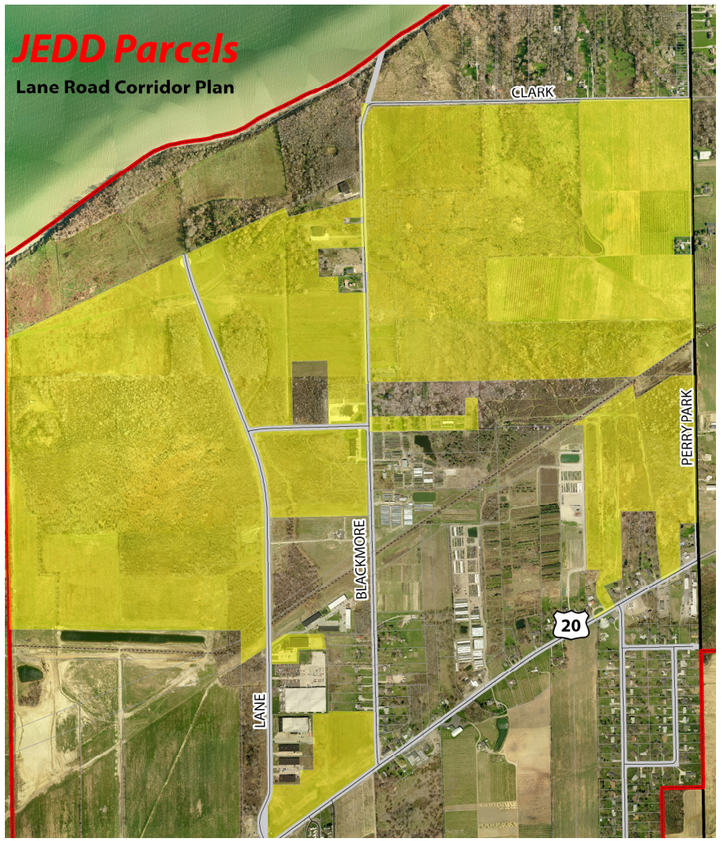
Map 5.5: I-2 and I-3 zoning area



Map 5.6: I-2 and I-3 area land use



Map 5.7: JEDD parcels in study area



5.4 Natural Features / Site Constraints

Industrial North

The industrial north is considered the preferred business area for future growth in Perry Township. Wind Point Reserve and the industrially zoned land north of US 20 between Blackmore Rd. and Perry Park Rd. represent significant opportunities for development. It is important to understand the natural features of the area during the development review process.

Map 5.6 provides a detailed site analysis of the natural site conditions of the 840 acre area. Currently, approximately 50 acres are occupied. Using information based on soil characteristic and tendencies, the following observations are noted:

- Utilizing Ohio Department of Natural Resource data, approximately 93 acres of land exhibit characteristics similar to wetland areas. Wetlands do not prohibit development, but may require mitigation efforts based on the quality of the wetland.
- Approximately 126 acres of "Primary Hydric Soils." These areas are represented by red shading on the map. The soils are formed under saturated conditions and are often indicative of potential wetlands. They may represent a significant development limitation and require substantial engineering for road, buildings and other support facilities. In severe cases, sites may not be suitable for building or potential mitigation measures yield the area economically unfeasible.
- A series of intermittent streams flow south to north throughout the site. Future development should maintain a reasonable setback from these riparian corridors to ensure proper functionality.

The areas in blue outlines represent 'preferred development sites' in the area. Approximately 440 acres are in areas which may provide fewer obstacles for future development and least impact to important natural features.

Wetlands /Floodplains

Map 5.9 shows two significant areas of potential wetlands:

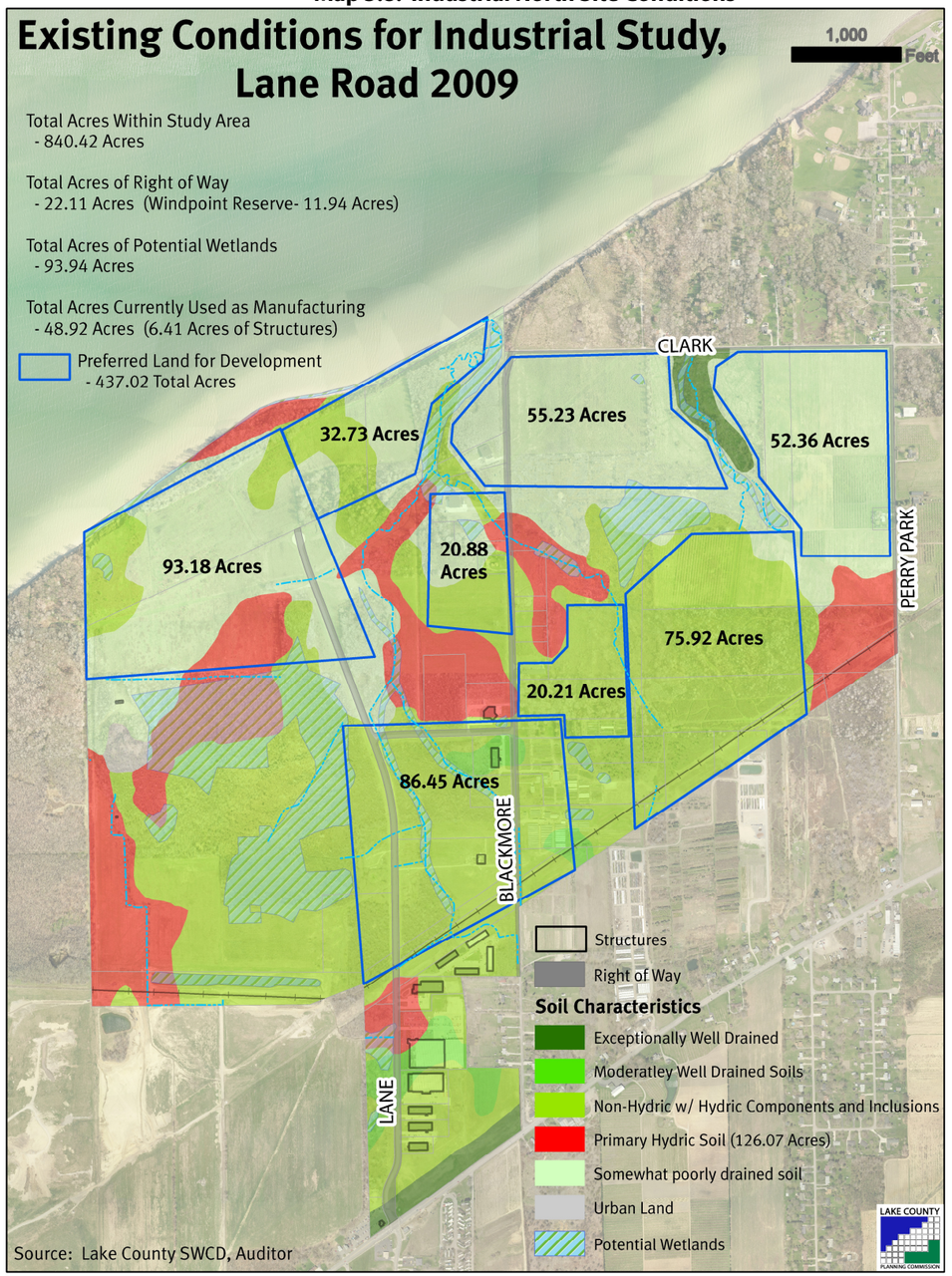
- The industrial north (as noted above).
- The agricultural area below the Norfolk Southern rail corridor

Wetlands, like soils, can be situated in many different landscapes. Accordingly, the types of wetlands will differ and be classified by the various agencies who regulate impacts to them. Wetlands are often thought of as wet boggy marshes where water accumulates to several inches or feet in depth. However, wetlands can be dry during certain parts of the year and locating the boundaries of a wetland is the work of trained wetland biologists.

Wetlands, whether connected to "Waters of the US" or "isolated" from a stream, are free stormwater utilities that help to buffer the effects of flooding. When considering the development of a parcel that may have a wetland on it, the following items may be useful.

The USACE and the EPA jointly describe a wetland as "Those areas that are inundated or saturated by

Map 5.8: Industrial North Site Conditions



surface or groundwater at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil."

A general description of a wetland that would be regulated by the USACE, OEPA or other local forms of government would be an area that has the following three components:

- Hydric soils
- Hydrophytic Vegetation
- Seasonally inundated with water or saturated within 12" of the surface.

Wetlands are categorized in three levels:

- Category 1 (lowest quality)
- Category 2 (medium quality)
- Category 3 (highest quality)

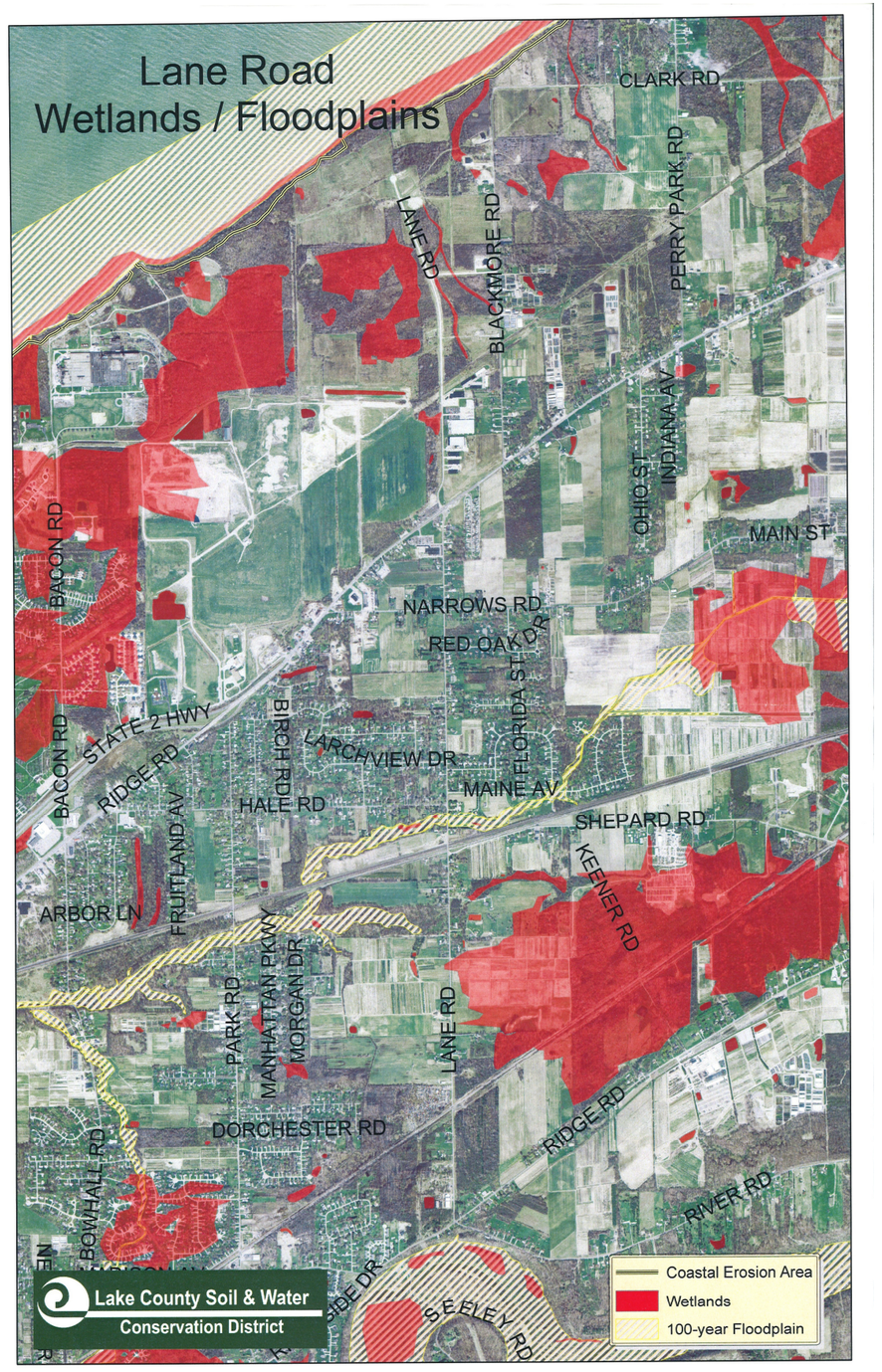
To impact a wetland (contact the OEPA and/or USACE for guidance on what is considered an impact) in Ohio, the landowner or his/her agent must first obtain a Water Quality Certification for the proposed wetland and project. The WQC and associated permits will detail the amount and type of impact and mitigation if required. Typical mitigation requirements are shown in Table 5.6

Table 5.6 Wetland Mitigation Requirements

Wetland category	On-site mitigation ratio	Off-site mitigation ratio	Replacement category	Compensatory Mitigation location (Off-site)
1	1.5:1 Non-forested & Forested	1.5:1 Non-forested & Forested	2 and 3	Within the U.S. army corps of engineers district
2	1.5:1 Non-forested 2.0:1 Forested	2.0:1 Non-forested 2.5:1 Forested	2 and 3	Within watershed
3	2.0:1 Non-forested 2.5:1 Forested	2.5:1 Non-forested 3.0:1 Forested	3	Within watershed

A small amount of floodplain is located along Red Creek in the central portion of the site. Perry Township has riparian setbacks in place to protect this resource. Section 405 of the Zoning Resolution prohibits most construction activities within the 30' setback and the designated 100-year floodplain. The Township may want to consider additional setbacks on stream and wetland areas in other portions of the study area. Future development that may impact the flood zone must adhere to the Lake County Flood Damage Prevention Regulations.

Map 5.9: Wetlands



Soil Conditions

In addition to potential wetland areas, the vast majority of the study area has soils that exhibit high water tables or hydric soils (Map 5.10). Hydric soils are indicated in the blue shades and soils with high water tables are in yellow/brown tones. For planning purposes, the charts below are a matrix of soil characteristics for the soils on Map 5.10.

EnB -- Elnora loamy fine sand, 1 to 5 percent slopes

CHARACTERISTIC/USES	LIMITATIONS
Dwellings without basements	Moderate: wetness
Dwellings with basements	Severe: wetness
Local roads and streets	Moderate: frost action, wetness
Septic tank absorption fields	Severe: wetness
Flooding frequency	None
High water table	Apparent -Feb. thru May at depths of 1.5 - 2.0 feet
Bedrock depth	Greater than 60 inches

Lb -- Lobdell silt loam

CHARACTERISTIC/USES	LIMITATIONS
Dwellings without basements	Severe: floods
Dwellings with basements	Severe: floods, wetness
Local roads and streets	Severe: floods, frost action
Septic tank absorption fields	Severe: floods, wetness
Flooding frequency	Common - brief - January thru April
High water table	Apparent - Dec. thru April at depths of 1.5 - 3 feet
Bedrock depth	Greater than 60 inches

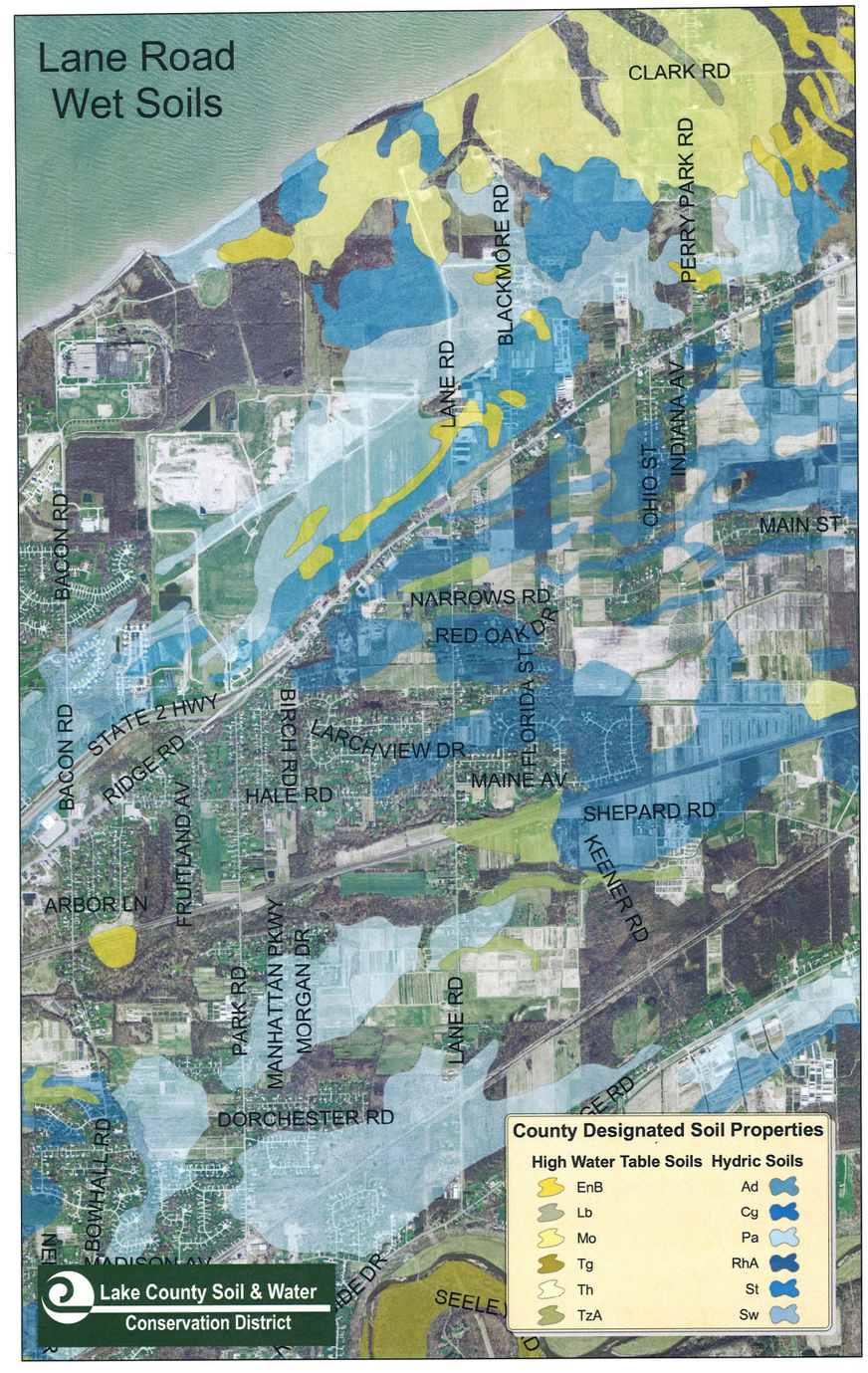
Mo -- Minoa fine sandy loam

CHARACTERISTIC/USES	LIMITATIONS
Dwellings without basements	Severe: wetness
Dwellings with basements	Severe: wetness
Local roads and streets	Severe: frost action, wetness
Septic tank absorption fields	Severe: wetness
Flooding frequency	None
High water table	Apparent - Feb. thru Apr at depths of 0.5 - 1.5 feet
Bedrock depth	Greater than 60 inches

Tg -- Tioga loam

CHARACTERISTIC/USES	LIMITATIONS
Dwellings without basements	Severe: floods
Dwellings with basements	Severe: floods
Local roads and streets	Severe: floods
Septic tank absorption fields	Severe: floods, wetness
Flooding frequency	Common - very brief to brief - January thru April
High water table	Apparent - Jan. thru April at depths of 3 - 6 feet
Bedrock depth	Greater than 60 inches

Map 5.10: Soil Conditions



Th -- Tioga Variant silt loam

CHARACTERISTIC/USE	LIMITATIONS
Dwellings without basements	Severe: floods
Dwellings with basements	Severe: floods
Local roads and streets	Moderate: frost action, floods, low strength
Septic tank absorption fields	Severe: wetness
Flooding frequency	Rare
High water table	Apparent - Jan. thru May at depths of 3.0 - 6.0 feet
Bedrock depth	Greater than 60 inches

TzA -- Tyner Variant sandy loam

CHARACTERISTIC/USE	LIMITATIONS
Dwellings without basements	Moderate: wetness
Dwellings with basements	Severe: wetness
Local roads and streets	Moderate: frost action, wetness
Septic tank absorption fields	Severe: wetness
Flooding frequency	None
High water table	Apparent - Jan. thru May at depths of 1.5 - 3.0 feet
Bedrock depth	Greater than 60 inches

Ad -- Adrian muck

CHARACTERISTIC/USES	LIMITATIONS
Dwellings without basements	Severe: wetness, floods, & low strength
Dwellings with basements	Severe: wetness, floods, & low strength
Local roads and streets	Severe: wetness, floods, & low strength
Septic tank absorption fields	Severe: wetness & floods
Flooding frequency	Frequent - long duration - Nov. thru May
High water table	Apparent - Nov. thru May at depths of 0 - 1.0 feet
Bedrock depth	Greater than 60 inches

Cg -- Carlisle muck

CHARACTERISTIC/USE	LIMITATIONS
Dwellings without basements	Severe: wetness, low strength, floods
Dwellings with basements	Severe: wetness, low strength, floods
Local roads and streets	Severe: excess humus, wetness, floods
Septic tank absorption fields	Severe: floods, wetness
Flooding frequency	Frequent - long duration - Nov. thru May
High water table	Apparent- Sep. thru June at depths of 0 - 1.0 feet
Bedrock depth	Greater than 60 inches

Pa -- Painesville fine sandy loam

CHARACTERISTIC/USE	LIMITATIONS
Dwellings without basements	Severe: wetness
Dwellings with basements	Severe: wetness
Local roads and streets	Severe: frost action, wetness
Septic tank absorption fields	Severe: wetness, percs slowly
Flooding frequency	None
High water table	Perched - Jan. thru April at depths of 0.5 - 1.5 feet
Bedrock depth	Greater than 60 inches

RhA -- Red Hook sandy loam, 0 to 2 percent slopes

CHARACTERISTIC/USE	LIMITATIONS
Dwellings without basements	Severe: wetness
Dwellings with basements	Severe: wetness
Local roads and streets	Severe: frost action, wetness
Septic tank absorption fields	Severe: wetness
Flooding frequency	None
High water table	Apparent - Dec. thru May at depths of 0.5 - 1.5 ft
Bedrock depth	Greater than 60 inches

St -- Stafford loamy fine sand

CHARACTERISTIC/USE	LIMITATIONS
Dwellings without basements	Severe: wetness
Dwellings with basements	Severe: wetness
Local roads and streets	Severe: wetness
Septic tank absorption fields	Severe: wetness
Flooding frequency	None
High water table	Apparent - Jan. thru May at depths of 0.5 - 1.5 feet
Bedrock depth	Greater than 60 inches

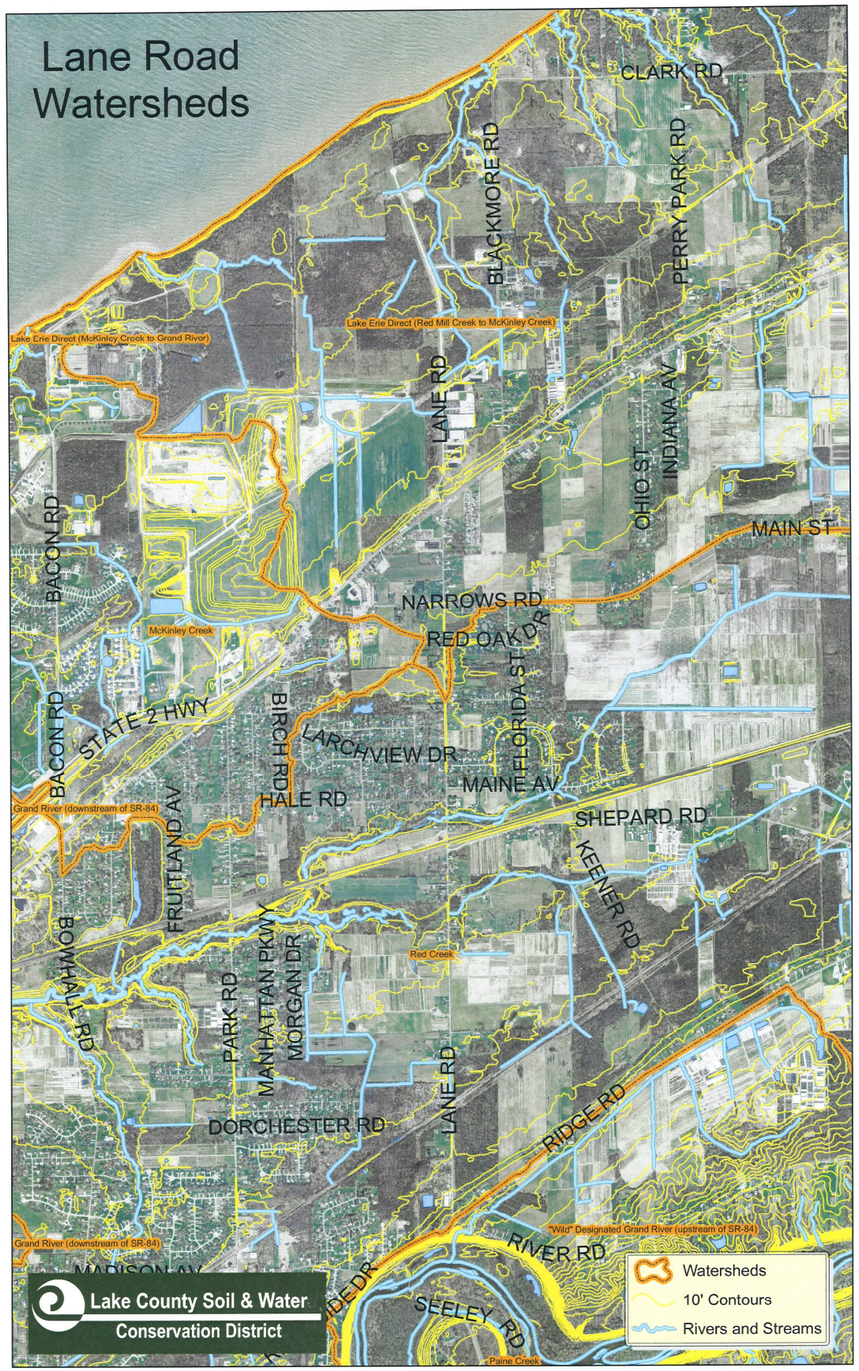
Sw -- Swanton fine sandy loam

CHARACTERISTIC/USES	LIMITATIONS
Dwellings without basements	Severe: wetness, shrink-swell
Dwellings with basements	Severe: wetness, shrink-swell
Local roads and streets	Severe: wetness, frost action , shrink-swell
Septic tank absorption fields	Severe: wetness, percs slowly
Flooding frequency	None
High water table	Apparent - Nov. thru May at depths of 0 - 1.0 feet
Bedrock depth	Greater than 60 inches

Watersheds

The Lake Erie Direct (Red Mill Creek to McKinley Creek) watershed comprises the northern half of the study area. Narrows Rd. is the approximate dividing line between the Red Creek Watershed which is the drainage area for the southern portion of the site.

Map 5.11: Watersheds



6 Recommendations

6.1 Introduction

The information in this section, and on Maps 6.2-6.6 present zoning and transportation strategies for the corridor. The plan is a guide for Perry Township leaders in developing practical and feasible zoning and land use decisions.

Continued cooperation between various boards, citizens, zoning staff, elected officials and other public entities will increase the likelihood of the plan's success. The recommendations of this plan were created by the Lake County Planning Commission with valuable input from the Local Advisory Committee, community stakeholders and Township staff.

With the potential of the Vrooman Rd. bridge, substantial vacant industrial land and continued population shift to eastern Lake County, Perry is entering a potential transition phase. Thus, it is imperative that the Perry community examine current and proposed guidelines to assure that future growth follows the community's desires for development.

Market demands, unforeseen development scenarios or legal issues may arise which require edits to various portions of this plan. Planning is fluid. Amendments, if necessary, should not derail the overall objectives of the plan:

- **Preserve the agricultural / horticultural economy.**
  - ***This was the overriding theme throughout the meeting.***
- **Create an acceptable balance among land uses.**
- **Expand and diversify the tax base for Perry Township.**
- **Direct and manage growth and development.**
- ***Protect the Lane Road corridor.***

Sections 6.2, 6.3 and 6.4 discuss recommendations for future planning and zoning decisions along the corridor.

6.2 Agricultural Preservation / Tools

The preservation of productive agricultural lands was an emerging theme throughout the planning process and a primary goal in the 2006 Comprehensive Plan. Protecting farmland helps communities maintain their semi-rural atmosphere and aids in reducing future demands for costly new community services, including road maintenance. Local, state and national studies have shown the economic balance and benefit provided with active agriculture in a community. Local organizations can assist local land owners interested in pursuing preservation measures.

The nursery industry remains the anchor of Perry Township and Lake County agriculture. In addition to the natural and aesthetics attributes of the land use, the industry is a key economic development driver. The 1998 Census of Horticultural Specialties counted 68 horticultural operations in the county, generating $59,153,000 in total sales, and $54,656,000 in wholesale sales. The Nursery Growers of Lake County have tallied over 100 nurseries in Lake County, generating an estimated $90,000,000 in annual wholesale sales. The Nursery Growers of Lake County claim the nursery industry employs 2,700 full and part time workers; this statistic includes nine nurseries outside of Lake County.

Table 6.1 Cost of service studies in Ohio

Community	*Cost of services used for every $1 paid in property tax*		
	Residential	***Commercial and industrial***	***Agricultural***
Madison Township / Lake County (1993)	$1.40	$0.25	***$0.30***
Madison Village / Lake County (1993)	$1.67	$0.20	***$0.39***
Hocking Township / Fairfield County (1999)	$1.10	$0.27	***$0.17***
Liberty Township / Fairfield County (1999)	$1.15	$0.51	***$0.05***
Union Township / Ross County (1998)	$1.00	$0.31	***$0.60***
Huntington Township / Ross County (1998)	$1.01	$0.38	***$0.19***
Madison Township / Lake County (2007)	$1.24	$0.33	***$0.30***

(Prindle 1999, 2000; American Farmland Trust 1993, Lake County SWCD)

Indirectly, agricultural land uses provide positive economic attributes to communities as well. Developed by the American Farmland Trust in 1990, cost of community service studies are being completed by communities throughout Ohio. These studies allow community leaders to evaluate how their revenues compare with their expenditures (Table 6.1).

According to cost of service studies conducted by municipalities throughout the United States, the cost of providing services for residential uses is greater than the property tax revenue they generate. Commercial and industrial uses pay more in taxes than the cost of services they use, essentially subsidizing residential uses and decreasing their tax burden.

More importantly, the results of these studies support the claims presented by smart growth advocates, farmland preservation taskforces, and local citizens; conventional suburban residential development requires higher financial resources in the long term to provide public services. Table 6.1 illustrates the similar results in Madison Township, Madison Village, and four other Ohio townships that conducted cost of service studies.

The outcome is a ratio of the amount of money needed to provide public services (fire, police, education, community centers, and so on) for every dollar collected in property taxes.

For every dollar in property taxes paid by residential property owners in Madison Township, $1.24 in services is required. Services provided to residents are subsidized by commercial and industrial property owners; for every dollar they pay in property taxes, they require 33 cents in services. *Nursery owners also subsidize services to residents; for every dollar they pay in property taxes, agricultural uses require 30 cents in services.* The ability of the township to maintain a viable agricultural base (as opposed to residential development)will prove valuable over the long-term.

Note: At the time this plan was prepared (Fall 2008), a draft research project indicated the local winery industry generated approximately $30 million in economic impacts.

The following information provides a series of tools or programs available to the landowners:

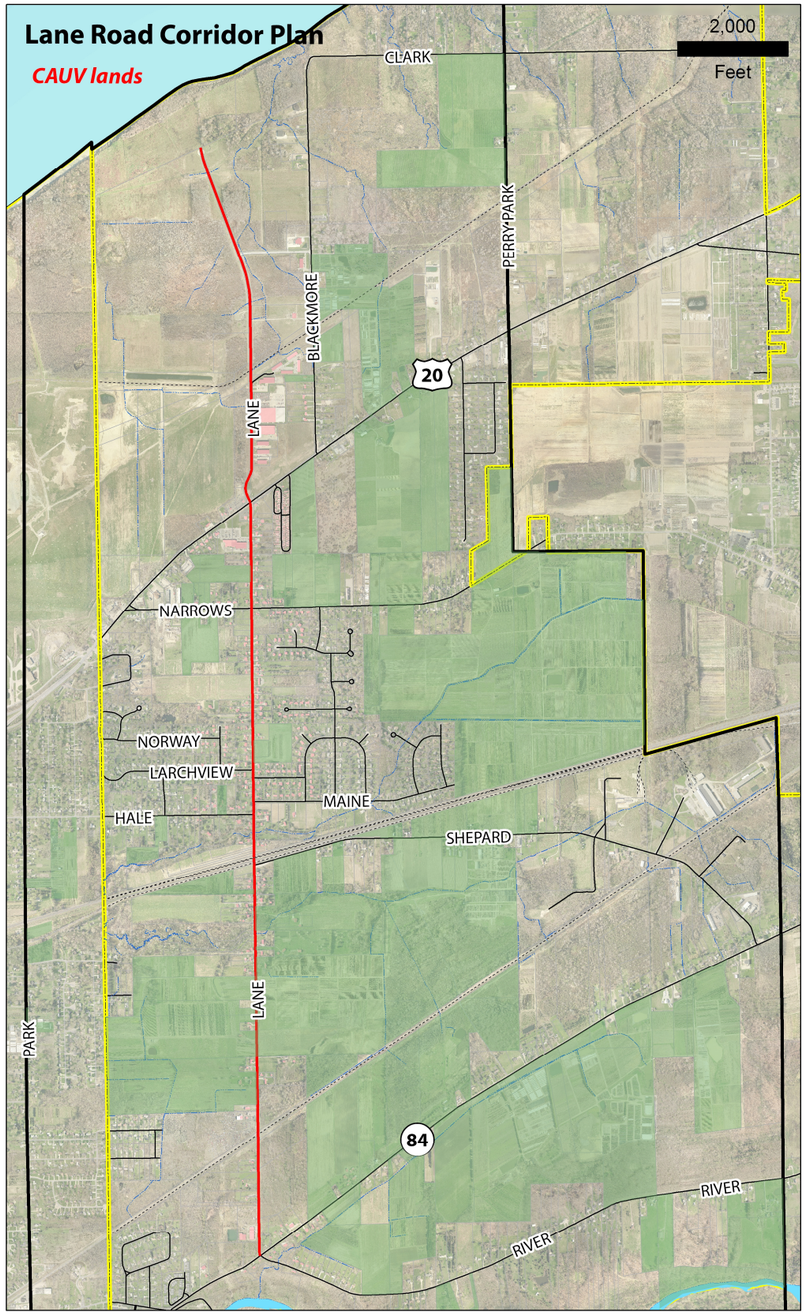
CAUV Program

Locally, farmers can enroll in the Current Agricultural Use Value (CAUV) program. There are approximately 2,400 acres in the study area enrolled in the program (Map 6.1) CAUV is a voluntary real estate tax assessment program that is the result of a referendum passed by Ohio voters in November 1973. Under CAUV, owners of farm tracts 10 acres or larger are given the opportunity to have their parcels taxed according to their value in agriculture. If the land was not part of the CAUV program, the tax value could be considered the speculative value of non-farm development, or what would be full market value.

According to state statutes, a landowner must devote the parcel "exclusively to agricultural use" to qualify for use value assessment. Agricultural land that lies fallow for one year is also eligible for CAUV.

A farmer that converts land to a non-agricultural use while enrolled in the CAUV program must pay a penalty equal to the tax savings over the past three years. According to the Lake County Auditor, approximately 6,700 acres is currently enrolled in this program in the township.

Map 6.1: CAUV land



Agricultural Security Areas (ASA)

In May 2005, the Ohio Agricultural Security Area (ASA) program went into effect. This incentive based land protection measure allows one or more landowners to request from the County Commissioners and Township Trustees to enroll at least 500 acres of contiguous farmland into an ASA for 10 years. This is not designed to stop development, but to protect farmland by creating special areas where agriculture is encouraged and protected. Program details include (Ohio Department of Agriculture):

1. Ohio's Agricultural Security Area (ASA) legislation, House Bill 414, was sponsored by Representative Tony Core and passed the Ohio House on May 11, 2004, by a vote of 93 to 4 and passed the Ohio Senate on December 7, 2004, by a vote of 29 to 0. Governor Bob Taft signed the bill on February 15, 2005, and it went into effect on May 18, 2005.

2. To be eligible, a farmland owner must be enrolled in the Current Agricultural Use Valuation (CAUV) tax program and enrolled in an Agricultural District; must be utilizing "best management practices;" and must not have any civil or criminal actions in violation of Ohio or U.S. environmental law in the 10 years immediately preceding the date of application.

3. Eligible farmers, who either individually or collectively own 500 or more contiguous acres of farmland, would submit an application requesting a resolution of support from both the township trustees and county commissioners to form an ASA for 10 years. The trustees or commissioners may hold separate or joint public hearings prior to approving or rejecting an ASA application.

4. During the 10-year enrollment period only agricultural activity as defined by Section 5713.30 of the Ohio Revised Code is permitted. However, a farmer may request a non-farm development activity be undertaken and local governments may approve such activity, but only if the local governments determine that such activity would not impair the ability to farm and the land must remain enrolled in CAUV, with one exception. The exception is that one residence per 40 acres is permitted for the landowner's relatives.

5. ASAs are a partnership between the farmland owner and the local elected officials. The local governments commit not to initiate, approve, or finance any non-farm development activity, such as extending water and sewer lines, building new roads, housing subdivisions, commercial or industrial facilities, etc., within the ASA during the 10-year term. Likewise, landowners commit not to undertake any non-agricultural development on their farmland.

6. In addition to being protected from incompatible development and receiving the benefits of CAUV and Agricultural District enrollments, farmers may receive, at the discretion of the township trustees and the county commissioners, a real property tax exemption on new or expanded farm buildings. A minimum investment of $25,000 is required and local officials may establish a maximum investment cap. The tax exemption would be up to 75% and up to 10 years.

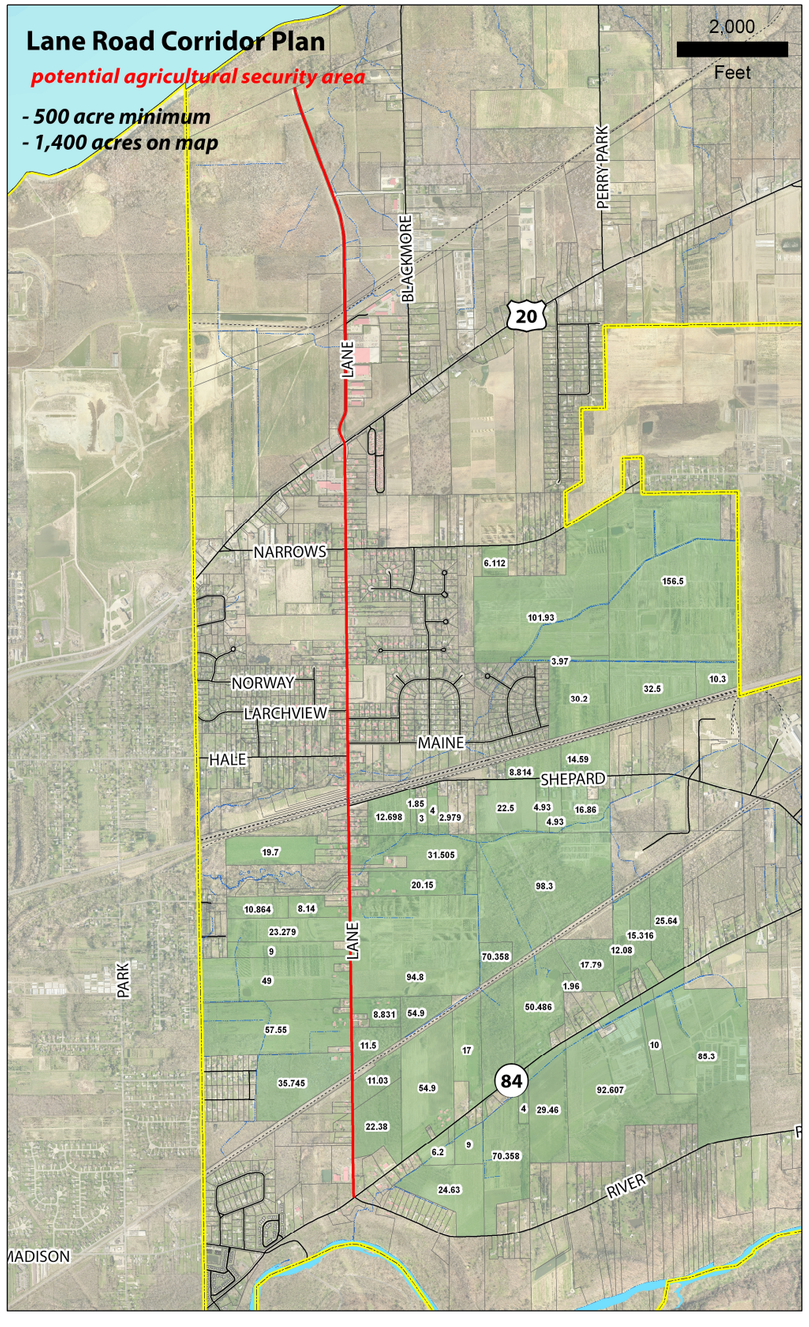
7. If a landowner violates or withdraws from the ASA during the 10-year period of enrollment, a recoupment of the tax exemption benefits will be made and the landowner must pay a $500 fine to the township trustees and the county commissioners.

8. If during the first five years of the ten year enrollment a landowner(s) violates or withdraws from the ASA and the ASA then has less than 500 acres, the ASA expires. All landowners who received an ASA tax exemption must repay the tax benefits, plus an interest penalty on that amount equal to the average bank prime rate.

9. If during the last five years of the ten year enrollment a landowner(s) violates or withdraws from the ASA and the ASA then has less than 500 acres, the ASA does not expire. However, the landowner(s) who drops out must pay a $500 fine and repay any tax benefits granted, plus an interest penalty on the tax benefits equal to the average bank prime rate. Other land owners who remain enrolled in the ASA are not penalized. After the 10 year enrollment ends, however, the ASA must contain at least 500 acres in order to be renewed for another 10 year term.

ASA's emerged as a potential tool in the study area. Preliminary mapping indicate the necessary acreage required for eligibility. The area below Narrows Rd. should be pursued under the ASA guidelines (Map 6.2).

Map 6.2: Potential Agricultural Security Areas



Conservation Easements

Landowners have the option to extinguish the right to develop the land that they own. They may do so by establishing a conservation easement, which will protect the land from being developed. Agricultural conservation easements are designed specifically to protect farmland from development and to keep it available for agricultural land uses. The landowner retains ownership and all the other rights of ownership of the parcel. Easements may apply to the entire parcel or a portion of the parcel; most are permanent. All conservation easements legally bind future landowners forever or for the term of the easement.

There are currently two easement purchase programs available to compensate landowners for protecting their land with an agricultural conservation easement. Landowners may also donate all or a portion of their easement and receive income and estate tax benefits from giving up the easement value of their property.

Ohio Agricultural Easement Purchase Program (AEPP)

The Ohio Agricultural Easement Purchase Program (AEPP) is a part of the Clean Ohio fund which provides grants to preserve farmland, clean up brownfields and to create recreational green spaces in Ohio. The AEPP requires a minimum 25% monetary match or landowner donation of 25% of the appraised value of the easement and a 40-acre minimum parcel of land. At the publication date of this plan, the AEPP will pay a maximum of $2,000 per acre and $500,000 per farm to successful applicants. Applications are made on behalf of landowners by local land trusts or by the Lake County Soil & Water Conservation District. An annual application period usually opens in the spring. The factors which determine which applications are selected include soil quality, proximity to other protected areas, use of best management practices, local support and planning.

Federal Farm and Ranch Lands Protection Program (FRPP)

The Farm and Ranch Lands Protection Program (FRPP) provides matching funds to State, Tribal or local governments and non-governmental organizations with existing farm and ranch land protection programs to purchase conservation easements. The FRPP will pay 50% of the appraised fair market value of the easement and requires a 25% minimum match from a governmental entity and a 25% maximum match from the landowner. To qualify, the land must contain prime, unique or other productive soil, be covered by a conservation plan for any highly erodible land, be large enough to sustain agricultural production, be accessible to markets for what the land produces, be surrounded by parcels of land that can support long-term agricultural production and be owned by an individual or entity that does not have an adjusted gross income that exceeds $2.5 million. Applications are made on behalf of landowners by local land trusts or by the Lake County Soil & Water Conservation District. The annual application period is in the spring.

6.3 Road and Right-of-Way Improvements

The committee looked at various issues that existed with the current road and right-of-way configuration and issues in regards to Lane Road intersections with other major roads and rail. The following is a list of long-term planning recommendations (Map 6.5):

1. **Increase the right-of-way width to 70'.**

   It is better to increase the width prior to development occurring. Once development starts to occur, the price of the land will increase as will the number of land owners. It is recommended to increase to 70' right-of-way to provide enough space for future needs such as sanitary sewer, water lines, storm sewers or ditches, and for increase in pavement.

2. **Improve the geometry for Lane Road, US 20 intersection** (Map 6.3)**.**

   Semi-trucks have a difficult time making a right hand turn from US 20 to Lane Road southbound. Potential increase in semi-trucks will likely elevate this issue as they access the industrial north. Open land exists in the southwest quadrant of the intersection for improvements.

3. **Examine Relocation of Shepard Rd. intersection with Lane Rd** (Map 6.4).

   Shepard Road should be relocated in order to provide for a better intersection with Lane Road that would not be impacted by existing CSX's railroad crossing and future grade separating crossings. There are several high quality streams that flow through the area of the possible Shepard Road relocation. Those streams as well as residences and active agricultural land should be considered and impacts to them should be minimized. Future access points should be located far enough south to accommodate future approaches to a grade separation.

4. **Grade separation for the railroad tracks and Lane Road should be considered (CSX is considered the first priority).**

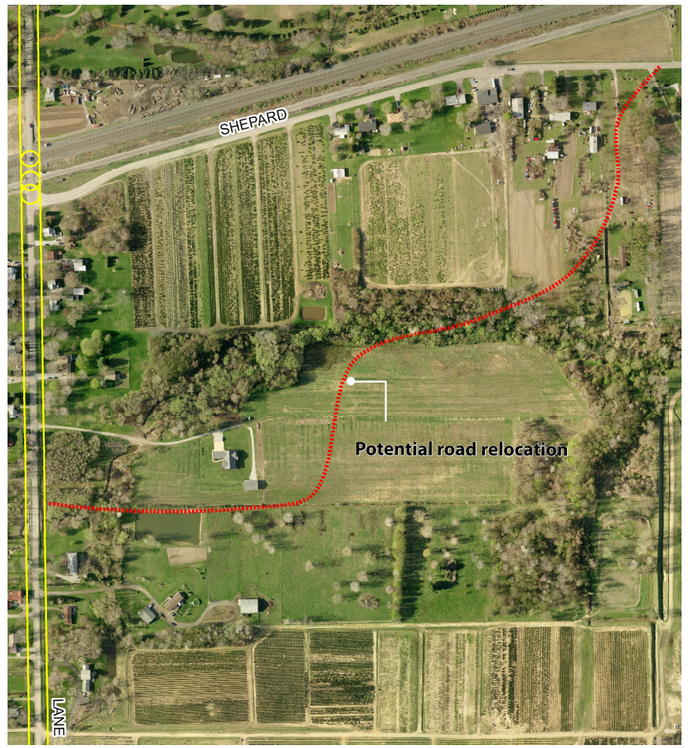
   The existing geometry with Shepard Rd., close proximity of tracks to one another (span), increasing rail traffic, vehicular traffic and potential traffic created by the proposed Vrooman Rd. Bridge justify the need to examine a grade separated crossing at the CSX tracks. The Lake County Engineer's Office and NOACA can assist in this project. Other communities in eastern Lake County are reviewing the feasibility of a grade separation along the CSX line as well, but physical constraints, low traffic volume and costs have deemed them unfeasible.

   The Northeast Ohio Area Coordinating Agency (NOACA) has created the Transportation for Livable Communities Initiative (TLCI) Program to help communities in Northeast Ohio obtain federal funding and technical assistance for planning transportation projects that strengthen community livability. The TLCI Program has the following goals (*italicized items are relevant to this study)*:

   1. *Enhance the economic viability of existing communities within the region*
   2. *Enhance the region's quality of life*
   3. Enhance a community's identity
   4. Foster compact land use development/redevelopment
   5. Facilitate accessibility by improving the range of transportation choices by adding or improving pedestrian, transit or bicycle facilities
   6. Reduce air and water pollution through best management practices
   7. Encourage fuel and energy conservation
   8. Promote a healthier community through planning and environmental linkages from an integrated transportation perspective
   9. *Preserve and enhance farmland, forests and open space*

Map 6.3: US 20 / Lane Rd.

Map 6.4: Conceptual Shepard Rd. Relocation



10. Assist the redevelopment of urban core communities
11. Enhance the historic, archaeological, scenic and environmental elements of the transportation system
12. *Improve the safety and efficiency of the existing transportation system*

The TLCI Program has three components, the Planning Grant Program, Neighborhood Planning Technical Assistance, and Links Technical Assistance Program. Perry Township is not an Urban Core Community, so they would not qualify for the Neighborhood Planning Technical Assistance, but they could apply for the other two programs.

The Planning Grant Program provides federal funding to conduct or contract for the planning of transportation improvements that advance the Initiative's goals. These grants can be up to an amount of $75,000 with a local match requirement. The township should pursue a joint application with the Lake County Engineer's Office to study future options and thus begin the Ohio Department of Transportation's 14-step Project Development Process (PDP). Communities must follow the program to become eligible for future funding options.

Links Technical Assistance Program provides technical assistance from NOACA staff for planning small-scale traffic studies that advance the Initiative's goals. This is not a grant. NOACA's staff helps the local community with their project without charging the community for their help. Perry should pursue this option as well.

5. Intersection upgrade should be considered along the corridor.

The Narrows Rd. / Lane Rd. intersection is currently an effectively four-way stop design. Increased development at or near the intersection may require the installation of appropriate turning lanes, if warranted. At a minimum, left hand turn lane for Lane Road traffic at Hale Rd and potential Maine Ave. is recommended. This may be accomplished within the existing 50' right-of way. Long term consideration should be given for the possibility of realignment of Maine Avenue, Hale Road, and Lane Road to create a four-way intersection.

6. Consider access management regulations for Lane Road.

Businesses and homes along Lane Road and cross streets usually have unfettered access to the road, often having two or more driveways or curb cuts from the street to provide access. The capacity, flow and safety are affected by curb cuts. The more curb cuts, the greater chance a vehicle will enter into the road. This would, at the very least, slow the traffic down and keep the vehicles on the road longer. At the worst, it can cause an accident.

Currently there are 145 access points in a 3.5 mile section of road. That is one access point every 135 feet. Currently, there are still large tracts that have not been subdivided, so the number of access points may increase.

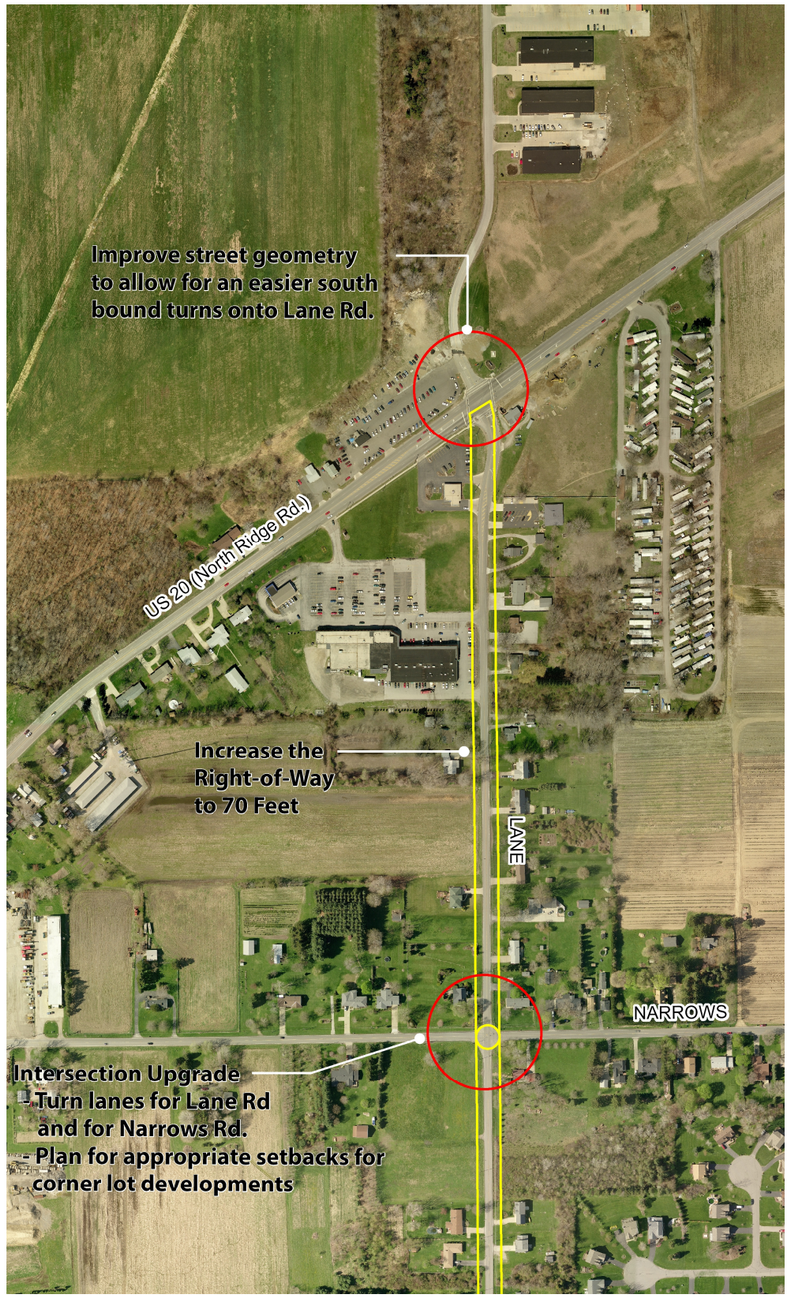
Chapter three discussed various types of access management. The access management types that were described work best for commercial and industrial uses, but the corner clearance, the drive number, spacing, location and design could work for residential uses.

Perry Township is a township and so their ability to use access management is limited. Ohio Revised Code Chapter 5552 allows for counties and townships to set their own access management standards. The law also states that townships are allowed to set access management for Township roads while the County may set access management regulations for both township and county roads. In order for the county to set access management regulations, the majority of the townships must be in favor of them. Ohio Department of Transportation is responsible for access management on state and federal highways.

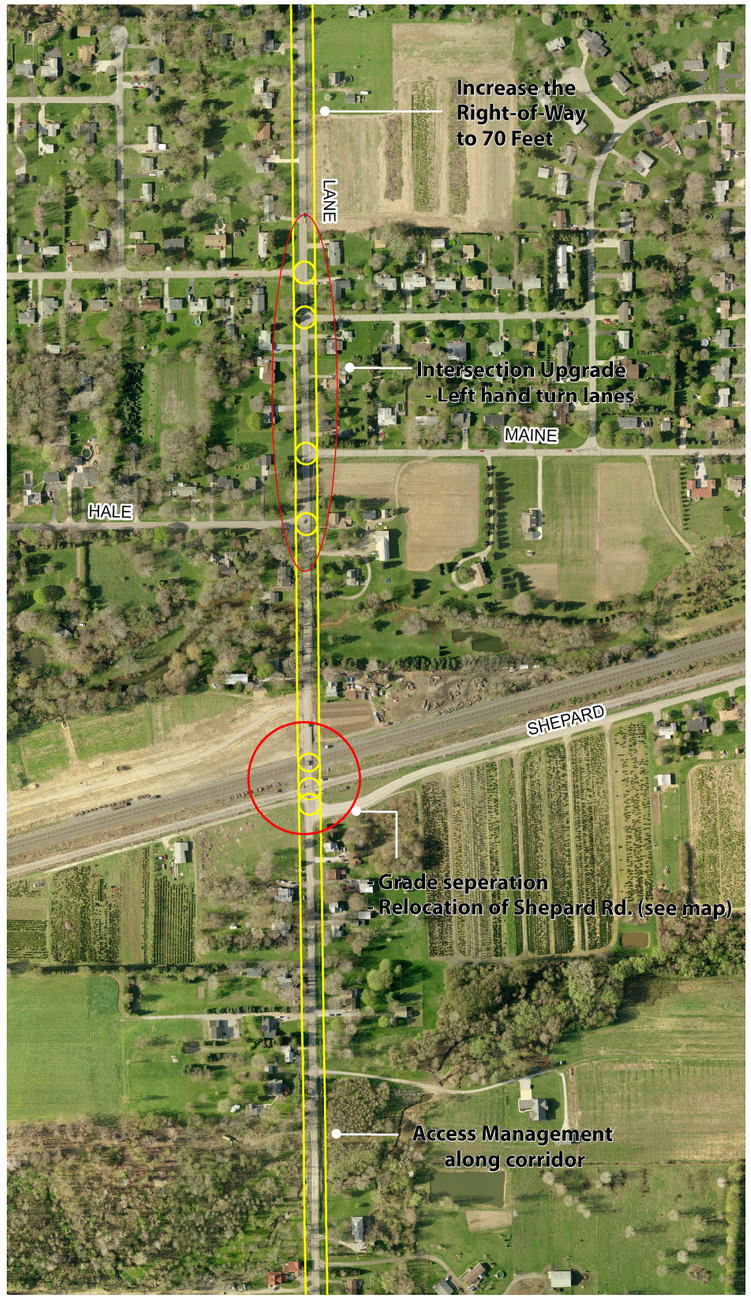
Lane Road, Narrows Road and Hale Road are major roads in the study area and they are all county roads. If Perry Township took the option of setting access management standards, they could not be implemented on these roads, they would only be effective on local subdivision streets, Lane Road Extension and Niagra Avenue. In order to get access management regulations for Lane Road, Narrows Road and Hale Road, Perry Township would have to work with the other Lake County Townships, the County Engineer and Board of County Commissioners to get them implemented.

Map 6.5: Transportation Recommendations

North (US 20 – Narrows)



Central (Narrow to CSX railroad)



South (Shepard – SR 84)

6.4 Land Use and Zoning

As the primary tool for comprehensive plan implementation, zoning codes are comprehensive cookbooks for day-to-day development decisions in a community. They expand on the information in the comprehensive plan by providing parcel-specific regulations for the location of different land uses, regulation of those uses, and detailed specifications for the site planning and design of proposed development. Enacted and enforcing zoning regulations are the primary form of development control available to Ohio Townships. The strategies discussed and shown on Map 6.6 are considered long-term zoning recommendations to assist in preserving the semi-rural atmosphere and agricultural base of the community while encouraging responsible economic development activities.

1. **Examine the amount and location of industrial zoned land.**

   The Township has made a commitment to develop the land that is zoned industrial and located in the Joint Economic Development District. The Township should consider reducing the amount of industrial land in other parts of the township and encourage development in the designated JEDD areas to the north. If feasible, controlled expansion of capital infrastructure to portions of the Shepard Rd. corridor could expand on an existing industrial base. As noted in Chapter 5, approximately 2,000 acres are zoned for industrial uses, but less than 200 are currently classified as such in the land use analysis. This plan recommends a reduction of industrial zoned land in the central/southern portion of the study area. This area does not have sanitary sewer and is not conducive to high end industrial operations.

2. **Consider mixed use development along the waterfront.**

   Undeveloped Lake Erie Shoreline land is in limited supply in Ohio. This study recommends that the township look for the highest and best use for the land along the shoreline in the study area. While some businesses may be water dependent, the vast majority are not and do not require a waterfront location. Proper zoning and land development guidelines can be established to accommodate both waterfront development and industrial businesses.

3. **Continue to examine replacement linear commercial zoning** *(strip zoning)***.**

   Strip zoning is the practice of zoning land per a distance off the right-of-way line or centerline and not taking in accoutant property lines. This was a common practice during the 1950's and 1960's when it was difficult to show current property lines accurately. This creates the issue of split zoning of parcels, parcels that have two zoning districts. These parcels are difficult to administer because of the differences in lot size, frontage, setbacks and uses between the districts. This plan recommends that parcels that have split zoning between the B-1 and R-1 along US 20, Narrows Road and Lane Road and the lots that have split zoning of B-2 and I-3 or I-2 along US 20, Lane Road Extension and Blackmore Road be adjusted to one district. The township has been proactive in correcting this pattern on the SR 84 corridor.

   Current technologies allow communities to precisely located properties lines on a zoning map.

4. **Examine the feasibility of a commercial node along Lane Rd.**

   Over the long term, new commercial and retail opportunities may develop at State Route 84 and Lane Road if the Vrooman Road Bridge is replaced with a new high level bridge. If appropriate infrastructure exists, this plan recommends creating a commercial node at this intersection to capitalize on future traffic. This is a more appropriate use for commercial uses when compared to some of the commercially zoned land located along the SR 84 corridor in more rural parts of the township.

5. **Replace industrial zoned land with moderate to low density residential**

   Land currently zoned R-1 and land proposed to be rezoned from industrial to residential uses south of the CSX tracks should consider using one of the existing larger lot zoning districts (ER-1, ER-2 or ER-3) to reduce long term build-out, maintain a similar density, and reduce the number of driveway connections. The larger lots will help preserve the semi-rural atmosphere of Perry Township.

6. **Examine non-conforming land uses (long term)**

   Non-conforming uses in the study area should be addressed. Multi-family was a permitted use in the B-1 district until 2005. The Avenue Condominiums, Canterbury Crossings and Pebble Creek are all currently legal non-conforming uses in the B-1 district and all the current B-1 uses could be done in these developments. The Township should consider a new district to eliminate this issue.

7. **Consider natural features of the land during development review process**

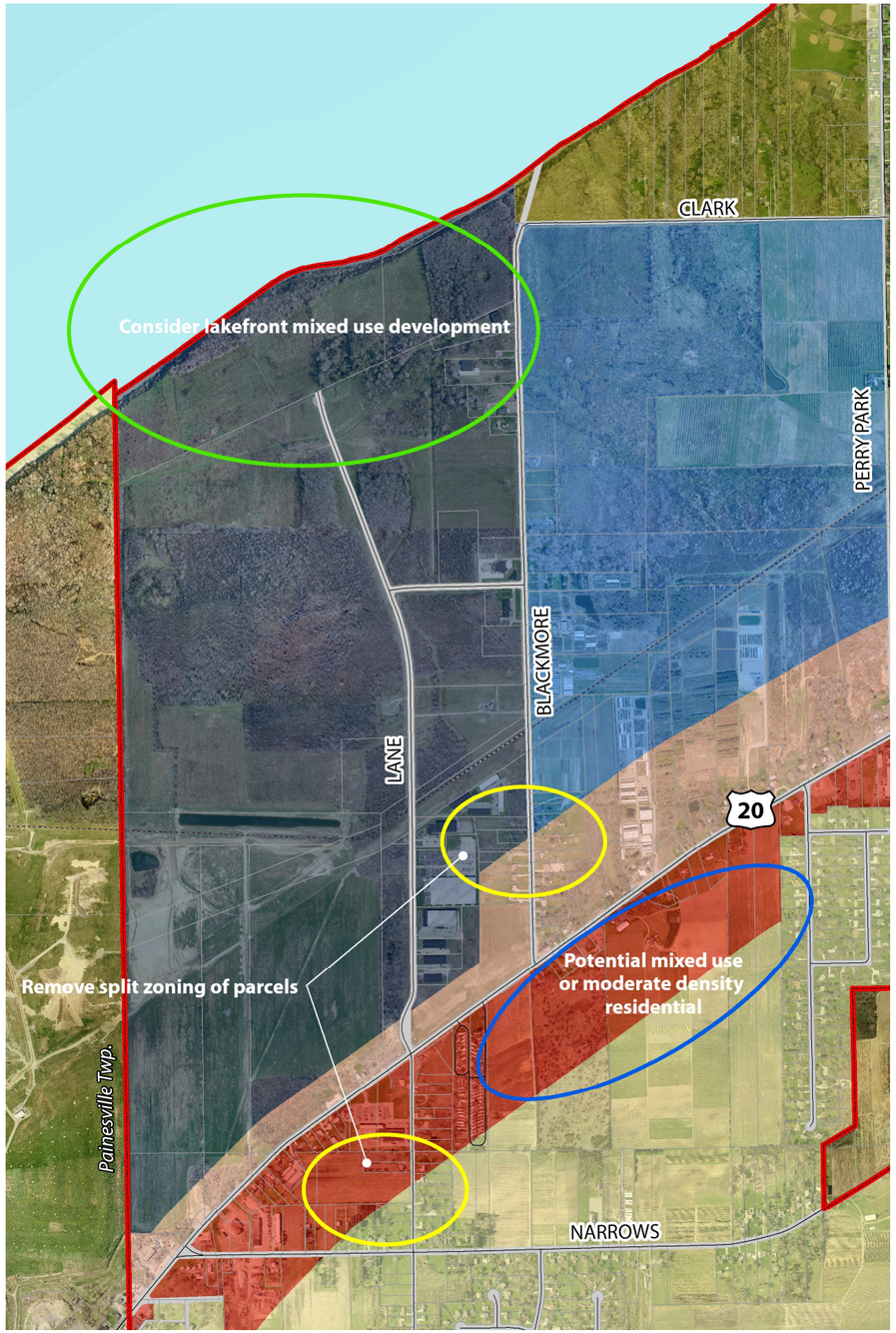
   Chapter 5 discusses various natural features that should be considered while evaluating future developments. Encourage developers to work within the context of the site and encourage local boards to be flexible in their rules pertaining to layout. For example, encourage variances for standard building setbacks if the resulting action minimizes the impact on a stream, wetland or floodplain. Consider the agricultural potential and value of certain soils when evaluating plans for large-scale development. Consider impacts on existing agricultural operations as criteria for development approval, and require mitigation for any detrimental impacts. This includes considering the impact to the drainage pattern and water supply on existing agricultural operations and fallow agricultural land. Provide adequate buffers with development adjacent to agricultural land, to minimize conflicts and complaints concerning standard agricultural practices.

6.5 Summary

While the plan presents strategies to be pursued, future events, broad changes in community values, or the availability of financing could cause township leaders and residents to focus on other goals. However, it is good civic stewardship to ensure that revisions conform to the spirit of the plan and sound planning principles, and consider the best interest of the community as a whole. It is important to review plans on a regular basis and keep them up to date.

Map 6.6: Comprehensive Zoning Strategy

North



Central/South