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2.1 History of Independence

The City of Independence was incorporated in 1842 and originally included the block surrounding the Kenton County Courthouse. Independence had been designated as the county seat two years earlier when Kenton County was established. At this time there were no paved roads in the area and the primary means of travel was the "Independence Turnpike" a precursor to today's Madison Pike (KY 17). This road was a privately operated toll road following the Banklick Creek and linking Independence with the City of Covington. Covintong is directly across the river from Cincinnati, Ohio and had significantly more population and commercial activity.

The boundaries of the City were enlarged in 1858 to include a 165 acre area surrounding the Courthouse. At this time a small commercial district had developed to serve the needs of the local residents as well as the administrative functions associated with the Courthouse.

In 1860 the Kentucky General Assembly divided the county into two districts and established a courthouse in the City of Covington making Covington the second county seat.

While Churches and schools were established to serve the local community, the railroads were constructed to link the City of Covington with central Kentucky and bypassing Independence. However, in 1898 Independence Turnpike was purchased by the Louisville and Nashville (L&N) Railroad providing stage coach services between Independence and Covington. This route served as the primary means for local residents to access markets in Covington and Cincinnati. The railroad also established a station approximately 2 miles west of the Courthouse which led to the construction of Independence Station Road linking the station with the Courthouse Square. Covington and Cincinnati could be reached in approximately 30 minutes via railroad.

Through the beginning of the twentieth century the City remained predominately rural except for a small commercial district surrounding the Courthouse located at the corner of Madison Pike and McCullum Pike. By the turn of the century the major routes which at that time served the city had been established as private unpaved toll roads. This included Big Bone Turnpike (KY 536), Madison Turnpike (KY 17) and Banklick Turnpike (KY 2045).

During the first half of the twentieth century the Commonwealth of Kentucky and Kenton County began to purchase the private toll roads serving the area. The tolls on the Independence Turnpike were eliminated in 1912. By 1916 the Independence Turnpike had been extended south to Harrison County and was paved between Independence and Covington.

Tinted post card view of Kenton County Court House, c.1910 Source: www.wikipedia.ora



During the early decades of twentieth century automobile travel became commonplace. Independence gradually grew in population and area. Electricity was brought to the area in 1925. The individual schools were consolidated. Simon Kenton High School opened in 1937. As automobile use increased railroad passenger traffic declined and service from Independence was discontinued.

Independence grew significantly between 1960 to 1984 as a result of annexation. The City experienced a surge in population when water distribution lines were extended to the area in 1961. The annexations initially followed Madison Pike and then areas to the east and west from Taylor Mill Road to the Boone County line. The section of the city known as Cherokee was annexed in the 1960's. This area included large portions of Taylor Mill Road (KY 16). Independence then expanded towards the west, annexing the Beechgrove area in the early to mid 1970's. In 1981, the City extended westward to the Boone County line, annexing all of the area from Turkeyfoot Road

Tinted post card view of the Metcalfe-Stephens House, c. 1910 Source: www.wikipedia.org



to the railroad over pass on Industrial Road. The city now encompasses an area of approximately 23 square miles.

During the 1960's and 70's the city began to transform from a predominately rural agricultural area to a bedroom community. This was aided by the construction of the Interstate system including I-75 and I-275. Although the interstates did not provide direct access, it created vastly improved access to and from the west via I-75 and to and from the north via I-275. A full service interchange on Madison Pike from I-275 also helped in access to the City. Travel times to the surrounding areas of Northern Kentucky and Greater Cincinnati were substantially reduced.

Residential growth continued to accelerate toward the end of the twentieth century and continues today. The population of the City has doubled in the past 20 years, making it the fastest growing city in Northern Kentucky. The population according to the 2000 census was 14,981 and 2006 population estimate, according to U.S. Census Bureau, was 22,807 for an estimated 52 percent increase in population.

2.2 Summary Market Study and Demographics (as provided by GEM Public Sector Services)

Definition of the Study Area

It was felt a market and demographics study could provide accurate information about economic conditions and growth patterns in the study area. These facts have supplemented the design recommendations presented later in this document. The following text summarizes the findings of the market study as provided by GEM Public Sector Services. While the study area outlined in Chapter 1 Section 1.3 is the focus of attention for development purposes, the following market analysis encompasses a much larger area that extends beyond the City Limits of Independence into several adjacent communities. The importance of the "New" KY 17 corridor as a primary north-south transportation route through Kenton County requires the analysis of a larger area that comprises the potential trading area for commercial enterprises that are, or will be, located along the "New" KY 17 or along the traditional Madison Pike corridor in Independence.

Purpose of the Market Study Analysis

The purpose of the analysis is to determine the range of potential land uses that can be accommodated throughout the study area in the City of Independence, now and in the future, based on the needs demonstrated by the marketplace.

Objective of the Market Study Analysis

The objective of the analysis is to provide market-based information that will enable officials of the City of Independence to develop plans for the future of the city, and its environs. The analysis will assist the City in developing strategies, initiatives, and plans to serve the needs of residents of the community and provide for business opportunities that meet market demand.

The Specific Question(s) To Be Answered

The analytical questions to be answered in the following report are:

- 1. What is the current status of the City and how competitive are existing developments?
- 2. What are the consumer and business needs in the community?
- 3. What business opportunities could be developed on the basis of market demand?
- 4. How will future trends influence land use needs in the study areas of the City?
- 5. Are there business opportunities for revitalized and/or redeveloped properties on Madison Pike?
- 6. Is there anything that the City can do to encourage commercial uses on Madison Pike (KY 17) in the future?

What Analytical Methodologies Have Been Used in This Market Study Analysis

The methodologies applied during the course of this analysis include the use of both primary research and secondary data. Demographic data has been obtained from several public and proprietary sources that have been identified throughout this report. Basic quantitative methods have been applied to develop useable information from the data that has been obtained. Of course, the analyst's observations, judgment and conclusions are also contained in this report.

Demographic Highlights

The demographic and economic composition of a community relates directly to the market opportunities that exist. The characteristics of every community are unique. Identifying and understanding the composition of a community is the first step to uncovering opportunities for growth, development, reuse and redevelopment.

Even if a community faces challenges it is important to understand the exact nature of these challenges in order to develop policies, programs, and initiatives that are designed to address community needs.

It is important to note that field observations regarding future growth in Independence are significantly more robust than the projections provided by secondary, proprietary sources. In some cases the information provided by field observation is sufficiently reliable and important to cause revisions in the demographic projections. In other cases, the data provided by the proprietary demographic sources is the best information available. The reader is advised to review the demographic tables in the Appendices of this report. Field observations that have been used to amend proprietary projections are clearly stated. Some details regarding the make-up of the substantial growth that is in progress in the City of Independence will only be revealed after the next decennial census. In the meantime, it has been assumed that the composition of the community will be essentially consistent with the data provided by proprietary sources at this time.

Field observations strongly suggest that the City of Independence may be challenged to expand the capacity of City services to keep pace with development. Opportunities for growth and development will be abundant. The City appears to be in a position to be selective regarding its future growth. Managing the pace and types of future growth appears to be the City's dilemma. There are likely to be more choices for future growth than the City will be able to accommodate.

Population and Household Summary Demographics

Population and household demographics represent the most basic building block of data for any market study. The numbers of individuals and households are the two most basic decision making units in the marketplace. Their number and the growth trend for population and households in the near future hold the key to the attractiveness of any market for the full range of goods and services the population, and households, seek in the marketplace.

A field estimate of population is based on an imputation drawn from housing data compiled by the City of Independence. The overall number of housing units has grown so dramatically since 2000 that the 2006 population estimate imputed from housing growth suggests a total 2006 population in the City of Independence of approximately 22,807. This represents an increase of 7,826 persons since 2000 with the near-term projection for 2011 totaling approximately 28,284. Based on the pace of housing growth in the City, which is projected to continue at the same pace as the time period between 2000 and 2006, the

population of Independence is projected to almost double from 2000 through 2011.

The population estimate for 2006 and the projection for 2011 were both based on actual and projected housing growth in the City with the number of persons per new household based on the City average estimated by proprietary demographic sources. It should be noted that the average number of persons per ownership household is slightly higher than the average for all households, as indicated by Census data, but the overall average has been applied, nevertheless.

The pace of growth is robust. The pace of growth also indicates the significance of the City's location along the primary local transportation corridor; KY 17. The opportunities for economic development in the future are substantial, and the challenges for growth management are equally challenging for the City. A population in 2011 of almost twice as many persons as lived in the City in 2000 is difficult for any City to absorb and expand its capacity to deliver urban services at the levels the City's inhabitants have grown accustomed to receiving.

Population Trends Analysis (Refer Exhibit M-2), summarizes the population, household, and population age demographic trends for the City of Independence.

Population Age Demographics

Growth has been projected for all age brackets of the population between 2000 and 2011 with the largest growth in the age brackets from 20 to 64. The second largest growth bracket is between the ages of 5 and 19. These statistics suggest that population growth appears to be consistent with housing growth in the City and its environs which has been predominantly focused on the "move-up" market for housing. Worthy of mention is growth in the age bracket from 25-34. Independence is projected to experience growth in this age bracket through 2011. The projected trend is the opposite of projections for Kenton County. Independence also runs counter to the downward trend estimated through 2006 for the Cincinnati MSA, but consistent with projected growth in the 25 to 34, age bracket in the Cincinnati MSA between 2006 and 2011. Statewide estimates and projections suggest that a decline in this age bracket over the period from 1990 through 2000 years will begin to reverse itself between 2000 and 2011. National trends are similar to those observed in the state and local areas. This segment of the population is important because it has been the age bracket of the largest population declines in recent decennial censuses.

The estimates and projections strongly suggest that new residents are families with children. The numbers of children in the City is estimated to have grown over 2,400 persons between 2000 and 2006. The bulk of this growth has occurred in the age brackets of "school age" children. The estimates indicate that the local schools may be having trouble keeping pace with the growth of the student population. Preschool age

children are also growing substantially as a part of the population indicating that the schools may have to add capacity for an extended period of time.

While the numbers of households and the population are important indicators for business, age brackets are important for the marketing of specific categories of goods and services. The more youthful segments of the population tend to be stronger consumers of retail goods and services as well as entertainment and food service. Therefore, market demand is influenced by the dominant age brackets of the population along with the actual numbers of people in the market area under study.

The senior age brackets of the population may not be as strong for consumer goods and entertainment, but they are in the significant age brackets for health care, retirement housing products and household services. The City is projected to see growth in the senior segments of the population; defined as the age brackets from 55 up. However, the City of Independence is projected to be somewhat more youthful than Kenton County or the Cincinnati MSA in the future. This observation is drawn from median age estimates and projections for the various geographic areas included for context.

Population Trends Analysis (Refer Exhibit M-2), summarizes the population, household, and population age demographic trends for the City of Independence.

Household Income Demographics

Household income demographics speak to the ability of households to meet the economic necessities of living as well as the ability of households to expend portions of their income on discretionary consumer goods and services.

The household income demographics for the City of Independence are mixed relative to Kenton County, and comparable household statistics for the Cincinnati MSA and the nation. Household income numbers in Independence compare favorably with the Commonwealth of Kentucky. These statistics are somewhat surprising given the relatively low percentage of single person households in Independence. It must be noted that the household income estimates and projections are based on proprietary demographers' numbers. Local housing growth suggests that the City's household income numbers should compare more favorably with the context geographic areas, but there is no way to accurately validate this assumption in the marketplace.

Some of the most important information that can be drawn from household income demographics revolves around the combination of household growth and household income. The combination of these two demographic characteristics indicates the magnitude growth in the local economy and the magnitude of untapped consumer expenditure potential. In the City of Independence, Kentucky, demographers have indicated that 561 households should have been added between 2000 and 2006. Field measurements, taken from building and demolition records of the City for these years far exceed the demographers' estimates; approximately 2,878 households have been added to the City. Based on the number of households in the City in 2000; 5,181, and an average household income of \$56,264, total income of City households was \$291,503,784. Growth, by field observation, between 2000 and 2006 has increased

total households in the City to 8,059 with average household income of \$59,693; a total City wide household income of \$481,065,887. Total income of households in the City has increased as the result of the combination of these two growth factors by \$189,562,103; growth of 65% in six years. Growth is projected to continue at a similar pace between 2006 and 2011. An additional 2,115 households are to be added in the next five years bringing total households to 10,174 in 2011. Average household income is

projected to grow \$64,803 in 2011. Total household income in the City of Independence is projected to be \$659,305,722 in 2011; an increase of \$178,239,835 or 37% in the next five years. The total household income of Independence is estimated to grow by \$367,801,938 between 2000 and 2011. Growth between 2000 and 2011 is divided between increased household incomes of households in Independence in 2000; \$44,240,559, and \$323,561,379 added to the total household income in Independence by new households.

Household Income Trends Comparison Index: Average Income

Source: GEM Public Sector Services, data provided by demographicsnow.com

	CITY OF INDEPENDENCE	KENTON COUNTY	CINCINNATI MSA	STATE OF KY	UNITED STATES	CPI-U
1990						
Average Household Income	\$37,841	\$36,436	\$37,936	\$29,357	\$38,464	128.9
Change Index	N/A	N/A	N/A	N/A	N/A	N/A
Median Household Income	\$35,849	\$30,558	\$30,688	\$22,568	\$30,102	
Change Index	N/A	N/A	N/A	N/A	N/A	
Per Capita Income	\$12,402	\$13,575	\$14,271	\$11,137	\$14,381	
Change Index	N/A	N/A	N/A	N/A	N/A	
2000						
Average Household Income	\$56,264	\$55,828	\$58,274	\$45,246	\$56,643	171.3
Change Index	1.49	1.53	1.54	1.54	1.47	1.33
Median Household Income	\$51,065	\$44,092	\$44,853	\$33,831	\$42,257	
Change Index	1.42	1.44	1.46	1.50	1.40	
Per Capita Income	\$19,458	\$21,910	\$22,596	\$17,807	\$21,231	
Change Index	1.57	1.61	1.58	1.60	1.48	
2006 Estimate						
Average Household Income	\$59,693	\$62,903	\$65,305	\$50,373	\$63,629	201.5
Change Index	1.06	1.13	1.12	1.11	1.12	1.18
Median Household Income	\$57,896	\$50,333	\$51,873	\$38,022	\$48,271	
Change Index	1.13	1.14	1.16	1.12	1.14	
Per Capita Income	\$21,072	\$25,808	\$26,098	\$20,698	\$24,529	
Change Index	1.08	1.18	1.15	1.16	1.16	
2011 Projection						
Average Household Income	\$64,803	\$67,971	\$70,715	\$54,496	\$68,881	227.4
Change Index	1.09	1.08	1.08	1.08	1.08	1.13
Median Household Income	\$62,816	\$54,676	\$56,918	\$41,523	\$52,633	
Change Index	1.08	1.09	1.10	1.09	1.09	
Per Capita Income	\$23,236	\$28,247	\$28,377	\$22,609	\$26,492	
Change Index	1.10	1.09	1.09	1.09	1.08	

Income comparisons suggest that household income measures for Independence outpaced the rate of inflation between 1990 and 2000, have struggled to keep pace with inflation between 2000 and 2006, and may lag inflation between 2006 and 2011. This comparison, by itself does not reveal the dynamic growth fueled by new households in the City.

These projections play a significant role in the market for retail space and/or land for new retail development. Of course, markets are not confined to political subdivisions, so similar demographic data for Kenton County, and beyond, is important in retail land use projections as well. This discussion will be resumed in the following sections of this report.

For more details regarding household income demographics for the City of Independence and the markets that comprise the context for this discussion and report see Household Income Trends by Age of Head of Household 2000-2011 (Refer Exhibit M-1), and Household Income Trends Comparison Index (Refer Table on the previous page).

Housing Market Observations and Conclusions

Based on the current and projected pace of housing growth in Independence, the city should be approximately 1.92 times the size it was in 2000. The housing inventory will have grown from 5,387 units in 2000, to approximately 8,251 units, today, and to approximately 10,366 housing units by 2011. For more details regarding housing unit growth, see Housing Units Comparison; 1990-2011 (Refer Table on the next page).

Based on observation and field-based estimates and projections, vacancy rates in Independence should be at, or below, 2.0% from now through 2011. This indicates a very strong housing market with a supply constraint. Traditionally, a 5% market vacancy rate has been regarded as representative of a stable (supply/demand balanced) market.

Typical Housing Development in Independence



The overwhelming market for new growth is the owner-occupied housing segment comprised of freestanding, single-family homes on suburban lots. This is the segment of the housing market that is expected to continue to propel the Independence housing market through 2011.

While it would be a break with the dominant form of housing being built in Independence today, more diverse housing products should be considered in the future. Higher density housing products for younger persons as well as senior citizens could have roles in Independence. There is no question, Independence has a robust

Housing Units Comparison: 1990-2007

Source: GEM Public Sector Services, data provided by demographicsnow.com

	CITY OF INDEPE	NDENCE	KENTON C	OUNTY	CINCINNA	ATI MSA	STATE C	F KY	UNITED ST	ATES
1990 Housing Units										
Total Housing Units:	3,621		56,074		732,556		1,506,836		102,264,033	
Owner-Occupied	2,748	75.90%	34,654	61.80%	212,100	60.90%	2,758,162	63.70%	59,006,347	57.70%
Renter-Occupied Vacant	713 159	19.70% 4.40%	18,000 3,421	32.10% 6.10%	111,281 18,873	33.20% 6.00%	1,329,401 284,407	27.80% 8.40%	32,929,019 10,328,667	
2000 Hamila a Haita			,		,		•			
2000 Housing Units										
Total Housing Units:	5,387		63,571		833,067		1,750,927		115,904,641	
Owner-Occupied	4,078	75.70%	39,478	62.10%	227,299	62.90%	3,072,522	64.30%	69,774,594	60.20%
Renter-Occupied Vacant	1,099 205	20.40% 3.80%	19,961 4,132	31.40% 6.50%	111,772 25,336	30.60% 6.50%	1,373,251 337,278	26.60% 9.20%	35,698,629 10,431,418	30.80% 9.00%
vacani	203	3.00%	4,132	0.30%	23,330	0.30%	337,276	7.20%	10,431,416	7.00/0
2006 Housing Units by Observation										
Total Housing Units	8,251		68,681		903,195		1,886,641		125,895,757	
Owner-Occupied	6,926	83.94%	40,316	58.70%	236,950	61.20%	3,187,269	62.00%	75,537,454	60.00%
Renter-Occupied	1,133	13.73%	21,428	31.20%	103,415	28.40%	' '	26.70%	, ,	
Vacant	192	2.33%	7,005	10.20%	35,502	10.40%	440,423	11.30%	14,100,325	11.20%
2011 Housing Units										
by Observation										
Total Housing Units	10,366		72,722		962,393		1,997,696		134,192,370	
Owner-Occupied	9,001	86.83%	40,942	56.30%	246,321	60.00%	3,294,858	60.30%	80,112,845	59.70%
Renter-Occupied	1,173	11.32%	22,471	30.90%	95,537	26.80%	' '	26.80%	, ,	
Vacant	192	1.85%	9,308	12.80%	44,869	13.20%	445,644	12.90%	17,176,623	12.80%

housing market, but it is concentrated in essentially one product type; freestanding, single-family homes in low density residential subdivisions. There is also no question that the housing in Independence appears to be popular with upwardly mobile families. Once again this is only a segment of the population that could find Independence to be a desirable place to live. Younger persons who have not yet reached the family formation years and seniors who may no longer want the responsibilities of freestanding homes are two large segments of the population that appear to be without new housing alternatives in Independence. The point of this observation is that there are higher density housing products that could be developed to serve more segments of the housing market for ownership and for rental. These housing products are higher density products that can be interspersed in a suburban community like Independence without changing the character of the community, in general. New, higher density residential products for specific segments of the housing market should be a part of the future in Independence whether for sale or for rent.

The magnitude of residential growth in Independence is very likely to be followed by equally dynamic commercial development. The pace of growth in the housing market and that projected for the commercial development market may strain City services and school capacity in Independence. The magnitude and possibly the range of City services will have to expand in the coming years.

Office and Industrial Market Observations and Conclusions

At the present time Independence does not appear to have much of a competitive market supply of existing office or service business buildings to address any potential market demand that comes its way.

The analysis above suggests that a dynamic market for office and service business space is on the horizon in Independence. A simplified calculation suggests that the underserved segments of the medical, professional, and service business markets could require as much as 600,000 square feet, more or less, to balance market supply of businesses with indigenous market demand. This calculation only takes into account the demand generated by Independence residents. The market can easily expand well beyond the limits of the City based on the improved roadway access that will be afforded by the new State Route 17. Of course, the City will never retain all of the indigenous demand its residents generate for services, but the trade off between residents going elsewhere for services and the influx of non-residents to well located businesses in Independence will hopefully balance or be skewed in favor of Independence based businesses in the future. This favorable balance is dependent on recruiting the "right" businesses to the "right" locations in Independence. Much of this direction will be to new improvements on newly developed sites. Managing the development process will be crucial to the outcome for the City.

Based on current market conditions and what appear to be significant future market opportunities, the City may wish to position itself to address market opportunities when presented through cooperative relationships with property owners who understand and embrace the desires of the City to enhance employment opportunities within Independence while not just yielding to development pressure to build any project that comes along. This approach to commercial development of all types will be necessary in order to manage the growth and future development of Independence to retain as much of the current "feel" of the community as possible while it continues to grow and evolve.

Retail Market Observations and Conclusions

The City of Independence has an established, but limited retail business base within a recognized trading area. The trading areas in this market analysis have been defined by drive-times from an epicenter at the intersection of Madison Pike (KY 17) and McCullum Road. Trading area measurement points have been established at the five minutes, ten minutes, and fifteen minutes drive-times from the epicenter. For more details regarding current market capture for retail and service businesses in the City of Independence and the drive-time markets, see 2006 and 2011 Field Estimates for Retail and Service Business Market Capture (Refer Table in Exhibit M-2), and maps of the Drive-time Areas from Madison Pike (KY 17) and McCullum Road.

Retail Development in Independence



The City has been experiencing dramatic growth, now as a part of the rapid urbanization of Kenton County. The retail centers on the landscape in the City are no longer current for many of the large-scale retailers that comprise the anchor tenant base in the region and the nation. In addition, the urbanization of the County in general means that retailers have a more widely dispersed customer base than in the past and new retail venues are emerging elsewhere in Kenton County to compete with the older, established centers in the City of Independence and elsewhere.

The City has added limited retail developments as needed in the past, but is now at the point where it may be the epicenter of future retail market growth for a trading area that is broader than the City's jurisdiction. New competition and planned introductions of new retail venues in close proximity to existing retail venues in the City may overshadow the existing retail business base potentially destabilizing the markets for these existing retailers and/or the locations they currently occupy.

The relocation of Kentucky Route 17 to a new right-of-way away from the Madison Pike corridor, except at the southern edge of the study area and the City, will almost certainly make many existing retail venues on the corridor functionally obsolescent forcing the relocation of many existing merchants. The "traditional downtown" on the Madison Pike (KY 17) corridor could become the location of a number of small, locally owned, site based service businesses and specialty retailers. The successful transition of this" downtown corridor" in Independence while there is a significant amount of commercial expansion in the City could be crucial to the future success of this business district.

The City must focus on facilitating reuse and redevelopment of functionally obsolescent retail, and other, space in the City while urban growth is in progress. Otherwise, new retail venues will emerge on the landscape in the City, or in close proximity to the City, thus serving the retail demand of the population and households in the Independence. Existing locations could languish in the marketplace because these new retail locations, inside and outside the City, adequately serve the retail market and eliminate the need to use rejuvenated and/or redeveloped space in the City.

The reader should be advised that retail establishments typically follow growth in progress. Therefore, the retail developments being observed in the area today are in response to the growth estimated between 2000 and 2006. This expansion of retail development should continue through 2011 if the projected population and household growth for the City and the trading area are realized. This observation reinforces a statement made above that the City should be facilitating redevelopment of obsolescent retail sites now while the overall market is still growing.

Specialty retailers have to commit the long hours to manning their stores waiting for consumers to buy something in order for the store to be able to pay its bills and remain open. This can be a "long hours for low reward proposition" for the store operators. In essence, specialty retailers may be in their twilight to be replaced by cyber merchants and even charitable organizations that have expanded vigorously into the retail market. The point of this observation is that there is a limited market for specialty merchant space in any community, but it may be extremely limited while the market is undergoing substantial growth led by established chain retailers.

When new competitive retailers emerge in close proximity to the City in the future, their retail gravity may pull small retailers, dependent on the traffic generated by strong anchor tenants, to locations in closer proximity to the epicenter of new high-traffic retail outlets. The effect would be to erode the retail merchant base in the City, most likely drawing from merchants in the new Kentucky Route 17 corridor.

A likely long-term scenario is that the City of Independence will decline in its importance as a retail center in Kenton County and beyond. This is likely be an outcome of the widespread urbanization of the southern portion of Kenton County in the future and the possible relocation of merchants who may come to Independence in the near-term, but want to be closer to the leading edge of growth in the future.

The City must try to find the elusive balance between the demand of consumers in the market today; many of whom are Independence residents, and the needs of a population and households in the future that will have more and newer choices. A projection of 322,911 square feet of new retail space would likely reduce the trading area's competitive market share by approximately one half of its relative contribution to retail expenditure potential in the future. This may be a "safe cap" on retail growth for the long term, but there will be a great deal of pressure in the short run to exceed this limit to meet current consumer demand within the context of current, competitive venues on the landscape.

While some decline in importance can be anticipated for the City's retail business base in the future, the magnitude of decline can be mitigated by aggressively positioning new and existing retail centers with uses that appeal to the convenience, neighborhood and community levels of consumer demand. These uses, described by their typical sphere of market influence could represent a relatively stable merchant base even if more competitors enter the immediate market in the future.

The Madison Pike (KY 17) corridor is a likely location for specialty merchants, but may hold even more potential for site based, consumer service businesses. While these may be small-scale businesses they will still require easy access and off-street parking. The access and parking will help to offset the inability to park on the street and the inconvenient access this condition creates. Even if these prerequisites are met, it still takes local entrepreneurs to address the potential market for their goods and/or services.

It is unlikely that start-up businesses can afford to buy and renovate space for their use. Start-ups are risky for landlords as well. It is more likely that local businesses will originate in another location in the vicinity and relocate to the Madison Pike (KY 17) corridor once their market success is assured.

General Market Observations

The City of Independence and Kenton County are in the midst of an unprecedented period of growth and urbanization. Much of the growth has come from households seeking new homes in suburban settings that offer a quality lifestyle and close proximity to urban amenities and workplaces. Much of the growth has come to the City and the County from within the metropolitan area. Kenton County and Independence are ideal residential locations for two income households in which one spouse works in the City of Cincinnati and the other works in Northern Kentucky.

The pace of growth in Independence is projected to continue through 2011 only slightly off the pace of growth between 2000 and 2006. Within this time period, the City of Independence will likely near the point of almost complete "build out" within its existing corporate boundaries. The capacity of Kenton County to accommodate additional growth once Independence has reached "build out" could dilute the influence the City currently has as a portion of the Kenton County. Certainly, the population of Independence may comprise a smaller share of the population of Kenton County than it has historically or does now given the pace of growth. Independence is witnessing fast paced growth, but it is also one of the oldest established communities in the County. Therefore, Independence must address new development while also addressing issues of age and urban decline in its "traditional downtown" on the Madison Pike (KY 17) corridor.

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The City has been able to maintain much of the character and vitality of its traditional "downtown", but the relocation of Kentucky Route 17 will bring new commercial venues that are likely to erode the consumer base of the existing commercial corridor. The shift of traffic away from the existing Madison Pike (KY 17) corridor alone is likely to force the relocation of some merchants who are dependent on the daily traffic volume for their business. Specialty merchants that populate the downtown corridor will also be challenged to maintain their business viability in the same way many locally owned retail businesses were challenged in the past to maintain their customer base in the face of intense chain retail competition. The older buildings in the Madison Pike (KY 17) corridor will require substantial investments in maintenance and renovation in order to retain their character in the future. The Madison Pike (KY 17) corridor expresses the tradition and heritage of Independence or it would not be the central corridor in the study area for which this market analysis has been conducted. The character expressed by this "traditional downtown" corridor, in part, translates into the lifestyle that brings new households to the City. As such, the downtown will require continued monitoring, private investment, and possible public intervention in order to retain its vitality in future years.

Residential growth is seen as almost a given in the next five years. Commercial growth; however, is directly related to the City's capacity to address the needs of business and industry within the City limits. The City does not appear to have an adequate supply of existing, modern, fully functional, commercial buildings of any type for prospects who do not wish to build new buildings. Conversely, the City appears to have sufficient land for future commercial, industrial, and retail development. It will be incumbent on City officials to oversee the development of the available land in the City for the most productive, long-term benefit of the City of Independence.

In general, efforts should be made to facilitate revitalization, reuse or redevelopment of existing space or sites in the Madison Pike (KY 17) corridor while the consumer market is still growing and all potential competitive venues are not yet in operation. Major developments proposed in close proximity to the Madison Pike (KY 17) corridor will draw demand away from existing locations and overshadow the competitive position of this corridor, as it exists today. These new venues could make it difficult to maintain quality tenants in existing locations along the Madison Pike (KY 17) corridor in the future. Efforts should begin before competition emerges to work with existing property owners and the developers of new venues to mitigate the impact of new locations on established locations within the City.

During the process of revitalizing the Madison Pike (KY 17) corridor and the "traditional downtown" area of Independence, a mix of land uses is likely to emerge. This mix will help facilitate the revitalization and/or restoration process in the Madison Pike (KY 17) corridor, but the concept of mixed uses should not be

overlooked in the development of new land uses in the City. There may be opportunities to introduce mixeduse commercial and residential projects that include components of retail and office uses in conjunction with high-density residential products for the local market.

In general, there are two ways to create mixed-use developments. The first way is to mix uses within the shell of a single, multi-story building. This is a vertical mix of uses; retail on the first floor, office space on the second floor, and residential units on the third floor for example. The second way to mix uses is in the form of a multi-purpose campus in which individual development pods may be of single use, but the combination of pods in the development create a mix of retail, office and residential uses on the "campus" of the overall project. Both methods of creating mixed-use developments could be applicable to Independence. This type of development would be a break with the traditional form of development experienced in Independence to date, but this form of development can provide an array of uses in any new development project. Even if a mixed-use project proves desirable in Independence, market indicators should not be ignored and the scale of the development should reflect the magnitude of market demand anticipated for the products to be offered.

Specific Recommendations for Madison Pike (KY 17) and the Study Area

Madison Pike (KY 17) is the traditional "downtown" corridor of Independence and should be a natural corridor for expansion of the image and character that is what the City of Independence wants to project in the future.

Prospects for revitalized and restored historic structures and small-scale commercial buildings are a small niche of the market. Frequently, the cost of revitalizing or restoring an old structure is more expensive than building a new structure of equivalent size. Buyers can be surprised by the oversight of "landmarks commissions" or "historic preservation" groups that may have regulatory authority over restoration projects. These surprises usually result in additional time and money than was originally planned for restoration projects. Because of the number of unknowns in any revitalization or restoration project, financial institutions are reluctant to lend on these projects.

When completed, a project may have historical appearance, but it must be fully functional space in the context of the occupant's competitive market. This means the restoration must have modern climate control with energy efficiency. ADA compliance is a requirement. Telephone, communications and data linkages must be state of the art. Signage must be clearly observable from the street at normal speeds. The occupant must have easy access along with an identity and visibility. The Madison Pike (KY 17) corridor does not accommodate "on street" parking. Employees and customers are likely to arrive by car. Contiguous, on-site parking and access from the primary thoroughfare or side streets is an absolute prerequisite to successful restoration/revitalization. Parking and its access must be clearly labeled with way finding directional signage if necessary. The parking and access requirements may be among the most important prerequisites to restoration/revitalization of the corridor.

If restoration is not possible, new construction utilizing complementary architectural cues and building materials should be permitted. Some effort should be devoted to maintaining a consistent scale between restored and new structures in the corridor if this situation arises. A complementary new structure in the corridor will be better in the long term than languishing properties interspersed with restored properties.

The City should be proactive in setting the stage for restoration, revitalization, and/or redevelopment by securing reciprocal easements for access and off-street parking. The City should consider facilitating financing for restoration projects in conjunction with local financial institutions. In addition, the City should be willing to "buy down" costs in excess of new construction and/or appraised values as restored. A "loan convertible to grant" type program secured by a junior lien may be the means to accomplish this goal. Obviously, some of the regulatory and oversight concerns expressed above should be clearly stated so that potential buyers know precisely what hurdles they will have to clear and who will be responsible for approving

their plans. A "how to" guide may be in order. Finally, the City may want to consider a demonstration project. This is essentially speculative development, but it may be useful as a "pump priming" exercise. This

step should only be taken if none of the other steps results in any market interest.

Independence Independence

The reader should remember prospects for restored and revitalized properties represent a niche in the general market. Many users of professional or general office space want "new" space. This segment of the market will not be attracted to existing buildings in the Madison Pike (KY 17) corridor, but could be attracted to the corridor if redevelopment opportunities also exist. Maintaining the scale of new projects will be important to the overall character of the corridor, so some market participants will not fit in the corridor under any circumstances.

Finally, revitalization, reuse and/or redevelopment projects are long-term projects. In many cases it has taken over twenty years to effect broad change in a targeted area. The rapid pace of growth in, and in the vicinity of, Independence should be helpful to accelerate the pace of revitalization in the Madison Pike (KY 17) corridor but, the City should not count on development elsewhere in the City benefiting the Madison Pike (KY 17) corridor or its vicinity. Some candidates for the corridor are likely to be lured to new developments based on the prospect of market growth and activity in these evolving areas as opposed to maintaining the vitality of an existing area. Nevertheless, the opportunities are definitely more plentiful when the market is in a state of general growth. This appears to characterize the circumstances of Independence today and in the near future.

2.3 Previous Reports and Plans

One intention of the Community Small Area Study is to identify the existing planning studies and the documents affecting the development in this study area. It is imperative to look for possible adjustments that need to be undertaken to keep the plans and documents effective. It is also important to acknowledge modifications to comply with the study goals of revitalization of downtown Independence and Madison Pike (KY 17) corridor. The following are the existing planning initiatives and relevant sections that the Planning Team consulted as a part of the preliminary research.

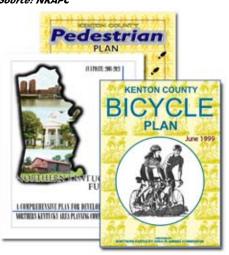
- + **2006** Areawide Comprehensive Plan Update for Kenton County by NKAPC
 The 2006 Areawide Comprehensive Plan Update covers issues such as land use, environment, public utilities etc. and recommends certain policy and implementation procedures. Pertinent recommendations are:
 - Land use regulations and future developments should encourage clustering and preservation of open space areas.

- Development guidelines to be formulated to assist in the development/redevelopment of commercial areas to address unique needs such as adequate off-street parking, landscaping, building and site design.
- Conservation of agricultural land uses and historic preservation.
- Preservation of existing and creation of integrated recreational/open spaces to be achieved with conservation subdivisions, hillside protection, riparian buffers, viewshed protection and regulatory zoning ordinance. Creation of county-wide park/link system to manage the parks and acquire additional land through Kenton County Conservancy and other organizations.
- School sites and planned park and recreational facilities to be integrated whenever possible.
- Implementation tools like subdivision regulation, zoning ordinance, building and housing codes to be applied for planned growth along with assistance from governmental funding and public infrastructural improvements.
- Specific transportation recommendations are:
 - Reducing the need for expansion of vehicular facilities.
 - Need for alternative methods of transportation including but not limited to trails and sidewalks.
 - Integration of a transportation network that effectively incorporates roadways, mass transit, rideshare programs, bicycling, and pedestrian facilities.
 - Improving mobility along arterial and collector streets.
 - Managing congestion along major roadways.

+ City of Independence Zoning Ordinance

- The zoning map (Exhibit EC-3) shows mostly Single Family Residential zones of various densities (R-1A, R-1B, R-1C, R-1C*, R-1D, R-1DD). The only Multi-Family Residential zone (R-2) is on Shaw Road just to the west of Independence Shopping Center. A Planned Unit Development zone is utilized for development on the east side of Madison Pike (KY 17) just north of the shopping center area. The retail center located on the southern end of study area is zoned Commercial [NSC (DP-3), NC, NC (DP-17)]. Other commercial zones are located along Madison Pike (KY 17) at the intersection of McCullum Pike [NC, NC (DP-14)], intersection with Independence Station Road (NC) and at the intersection of Sylvan Drive/Patriot Way [NC, NC (DP-4), NC (DP-7)].
- + **Kenton County Subdivision Regulations** (adopted August, 1978 and most recently amended October, 2006 by NKAPC) includes standards for creation of subdivisions with Planning Commission approval.

Previous Reports & Plans Source: NKAPC



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- + Strategic Regional Policy Plan by OKI Land Use Commission, adopted April, 2005
 - General recommendations are based on relation to regional transportation network and to support green infrastructure. It encourages diverse mix of housing, transit-friendly pedestrianoriented development to minimize per unit cost of public facilities and services.
- + **A Vision of Independence 2006** prepared by the City of Independence Visioning Committee

 The tremendous growth within the City of Independence led to the desire of the city leadership to
 engage in the visioning process. Although the recommendations from the process was subdivided
 based on identity, land use, economic development and quality of life issues, the broad-based
 recommendations are as follows:
 - Develop the brand identity of Independence as "small town character", rural feel", and "family friendly"
 - Re-invent the historic downtown through market analysis followed by land acquisitions, funding and grant opportunities and business incentives
 - Establish a master plan through a land use study process
 - Develop a strategy to proactively implement zoning decisions based on advanced planning and market/transportation indicators to address urban sprawl and inefficient land use.
 - Hiring a City Administrator responsible for economic development, marketing and business recruitment
 - Establish a marketing plan for new businesses with business incentive strategies
 - Improve City parks and add public spaces
 - Invest in professional signage (city entrances, street signs)
- + **Independence Citizen Survey 2005** polled the citizens on their feelings about community issues that faced the City. The major findings are outlined below:
 - Rapid growth along with traffic flow were identified as the major issues facing Independence.
 - The residents expressed that low crime makes a city a dynamic and great place to live.
 - The survey reflected that the City was considered to be a bedroom community with majority of residents either working in Cincinnati or are retired.
 - Major routes of travel were Madison Pike (KY 17) and Taylor Mill Road (Route 16).
 - Priority for commercial developments included restaurants, retail shopping, entertainment options and professional office spaces.
 - The residents indicated that police protection and public works were the most important services provided by the City.

+ Report of the City of Independence, Economic Development Committee, 2005

This report was prepared with the purpose of reviewing the city's finances and developing strategies to encourage economic development. The recommendations were divided in broad categories as mentioned below:

Zoning

- Retail zoning was recommended to be centralized, starting with Town Center area and spreading from there.
- With limited amount of property zoned for professional office spaces, changing the zoning in the historic downtown area would encourage small office development.
- Encouraged planned unit development zoning to combine residential and commercial properties into one development
- Contiguous residential development over various spots of development across the city was
 recommended. Development plans for multi-unit homes such as apartments, condominiums,
 and town homes was recommended to be scrutinized for appropriateness prior to approval or
 zoning changes.

Annexation

It was recommended that the city should consider annexation of property for residential development if it is contiguous to the city and is mutually beneficial to the property owner and the city.

Other recommendations were for infrastructural improvements with regards to sewer extension and marketing through open communication, hiring a Director of Economic Development and enhancing the City web page. The quality of life recommendations dealt with issues of safety, convenience (proximity to places of worship, work, school, recreation, retail and entertainment), wealth creation (jobs and investments), taxes (lower commercial taxes to attract businesses, lower real estate taxes to increase value of homes) and beauty (public works and enforcement of zoning)

Transportation Studies

The transportation system within the study area has been included in several regional and county wide planning documents which provide guidance on achieving the transportation goals. Planning Documents concerning transportation which are applicable to the Study Area include the following:

Ohio-Kentucky-Indiana Regional Council of Governments (OKI) 2030 Long Range Transportation Plan (LRTP) was adopted in 2004 and also includes subsequent updates, is the official document summarizing the long term transportation needs of the metropolitan region.

Kenton County Transportation Plan - Completed in March 2003, an initiative of the Kenton County Fiscal Court, by the Ohio-Kentucky-Indiana Regional Council of Governments in partnership with the Northern Kentucky Area Planning Commission, the Transit Authority of Northern Kentucky and the Kentucky Transportation Cabinet. The plan places a strong emphasis on the need for multi-modal transportation

improvements in the County. Within the study core area recommendations were made for the widening of KY-536 as well as the reconstruction of McCullum Pike (KY-2045) between KY-17 and KY-16. With respect to improvements of County Roads, Independence Station Road and Oliver Road were highly ranked for needed improvements to safety, geometry and capacity.

Kenton County Pedestrian Plan - In June 2001, the Kenton County Pedestrian Plan was completed by the Northern Kentucky Area Planning Commission for the Ohio-Kentucky-Indiana Regional Council of Governments. The study was initiated as an effort to begin to improve the walking conditions for residents throughout Kenton County. The specific goals of the plan are as follows:

Madison Pike near Independence Station Road



- + Development of a countywide pedestrian system that is integrated with other transportation system.
- + Provide a safe and convenient pedestrian environment.
- + Advocate and encourage land development that is compatible with and incorporate conveniently located (essential) services, accessible by pedestrians and other non-motorized transportation.

Observations of the study area include absence of sidewalks along Madison Pike (KY 17) which may connect the Summit View Elementary and Middle Schools located at the north gateway of Independence. Specific recommendations include using the Ped Shed approach for new development and evaluate sidewalk improvement of existing development to ensure maximum accessibility.

Kenton County Bicycle Plan - The Kenton County Bicycle Plan was completed in June 1999 by the Northern Kentucky Area Planning Commission for the Ohio-Kentucky-Indiana Regional Council of Governments. In an effort to make Kenton County a more multi-modal friendly community, this study aims to lay the framework for a comprehensive bicycle network throughout Kenton County. Plans for the "new" KY-17 mentions the paved shoulder to be a shoulder bikeway through Harris Pike within the study area. Also the Proposed Bikeway Plan depicts a "Primary Bikeway" in the north end along Madison Pike (KY 17) from the intersection with "New" KY-17 till Independence Station Road and a "Secondary Bikeway" along Madison Pike (KY 17) from Independence Station Road till Harris Pike.

Kentucky Transportation Cabinet 6-Year Highway Plan 2006-2012 - This plan is the official planning document listing Cabinet funded transportation projects for the next six years. These projects include both maintenance and system preservation as well as selected capacity addition projects. This plan is updated on a biannual basis. The only project within the study area in the current plan is the widening and reconstruction of KY-536 from Boone County to KY-17.

Kenton County Unscheduled Project Needs List - The Kentucky Transportation Cabinet seeks to identify and prioritize local transportation projects in the development of its biannual update to the Six-Year Highway Plan. The Cabinet in conjunction with the local communities and Area Development District or Metropolitan

Planning Organization (OKI) develops an unscheduled needs list by County which documents potential projects identified by local communities. There is not a commitment to fund or implement the listed projects but they serve as a precursor to additional project development. Within the study area there are two projects on the Unscheduled Project Needs List:

- 1. The reconstruction of Madison Pike (KY 17) with curbs and sidewalks from Independence Station Road to Locust Lane
- 2. The widening and reconstruction of Harris Pike (KY-536) from Madison Pike (KY 17) to Taylor Mill Road (KY 16).

2.4 Existing Transportation Analysis

Transportation analysis gives information about existing conditions and identifies opportunities to suggest roadway and access improvements such as: providing better lighting to prevent accidents at intersections, traffic calming techniques, providing stop lights and limiting access.

Functional Classifications

Functional classification is the process by which streets are grouped into classes or systems, according to the character of service they are intended to provide. Basic to this process is the recognition that individual roads and streets do not work independently of each other. Most travel involves

movement through a network of roads. It becomes necessary to determine how this travel can be channelized within the network in a logical and efficient manner.

Functional classification defines the part that any particular road or street should play in serving the flow of trips through a roadway network. The functional classification system used in Kentucky is maintained by the Kentucky Transportation Cabinet following guidelines established by the Federal Highway Administration. The functional classification of the street system is also a criterion determining the applicable design standards included in the Kenton County Subdivision Regulations.

The four functional systems for urbanized areas such as Independence are: principal arterials, minor arterial streets, collector streets, and local streets. Refer to Exhibit T-1 for a map of the functional classification of streets in the study area.

Arterials

Principal Arterial

The principal arterial system carries the major portion of trips entering and leaving the urban area, as well as the majority of through movements desiring to bypass the central city. The principal arterial system will carry important intraurban as well as inter-city bus routes and should provide continuity for rural arterials. Madison Pike (KY 17) is the only principal arterial within the study area.

"New" KY-17 Corridor



Minor Arterials

The minor arterial places more emphasis on land access than the higher system, and offer a lower level of traffic mobility. Such facilities may carry local bus routes and provide intra-community continuity, but ideally should not penetrate identifiable neighborhoods. The spacing of minor arterials is generally spaced at 2-3 miles in the suburban areas such as Independence. Harris Pike/Shaw Road (KY 536) is the only minor arterial in the study area.

Collector Streets

The collector system provides both land access service and traffic circulation within residential neighborhoods and commercial areas. It differs from the arterial system in that facilities on the collector system may penetrate residential neighborhoods, distributing trips from the arterials through the area to the ultimate destination. The collector street also collects traffic from local streets in residential neighborhoods and channels it into the arterial system. Madison Pike (KY 17) is the only collector within the study area.

Local Streets

The local system serves primarily to provide direct access to abutting land and access to the higher order systems. It offers the lowest level of mobility and usually contains no bus routes. Service to through traffic movement usually is deliberately discouraged. The majority of the municipally maintained streets within the study area are classified as local streets.

Traffic Volumes

The existing traffic volumes have been estimated based on the most recent traffic count information provided by the Kentucky Transportation Cabinet. These counts are regularly conducted on the state maintained routes within the study area including Madison Pike (KY 17), Old Madison Pike KY 3035, Harris Pike/Shaw Road (KY-536) and Independence Road/McCullum Pike (KY 2045). Recent traffic volume counts for the local street system have not been conducted. Please refer to Exhibit T-1 for the average daily traffic volume on the state maintained routes.

A planning level analysis was conducted for the state maintained roads within the study core area, to determine level of service of the individual roadway segments based on existing roadway conditions and traffic volumes. The level of service (LOS) is a qualitative assessment of a road's operating conditions with the best being "A" and worst being "F". Generally a roadway with an LOS of "D" or lower indicates a capacity problem that may be leading to congestion during peak travel times. Please refer to Exhibit T-2 for the current level of service on the state maintained routes. As can be seen the level of service for Madison Pike (KY 17) and KY 536 (Shaw Road) are operating at a level of service "D". The capacity of these two roadway segments will be significantly increased following the planned widening and reconstruction by the Kentucky Transportation Cabinet. The remainder of Madison Pike (KY 17) as well as KY 2045 is operating at an acceptable level of service.

Physical Conditions

The City of Independence has established an inventory and condition rating system for its municipally maintained street system. The design and construction standards for municipally maintained streets are contained in the Kenton County Subdivision Regulations.

Several streets within the study area predate the current Kenton County subdivision regulations or current design standards of the Kentucky Transportation Cabinet. These roads are those that were originally established in the 19th or early 20th century and include Madison Pike (KY 17), McCullum Pike, Independence Station Road, Independence Road, Shaw Road and Harris Pike. There are several segments of these roads that do not meet one or more of aspects of current standards such as geometry, drainage, and roadside conditions.

Through a recent court decision it has been determined that the City of Independence is responsible for the maintenance of roadways located within formal unincorporated Kenton County that it has annexed. These roadways were formerly maintained by the County.

Access Management

In general there are no stand-alone access management controls on the local street network aside from the Kenton County Subdivision Regulations. Access to state maintained roads are by permit with the exception of the relocated KY-17 which is to be a partially controlled access highway. "Partially-controlled access" refers to highways that give preference to through traffic. However, access to selected public roads and streets may be provided and there may be some highway at grade intersections and private driveway connections as shown on the Kentucky Department of Highways' plans.

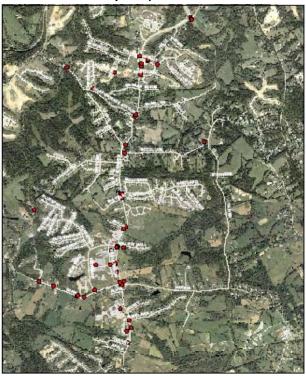
The development of effective access management regulations and their application to the existing arterials and collectors in the area as well as the relocated KY 17 are important determinates of the future level of service, safety, and operation of these facilities.

Vehicular Accidents

Accident data was obtained from the Kentucky State Police Collision Report Analysis for Safer Highways (CRASH) database for a three year period (2004-2006). An analysis of the accident data was performed on all roads within the study core area. The individual accident locations were approximated by the latitude and longitude included in the accident reports. A total of 487 crashes occurred within the study area during the time period.

The highest occurrence of any crash type was collisions in parking lots, most of which occurred in the vicinity of the Kroger's store in the Independence Towne Center located on Declaration Drive. This type of accident compromised 119 of the 487 total crashes. It should be noted that the determination of roadway crash rates discussed below do not include crashes that occurred off the road. Rear end crashes were the second most common crash type with 99 in the three year period.

Injury Accidents
Source: URS and Kentucky Transportation Cabinet



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Crash types were also categorized based on what time of day the accident occurred, whether or not someone was injured and if the vehicle left the roadway. Approximately 75 percent of the collisions in the study occurred in daylight. Exhibit T-3 and the illustrations "Injury Accidents" (previous page) and "Lane Exit Crashes" (next page) shows the different types of crashes. There were no discernable patterns which would indicate crashes being primarily attributable to lighting conditions.

A total of 67 crashes resulted in 99 injured people and 1 fatality. Please refer to the table below for the location of injury crashes.

Section	Route	Description	Avg AADT	Begin MP	End MP		Number of Crashes	Section Crash Rate	Functional Class	M (100 MVM)	Calculate d Critical Crash Rate	CCRF
1	Madison Pike (KY-17)	From KY-3035 to KY-17	12,220	12.08	13.07	0.99	41	310	Major Arterial	0.22	330	0.94
2	Madison Pike (KY-17)	From KY-536 to KY-3035	12,800	10.97	12.08	1.11	31	199	Major Arterial	0.16	445	0.45
3	Madison Pike (KY-17)	South of KY-536	9,000	10.35	10.96	0.61	15	250	Major Arterial	0.06	517	0.48
4	Shaw Road (KY-536)	West of KY-17	6,320	3.69	4.48	0.79	33	601	Minor Arterial	0.05	526	1.14
5	Harris Pike (KY-536)	East of KY-17	4,960	4.48	6.09	1.61	12	137	Minor Arterial	0.09	485	0.28
6	Independence Road (KY-2045)	West of KY-17	2,190	0.55	1.35	0.80	17	889	Local	0.02	664	1.34
7	McCullum Pike (KY-2045)	East of KY-17	2,610	1.35	2.4	1.05	10	333	Local	0.03	596	0.56

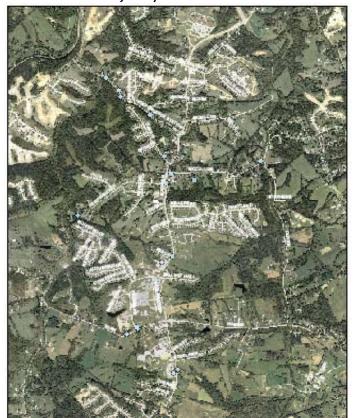
Source: Kentucky State Police CRASH database 2004-2006

As would be expected, the vast majority of crashes occurred on the state road system and not on local residential streets. Seven roadway segments on the state road network were identified for more detailed evaluation.

Three sections along Madison Pike (KY 17) were isolated for the crash analysis. The first section of KY 17 examined a stretch from the northern border of the study area to the intersection at KY 2045. The next section stretched from KY 2045 south to KY 536. The third section extends from KY 536 to the southern border of the study area. The remaining areas selected to examine in detail are Shaw Road/Harris Pike (KY-536) and Independence Road/McCullum Pike (KY 2045).

The Kentucky Transportation Center (KTC) at the University of Kentucky has developed a systematic procedure for identifying locations that have abnormally high numbers or rates of crashes. The table above presents the crash rate calculations for the main roads in the study area. A statistically critical crash rate is calculated based on average crash rates for similar roadways. The average crash rates are determined by the KTC on an annual basis. The actual crash rates are then divided by the critical crash rate to arrive at a Critical Crash Rate Factor (CCRF). If the actual crash rate is greater than the calculated Critical Crash Rate, the resulting CCRF will be greater than 1.0. This indicates that the roadway segment has a statistically high occurrence of crashes and the segment may warrant further investigation to determine what, if any, safety improvements could be

Lane Exits Crashes Source: URS and Kentucky Transportation Cabinet



made. As shown in the following table, two segments resulted in a CCRF greater than 1.0. The locations are on KY 536 and KY 2045 west of Madison Pike (KY 17).

Among crash types, those classified as lane exit crashes where the vehicle leaves the roadway, require evaluation to determine if roadway geometry, lighting conditions or roadside conditions may have further contributed to occurence of the crashes. Roadside treatments, such as a guardrail, may be needed to address potential safety issues. Please refer to the illustration for the locations of lane exit crashes.

Pedestrian/Bicycle Facilities

The Kenton County Subdivision Regulations require that sidewalks be constructed as part of all new residential or commercial construction. Most local streets constructed during the last twenty years include pedestrian sidewalks. The older local streets and state maintained routes were not originally constructed with sidewalks. This has lead to a fragmented pedestrian network where individual residential developments are not connected to one another with pedestrian facilities. The City of Independence has

made efforts to address this issue by seeking Transportation Enhancement funding to construct sidewalks on Madison Pike (KY 17) creating linkages along the east side of the street where sidewalks are currently missing. There are remaining gaps in the sidewalk network along several other roadways.

There are no stand alone designated bike paths or shared use trails within the study area. The portion of relocated KY 17 currently under construction between Pelly Road and KY 536 does include a shoulder bikeway for pedestrians and bicyclists. Additionally, sidewalks will be constructed on both sides of the road south of KY 536.

Public Transit

Public Transit service to the study area is provided by the Transit Authority of Northern Kentucky (TANK). TANK operates an express fixed route bus service (Route 30X) between Independence and its Covington Transit Center and Cincinnati's central business district. It operates on Madison Pike and portions of Harris Pike (KY 536) and Taylor Mill Road (KY 16). Park and Ride lots served by the route are located near the intersection of Hands Pike (KY 1501) and KY 17 north of the study area as well in the Independence Towne Center located northwest of the Intersection of Madison Pike (KY 17) and Shaw Road.

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There are four inbound trips in the morning peak period and five outbound trips in the evening peak period. Average daily Ridership during 2006 was approximately 193 trips with a yearly total of 49,000 trips. Please refer to the tables below for additional details. TANK also provides paratransit services to the qualified elderly or disabled residents who are not able to use its regular fixed route bus service.

The Transit Authority of Northern Kentucky (TANK) initiated the Transit Network Study (2006) of its system to analyze trends, challenges and opportunities facing Northern Kentucky and to create a long-range plan for public transportation. This plan will serve as TANK's guide for future operation and investment to the year 2030. The Transit Network Study does not recommend additional transit service within the study core area. It does include recommendations for new east-west radial routes connecting Boone, Kenton and Campbell counties which would improve east-west connectivity for transit riders from the study area. TANK planning staff has indicated that if landuse within the study core area increase in density that consideration of future service enhancements to the area could be considered.

Route 30X - Independence Express 2006 Ridership

		Ridership by Month										Ridership 2006	
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total (12 mos.)
Ridership Per Month	4,158	3,917	4,287	3,959	4,380	4,324	3,930	4,689	4,108	4,331	3,866	3,364	49,313

		Average Daily Ridership									2006 Daily Average		
Weekdays Per Month	22	20	23	20	22	22	20	23	20	22	21	20	
Avg. Ridership Per Weekday	189	196	186	198	199	197	197	204	205	197	184	168	193

		Bike Boardings by Month											Boardings 2006
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	Total (7 mos.)
Bike Boardings						0	4	2	0	0	3	1	10

Source: Transit Authority of Northern Kentucky, January 2007

Route 30X Ridership by Trip Time (Sample Travel Day - 1/9/07)

Inbound - to Cincinnati	Trip Begins in Independence	Trip Ends in Cincy/Covington	Total Riders
	5:53 a.m.	7:00 a.m.	23
	6:23 a.m.	7:30 a.m.	38
	7:13 a.m.	8:20 a.m.	21
	7:18 a.m.*	8:00 a.m.	31

^{*}from Hands Pike P&R Only

Outbound - to Independence	Trip Begins in Cincy/Covington	Trip Ends in Independence	Total Riders
	6:40 a.m.	7:20 a.m.	4
	4:03 p.m.	5:01 p.m.	42
	4:33 p.m.	5:31 p.m.	36
	5:03 p.m.	6:01 p.m.	41
	5:43 p.m.	6:25 p.m.	2

Source: Transit Authority of Northern Kentucky, January 2007

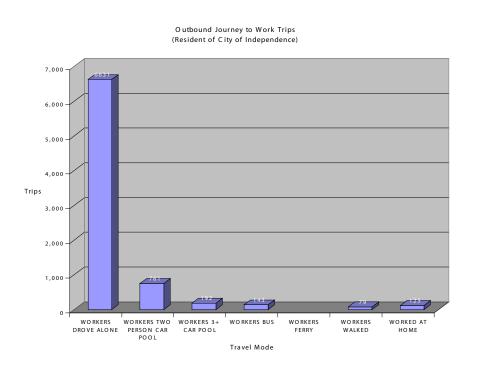
Commuting Patterns

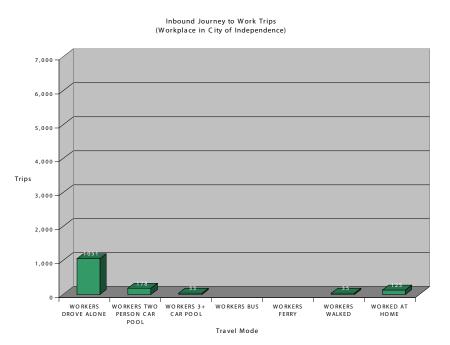
To review commuting patterns for the study area data has been obtained from the United States Census Bureaus' 2000 Census Transportation Planning Package (CTPP). The CTPP is based on responses including place of residence, place of work as well as journey to work.

The 2000 journey to work data indicates that approximately 8,000 workers were residing in the City during the 2000 Census. Of this total, approximately 600 workers were employed within city limits with the remainder commuting outside the City to their place of work. Conversely there were approximately 1,400 workers employed within the City of Independence; therefore approximately 800 workers residing elsewhere in the region commuted to their place of work inside the City. Please refer to Exhibits T-4 and T-5 for the Outbound and Inbound distribution of the Journey to work trips among "Census Places" in the area. From the outbound distribution of trips shown on Exhibit T-4 it is clear that the vast majority of Independence residents were employed at a location north of the City. Cincinnati and Covington account for nearly a quarter of all work trips. Most Independence residents would be expected to use the north-south arterials (KY 17, KY 16 and KY 1303 to reach I-275 and I-75/71 for their commute to work. For residents of the region commuting to Independence for work, the distribution is somewhat different (Refer Exhibit T-5). The highest concentration of workers employed in Independence also resided in Independence.

The vast majority of trips originated in Kenton County with a significant portion originating in Florence and surrounding areas of Boone County. Relatively few trips to work in Independence originated in Hamilton County, Ohio.

General commute characteristics for the City of Independence as a whole are presented in the tables on previous page and the following graphs.





Source: URS, 2000 Census Transportation Planning Package, Part III- Journey to Work, City of Independence

Data on the commuting time for the Transportation Analysis Zones within the study area indicate that approximately 3,500 of the 8,000 workers residing in the City of Independence were located within the core study area at the time of the 2000 Census. The peak time that workers left for work not unexpectedly occurred between 7:00 and 8:00 AM.

<u>Sewers</u>

Infrastructure for Independence like the roadway, water and sewer services are important. Sewer and water services

are provided to portions of the study area with additional service is desired by many residents. The City should work with Sanitary District 1 and Northern Kentucky Water Distribution to acquire these serives (please refer Chapter 5 for recommendation).

2.5 Physical Site Inventory

2.5.1 Environmental Aspects of the Study Area

The importance of sound environmentally sensitive development cannot be over stressed. Past experience has shown that insensitive development can incur large amounts of clean-up costs, imperil the safety of residents, and destroy the natural environment requiring decades to mend. For this reason it is extremely important to understand the natural environment of the study area. Five aspects of the environment have been classified for their sensitivity to development. The higher a site's sensitivity the more care and study is necessary to ensure structural stability and the preservation of the environment. Slope and soils are rated on a 3 level scale shown below. Stream buffers, Canopy Cover, and Flood plain are rated with two categories; (1) for not being in the area or (3) for being within the area.

General Rating System

- 1 = low environmental sensitivity
- 2 = moderate environmental sensitivity
- 3 = most environmental sensitivity

Indépendence Indépendence

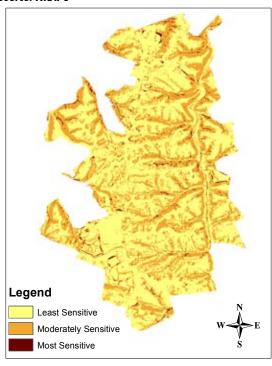
Slopes

Slope is a particular problem for northern Kentucky and thus one of the most important environmental considerations for development in the area. All sites are subject to erosion and settlement. However, as the steepness of the site increases, greater measures are necessary to prevent erosion and to ensure structural stability. Kenton County recommends a geotechnical report for sites with slopes 20% and over.

Map Key: 0-10% = Least sensitive 10-20% = Moderately sensitive

20% + = Most sensitive

Slope Source: NKAPC

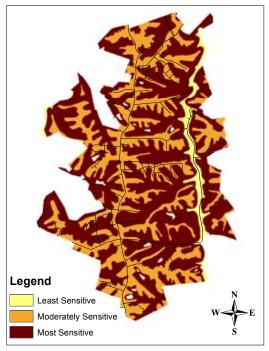


Soils

According to the Kentucky Geological Survey, the most environmentally sensitive soils are those consisting of colluvial material left over from ancient river deposits. Many of these exist on steep hillsides and are prone to landslide activity. In addition, many of the most sensitive soils have a high clay content giving them a high shrink/swell rate causing instability in foundations. Geotechnical investigations are recommended for such sites.

Map Key
High Silt/loam content= Least sensitive
Silt/loam content with some clay = Moderately sensitive
High shrink/swell and high clay content = Most sensitive

Soils
Source: NKAPC



Stream Buffers - 50ft

Buffers are naturally vegetated land along streams and other bodies of water. These buffers prevent pollution from entering the stream and erosion of the stream banks. Much of the water pollution in Kenton County enters the water system through run-off and/or infiltration into the water table close to streams. Examples are fertilizers and pesticides from agricultural fields and residential neighborhoods, oil and grease from parking lots and roadways, bacteria and nutrients from livestock and pet waste, and sediment from construction sites. No development or agricultural use should occur within the buffer. It is suggested that a buffer of at least 50ft be rewired on both sides of a stream.

Map Key:

Not in stream bed or 50' buffer = Least sensitive In stream bed or 50' buffer area = Most sensitive

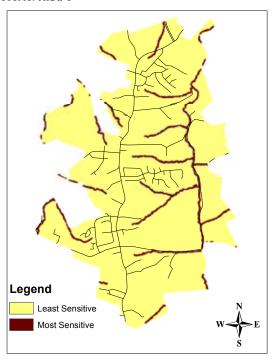
Canopy Cover

The tree canopy provides many benefits to an area. Trees clean the air of pollutants, reduce floodwaters and erosion, clean the water, reduce energy consumption, and increase real estate values. Large forests provide wildlife habitat and improves the visual aspect of an area. The American Forests, a non-profit organization, recommends 40% canopy cover. This ratio is considered the standard by other environmental groups and the EPA.

Map Key:

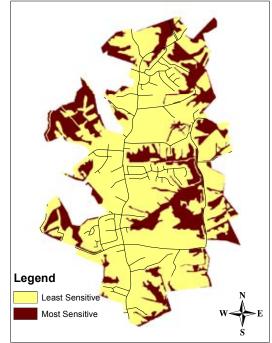
Not in Canopy Cover Area = Least sensitive In Canopy Cover Area = Most sensitive

Streams Source: NKAPC



Tree Canopy

Source: NKAPC

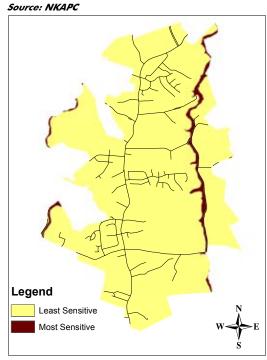


Flood Plain

Development within a flood plain may cause economic, environmental and social problems. Anything built in a flood plain is subject to being severely damaged incurring high repair costs. Development close to a body of water increase the amount of pollution entering the water. Structures reduce the flood plain's ability to move water quickly, thus lengthening the time of flooding; raise the level and enlarging the size of the flood plain. To build within the hundred year flood plain requires a permit.

Map Key: Not in Flood Plain = Least sensitive In Flood Plans = Most sensitive

Flood Zones



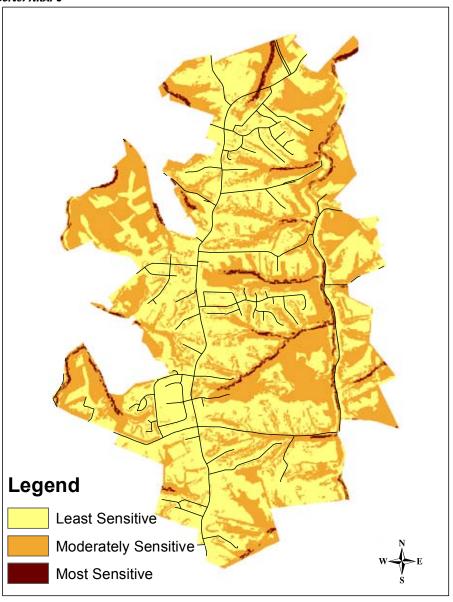
Independence Independence

Composite Sensitivity Map

A computerized overlay method was used with the five previous maps to form the overall sensitivity map. Those areas with several high sensitivity ratings are considered the most environmentally sensitive and should be developed with caution. Those with only a few high sensitivity ratings or several moderate ratings are the moderately sensitive areas. The remaining areas are considered low sensitivity and should be suitable for most development. Please refer to Exhibit EC-10 in Chapter 8 for larger view.

Composite Sensitivity Analysis





2.5.2 Site Inventory of Focus Areas

As a precursor to a community study, it is of prime importance to carry out the urban reconnaissance of the study area. Envisioning the urban design requires a thorough analysis of the existing physical characteristics and conditions prevalent in the "downtown" area and along the Madison Pike (KY 17) corridor to identify opportunities for future physical and socio-economic revitalization.

The Planning Team along with the NKAPC staff made several site visits to document the characteristics and types of buildings, architectural styles, historic value, land uses, gateways, recreation/open space areas and hydrological features along Madison Pike (KY 17) and the "downtown" area. The City of Independence, specifically the study area, has changed in character significantly due to settlement patterns and the transportation network modification. The main observations of the physical conditions within the study area are as follows:

Downtown Independence



Downtown

- + The character of historic downtown of Independence is predominately influenced by the strong presence of the historical landmark, the Kenton County Courthouse.

 Although most of the governmental functions have been shifted to the courthouse in Covington, it still carries out operations like tax payment and licensing etc.
- + The US Bank building and the "old" fire station flank both sides of the courthouse on the east side of Madison Pike (KY 17). On the west, renovated buildings house professional office spaces and a variety of businesses including realtors, a remodeling agency, an attorney's office, a dance studio, salons and barber shops. The physical condition site analysis of the downtown area is shown in Exhibit IN-3.
- + The downtown area is serviced by a network of roads including Madison Pike (KY 17), the area's principal north-south connector. McCullum Pike creates an alternate gateway to downtown from the east and Independence Road serves the "downtown" from the west neighborhoods. Pedestrian sidewalks connect the "downtown" to some northern and southern parts of the City. Significant amount of sidewalks are under construction, which will provide increased pedestrian connection to the north.
- + Streetscape character in front of the courthouse includes on-street parking adjoining the courthouse lawn and deteriorating sidewalks on both sides.
- + Although businesses line Madison Pike (KY 17) across from the courthouse, there is a "perceived" lack of public gathering spaces and area identifications.
- + The downtown lacks public activity both during the day and evening hours.
- + Aesthetic character of the area lacks prominent streetscape elements such as trees, pavers etc.
- + Lack of design guidelines, maintenance and upkeep has led to the deterioration of the character of the downtown core.

South Retail Area

- + The relatively new Independence Towne Center located on the southern part of the study area anchored by Kroger is outlined with banks, fast food restaurants and public facilities such as the senior community center and the fire station.
- + There is a perceived division of the City by the Independence cemetery located just south of Hartland Subdivision. Newer developments like the Independence City Hall and the Towne Center line Madison Pike (KY 17) on the south seems to be disconnected from the older areas near the downtown.
- Construction is on-going for the realignment of KY 17 to connect the Shaw Road/Harris Pike (KY 536) to the south.
 More commercial and housing developments are proposed along Madison Pike (KY 17) across from the Kroger shopping center.
- + There is no discernible gateway to the community from the south.
- + Residential use is mainly in the form of single family dwellings with a newer apartment complex just to the west of the Independence Towne Center.
- + The transitions between land uses are not compatible with the adjoining development mainly due to the lack of overall planning coordination to offset the population and related commercial growth.
- + There is a visible absence of alternative methods of transportation although the City is constructing new sidewalks for better connectivity. Exhibit IN-4 shows the existing land uses near the south retail area.

North Gateway Area



North Gateway Area

- + This area currently acts as the main entrance to Independence from the north, although there is a perceived lack of a gateway to the community.
- + This area is characterized by institutional, commercial and recreational uses, which are concentrated near the northern part. Summit View Elementary and Junior High School, Sterling Staggs Park and several commercial/retail establishments including gas stations, US Postal Service Office etc. line Madison Pike (KY 17).
- + Residential development is mostly single-family homes.
- + There is a visible absence of alternative methods of transportation along the Madison Pike (KY 17) corridor and in other parts of the study area. Exhibit IN-2 shows the existing land uses near the north gateway.



Open Space and Development



Other Characteristics

- + Commercial development and institutional is lined along Madison Pike (KY 17). Summit View elementary school and junior high schools, Simon Kenton High School and Kenton elementary school are located at the north and south end of the corridor, respectively. Several churches including St. Cecilia, a funeral home just north of "downtown" and professional office spaces are located along the corridor.
- + Three parks are included within the study area-Sterling Staggs Park (5 acres), Memorial Park (26 acres) and Independence Park (4 acres). The parks are lacking connection with each other and also with adjacent residential and commercial development.
- + A viewshed may be defined as an area with scenic or historic value that is viewed from a specific point. In the case of Independence, rural viewsheds are also of significance to local residents. The White Farm located just north of McCullum Pike on Madison Pike (KY 17) has one of the largest open space view corridors in the study area. Also, the open space just behind the Hartland subdivision on McCullum Pike provides an uninterrupted view of the corridor.

The land use map (Exhibit EC-3) within the study area depicts mostly Single Family Residential uses with Retail/Service uses along Madison Pike (KY 17). Agricultural uses are concentrated primarily in the adjoining areas of downtown on both sides of McCullum Pike; the White farm to the north and an area to the south, just east of Madison Pike (KY 17). Another large agricultural use is located to the west of Madison Pike (KY 17) north of McCullum Pike and extends towards the study boundary. Public/Semi-Public uses are located where the schools, cemetery and the courthouse are located. A large Retail/Service area and a Multi-Family development is located near the shopping center toward the southern end of the study area near the intersection of Madison Pike (KY 17) and Harris Pike.

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