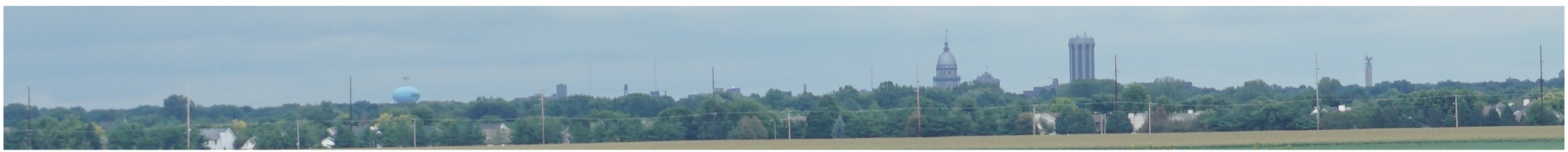
Comprehensive Plan
City of Springfield, Illinois
2017—2037

PART II: Plan Appendices

Prepared for the City of Springfield by the Springfield-Sangamon County Regional Planning Commission

SSC RPC Springfield-Sangamon County Regional Planning Commission



APPENDICES

"We have indeed passed the point where the ordinary requisites of urban life...prove sufficient to make the city outstanding and sought after. It is not enough to build to meet ordinary standards. "

Myron H. West

Prepared for the City of Springfield by:
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APPENDIX 1: REVIEW OF SPRINGFIELD'S COMMUNITY CHARACTERISTICS

A review of a community's characteristics is intended to include those factors necessary to assess the social and demographic conditions there. For this reason it typically addresses the dynamics of the community's population, the nature of its households, the educational attainment of its people, the attributes of its housing, and aspects of its economic life. All of these factors are important, as they provide insights into the community's quality of life and social conditions, and also factor significantly into the identification of trends affecting its future transportation, infrastructure, and public health and safety needs, becoming particularly relevant in the development of land use policies and recommendations.

It is important to note that the information included in this section is primarily drawn from U.S. Census Bureau American Community Survey (ACS) data and ESRI estimates and projections, particularly given that the data in the 2010 Census may no longer be current, and some of the data collected in previous censuses was not collected in the 2010 one. For this reason, the Census Bureau and ESRI provide estimates based upon surveys conducted outside of the decennial census.

In addition, the data included only provides information pertaining to residents within the Springfield city-limits. Since the city may exercise extraterritorial jurisdiction within 1.5 miles of its municipal boundaries, it would also be useful to review data that includes this larger area. Unfortunately it is difficult to do so as this would necessarily include that from such embedded communities as Leland Grove and Southern View, as well as bordering municipalities such as Chatham, Rochester, and Sherman. Absent an effective way to exclude such municipalities, the data becomes skewed, leaving an inaccurate picture of Springfield itself.

POPULATION CHARACTERISTICS

An analysis of a community's characteristics begins with a general review of its demographics, for as the saying goes, "demographics are destiny." The review and assessment of population data, and the trends anticipated to arise from changes in the population and its characteristics, are critical components in determining future land use, particularly when anticipated population changes might be in conflict with the desires of existing residents.

The review of the data indicates that ***Springfield is being affected by trends similar to other central Illinois communities: a slowing population growth rate; an increasingly older population; a more diverse population; and additional divergence between those of general working age and those who are not.***

Resident Population Growth

Springfield, as well as Sangamon County and the state as a whole, has experienced a wide range of population growth rates since its founding. For example, Springfield had a growth rate of 106% from 1850 to 1860, but only 2% from 1950 to 1960, an unusually low rate for a decade that saw significant growth nationwide following World War II. This is, however, a problem associated in describing population growth in percentage terms.

As population bases in communities increase over time, the associated growth rates, indicated by a percentage figure, reflect ever larger numbers of actual population increase even though the percentages of increase may be small. Therefore an accurate picture of historical population changes must examine both the relative and absolute growth over the period studied. Table 1 depicts these figures for both Springfield and Illinois since 1850, with the past 60 years being the most relevant (Uden, 2012, Pp.1-2.)

As the table indicates, the city and state both show similar fluctuations and patterns since 1850 (Ibid, P.2).

However, and as Table 1 shows, there has been a noticeable slowing of Springfield's population growth since 1970. ESRI estimates a 2016 population for the city of 116,003, a decline of 247 residents compared to 2010, and a population of 116,421 in 2012, for an increase of only 171 residents compared to 2010. This represents relatively static population growth, as the following growth rates show:

TABLE 1: SPRINGFIELD POPULATION IN HISTORICAL PERSPECTIVE

	SPRINGFIELD		ILLINOIS	
Year	**Population**	**Percent Increase from Prior Decade**	**Population**	**Percent Increase from Prior Decade**
1850	4,533		851,470	
1860	9,320	106%	1,711,951	101%
1870	17,364	86	2,539,891	48
1880	19,743	14	3,077,871	21
1890	24,963	26	3,826,352	24
1900	34,159	37	4,821,550	26
1910	51,678	51	5,638,591	17
1920	59,183	15	6,485,280	15
1930	71,864	21	7,630,654	18
1940	75,503	5	7,897,241	3
1950	81,628	8	8,712,176	10
1960	83,271	2	10,081,158	16
1970	91,753	10	11,113,976	10
1980	100,054	9	11,426,518	3
1990	105,227	5	11,430,602	*
2000	111,454	6	12,419,293	9
2010	116,250	4	12,830,632	3

* Indicates less than one-half of 1%.

TABLE 2: SPRINGFIELD POPULATION BY SEX

	Males		Females	
	Population	**Percentage**	**Population**	**Percentage**
2010	54,664	47.3	60,943	52.7
2016 (est.)	55,022	47.4	60,982	52.6
2021 (est.)	55,350	47.5	61,071	52.5

2000 – 2010 Annual Population Growth Rate: 0.19%.

2010 – 2016 Annual Population Growth Rate (based on ESRI est.): 0.05%.

2016 – 2021 Annual Population Growth Rate (based on ESRI est.): 0.07%.

The proportion of males and females in the resident population, as shown in Table 2, is as one would expect; slightly more females than males. This is due to the typically longer lifespan of females.

The 2010 Census found that the median age for males in Springfield, for example, was 36.4 years -of-age, compared to females, which was 40.2 years. ESRI estimates that the 2016 median ages are 37.4 years for males and 41.1 years for females. This is expected to change only slightly in the 2016 to 2021 period, with the 2021 estimate being 38.4 years for males and 41.9 for females. This represents only a 0.53% rate of change over the 2016-2021 period for males, and 0.39% for females.

TABLE 3: MEDIAN AGE OF SPRINGFIELD'S POPULATION COMPARED TO COUNTY AND STATE			
Year	**Springfield**	**Sangamon County**	**Illinois**
1970	31.4	30.3	28.6
1980	31.0	30.8	29.9
1990	34.0	34.2	32.8
2000	36.9	37.3	34.7
2010	38.2	39.2	36.5

FIGURE 1: SPRINGFIELD POPULATION DISTRIBUTION BY AGE:
2010 Census Compared to 2016 and 2021 Estimates

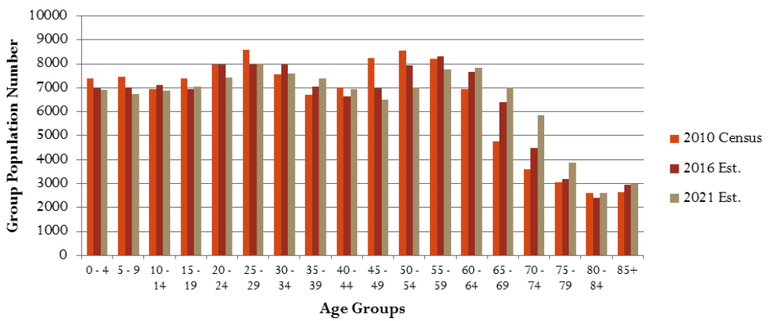


TABLE 4: MEDIAN AGE OF SPRINGFIELD'S MAJOR RACIAL AND ETHNIC POPULATION GROUPS: 2016 Estimate			
Group	**Median Age**	**Males**	**Females**
White Alone	44.5	42.2	46.7
Black Alone	28.1	26.8	29.3
Multiple Race	14.3	13.4	15.1
Asian	33.3	32.7	34.1
Hispanic Origin (Any Race)	26.7	27.5	25.7

TABLE 5: SPRINGFIELD POPULATION BY MAJOR RACIAL AND ETHNIC GROUP: 2010, 2016 (estimate), 2021 (projection).			
Group	**2010**	**2016**	**2021**
White Alone	76.2%	74.1%	72.1%
Black Alone	18.2%	19.2%	20.2%
Multiple Race	2.7%	3.1%	3.6%
Asian	2.1%	2.5%	2.9%
Hispanic Origin (Any Race)	2.0%	2.7%	3.4%
Diversity Index	***41.1***	***44.4***	***47.6***

Resident Population Age

Continuing a trend that first began to truly show itself palpably in 2000, Springfield's population is getting older. Table 3 shows how the median age of Springfield residents has changed since 1970 compared to Sangamon County and the state as a whole.

Since 1970 the median age of the population has been increasing in Springfield as well as the county, state and nation, largely due to the aging of the generational group termed the Baby Boomers, who were born between 1946 and 1964 and are now reaching mortality. From 1970 to 2000 this age group shifted from under 18 to middle age, with Boomers making up the 45-64 age cohort in 2010. The influence of this group is demonstrated in ESRI's current estimate of the population's median age as well as projections.

The current estimate of the median age for Springfield's population is 39.3 years, compared to the national median of 38.0, and the Illinois median of 37.5. ESRI projects the median age of Springfield residents to be 40.2 years-of-age by 2021, for a 2016-2021 change of 0.9 years, or an annual rate of change of 0.45%.

A break-down of Springfield's total population by age is shown in Figure 1, which compares the Springfield population by age group in 2010 to that estimated currently and that projected for 2021. One will particularly notice the age group shift beginning with the 55-59 age cohort.

Racial and Ethnic Composition

Springfield's population is primarily identified racially as white. ESRI estimates that in 2016 whites made up about 74.1% of the local population (85,938 residents). Those identified as black made up the second largest racial group at 22,316 residents; about 19.2%. Asians represented the third largest identifiable group, at 2,903 residents, or 2.5%. However, those of multiple races numbered 3,598, or 3.1%.

Unlike many other areas, the Hispanic population has not increased significantly in Springfield. ESRI estimates that in 2016, only 3,146 (or 2.7%) of Springfield's 116,003 residents were Hispanic.

Of note, however, are the differences in median age for these groups. Table 4 displays median age by racial and ethnic groups making up 1,000 residents or more as estimated in 2016. All of these groups were significantly younger than the white group, indicating that Springfield's population is likely to become increasingly more racially and ethnically diverse over the next 20 years. This is a finding previously identified in other studies (Sims, 2015a, Uden, 2012).

Table 5 indicates this growth, showing population percentages by major racial and ethnic group for 2010 compared to the 2016 estimate and 2021 forecast. The ESRI Diversity Index is also provided for these years. This index measures the probability that two people from the same area will be from different race/ethnic groups. The Index indicates the trend toward a more diverse local population, with the Index growing by almost 16% between 2010 and that forecast for 2021.

Poverty

A major challenge for many urban communities is household poverty. The presence or absence of poverty in a community affects planning for education and health care, but can also have a direct impact on housing, community services and related facilities, and therefore on land use.

The degree to which poverty exists in a community is often measured by the ratio of poverty level to number of persons in the population. The Bureau of the Census' American Community Survey (ACS) estimates that between 2010 and 2014, almost 19% of Springfield's population was below the poverty level. Table 6 provides this data.

While the table offers information concerning individuals, the ACS also provides estimates related to households as shown in Table 7. Between 2010 and 2014, Springfield had 8,391 households with income below poverty level during the previous 12 months. This represents 16.6% of Springfield's households. As one might guess, these households were largely single-headed ones.

The dynamics of local poverty may be identified in other ways as well, including use of public assistance income, Food Stamp/SNAP status, and disability status. Table 8 provides this information based upon the 2010-2014 ACS estimate.

Given the increasing age of Springfield's population, it is important to note that ACS estimates that between 2010 and 2014, 29.8% (15,026 households) of Springfield's 50,424 households received Social Security Income, while 23.3% (11,737) received retirement income of some sort. It is expected that the number of persons with disabilities will increase as the population ages.

Both the age of the local population and the degree to which elements of it are receiving public monies of some sort are relevant factors in discussing the city's Age Dependency Ratio.

TABLE 6: SPRINGFIELD POPULATION BY RATIO OF INCOME TO POVERTY LEVEL: 2010 - 2016 (ACS est.)		
	2010-2014 est.	**Percent**
TOTAL	112,789	100%
Under .50 of Poverty Level	10,472	9.3
.50 to .99	10,889	9.7
1.00 to 1.24	6,128	5.4
1.25 to 1.49	4,518	4.0
1.50 to 1.84	6,133	5.4
1.85 to 1.99	1,833	1.6
2.00 and Over Poverty Level	72,817	64.6

Table 7: SPRINGFIELD HOUSEHOLDS BELOW POVERTY LEVEL DURING PREVIOUS 12 MONTHS BY TYPE OF HOUSEHOLD: 2010-2014 (est.)		
Household Type	**2010-2014 Est.**	**Percent**
Total Households	50,424	100%
Income in the past 12 months below poverty level	8,391	16.6
Married-Couple Family	762	1.5
Other Family – male householder (no wife present)	566	1.1
Other Family – female householder (no husband present)	2,522	5.0
Non-family household – male householder	2,195	4.4
Non-family household – female householder	2,337	4.6

TABLE 8: ESTIMATED USE OF ASSISTANCE PROGRAMS BY SPRINGFIELD HOUSEHOLDS: 2010-2014.		
	2010-2014 Est.	**Percent**
TOTAL HOUSEHOLDS	**50,424**	**100%**
With Public Assistance Income	1,664	3.3%
With Food Stamps/SNAP	7,698	15.3%
With 1+ Person with Disability	13,886	27.5%

The Springfield Age Dependency Ratio

A useful way to consider population age data as it might be relevant to both poverty and anticipated demand for public services is by assessing the Age Dependency Ratio (Uden, 2012, Pp. 21-22). In its simplest form, the Age Dependency Ratio (ADR) represents the percentage of residents that are not typically of workforce age in relationship to that percentage of the population that is. Those of workforce age are generally considered to be those 19 to 64 years-of-age, as those 18 and younger are considered children not old enough to work, and those 65 and older considered elderly and either retired or not able to work. On this basis, the lower the ADR in a jurisdiction, the lower

TABLE 9: AGE DEPENDENCY RATIOS FOR SPRINGFIELD: 2010, 2016 (est.), 2021 (est.)						
	2010		2016 (est.)		2021 (est.)	
Total Population	115,609		116,002		116,421	
	Population in Category	**% of Population**	**Population in Category**	**% of Population**	**Population in Category**	**% of Population**
65 and Older Age Dependency Category.	16,660	14.4%	19,435	16.8%	22,352	19.2%
18 and Younger Age Dependency Category	27,741	24.0%	26,582	22.9%	26,095	22.4%
Total of Dependent Ages	44,401	38.4%	46,017	39.7%	48,447	41.6%
19 to 64 Age Category	71,208	61.6%	69,985	60.3%	67,974	58.4%
Age Dependency Ratio	**62.4 (7.1/4.4)**		**65.8 (7.0/4.6)**		**71.3 (6.8/4.8)**	

the financial demands are expected to be upon it, as there is a greater percentage of the population contributing to the generation of wealth there than those who are not.

The ADR is not a perfect metric for two reasons. First, because it is based on the supposition that those older than 64 and younger than 18 do not work, although this is not always the case. Second, and as suggested above, it is based upon the supposition that the wealth created by those in the workforce must support the "dependent" population of children and the elderly, meaning that the greater the degree of "dependents" that must be supported, the greater the burden on the working population and, therefore, the greater the challenge faced by government to meet public needs. However, even those of workforce age may depend upon social and other services provided via public funding.

Even so, the ADR provides a useful and simple representation of the potential impact that age distribution has on the economic well-being of a city, as increases in the proportion of older and younger persons over time can place additional demands on healthcare, social, and educational services. This can additionally stress a municipality's ability to meet both current and future needs, particularly when local economic conditions are not robust enough to meet the required service funding levels. Whether those 18 and younger or 65 and older *are* working, a trending toward a high ADR is not viewed as optimal as one trending against it.

Based upon 2010 Census data and ESRI estimates for 2016 and 2021, the Dependency Ratios for Springfield were calculated and are shown in Table 9. As the table shows, in 2010 those in the dependent population groups accounted for almost 40% of the resident population, while the non-dependent group made up about 60%. In simple terms, then, for about every six Springfield residents of workforce age there were four who were not, for an ADR of 62.4. To provide some basis for comparison, the 2010 ADRs for Sangamon County and Illinois were calculated and found to be 66.4 and 58.6, respectively.

The estimates for 2016 and 2021 show a continuation of this trend, with the 2016 ADR growing to 65.8 and the 2021 ADR to 71.3. What is noticeable, however, is that *this growth did not occur because of an increase in the 18 and younger category, but because of a decline in the 19 to 64 age category at the same time that the population in the 65 and older group was significantly increasing.* This result helps to confirm two important demographic trends: an aging of Springfield's population due to the Baby Boomers, and a reduction in younger population groups that would otherwise move into the workforce age category over time. This latter finding is most likely due to: a reduction in native births as larger percentages of the population leave their child-bearing years; a reduction in the number of younger people moving into the city; and, an increase in out-migration among this age group, even if they are only shifting to other bordering communities. Recent IRS data appears to confirm this increased out-migration (SSCRPC, 2015).

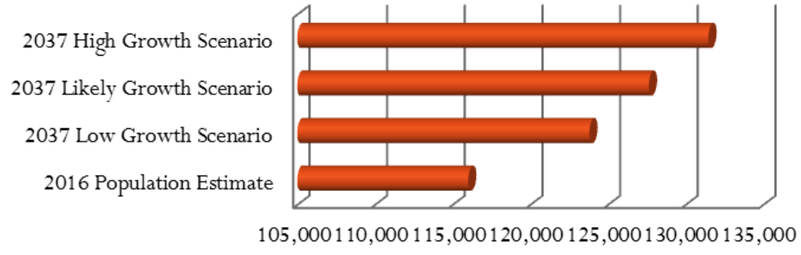
Population Projection

The degree to which a community's population is estimated to grow or decline over time is of vital importance in land use planning. For this reason attention is given to the projection of Springfield's population growth over the planning period: 2017-2037. While there is no crystal ball that can be used for this purpose, there are various methods in use. For the purpose of the Springfield Comprehensive Plan, the SSCRPC used the method adopted by it for the Springfield Area Transportation Study's (SATS) *2040 Long Range Transportation Plan* (LRTP), which was completed in 2015 (Pp. 14-16).

The SATS plan estimated Springfield's population growth over a 30-year, rather than 20-year, period (2010 to 2040), using the Census Bureau's 2010 population figures for the city (116,250 residents) as the base. Three conventional methods were used to arrive at the estimate: a Building Permits-based method; a Births/Deaths-based method; and an algebraic Straight Line projection method. The final projection used the average of these three methods to arrive at a 14.29% change over the 30-year period, for a projected population of 132,250.

Using this approach, but considering a 20-year period rather than a 30-year one, and using ESRI's 2016 estimate of Springfield's population (116,003 residents) rather than the Census Bureau's 2010 one, the SSCRPC estimates the city as most likely growing to 127,637 residents in 2037. This represents a growth of 11,634 residents over the planning period, for a 10.03% increase. This is lower than the previous SATS estimate, but it considers growth over a shorter period of time as well as uses a more current – and slightly lower – population base estimate.

GRAPH 1: SPRINGFIELD POPULATION PROJECTION



	2016 Population Estimate	2037 Low Growth Scenario	2037 Likely Growth Scenario	2037 High Growth Scenario
Springfield Population Projection	116,003	123,808	127,637	131,466

To help cross-validate this projection, the SSCRPC looked to two other data sets that provide population growth rates to assess their resulting growth estimates.

The first was from the Illinois Regional Economic Analysis Project (IL-REAP), based upon that organization's four-year rate of population change for the Springfield MSA over the 2010-2014 period: 0.25%. Again using ESRI's 2016 Springfield population estimate, the IL-REAP rate of change would project the *metro area* as having a population of 131,247 by 2037. This represents 3,610 more residents than indicated by the SATS approach described above. *However since the IL-REAP numbers are for the* metro area, *they include the entirety of Sangamon and Menard counties, not just Springfield.* This being the case, the SSCRPC believes that this projection for the metro area helps validate its lower findings for Springfield alone.

To provide a second approach for assessing the validity of the SSCRPC's projection, it also looked to the estimated rate of annual population change provided by ESRI for the period 2016-2021. ESRI estimates an annual rate of change of 0.07% for this period. Using this to make a straight-line projection, Springfield is projected to have a population of 134,305 by 2037. This is a difference of 6,668 residents compared to the SATS method. Given the results from the IL-REAP data projection, which provides a lower growth estimate for the entire MSA than the ESRI rate-of-growth indicates for Springfield alone, leads the SSCRPC to believe that the SATS projection represents a more likely population growth scenario.

Based upon these results, and for the purpose of Springfield's comprehensive plan, ***the SSCRPC proposes a projected Springfield population figure of 127,637 for 2037, ranging from a low-growth scenario of 123,808, to a high-growth scenario of 131,466.*** This represents a three percent divergence in the interval and is shown in Graph 1.

This low-growth to high-growth interval takes into account the fact that population increases or decreases may be affected by many factors unknown at the on-set of planning, including factors that could lead to unanticipated changes affecting in- and out-migration as well as increases or decreases in native births.

HOUSEHOLD CHARACTERISTICS

The Census Bureau considers "households" to be of two types: *family* households and *nonfamily* households. A family household contains at least two persons -- the householder and at least one other person related to the householder by birth, marriage, or adoption -- and is categorized into three types: married couple; female householder with no spouse present; and male householder with no spouse present.

A nonfamily household may contain only one person -- the householder, who must be at least 15 years of age -- or additional persons who are not relatives of the householder. Nonfamily households may be classified as either female nonfamily or male nonfamily households. As the number of households in total is of greatest importance in land use planning, unless otherwise noted in the data provided, the SSCRPC does not distinguish between the two types.

As might be expected given the population data provided, the SSCRPC finds a slowing in household creation and size, as well as only modest gains in household income.

Number and Size of Households

Over the past 20 years the City of Springfield has seen an increase in households, but the rate of that increase is slowing significantly. For example, the household count for the city has changed from 50,516 in 2010, to an ESRI estimated 50,708 in 2016. This represents an annual change of only 0.06% or 192. This is within the range of statistical error. The five-year projection is marginally better, estimating an increase of 0.08%, or 50,909 households in 2021. Again, this is within the range of statistical error. Table 10 provides this data.

Springfield's average household size is currently estimated to be 2.22, or below what is often thought of as replacement rate (4.0), and only 27.5% of households include children. There was no increase in household size since 2010. As noted previously, there is a difference between the number of *households* and the number of *families*. While Springfield is estimated to currently have 50,708 households, the number of families is 27,981. Of households, 2.6% are multigenerational, and 7.9% are unmarried partner ones (7.2% being male-female, and 0.7% being same sex). The data shows only slight gains in family size – again below replacement rate (2.92 in 2010, 2.93 in 2016, 2.94 in 2021) – with a slightly declining rate of family household creation (-0.09%).

The declining – or at best, static – rate of family household creation is not unimportant for planning purposes. Past research has noted that family households tend to be more stable than non-family household ones across a number of factors. This is not to say that the very nature of family units creates stability, but it is to say that family units are sufficiently enough associated with social and financial stability that any decline is noteworthy.

Household Income

As the number of households in Springfield is projected to grow only slowly during the planning period, household wealth is expected to follow a similar pattern. While income can be measured various ways, and this will be addressed again further in this section, the most widely used indicator of the growth of personal wealth is *median household income*. Household income should not be confused with family, personal income, or per capita income, as household income may be the combination of two income earners pooling their resources.

Reflecting on the changing nature of the local population outlined previously, one can see why it is important to differentiate household income. The median for household income has been found to provide a more accurate picture of the income of the middle class because it represents the middle value of the household income distribution: half of all households are above the median and half are below. This allows for the median to account for results that may be skewed by gains or abnormalities – such as more workers making lower wages than there are workers making high ones – at either end of the household income distribution (Sims, 2015b, P. 39).

ESRI estimates that median income for Springfield's households will decline over the next five years, going from an estimated $47,343 in 2016, to $46,040 in 2021, a change of -0.56% between 2016 and 2021. Table 11 provides income data for Springfield, the state, and the U.S. Incomes at both the state and national levels are expected to increase between 2016 and 2021, with Illinois median household income growing 1.32%.

As one might expect, this slow growth in household income has a bearing on the number of residents below the poverty line as addressed previously. The Census Bureau's ACS estimates for the period 2010-2014 indicates that about 20% of the city's population was below the poverty line: 9.3% (10,472 residents) was under .50, and 9.7% (10,889 residents) was between .50 and .99 of the poverty line.

Figure 2 shows why analysis of median income is important. It provides a display of the distribution of households in Springfield by income groups. One will notice a projected slight increase in households in the $15,000 or less group, as well as a larger increase in the $25,000 to $34,999 group. While the $50,000 to $74,999 group declines, this is made up for – but only slightly – by the higher income groups. This begins to demonstrate a bimodal distribution of income that is identified more generally in other SSCRPC reports (Sims, 2015b, Pp. 33-42).

Households with Disabled Members

The American Community Survey estimates that during the 2010-2014 period, 27.5% of Springfield households had one or more person with a disability of some sort. This represents 13,886 of the city's households. This compares to 22.1% statewide; noticeably less. As mentioned previously, one would expect an increase in that portion of the population that is disabled as the population as a whole ages.

EDUCATIONAL CHARACTERISTICS

With slow population growth and an increasing number of residents in older age categories (a median age of 38.4 in 2010, 39.3 estimated for 2016, and 40.2 projected for 2021), ***the SSCRPC projects a slowing of the number of Springfield residents in the school age population.*** **Even so,** ***the educational attainment of the population should remain high due to the attainment of the Baby Boomers as well as that of the Millennials.***

School Enrollment

Table 12, on the next page, shows Springfield's population aged three and older by school enrollment based upon the Census Bureau's ACS 2010-2014 estimate.

Of those enrolled in school, most attend public schools. A bit more than 19% of those in school (5,669) are enrolled in private schools, but this includes 1,995 attending private colleges and universities, or 35.2% of those attending private schools overall.

Educational Attainment

The educational attainment in the city remains relatively high, matching the state as a whole fairly well. Table 13, on the next page, provides the educational attainment estimate for those 25-years and older for 2016. Educational attainment has a direct effect on employment as well as personal and household wealth, It also has a relationship to the percentage of older people – particularly pre-Baby Boomer cohorts – in the population, as many of those in older age groups have a lower attainment, reducing the percentages for the population as a whole.

HOUSING CHARACTERISTICS

ESRI estimates that there are currently 56,311 housing units in Springfield, and that this number will increase slightly over the next five years. Table 14 shows the number of housing units in the city, beginning with 2000. ESRI forecasts a 0.02% annual increase in owner-occupied housing units in Springfield over the 2016-2021 period, compared to a state projected rate of 0.15%, and a national rate of 0.73%.

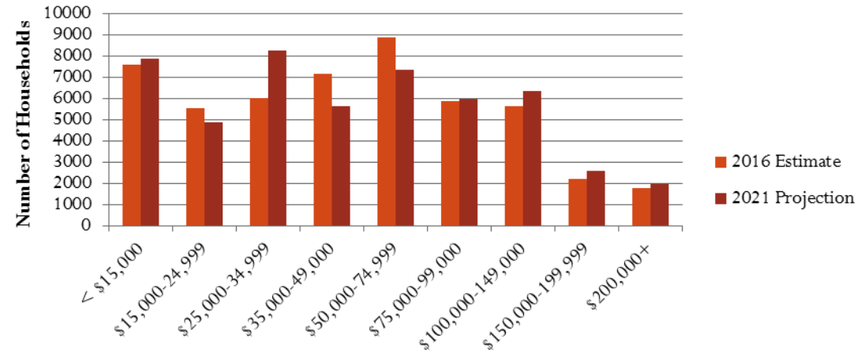
TABLE 10: NUMBER OF HOUSEHOLDS IN SPRINGFIELD AND RATE OF CHANGE (2000 – 2021 [est.]), AND AVERAGE HOUSEHOLD SIZE FOR THE SAME PERIOD.

Total Households	Number	Annual Rate of Change Over Previous Period	Average Household Size	Average Family Size
2000	49,475	---	2.24	
2010	50,516	0.21%	2.22	2.92
2016 (estimated)	50,708	0.06%	2.22	2.93
2021 (projected)	50,909	0.08%	2.22	2.94
2016-2021 Annual Rate in Households: 0.08%. 2016-2021 Annual Rate in Families: -0.09%.				

TABLE 11: SPRINGFIELD INCOMES COMPARED TO STATE & NATION: 2016-2021 (est.)

INCOME	Springfield 2016	Springfield 2021	Illinois 2016	Illinois 2021	U.S. 2016	U.S. 2021
Median Household	$47,343	$46,040	$57,337	$61,215	$54,149	$59,476
Average Household	$66,815	$70,880	$80,916	$87,198	$77,008	$84,021
Per Capita	$29,987	$31,779	$31,032	$33,392	$29,472	$32,025

FIGURE 2: DISTRIBUTION OF HOUSEHOLDS IN SPRINGFIELD BY INCOME: 2016 (est.) and 2021 (projection)



Housing Projection and Nature of the Housing Units

On the basis of the housing estimates and projections above, and taking into account the population projection provided earlier, as well as the age cohorts making up the Springfield population, for planning purposes ***the SSCRPC estimates that Springfield will be able to support 59,062 housing units by 2037, for a 4.9% (2,751 units) increase over the 2016 estimate.*** The SSCRPC considers this a modest, but reasonable, increase over the 20-year period.

The nature of the housing units in Springfield is not currently significantly different from that in similar communities, but is expected to change.

TABLE 12: SPRINGFIELD POPULATION AGE 3+ YEARS BY SCHOOL ENROLLMENT: 2010-2014 ACS Estimate, Public and Private School.		
TOTAL POPULATION AGE 3+	111,683	100%
Total Enrolled in School	29,597	26.5%
Nursery school, preschool	2,149	1.9%
Kindergarten	1,342	1.2%
Grades 1 to 4	6,136	5.5%
Grades 5 to 8	4,810	4.3%
Grades 9 to 12	4,620	4.1%
College Undergrad	6,243	5.6%
Graduate or Professional	2,508	2.2%
Total Not in School	82,087	73.5%

TABLE 13: EDUCATIONAL ATTAINMENT OF SPRINGFIELD RESIDENTS: ESRI 2016 Forecast Percent of Population 25 and older, and Compared to Illinois as a Whole.		
	Springfield	**Illinois**
TOTAL	79,948	8,749,912
Less than 9th Grade	2.3%	5.1%
9th to 12th, No Diploma	5.9%	6.5%
High School Graduate	22.1%	22.8%
GED/Alternative Credential	4.8%	3.8%
Some College, No Degree	21.6%	20.8%
Associate Degree	7.9%	7.9%
Bachelor's Degree	21.1%	20.2%
Graduate/Professional Degree	14.3%	13.0%

TABLE 14: TOTAL HOUSING UNITS IN SPRINGFIELD BY YEAR: 2000, 2010, 2016 (est.), 2021 (projection).		
YEAR	**TOTAL HOUSING UNITS**	**Increase Over Previous Period**
2000	54,686	--
2010	55,530	844 (1.54%)
2016 (estimate)	56,311	781 (1.41%)
2021 (projection)	56,775	464 (0.82%)

That is, ***the SSCRPC anticipates that while single-family, owner-occupied, non-attached structures will continue to make up the predominate portion of all residential units, there will be a shift to more non-single family units than has been the case previously.*** This would include duplex, townhouse, and multi-family units, many of which would be rentals. Currently, ESRI estimates that 54.8% of the 56,311 housing units in Springfield are owner occupied (see Table 15), with 35.2% renter occupied, and 10.0% vacant.

This compares to the U.S., where 55.4% of units are owner occupied, 32.9% renter, and 11.7% vacant, and Illinois with 59% owner occupied, 31.7% renter, and 9.1% vacant.

In 2010, 63.5% of households were owner occupied and 36.5% were rentals, with 43.9% of those that were owner occupied holding a mortgage or loan on the property.

The growth of vacant properties and decline in owner occupied ones is believed due to the continuing effects of the Great Recession as well as younger population cohorts being unable to afford home ownership. Of the vacant housing units in 2010: 40.3% were for rent; 1.8% were rented, but not occupied; 15.5% were for sale only; 3.7% were sold, but not occupied; 5.4% were for seasonal/recreational/occasional use; and 32.2% were otherwise vacant. The number for migrant workers was too small to calculate.

Value of Housing Units

ESRI estimated that both the median and average values of housing stock in Springfield will increase over the next five years, with the median value increasing by $14,013 (going from $113,978 to $127,991), and the average value increasing by $23,131 (from $146,300 to $169,431). However, these values are estimated in current rather than constant dollars and are dependent upon the nature of the new stock that comes onto the market. The differences are demonstrated in the value ranges of owner occupied units. Figure 3 indicates that most of the value growth will be due to the addition of more expensive housing units, rather than more housing units, particularly beginning with those above $150,000. This may inflate the value estimates and somewhat explains why the median anticipated value is markedly less than the average one.

Age of Springfield Housing Stock

The age of the Springfield housing stock also plays a role in the status of housing growth as well as the number of vacant structures. Map 1 on the next page gives some indication of both the age of the city's housing stock (with the deeper blue colors showing those built before 1900, while the yellower ones show those built in more recent years) and with that, the directions in which the city grew in various periods over the years.

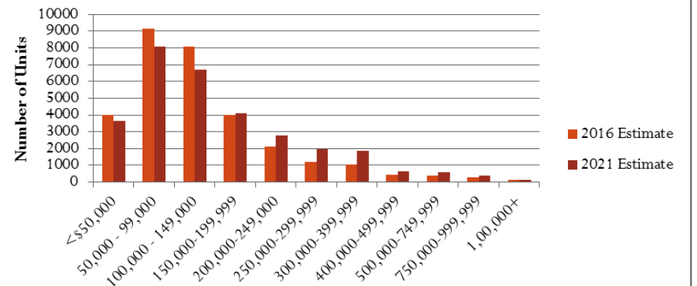
As the map indicates, Springfield grew from the city center and then predominately moved west and south. It should not be surprising that it grew in those directions given the presence of floodplain, tributaries and, since the 1930s, Lake Springfield to the east and southeast. Map 1 does not provide a complete picture of the age of Springfield's residential properties, however, as the map was taken from property assessment data for Capital Township. This means that the many gray areas on the map indicate public properties – i.e., state, federal or municipal facilities – that do not pay property tax and so are not assessed, properties on which residential structures have not been built, and in some cases residential structures for which there is no information as to when they were built.

Table 16, on the next page, provides a different snapshot of the age of the housing stock in Springfield based upon a 2010-2014 ACS estimates. It demonstrates the post WWII housing boom from 1940 to 1969, as well as the snap-back that began in the 1970s and occurs again with the recession in the 2000 to 2009 period. Most telling is the fact that almost 50% of the available housing stock in Springfield is 50-years old or older.

The mix of single family versus multi-family units is relevant to understanding how the age of the units might be affected by some of the trends noted previously, particularly the tilt toward rental and multi-unit housing. Of the 55,922 housing units estimated by the 2010-2014 ACS analysis of Springfield, over 70% were what would be considered un-attached single family structures, and only 3.8% might be considered duplex. Three to four unit structures accounted for a bit more than 5%, *so over 80% of Springfield's housing can be considered of relatively low density.* Larger multi-family units, 10 units or more, accounted for only 11.6%, with 4% being mobile homes.

TABLE 15: NATURE OF SPRINGFIELD HOUSING UNITS: 2000, 2010, 2016 (est.), 2021 (projection).				
	Total Units	**Owner Occupied**	**Renter Occupied**	**Vacant**
2000 (Census)	54,686	31,389	18,086	5,211
2010 (Census)	55,530	32,090	18,426	5,014
2016 (estimate)	56,311	30,886	19,822	5,603
2021 (projection)	56,775	30,916	19,993	5,866

Figure 3: Owner Occupied Housing Units by Value: 2016-2021



Owner/Renter Ratio and Transience

The ratio of housing unit owners to renters is relevant in considering where housing in a population may be trending. Table 17, on the next page, provides the ratio of renters to owners, showing an anticipated slight increase in percentage of households renting verses owning in the 2010 to projected 2021 period. What the ratio indicates is that while in 2010 there were 18.4 rental units occupied for every 32.1 owned ones, by 2016 it is estimated that there were only 30.1 owned units for every 19.8 rental ones, a decline in owned units paired with an increase in rented ones, even though the total number of occupied units had not changed greatly.

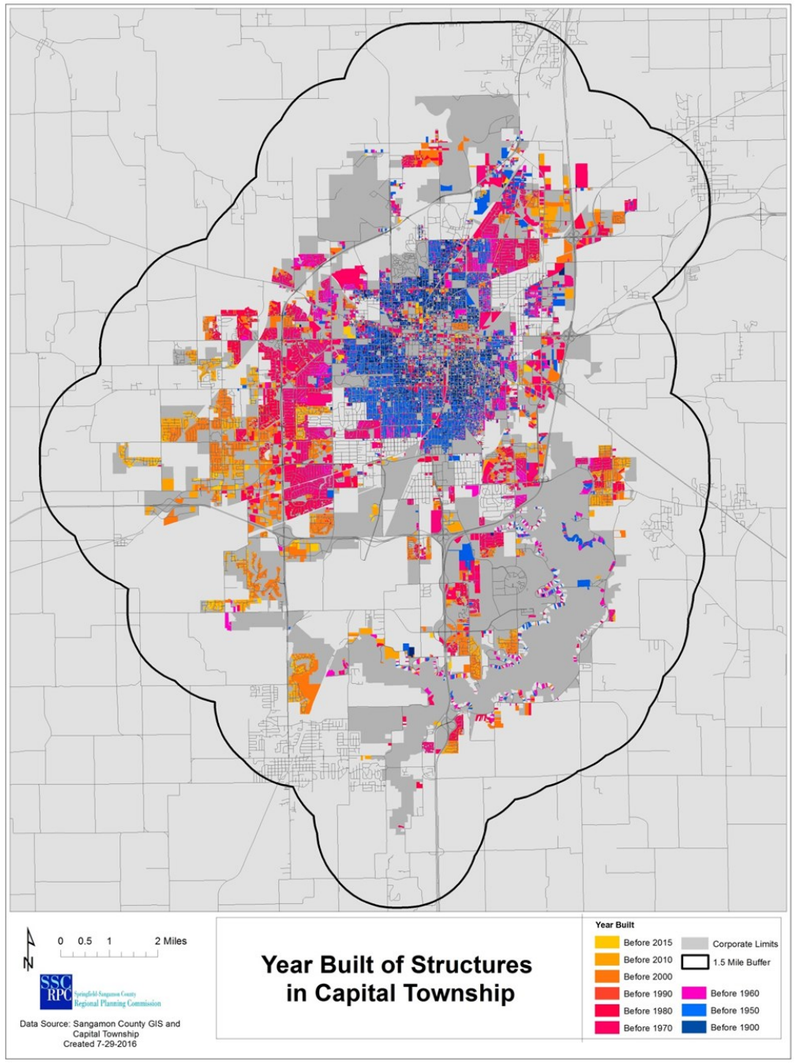
One of the primary differences between owner-occupied and renter-occupied housing is the more transient nature of rental households. Figure 4 on page A-10 shows this difference. What is significant, however, in affecting future home buying is the large number of households that moved into owner-occupied housing in the 2000-2009 period. Some portion of this could be due to low home mortgage interest rates during this period.

ECONOMIC CHARACTERISTICS

The characteristics of a community's housing stock are, of course, related to its economic health. This being the case, economic conditions have a direct effect on changes in its infrastructure, amenities, population growth, rate of poverty, workforce capacity, educational system, and ultimately land use.

The previous section of this analysis of Springfield's characteristics considered some aspects of household income, but other key factors associated with both personal income and household income are relevant to land use planning.

Overall, the SSCRPC finds a slowing of income growth that tracks with the slowing of population growth, as well as an increase in the bi-modal distribution of income.



Personal Income and Wealth

ESRI estimates Per Capita Income in Springfield as $29,987 in 2016, and projects an increase to $31,770 in 2021. This is a projected increase of $1,783, or 5.9%, during the five year period, slightly more than 1% per year. The ACS indicates that per capita income over the past 12 months was $29,621 (+/- $656), indicating a slower increase in per capita income than ESRI estimates.

It is important to note that these estimates are provided in current, rather than constant, dollars. To provide some insight into this difference, Figure 5, on the next page, provides data from the Illinois Regional Economic Analysis Project (IL-REAP) showing the difference in per capita income in both constant and current dollars for the Springfield metro area up to 2015. One can see the shift to slower real per capita income growth that began occurring in about 2009 and continued thereafter.

What may be more revealing is the change in disposable income. ESRI estimates that median disposable income for Springfield households was $37,678 in 2016, while average disposable income was $49,338. This is an $11,660 difference, or about 31%. The SSCRPC believes that this rather large difference may be indicative of the development of a bimodal distribution in households by wealth, which we see indicated in other data, as mentioned previously.

This may be demonstrated in other ways as well. ESRI estimates the 2016 Median Net Worth of Springfield's households to be $66,133 in 2016, but the Average Net Worth to be much greater: $564,572. It is not uncommon to see such a disparity between median and average net worth, as many more households tend to be at the lower end of the wealth range than at the high, but those at the high end may have much greater wealth than those at the low, explaining why median household incomes are used. However Figure 6 on the next page shows how this demonstrates a bi-modal distribution of wealth in the city.

In can be demonstrated in other ways as well. Figure 7 on the next page shows an estimate of where Springfield residents focus their spending. Not surprisingly, the largest consumer spending category is Shelter, followed by Health Care and Food at Home.

Overall, the data indicates a slowing in personal income in real terms, a bi-modal distribution of wealth, and potentially an additional slowing in consumer spending for non-basic needs. Business and job growth, as well as additional population growth over the next 20 years, may help alleviate this trend.

Businesses

ESRI estimates 6,475 businesses in Springfield in 2016, falling into the primary Standard Industrial Classification (SIC) categories shown in Table 18. As past studies indicate, the primary employment areas are Services (54,046 employees in 2016), Government (31,446), Retail Trade (18,975), and Finance, Insurance and Real Estate (FIRE)(10,519). The fastest growing component of the Services sector is medical care, while the Government workforce has been declining, largely due to reductions in state government employment.

The same pattern is shown in the number of enterprises, with the largest number of those being in Services (42.3%), followed by Retail Trade (19.6%), FIRE (13.0%), and Government (7.4%). However, given the nature of the enterprises that are listed in the Government category, this percentage is not particularly revealing.

Industry Earnings

Industry earnings over the past few years mirror the findings above related to personal income. Figure 8 is provided by IL-REAP and traces the Springfield MSA's and Sangamon County's real total industry earnings from 1969 to 2014. Real industry earnings for the MSA are used here as they are not available for Springfield alone. While one sees an increase in industry earnings over time, they fell following the Great Recession and have not rebounded, but instead have leveled off.

Employment

Within the Civilian Population 16 and older in the Labor Force, ESRI estimates for 2016 that 93.2% are employed and 6.8% unemployed. Employment by sector is shown in Figure 9.

As one might surmise from the nature of industries in Springfield, most of those employed are in white collar jobs, as shown in Figure 10 on the next page. White Collar jobs are classified as those involved in Management/Business/Financial, Professional, Sales, or Administrative Support, while Blue Collar ones include Farming/Forestry/Fishing, Construction/Extraction, Installation/Maintenance/Repair, Production, and Transportation/

TABLE 16: HOUSING UNITS BY DECADE IN WHICH THE STRUCTURE WAS BUILT

	2010-2015 ACS Estimate	Percent of Existing Stock	Increase/(Decrease) Over Previous Similar Period
TOTAL	55,922	100.0%	--
Built 2010 or Later	300	0.5%	--
2000 to 2009	5,087	9.1%	(1,961)
1990 to 1999	7,048	12.6%	1,716
1980 to 1989	5,332	9.5%	(3,276)
1970 to 1979	8,608	15.4%	890
1960 to 1969	7,718	13.6%	1,074
1950 to 1959	6,644	11.9%	2,273
1940 to 1949	4,371	7.8%	--
1939 or Earlier	10,913	19.5%	--

TABLE 17: SPRINGFIELD HOUSING UNIT OWNER/RENTER RATIO

	TOTAL UNITS	Owner Units	Owner Percentage of Occupied Units	Renter Units	Renter Percentage of Units
2010 Census	50,516	32,090	57.8%	18,426	33.2%
2016 Estimate	50,708	30,886	54.8%	19,822	35.2%
2021 Projection	50,909	30,916	54.5%	19,993	35.2%

FIGURE 4: OCCUPIED UNITS BY YEAR HOUSEHOLDER MOVED INTO UNIT: 2010-2014 ACS Estimate

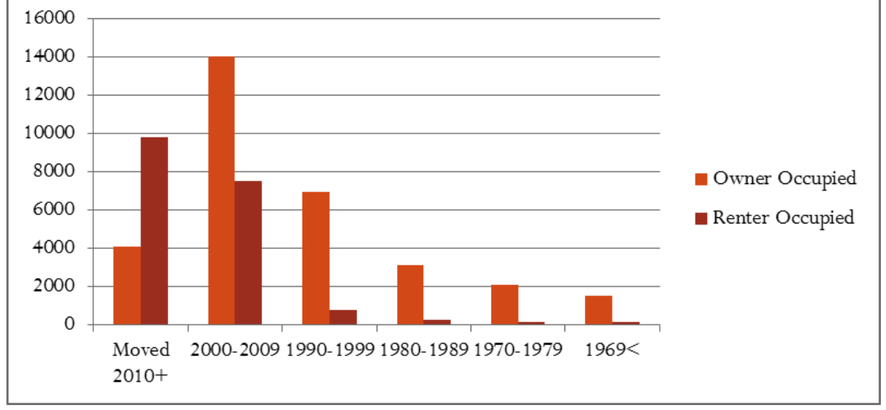
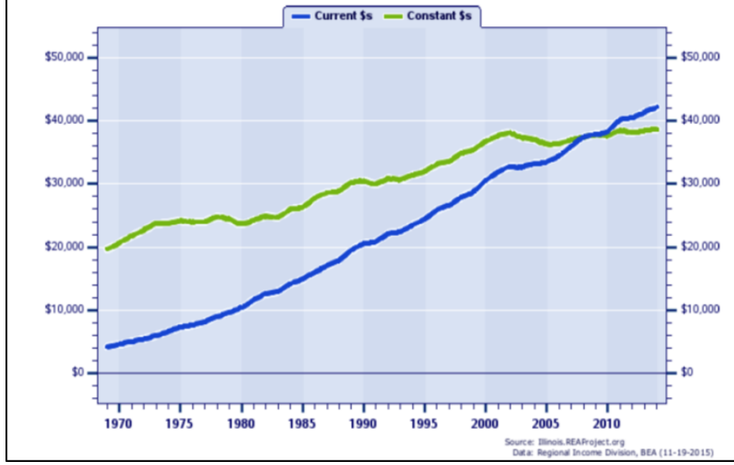
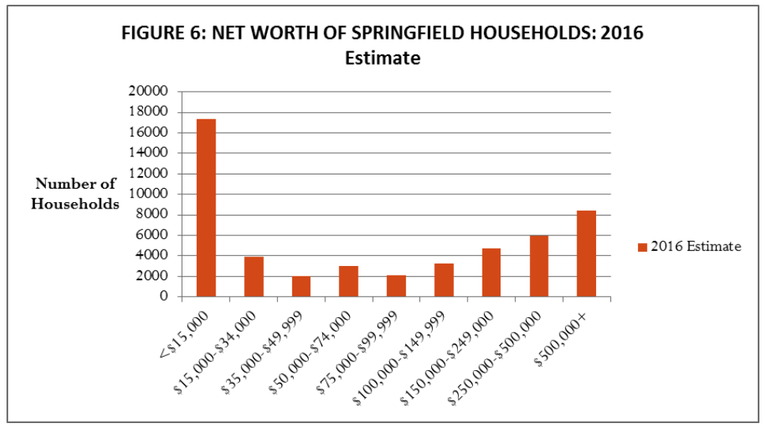
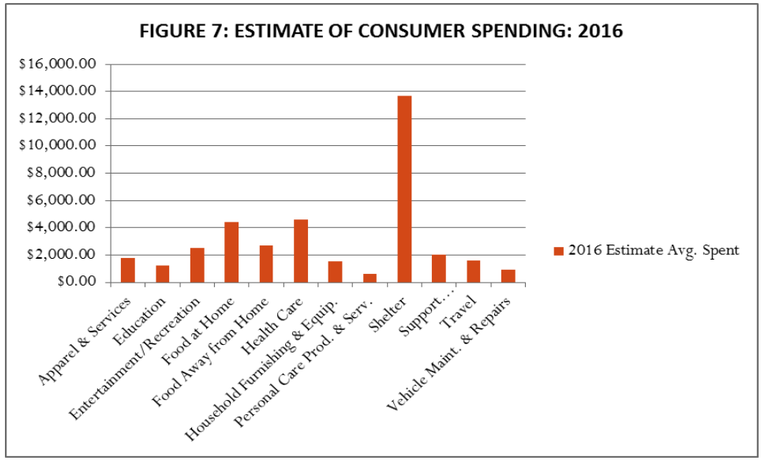


FIGURE 5:







Material Moving.

Based upon an ACS 5-year estimate in 2013, Data USA finds that the most common jobs fall into the categories of Administrative Supervisor (17.3%), Retail Supervisor (9.0%), Executive (8.8%), Postsecondary Teacher (6.2%), and Physician and Surgeon (5.5%). These five groups make up almost 50% of the workforce.

Of those Springfield residents 16 years and older who are working, almost 96% work in Sangamon County. Only about 4% work outside of the county, and less than one percent work outside of the state. This data is displayed in Table 19 on the following page.

Figure 11 on that page provides an assessment by IL-REAP as to the real average earnings per job in the Springfield MSA compared to the county, state and nation. While wages track with Sangamon County, real earnings fall below that of the state and nation. Given the mix of industries in Springfield and the number of jobs in service and retail occupations, this is not surprising.

Wage data is affected by many reporting variables. For example, based upon ACS 5-year estimate data, Data USA found that the average salary for males in the Springfield MSA in 2015 was $63,861, and for females $45,039. However, the male figure had an accuracy range of +/-$8,192, and the female range, +/- $3.962.

What may be of greater utility is Springfield's Wage GINI compared to the state's. The Wage GINI coefficient is a measure of wage inequality, where a score of "0" indicates complete equality, and a score of "1" indicates complete inequality. Working with ACS 2015 data, Data USA found Springfield to have a GINI of 0.479, compared to the nation's 0.484, meaning that wages were distributed more evenly in Springfield than the nation as a whole.

This is partially displayed in Figure 12 which shows percentage share of employment against average salary, with the gray bars representing the nation and the orange bars the Springfield MSA.

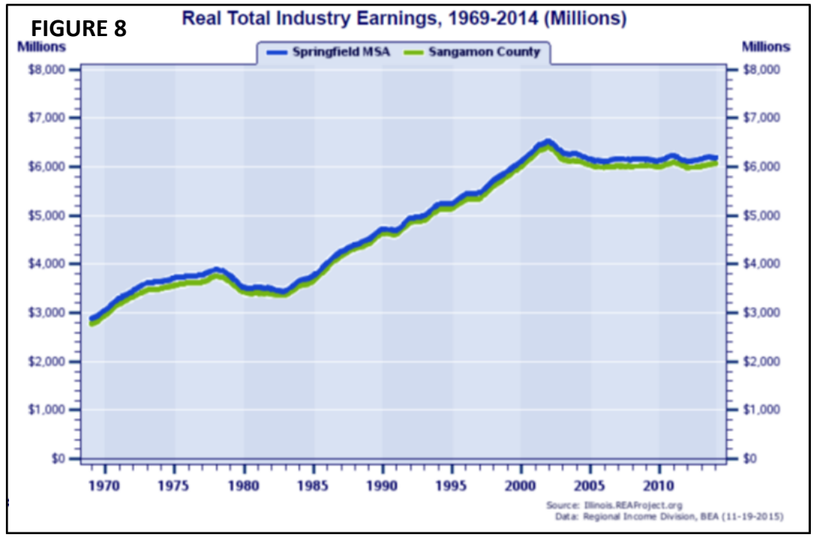
In Summary:

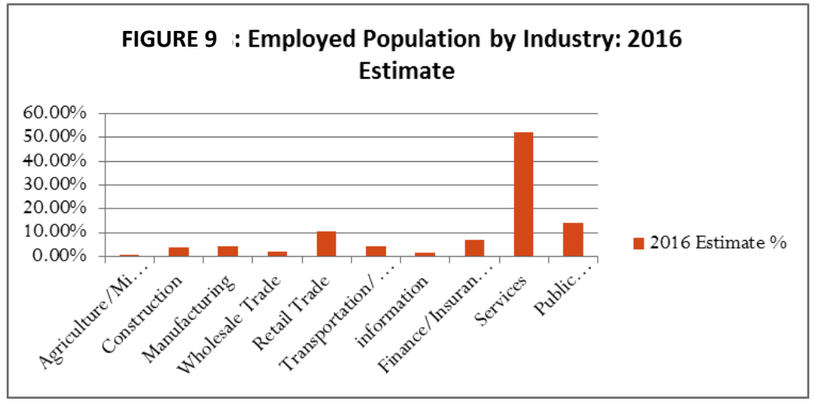
- **Springfield is being affected by trends similar to other central Illinois communities: a slowing population growth rate; an increasingly older population; a more diverse population; and additional divergence between those of general working age and those who are not.**
- **Springfield's population is anticipated to grow slowly, with the most likely scenario being a population of 127,637 by 2037, or 10.03% in 20 years. This represents only a 0.5% average annual growth.**
- **The city will see an increase in the dependent population, a slowing in household creation and size, as well as modest gains in household income.**
- **A slowing of the number of Springfield residents in the school age population is projected. Even so the educational attainment of the population should remain high due to the attainment of the Baby Boomers as well as that of the Millennials.**
- **Springfield will be able to support 59,062 housing units by 2037, for a 4.9% (2,751 units) increase over the 2016 estimate.**
- **Single-family, owner-occupied, non-attached structures will continue to make up the predominate portion of all residential units, however, there will be a shift to more non-single family units than has been the case previously.**
- **A slowing of income growth that tracks with the slowing of population growth, as well as an increase in the bi-modal distribution of income.**

TABLE 18: SPRINGFIELD BUSINESSES BY MAJOR SIC CODE, PERCENTAGE, AND EMPLOYEES: ESRI 2016 Estimate

SIC Code	Number of Businesses	Percentage	Number of Employees	Percentage
Agriculture & Mining	117	1.8	602	0.5
Construction	344	5.3	2,929	2.3
Manufacturing	120	1.9	2,657	2.1
Transportation	119	1.8	2,736	2.1
Communication	83	1.3	1,317	1.0
Utility	20	0.3	331	0.3
Wholesale Trade	167	2.6	2,169	1.7
Retail Trade	1,272	19.6	18,975	14.8
FIRE	844	13.0	10,519	8.2
Services	2,740	42.3	54,046	42.1
Government	478	7.4	31,446	24.5
Unclassified	171	2.6	606	0.5
TOTAL	**6,475**	100.0	**128,332**	100.0

FIGURE 8





REFERENCES

Sims, E.N. (2015a). *The Millennials: What Local Leaders Should Know about America's Newest Generation*. **SSCRPC, Springfield, IL**

Sims, E.N. (2015b). *Planning for Growth: Reviewing Economic Growth Trends in the Springfield-Sangamon County Economic Area.* **SSCRPC: Springfield, IL.**

Springfield Area Transportation Study (2015). *2040 Long Range Transportation Plan*. **Pp.:14-16. SATS. Springfield, IL.**

SSCRPC (Oct. 8, 2015). *Net Population Migration Trends: 2011-2014*. **SSCRPC: Springfield, IL.**

Uden, A. (2012). *2010 Census Analysis: Springfield & Sangamon County, Illinois*. **SSCRPC. Springfield, Il.**

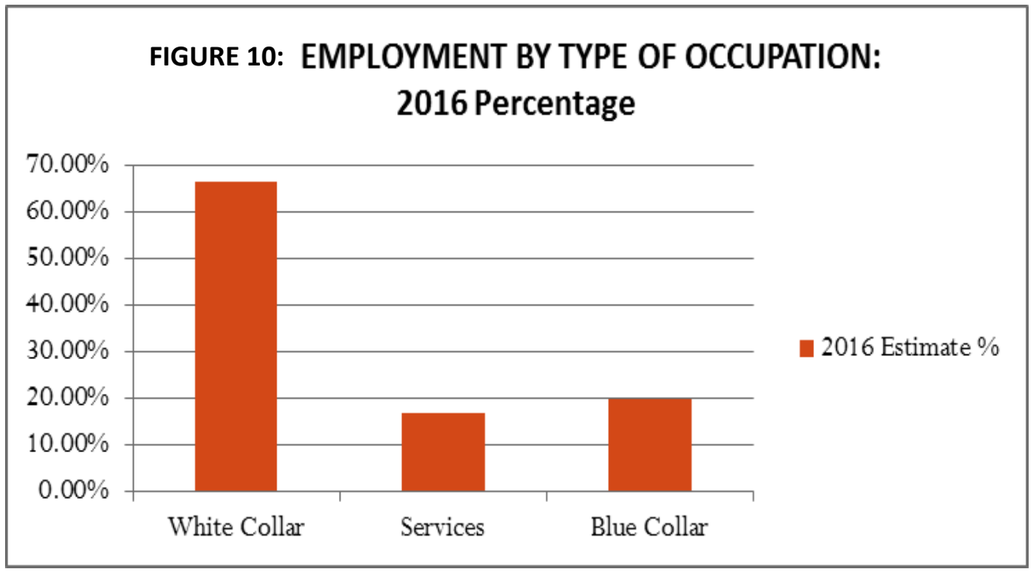
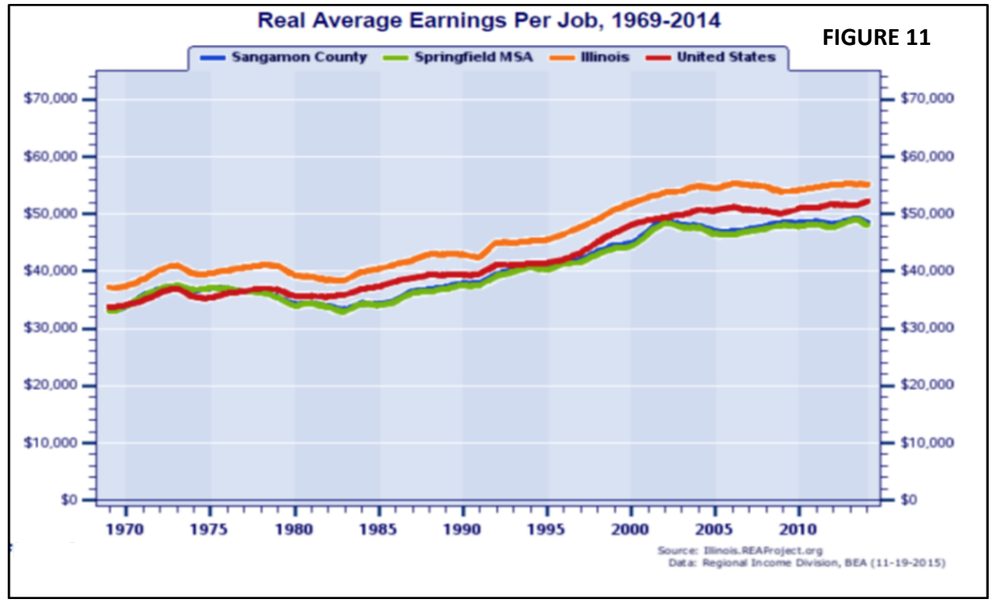
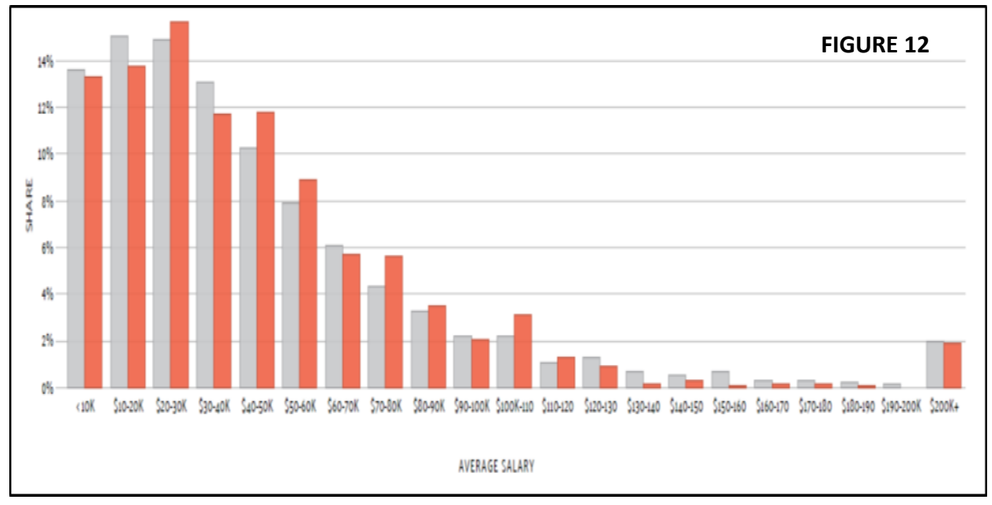


TABLE 19: WORKERS AGE 16+ YEARS BY PLACE OF WORK: 2010-2014 ACS Estimate

PLACE OF WORK	Estimated Number	Percent
Worked in State and County of Residence	51,925	95.8%
Worked in State and Outside County of Residence	2,127	3.9%
Worked Outside State of Residence	164	0.3%





APPENDIX 2: REVIEW OF SPRINGFIELD'S ENVIRONMENT & NATURAL RESOURCES

TOPOGRAPHY AND GEOLOGY OF SPRINGFIELD AND ITS EXTRA-TERRITORIAL JURISDICTION

The Springfield of today has shaped and been shaped by both its topography and geology.

The city lies in what is know as the Springfield Plain, which is a part of the larger Illinois River Basin. The Plain was formed by the retreat of glaciers thousands of years ago, which affected the topography of the area, creating a relatively flat land surface for the city and surrounding area. The topography in the Springfield planning area appears to vary from an approximate low of about 550 feet above sea level to an approximate high of about 615 feet above sea level, with higher elevations north of Lake Springfield in the south and southeast portions of the city. The low areas tend to be near watersheds, such as the Town Branch, Jacksonville Branch, Spring Creek, and Lake Springfield. Some notable grade changes are near Douglas Park on the north side of the city and areas near Pasfield and Washington Parks on the west side of the city.

The geological sequence that underlies this land consists of a quaternary layer and various layers of bedrock. This includes the Pennsylvanian, Mississippian, Devonian, Silurian, Ordovician, Cambrian, and Pre-Cambrian layers formed over millions of years.

Above the Pennsylvanian layer of bedrock is the quaternary layer, which consists of a variety of different soil types generally extending less than 50 feet deep from the surface. Much of the older areas of Springfield consist of a soil layer called the Peoria loess (wind-blown soil), overlaying Roxana Silt containing higher sand content, overlaying gleyed Sangamon Soil (a clayey silt) overlaying bedrock. Variations on these layers can include oxidized Roxana Silt or Sangamon Soils layers that have yellowed or brown soil (Bergstrom, Piskin and Follmer, 1976). Economically, the most important layer of these geological formations tended to be the Pennsylvanian layer, which extends from approximately 375 to 1,100 feet below the surface and includes shale, sandstone, limestone, clay, and coal.

AREA SOILS

Within 1.5 miles of the Springfield limits there are 41 different soil types, listed in Figure 1.

Approximately one-third of the soil types are defined as prime under the Land Evaluation and Site Assessment (LESA) scoring system. The three most common soil types are Ipava, Sable, and Rozetta. One soil type, Marseilles, has a category with very high slopes (greater than 35%). These Marseilles soils tend to be clustered in areas near Spring Creek or the Sangamon River.

The GIS layer used to complete this analysis also includes layers not directly related to soils but rather encompass current or previous uses. Nonetheless, they are worth noting because they could have an impact on Springfield's future development. There is a previous landfill slightly west of Dirksen Parkway near the intersection with Stanford Avenue. Analysis of aerial photography reveals the site was a landfill in the 1930s and was a pond in 1969. There is also a category called Urban Land that appears to have a high average impervious surface percentage. Example areas in this category include much of the city's central business district, and some large retail commercial areas such as the Hy-Vee/Town and Country Shopping Center area, and the White Oaks Mall area. Further, there is a category called Water that appears to capture most, though not all, the major surface water entities within 1.5 miles of the Springfield limits (e.g. Lake Springfield and part of the South Fork of the Sangamon River.) It is important to note that this category does not include all surface water bodies in the Springfield planning area as important streams are missing, such as the Jacksonville Branch, Sugar Creek, and Spring Creek.

FIGURE 1: SOIL TYPES*

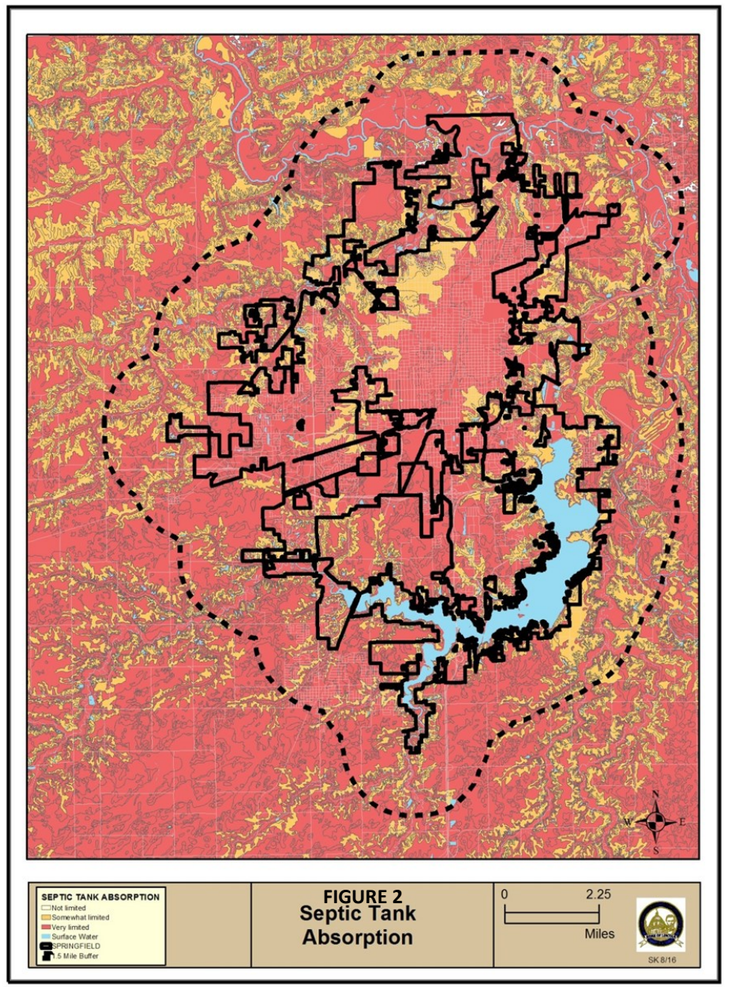
Alvin	**Hartsburg**	**Radford**
Assumption	Hickory	**Ross**
Broadwell	**Huntsville**	Rozetta
Buckhart	**Ipava**	**Sable**
Camden	**Kendall**	**Sawmill**
Clarksdale	Keomah	**Shiloh**
Denny	**Lawson**	Spaulding
Drury	Marseilles	Thebes
Edinburg	Middletown	**Tice**
Elburn	Navlys	Vesser
Elco	Orhtents	**Virden**
Elkhart	Osco	Water
Fayette	**Plano**	Worthen
Harrison	Proctor	Zook

* Bold denotes prime soil types.

Soil Suitability for Septic Fields

The nature of the soils in Springfield and its surrounding area can affect proposed land use in many ways, one of which is the suitability of an area for development when septic systems are required.

The map below (Figure 2) shows the pattern of soils within Springfield and 1.5 miles of the city limits that have severe usage restrictions for septic fields, with darker areas being the most restricted.

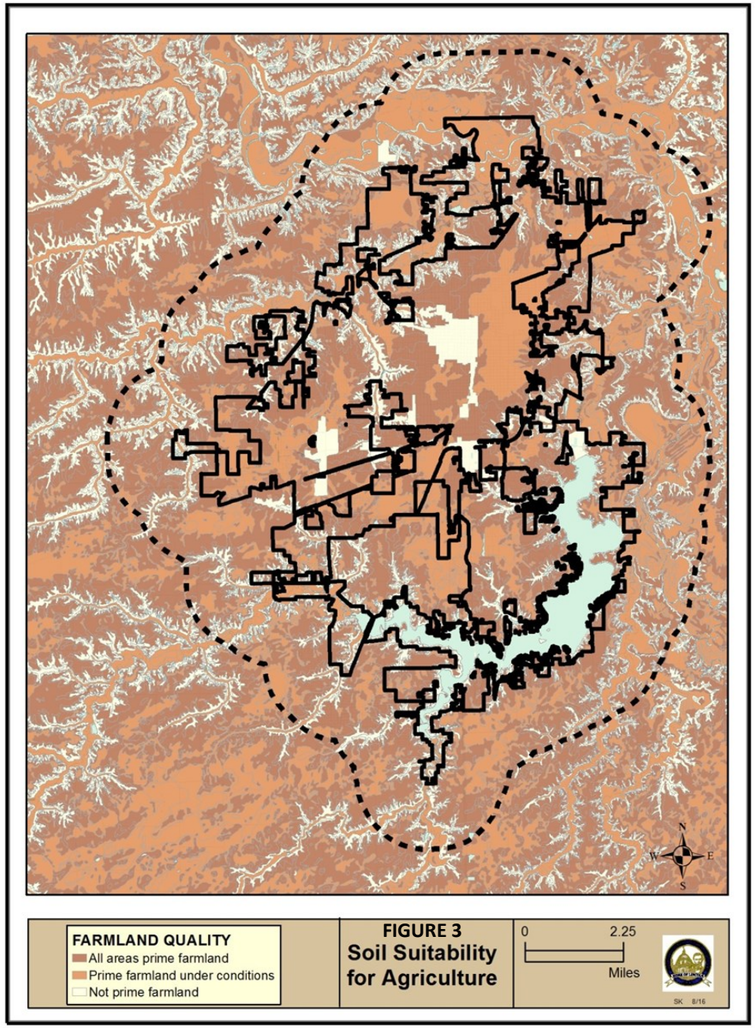


In general, the urban fringe, or the area outside the solid line but within the dotted line, appears to contain soils that are very limited for septic fields based on factors such as a lack of slope, high water tables, or other poor drainage characteristics. The southern part of the Springfield planning area appears to have less favorable soils for septic fields than the northern part. There is a somewhat large area of limited soils in the southeastern part of the Springfield planning area. Also, many areas southwest of the current city limits have soils that are very limited for septic fields. In areas with less favorable soils, it is important to use sewers as much as possible.

The map indicates that to the maximum extent possible, development needs to connect to gravity-fed sewers. In areas where soils analysis indicates poor drainage, aeration systems may be required or development might not be able to occur in the absence of sanitary sewers.

Soil Suitability for Agriculture

While there is some land in use for production agriculture within Springfield's city limits, a much larger proportion of the land in the city's 1.5 mile extraterritorial jurisdiction is committed to this use. The bulk of this use is for crop production rather than for livestock.



Agriculture is an important economic activity for Sangamon County and parts of the Springfield planning area. The community survey conducted for this plan found that 84.3% of survey respondents thought it was very (53.9%) or somewhat (30.4%) important to protect or preserve farmland around the city. Areas oriented southwest, northwest, and north in the Springfield planning area have prime soils for agriculture (see Figure 3). These areas are currently vacant parcels which may be considered as ripe for development.

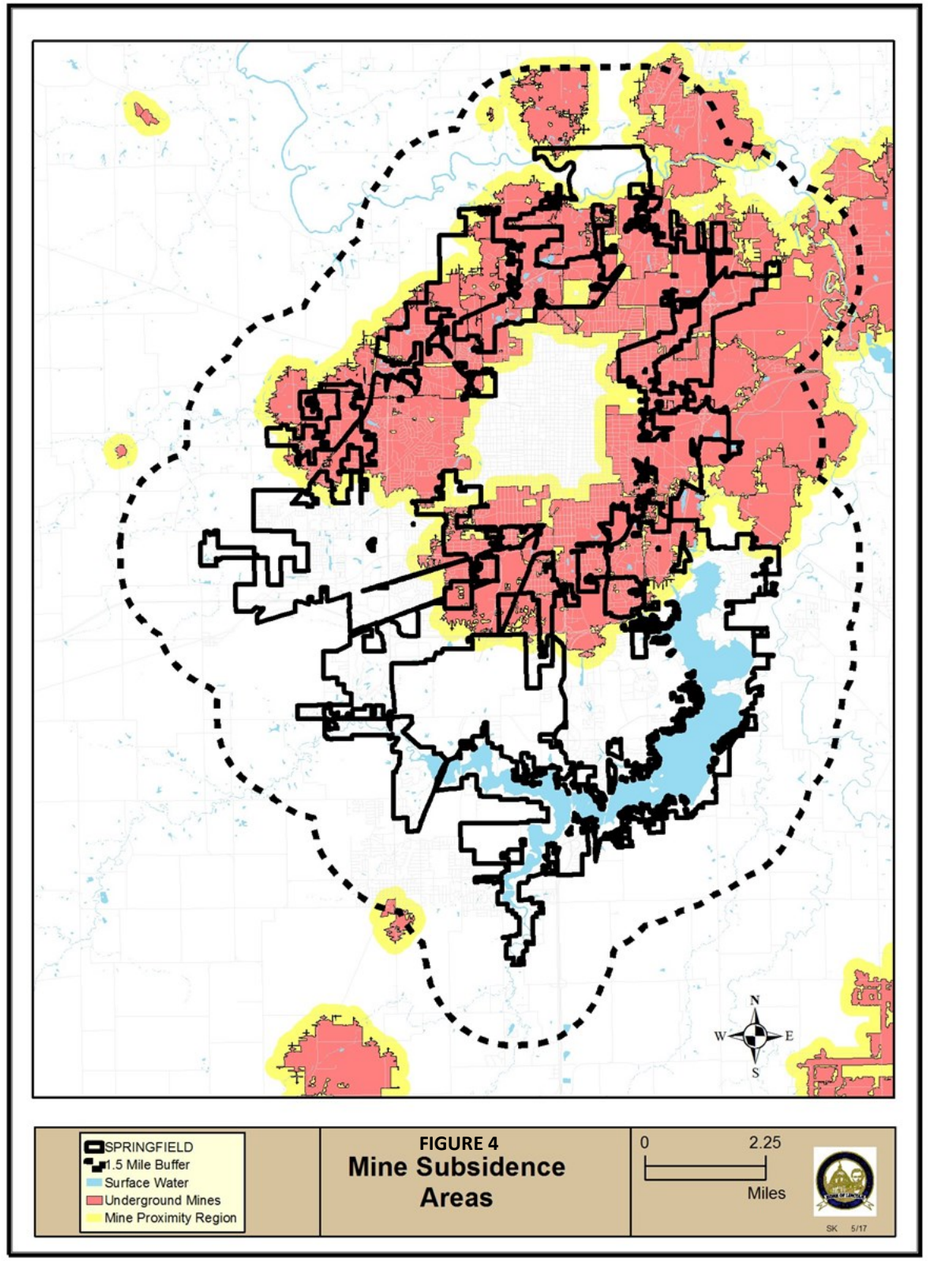
Mine Subsidence

When addressing the geology of the Springfield area, note was made of the fact that the Pennsylvania layer included deposits of coal.

It is well known that Springfield was home to coal mines throughout the latter half of the 19th and early 20th centuries, and production of coal continues in other parts of Sangamon County outside of Springfield today. At one point, Sangamon County was one of the top producing coal counties in Illinois. One legacy of this mining history is reflected in the continuing tradition of using coal as a primary energy source at the Dallman Power Plant on Lake Springfield.

Unfortunately one of the legacies of coal mining within Springfield and some of the surrounding area is a number of abandoned underground coal mines, resulting in *mine subsidence.*

Mine subsidence is the shifting of the surface soil due to underground material movements from the collapse or movement of old mine shafts. In the late 19th and early 20th centuries, it was common for mines to extract coal from approximately 100-300 feet below the surface. The Illinois State Geological Survey maintains an online map of coal mining areas throughout Illinois, including Springfield. In the red and yellow areas on the next map (Figure 4), it is more likely mine subsidence can occur.



As the map indicates, much of Springfield is ringed by a claw-shaped series of underground coal mines pointed northeast. The primary areas that do not appear to contain known underground coal mines are in the northwest, west, and southern parts of Springfield's planning area.

It is important to remember that the data on the mine subsidence map are dynamic, rather than static. A regional newspaper article mentions only about 50% of the closed or abandoned mines are mapped in Illinois (Mariano, 2015). Certain areas of Springfield have known mine subsidence particularly near Washington Street as documented by Wagner (1990). Unmapped mine shafts are discovered which can lead to changes in the data.

Mine subsidence was a topic of discussion during an update to the Sangamon County Multi-Jurisdictional Natural Hazard Mitigation Plan (HMP) in 2015. The HMP says that on average three subsidence events happen annually in Sangamon County. In areas where mine subsidence is a risk, property owners may be required to purchase a mine subsidence rider on their homeowners or business insurance. In addition, the HMP states the Illinois Mine Subsidence Insurance Fund paid 341 claims from 1979-2015 or more than eight claims per year. These claims demonstrate that mine subsidence has an impact on property in the Springfield planning area, and therefore should be taken into account in land use planning.

According to Meier and Gibson (n.d.g.) approaches taken by local, state, and federal governments in regard to mine subsidence can include, but are not limited to:

- Filling mine voids with non-compressible materials. This is expensive but has been done at least once before in Rock Springs, Wyoming in approximately 1970.
- Encouraging appropriate land use in subsidence prone areas through zoning.
- Encouraging enhanced building and engineering codes to make structures safer, more durable, and to facilitate repair.
- Taking special precautions when constructing public works projects such as roads, bridges, sewer, and public buildings.
- Providing education, map resources, and technical guidelines to the public and to developers.

Mine subsidence is a definite risk that should be considered in planning future land use in the Springfield planning area. The range of solutions above include both more cost-intensive but comprehensive approaches (adoption of stronger building and development codes or backfilling mine voids) as well as less cost-intensive approaches (providing maps or education materials).

In Summary:

- **Springfield is relatively flat, with elevations ranging from about 550 feet to 615 feet above sea level.**
- **Soils can be a constraint. Development needs to connect to gravity fed sewers to the maximum extent possible.**
- **Mine subsidence is a risk that should be considered in planning future land use in the Springfield area.**

WATERSHEDS, FLOODPLAINS & WETLANDS

Watersheds

There are several differing definitions of the term "watershed." For the purposes of this plan, the term refers to areas drained by rivers, creeks, and intermittent streams of varying sizes. In Sangamon County, watersheds commonly drain to the Sangamon River. The Sangamon River is a tributary to the Illinois River, which is in turn a tributary to the Mississippi River. Springfield has five watersheds (see Figure 5 on the next page) within 1.5 miles of its city limits. These include:

- The Lower Sangamon River to Highway 123;
- South Fork of the Sangamon River;
- Horse/Brush Creeks;
- Sugar/Lick Creeks, and;
- Spring Creek.

The most important watershed is arguably the Sugar/Lick Creek watershed because it includes the two primary tributaries to Lake Springfield.

Lake Springfield, created by damming Sugar and Lick Creeks, is the source of drinking water for the City of Springfield. This surface lake also provides a much larger amount of water (approximately 14 times the amount of drinking water in 1994) to cool the operations of the power plant (Borah, Raman, Lin, Knapp, & Soong, 1997). A more recent presentation by City Water, Light, and Power (CWLP) indicates the power plant uses approximately nine million gallons of water per day from the lake for power plant operations (2015). According to CWLP (2010), the lowest volume in Lake Springfield's history was 8.5 billion gallons during the drought in the early 1950s. This also included the lowest ever lake level since full pool was reached in May 1935 at 547.44 feet above sea level (12.56 feet below full pool) near the Spaulding Dam on December 29, 1954. This is approximately 51% of the Lake's current storage capacity of 16.7 billion gallons.

After the drought in the 1950s, CWLP constructed a waterway that allows water to be pumped from the South Fork of the Sangamon River into Lake Springfield during times of water scarcity. The highest lake level ever recorded was on April 12, 1994, at 564.5 feet. During the period of May 2015 through early April 2016, the lake level was maintained between approximately 558 and 560 feet above sea level (CWLP, n.d.g.). According to the latest state Integrated Water Quality Report (2016), a part of Sugar Creek in the urban area and apparently downstream of the dam appears to be non-supporting of aquatic life. The cause is the presence of boron, which is from an industrial point source discharge.

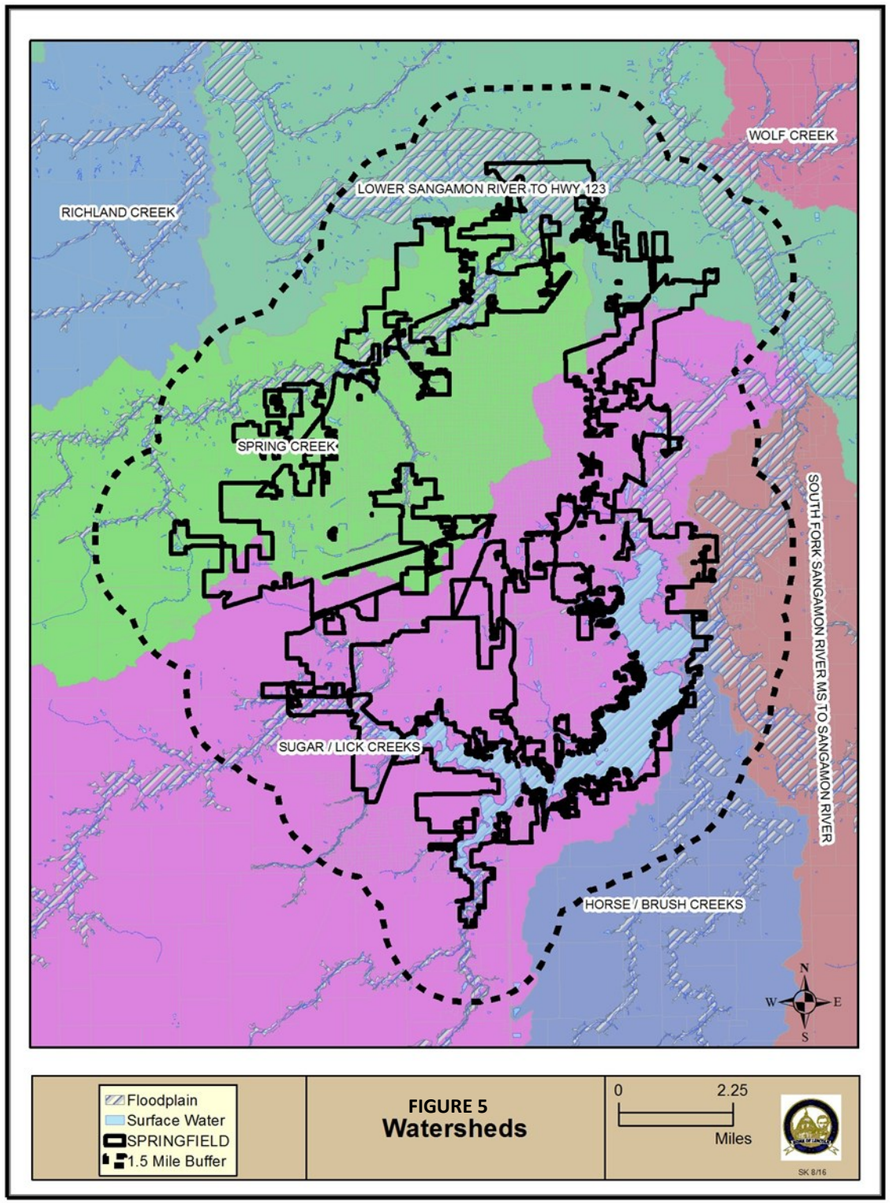
Respondents to the Community Survey thought that protection of the quantity and quality of water resources was a very high priority. Respondents rated it somewhat or very important to protect and preserve drinking water quality (96.7%), quality of water resources (96.3%), quantity of water resources (93.3%), and Lake Springfield (93.2%).

Another watershed important to Springfield is Spring Creek. According to the latest state Integrated Water Quality Report (2016), a part of Spring Creek that appears to be located in the urban area is not supporting aquatic life, fish consumption, or primary (recreational) contact, but is fully supporting for aesthetic quality. The causes for these not supporting determinations include imbalances in dissolved oxygen, polychlorobiphenyls (PCBs), sedimentation/siltation, and pH. The listed sources are unknown, crop production (crop land/dry land), and urban runoff/storm sewers. Spring Creek contains many acres of farmland upstream from Springfield and a municipal sewage plant, as well as receiving urban runoff via the Jacksonville and Town Branches.

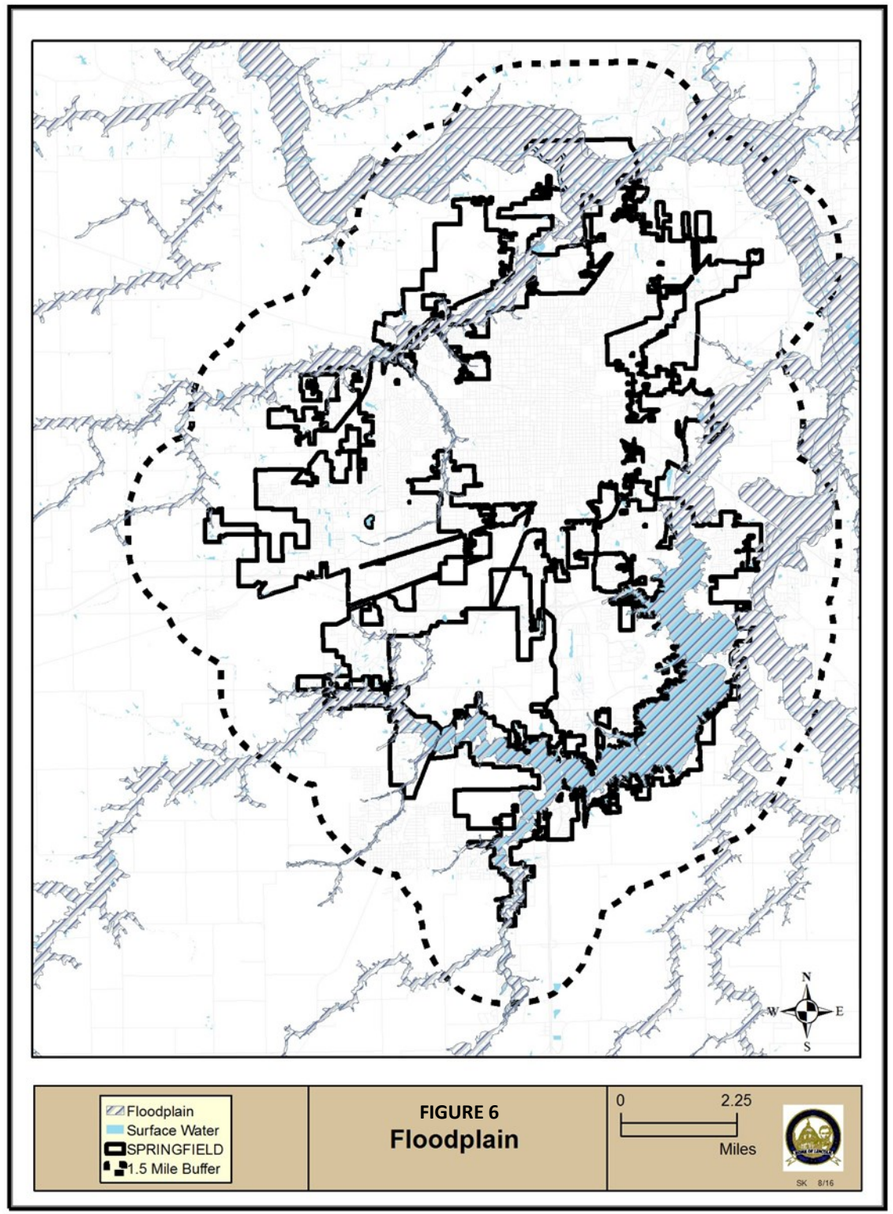
The Jacksonville Branch is a tributary to Spring Creek and drains parts of the west side of Springfield and nearby municipalities like Jerome and Leland Grove. Due in part to its heavily urbanized nature, the level and flow rates of the Jacksonville Branch can rise quickly when large rain events occur. Recent developments that had floodplain components include Springfield's construction work on the Chatham Road Bridge over the Jacksonville Branch and various on-going improvements by the Springfield Park District at Washington Park.

Important to downtown, but also serving parts of northwest and southeast Springfield, the Town Branch is a watershed that was largely covered in the late nineteenth century by a large brick sewer beginning in approximately 1865. According to Krohe (2014), the Town Branch used to form near what is now 9th and Cook Streets, which has been the scene of some urban flooding problems; in August 2014 for example. In 1999, there was a major reconstruction project on the Town Branch to strengthen the sewer system (Hanson Engineering, n.d.g.). Future efforts to restore wetlands around the stream in particular areas, especially near the Governor's Mansion, have gained some attention recently. The Town Branch is different from other watersheds in Springfield in that it is largely paved.

To ensure an adequate source of water for public drinking water and the power plant, a new water source — called Hunter Lake — has been proposed and is included in this plan. Hunter Lake would be created by damming up Horse and Brush Creeks, and would have an impact on these two watersheds. The Illinois State Water Survey "predicts a 90% probability that a 100-year drought would cause the CWLP power plants to shut down for approximately six months," (City of Springfield, 2015).



ensure buildings will not impede the flow of floodwater. Floodplains form a large crescent moon shape around Springfield. Combined with Lake Springfield (and Hunter Lake if it is developed), floodplains form a barrier which contributed to development patterns in the Springfield planning area to the south and west during the City's history. The following map (Figure 6) indicates areas where floodplains are located.



Floodplains

According to Section 150.02 of the Springfield Floodplain Ordinance, a flood is, "a general and temporary condition of partial or complete inundation of normally dry land areas from the overflow, the unusual and rapid accumulation, or the runoff of surface waters from any source." A floodplain is an area around a stream, river, creek, lake, or other body of water that contains floodwaters. Development is generally prohibited in the 100-year floodplain (or areas which have a 1% chance of flooding in a given year) absent preventive measures to

Several areas of potential flooding are of greatest interest in the Springfield planning area. The Jacksonville Branch on the west side of Springfield is important as it is heavily developed. As structures are remodeled or the grading in the area is completed, it is necessary to closely monitor the impacts to the Jacksonville Branch to ensure there are no great changes to the level or the velocity of the stream. The Jacksonville Branch has multiple jurisdictions with which it can have an impact, as noted in the *Watersheds* section, above. Spring Creek has some residences that are located in its floodplain. Sugar Creek has several structures located in the floodplain. In addition, there are parts of some parks that are located in the Sangamon River floodplain. Lake Springfield has a number of structures near it that are located in the floodplain. Community Survey results indicate that 88.8% of respondents think it is very important (62.8%) or somewhat important (26.0%) to protect and preserve areas in Springfield prone to flooding.

Additionally, the Hazard Mitigation Plan identifies the following projects to be completed in the next few years regarding the floodplain.

- Acquire repetitively flood-damaged properties in the floodplain.
- Develop a storm water master plan and regulations.
- Monitor sensitive areas, then perform alternatives analysis to address sewer capacity issues.
- Improve local drainage areas prone to flooding.

Wetlands

Wetlands throughout the area are classified using a taxonomy developed by the United States Fish and Wildlife Service (Cowardin, Carter, Golet, & LaRoe, 1979/1992). For the Springfield planning area, the top three wetlands codes are described in Figure 7 by their acreage. Combined, these three codes include approximately 79% of the wetlands in the Springfield planning area.

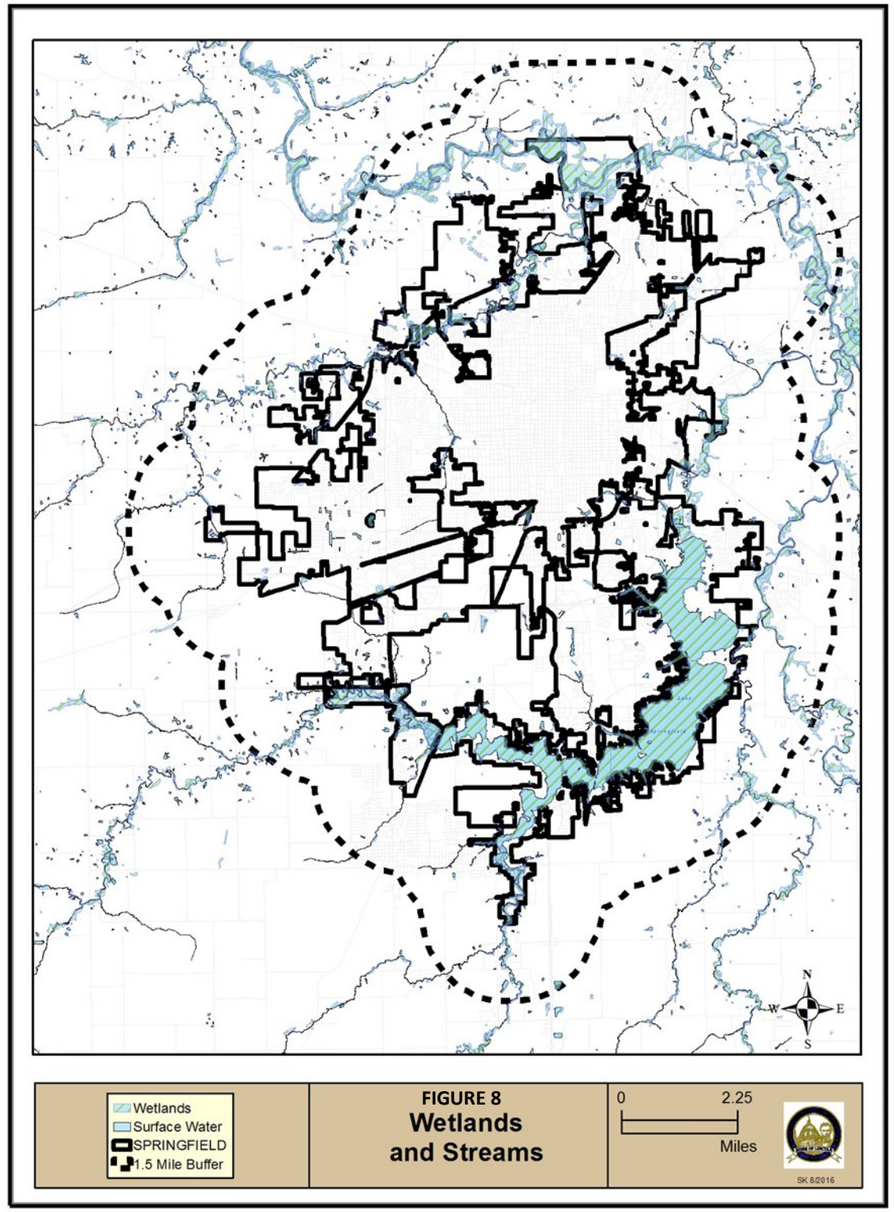
FIGURE 7: Top Three Wetland Codes in Springfield Area

Code	Description	Acreage	% of Total
L1UBHh	Lacustrine, Limnetic, Unconsolidated Bottom, Permanently Flooded, Diked /Impounded	3,819	44.0
PFO1A	Palustrine, Forested, Broadleaf Deciduous, Temporarily Flooded	2,613	30.1
PUBGh	Palustrine, Unconsolidated Bottom, Intermittently Exposed, Diked/Impounded	435	5.0

The most prevalent type of wetlands found in the Springfield planning area is an L-coded, or *Lacustrine*, wetland (approximately 44% of wetlands). Lacustrine wetlands in Springfield mean the lake area, as this wetland type is in dammed river (or creek) channels, lack trees, and are larger than 20 acres (Cowardin et al, 1979/1992). Lacustrine wetlands are overwhelmingly found in the main body of Lake Springfield near the power plant, as well as a much smaller pond near the Illinois Department of Transportation's Hanley Building on Dirksen Parkway.

The second most prevalent type of wetlands found in the Springfield planning area is a P-coded, or *Palustrine*, wetland (approximately 35%). More typically called prairies, bogs, fens, or marshes, Palustrine wetlands tend to be found near rivers and streams (Cowardin et al, 1979/1992). The larger of the two types of Palustrine wetlands commonly found in the Springfield planning area are broadleaf deciduous leaf trees, and are temporarily flooded, meaning they are near streams. Important streams with Palustrine wetlands, particularly coded PFO1A, include Sugar Creek north of the dam, Horse Creek north of its confluence with Brush Creek, Spring Creek on the northwest side of the Springfield planning area, and the Sangamon River.

Wetlands are an important natural area that can be worthy of preservation. Many of the best example wetland areas, especially near Lake Springfield and the Sangamon River, are protected through public and/or non-profit ownership. The following map (Figure 8) includes all coded wetlands in the Springfield planning area.



In Summary:

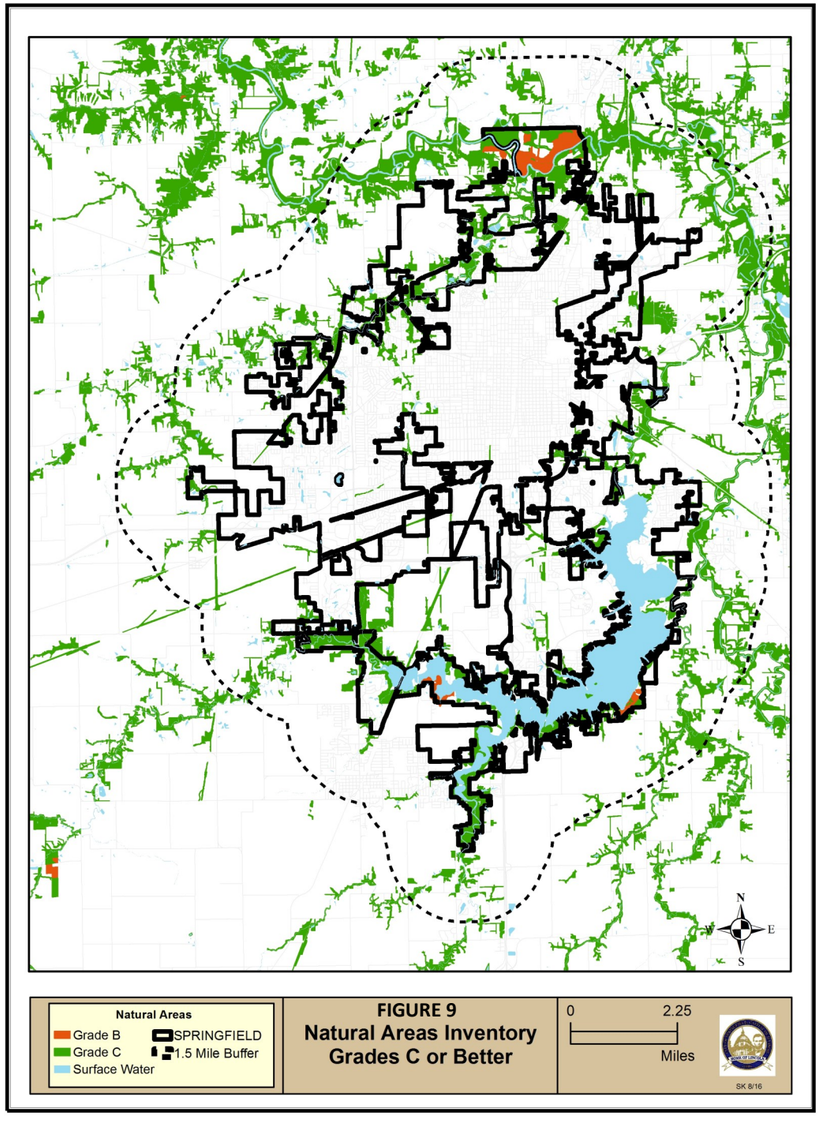
- **Watersheds are important to consider in planning for future land use in Springfield.**
- **Floodplains and Lake Springfield form a natural ring around Springfield pushing development west.**
- **Most wetlands in Springfield's planning area are concentrated near the lake.**

NATURAL AREAS AND WILDLIFE

Natural Areas Inventory

In 2004, the Friends of the Sangamon Valley contracted with LaGesse and Associates to complete an inventory of natural areas in Sangamon County, resulting in the Natural Areas Inventory (NAI). This work built upon the Sangamon County Greenways and Trails Plan (1997), developed by the SSCRPC, that documented various open space and recreational trail opportunities throughout the region.

The NAI builds upon federal Fish and Wildlife Service wetlands classifications to grade the quality of natural areas according to a scale developed for the Illinois Department of Natural Resources, summarized below:



- **Grade A:** Relatively stable or undisturbed communities.
- **Grade B:** Late successional or lightly disturbed communities.
- **Grade C:** Mid-successional or moderately to heavily disturbed communities.
- **Grade D:** Early successional or severely disturbed communities.
- **Grade E:** Very early successional or very severely disturbed communities.

Grade B natural areas tend to have a stable character and are no longer rapidly changing. Grade C natural areas tend to have had their original character destroyed and a greatly changed composition (LaGesse & Associates, 2004).

For the purposes of this plan, the map to the left (Figure 9) identifies natural areas within the Springfield planning area with grades of C or higher on the NAI. Grade C and higher was selected as these grades include the least disturbed plant communities.

The map indicates three concentrations of grade B natural areas in the Springfield planning area. One is located north, near Carpenter and Riverside Parks on the north side of the Sangamon River. The NAI recommends protection of this area to the maximum extent possible through easements or acquisition by the public or conservation groups. A second area is located to the southeast of Lake Springfield along a stretch of approximately one mile near Lincoln Memorial Gardens and by the intersection of Pawnee Road with East Lake Shore Drive. Some of this area is already in public ownership. The third significant area of grade B natural areas is along the southwest portion of Lake Springfield east of Iron Bridge Road and near Iron Bridge Estates Subdivision in Chatham. Portions of this natural area are in public ownership and portions are in private ownership.

The map indicates various natural areas with grade C, mostly concentrated along current/former railroad corridors or near watersheds. Sometimes grade C natural areas can have important potential impacts in multi-modal corridor planning. For example, there is a grade C natural area near Tuxhorn Road that appears to have a potential connection as a spur to the Lost Bridge Trail under Route 29. The spur could be an important pedestrian crossing over or under Route 29 for the residents along Tuxhorn Road. This spur was called out for protection in both the Greenways and Trails Plan (1997) and the Springfield 2020 Comprehensive Plan. It is described here in more detail to show the importance of maintaining greenways for more than just their potential natural amenities.

Endangered and Threatened Species

The following table (Figure 10) indicates lists of federal and state threatened and endangered species that appear for Sangamon County, and thus Springfield.

FIGURE 10: Endangered and Threatened Species*

FEDERAL (US Fish and Wildlife Service)		
Common Name	**Scientific Name**	**Status**
Indiana bat	*Myotis sodalis*	Endangered
Northern long-eared bat	*Myotis septentrionalis*	Threatened
Eastern prairie fringed orchid	*Platanthera leucophaea*	Threatened
STATE (Illinois DNR- List as of October 2016)		
Common Name	**Scientific Name**	**Status**
Smooth softshell (turtle)	*Apalone mutica*	Endangered
Short-eared Owl	*Asio flammeus*	Endangered
Northern harrier	*Circus cyaneus*	Endangered
Loggerhead shrike	*Lanius ludovicianus*	Endangered
Indiana bat	*Myotis sodalis*	Endangered
Black-crowned night heron	*Nycticorax nycticorax*	Endangered
Heart-leaved plantain	*Plantago cordata*	Endangered
Royal catchfly	*Silene regia*	Endangered
Great Chickweed	*Stellaria pubera*	Endangered
Kirtland's snake	*Clonophis kirtlandi*	Threatened
Least bittern	*Ixobrychus exilis*	Threatened
Bunchflower	*Melanthium virginicum*	Threatened
Mudpuppy	*Necturus maculosus*	Threatened
Franklin's ground squirrel	*Spermophilus franklinii*	Threatened
Ornate box turtle	*Terrapene ornata*	Threatened
Lined snake	*Tropidoclonion lineatum*	Threatened
Barn owl	*Tyto alba*	Threatened

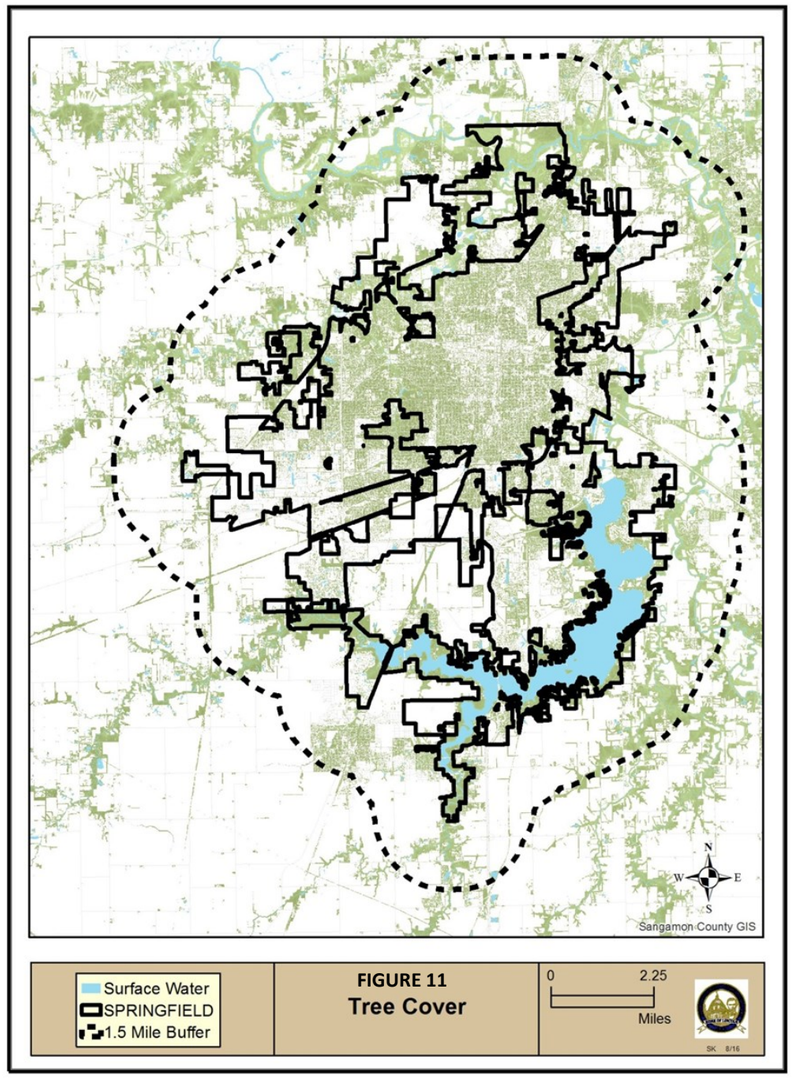
*Blue text denotes a federal endangered species. Red text denotes a state endangered species.

The species list is derived from the U.S. Fish and Wildlife Service and Illinois Department of Natural Resources websites, respectively. One species that is common to both lists is the Indiana bat. It is listed as a federally endangered species. In Illinois, its range appears to be every county except for Cook and the Collar Counties (DuPage, Kane, Will, McHenry, and Lake). While every effort was made to ensure these lists are as updated as possible (as of early May 2017), the species lists can and do change. Consultation with the appropriate agency is needed for development projects.

Certain species on the state list have habitats near common development sites, such as Lake Springfield for the black crowned night heron, or near Wabash and Centennial Park on the west side for the Franklin ground squirrel. Property owners and the real estate community should be aware that threatened and/or endangered animals could influence both land use and development decisions during the life-span of this comprehensive plan. Although not as supportive as with some other environmental options, 76.6% of Community Survey respondents thought it was very (41.2%) or somewhat (35.4%) important to protect endangered or threatened species.

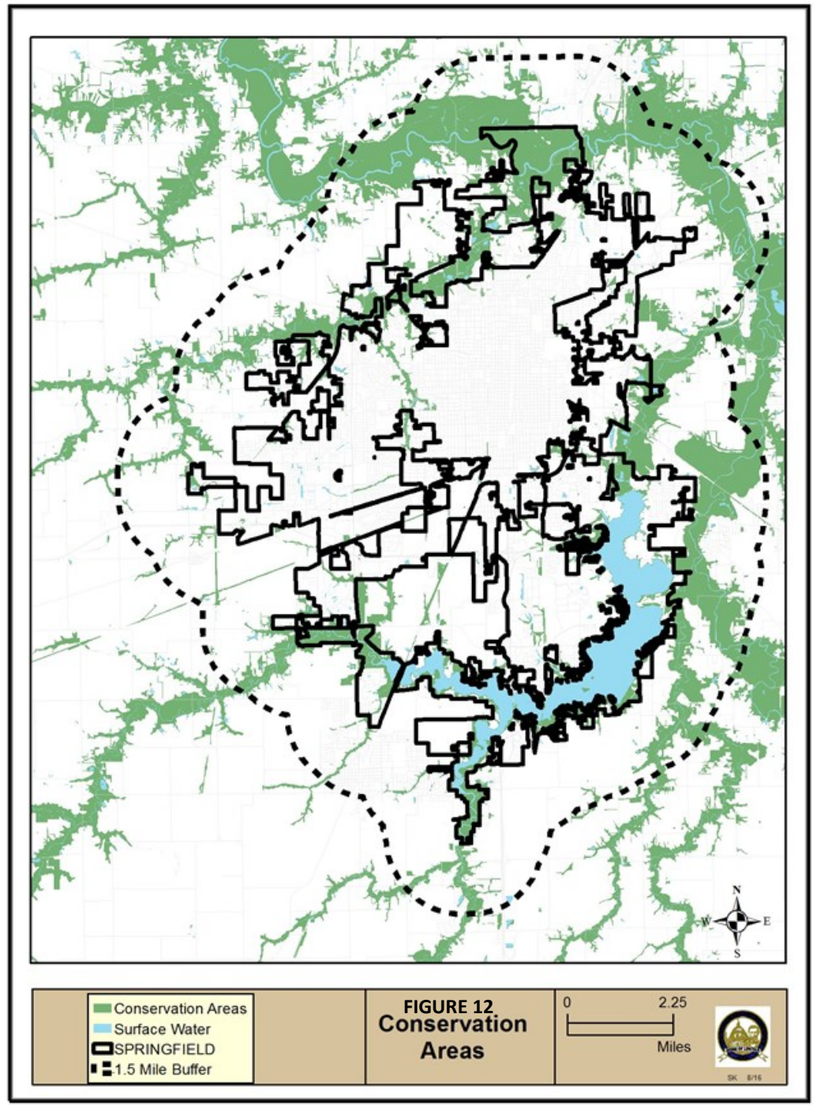
Tree Cover

Springfield has been proud of its designation as a "Tree City". Maintaining a city's tree cover is not unimportant as trees provide several benefits to residents. They help provide shade from the heat of summer and cover from the sun. They act as a filter, converting carbon dioxide into oxygen. And from a planning perspective, tree-lined streets have desirable qualities such as helping with home sales, enhancing a neighborhood's character, and providing a measure of privacy for residents. Figure 11, derived from 2007 data, shows the tree cover in the Springfield planning area. It indicates tree cover is denser in specific areas such as: the west and south sides of Springfield; near Carpenter Park; and, near many streams.



Identifying Areas for Protection and Conservation Efforts

What natural areas are worthy of conservation? Ultimately, this is a planning and policy decision for Springfield. However the following map (Figure 12) indicates areas that should be considered for conservation and protection. They include areas that: are within the 100-year floodplain; are graded C or better on the natural areas inventory; or have coded wetlands. The rationale for choosing these areas includes, but is not limited to, the areas that have been studied and/or identified in reports, official maps, and regulations as being areas where the land should be conserved and development should be limited. Many of these areas already have development constraints due to mechanisms such as floodplain ordinances and public or non-profit ownership. The map is a way to identify potential conservation areas for land use planning purposes.



In Summary:

- **Springfield has an existing natural inventory that can help prioritize natural areas for conservation.**
- **Threatened/endangered species can and do play a role in land use and development decisions.**
- **Springfield has many desirable tree-lined areas such as near Washington Park.**

REFERENCES

Bergstrom, R.E., Piskin, K., & Follmer, L.R. (1976). ***Geology for Planning in the Springfield-Decatur Region, Illinois.*** **Illinois State Geological Survey: Urbana, IL.**

Borah, D.K., Raman, R.K., Lin, S.D., Knapp, H.V., & Soong, T.W.D. (1997). ***Water Quality Evaluations for Lake Springfield and Proposed Hunter Lake and Proposed Lick Creek Reservoir.*** **Retrieved from http://www.isws.illinois.edu/pubdoc/CR/ISWSCR-621.pdf**

Chakraborty, A. & McMillan, A. Scenario planning for urban planners: Toward a practitioner's guide. ***Journal of the American Planning Association*****, 81(1): 18-29.**

City of Springfield. (2015). ***Hunter Lake*****. Retrieved from http://www.springfield.il.us/Docs/Stat%20Sheet%20Aug%202015.pdf**

City Water Light and Power. (n.d.g.). ***Lake Level Table*****. Retrieved from http://www.cwlp.com/lake/lakelevels/leveltable.html#table**

City Water Light and Power. (2010). ***Lake Springfield: 1935-2010*****. Retrieved from http://www.cwlp.com/lake/Lake75PampForWeb.pdf**

City Water, Light, and Power (2015). [PowerPoint presentation dated May 12, 2015]. ***Water Demand Analysis and Supplemental Water Supply Evaluation.*** **Retrieved from http://www.springfield.il.us/Docs/WATER%20DEMAND%20ANALYSIS%20AND%20SUPPLEMENTAL%20WATER%20SUPPLY%20EVALUATION%205-15.pdf**

Cowardin, L.M., Carter, V., Golet, F.C., & LaRoe, E.T. (1979/1992). ***Classification of Wetlands and Deepwater Habitats of the United States.*** **Retrieved from: http://www.fws.gov/wetlands/Documents/Classification-of-Wetlands-and-Deepwater-Habitats-of-the-United-States.pdf**

Hanson Engineering. (n.d.). ***Town Branch Sewer Rehabilitation*****. Retrieved from http://www.hanson-inc.com/projects.aspx?projectid=92s2035**

Illinois Environmental Protection Agency. (2016). [Table Appendix A-2 &B-2. Illinois' 2016 303(d) list (sorted by name)]. ***Integrated Water Quality Report and 303d Lists.*** **Retrieved from http://www.epa.illinois.gov/Assets/iepa/water-quality/watershed-management/tmdls/2016/303-d-list/appendix-a2.pdf**

Krohe, J, Jr. (1977, Jan. 6/2014, Sept. 4). Back to the Town Branch. ***Illinois Times.*** **Retrieved from http://illinoistimes.com/article-14423-back-to-the-town-branch.html.**

LaGesse & Associates. (2004). ***Inventory of Sangamon County Natural Areas*****. Friends of the Sangamon Valley: Springfield, Illinois.**

Mariano, N. (2015, Jul 19). Could there be a mine below your house. ***The Southern Illinoisan.*** **Retrieved from http://www.thesouthern.com/news/could-there-be-a-mine-below-your-house/article_d77844ce-fa51-530a-bf95-204d9b32f8ba.html**

Meier, L., & Gibson, R. (n.d.). ***Approaches to mine subsidence in four U.S. communities.*** **Retrieved from https://fs.ogm.utah.gov/pub/MINES/AMR_Related/NAAMLP/MeierGib.pdf**

National Weather Service. (2016). (Graph illustration Springfield, IL – 2015]. ***Annual Climate Summary for Springfield for 2015*****. Retrieved from http://www.weather.gov/ilx/spi2015**

Wagner, P. (1990, Feb 21). Long after mine collapse, Springfield still has sinking feeling. ***Chicago Tribune*****. Retrieved from http://articles.chicagotribune.com/1990-02-21/news/9001150567_1_mine-collapse-repairs-houses**

APPENDIX 3: REVIEW OF SPRINGFIELD'S UTILITY INFRASTRUCTURE

WASTE WATER MANAGEMENT IN SPRINGFIELD

The waste water management system for the Greater Springfield Area is operated and maintained by the Sangamon County Water Reclamation District (District) and the City of Springfield. The majority of the sanitary sewer lines within Springfield's corporate limits are maintained by the City of Springfield. The District oversees the treatment of all waste water of those areas within the designated Facility Planning Area (FPA) while maintaining some sewer lines and administering the sanitary sewer permitting process for development. The FPA is the area approved by the Illinois Environmental Protection Agency that the district is allowed to serve. The FPA and areas served can be seen in Figure 1, to the right.

The District is served by two treatment plants. The District's Spring Creek Treatment Plant serves approximately two-thirds of the City of Springfield and surrounding communities. Originally built in 1929, upgrades made in 2012 to the plant can support treatment of up to 80 million gallons a day. The daily average in 2015 was roughly 22 million gallons per day (Munks, 2015). In 2007 the District projected growth to 2031 of 40%, or nearly 40,000 people in the area served (SMSD, 2007).

The District's Sugar Creek Treatment Plant serves the remaining one-third of the City of Springfield, as well as surrounding communities. Originally built in 1973, the District expects to complete upgrades to their Sugar Creek Plant by 2018 (Munks, 2015) When completed, the Plant will have a capacity of 37.5 million gallons and a projected average flow of 15 million gallons per day. The District has projected 16% population growth, approximately 8,400 people, by 2031 for the area served by the Plant (SMSD, 2007).

While it is possible for the District to serve any property within the FPA, and projected population growth estimates fall well within the range of what the District can serve, the density of development may be limited. Sanitary sewer and wastewater treatment in the Springfield area is built to support a maximum density of 15 Population Equivalents (PE) per acre. As a gauge for development, a single family home is measured at 3.5 PE (Humphrey, 2016).

The City of Springfield maintains 140 miles of combined sewer and 355 miles of sanitary sewer within its city limits. A combined sewer handles both waste water as well as sanitary, and is no longer considered an acceptable practice for new sewer development.

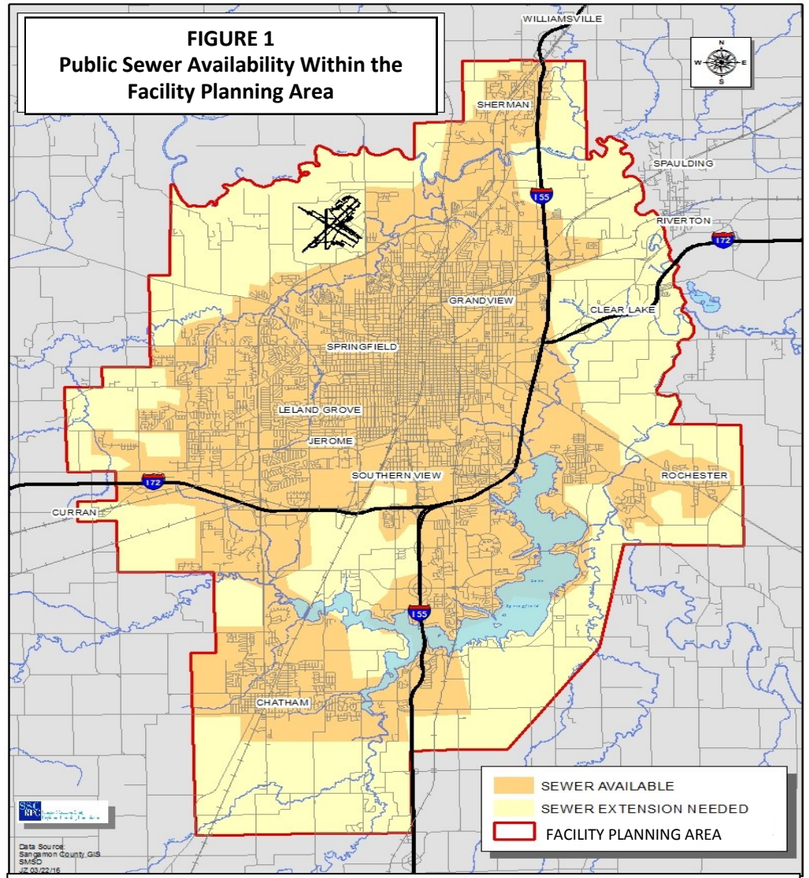
The existing sewer infrastructure dates from the 1800's to the present day and includes brick, clay, concrete, and modern PVC sewer lines, with most of the older — particularly brick — sewers being of the combined type (City of Springfield, 2014). The current average age of the collection is just over 50 years, and is trending upwards. To maintain the current average age the system will require a perpetual investment of $30 - $40 million per decade to rehabilitate, replace, or construct sewers (Higginbotham, 2016). The City's current plan identifies approximately $55 million in proposed projects to be completed over the next 10 years, with a Capital Improvement Plan detailing projects and expenditures for the first 5 years (City of Springfield, 2014).

The District is in the process of providing sewer service to properties in the Lake Springfield area, eliminating the need for personal sewage disposal systems and decreasing the risk of water contamination from those systems. Approximately 50% of Lake Lease properties are currently connected to public sewer, and the District plans to complete the project by 2025 (Humphrey, 2016). Additionally, the replacement of the District's North Grand and South Park lift stations is planned.

In Summary:

- **The extension of sanitary sewer in Springfield is largely driven by development. The District has the ability to provide sanitary sewer to any location within its FPA. However, the cost of extending sewer may be cost prohibitive for development in some areas.**

FIGURE 1
Public Sewer Availability Within the Facility Planning Area



The District's FPA is outlined above in red. Two service areas are delineated within the FPA. The area identified in orange are those areas where public sewer is more immediately available to serve development. The area identified in yellow currently does not have sanitary sewer available but may be served in the future.

- **The District has capacity to serve the growth projected though 2031. Since the District's population projections were last done (2007), development in the Springfield area has slowed considerably and the District's capacity may outlast the previous projections. The population estimates prepared for this plan indicate this slower growth.**
- **Although the system is capable of handling the population growth estimated the city, the density of development may be limited at a maximum of 15 PE per acre.**
- **Significant investments will be required by the City to maintain or improve the current state of City owned sewers.**
- **Future priorities for the district include completion of the Sugar Creek Treatment Plant expansion, extension of sewer to all Lake Lease properties in Springfield, replacement of the North Grand and South Park lift stations, and the continued maintenance of existing sewer and treatment plants to comply with EPA regulations.**
- **Status of the combined sewers will become more important in future years due to environmental concerns.**

PUBLIC WATER

Springfield's City Water, Light & Power (CWLP), a public utility and department of the City of Springfield, provides water to more than 53,000 households and businesses, serving a population of approximately 147,750 customers. The CWLP service area, shown in Figure 2, encompasses a majority of Springfield, the villages of Southern View and Leland Grove, as well as other, unincorporated, areas near the city. In addition to providing potable water to Springfield residents, CWLP supplies the local utilities of several surrounding villages and water cooperatives although it doesn't serve their residents directly.

CWLP uses water pumped from Lake Springfield to supply its customers. In 2015, CWLP distributed an average of 21 million gallons of potable water per day. This usage represents slightly less than half of the 47 million gallons per day capacity CWLP is capable of distributing. Future water demand analysis based on population growth and water availability for CWLP served areas shows a baseline forecast of an average of 22.92 million gallons per day use by 2065. Additional analysis shows drought conditions or high growth could push the average use to 23.39 or 25.06 million gallons per day respectively (CDM Smith, 2015).

In 2014 CWLP completed an upgrade of their existing clearwells adding a new 6 million gallon clearwell. This clearwell replaced the oldest of the clearwells in service, which was built in 1930. The new clearwell addition increased the water treatment plant's on-site storage capacity from 6 million gallons to 10 million gallons (CWLP, 2008). Along with the decommissioned clearwell, some of the water distribution pipes in Springfield were installed in the 1930's and the life expectancy of the pipes is around 100 years. While many of the pipes are still in good condition and are expected to be safe and useful beyond their life expectancy, CWLP annually tests the pipes for leaks and replaces damaged infrastructure as needed (Johnson, 2016).

As growth in Springfield has moved west, some development has extended into the Curran-Gardner Water District. (CGWD). The CGWD extends east to Veterans Parkway and serves areas annexed after 2009, as shown in Figures 3 and 4. As of 2016, CGWD has a storage capacity of 1.7 million gallons and serves 2,500 customers from its wells. Upgrades to the CGWD water plant, that started in 2016, will enable it to produce 1000 gallons per minute and double their treatment capacity (Nelson, 2016). Through a cooperative agreement with CWLP, the Curran-Gardner district is able to serve customers using CWLP water if it is more practical than extending a new main. CGWD also has a 4" water main connected to CWLP water to provide service in the case of an emergency. CGWD had plans underway to complete an interconnection with the Village of New Berlin water system by the fall of 2016 to provide additional back-up.

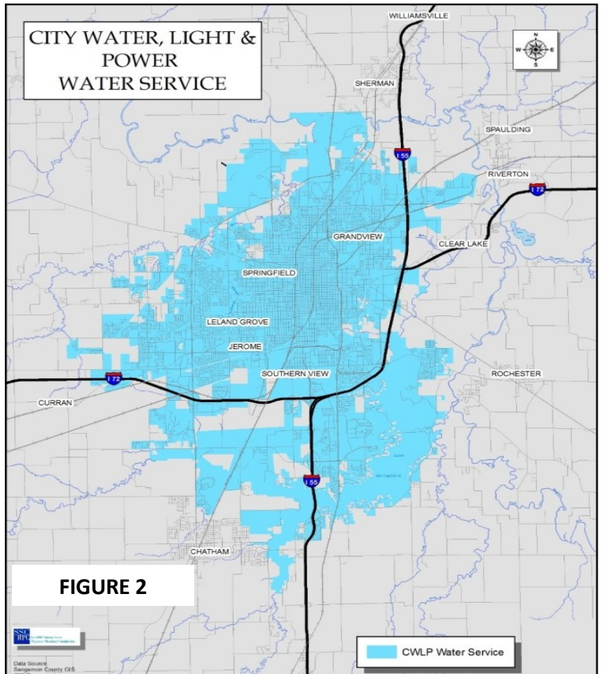


FIGURE 2

CWLP's direct water service area is shown above in blue. Along with providing water directly to customers in this area, CWLP wholesales water to some surrounding Villages and water cooperatives.

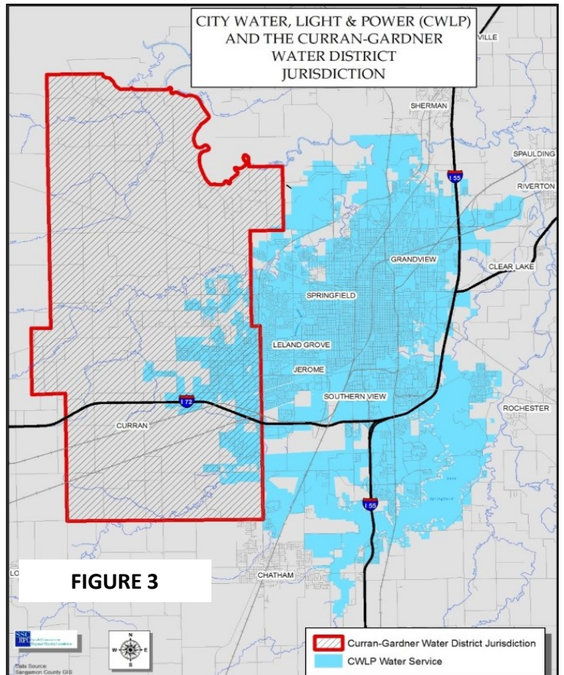


FIGURE 3

The Curran-Gardner Water District serves some customers within the City of Springfield.

The primary objective of the Curran-Gardner Water District is to supply potable water to its customers. While this allows more areas to be served with clean drinking water, the necessary capacity for fire-flows is not provided in most areas which may limit the density of residential and commercial development if Springfield continues to grow westward. Areas adjacent to the current CWLP direct water service area that are served cooperatively by CGWD and CWLP, can be provided with fire-flow capacity in most instances.

In Summary:

- **Water service to Springfield residents is predominately provided by the city's public utility, CWLP, although some properties in the western portion of the city may be served by the Curran-Gardner Water District.**
- **The extension of water service in Springfield is currently driven by development and is, therefore, reactive.**
- **CWLP and the Curran-Gardner Water District have the ability to provide water to any area within their jurisdictions, however, the cost of extending water to some undeveloped areas will be at the expense of the developer.**
- **Curran-Gardner currently serves 2,500 customers and has a storage capacity of 1.7 million gallons. Updates to the plant will double the treatment capacity of the District.**
- **Based on the most likely population estimate for Springfield from 2017 to 2037, water service can be adequately provided at current capacity. Based upon its estimates, CWLP has the ability to serve projected water use to at least 2065.**
- **If the City continues to grow westward, the density of development may be limited by the availability of water lines able to provide adequate fire-flow capacity for developments. This may require larger lot sizes in these areas to address fire risks in the absence of necessary fire-flow.**

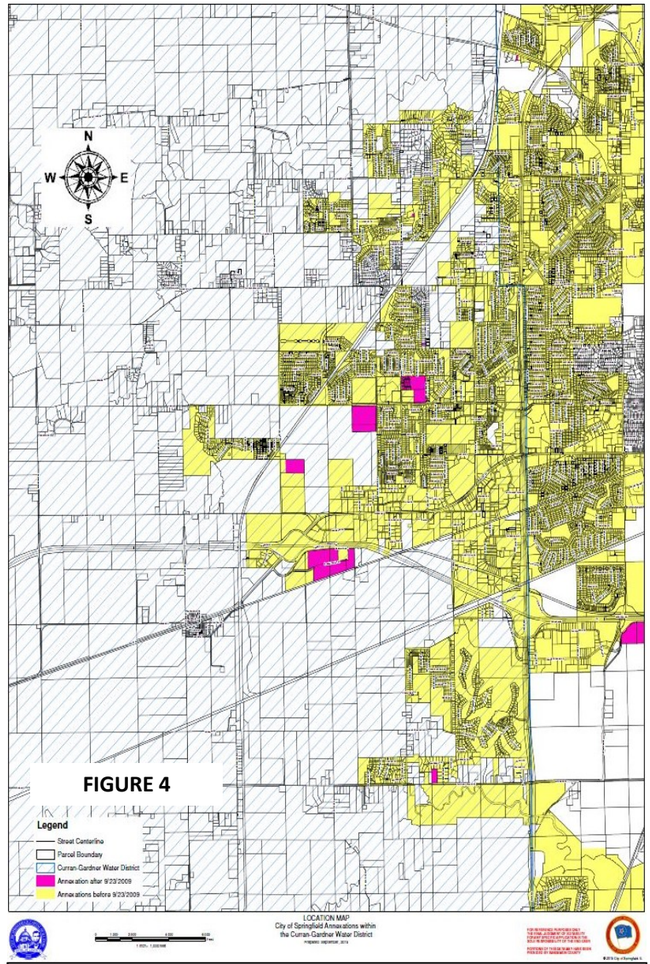


FIGURE 4

Since 2009, new development in Springfield's western areas has been metered by the Curran-Gardner Water District.

ENERGY

City Water, Light & Power (CWLP) provides electricity to homes and businesses in Springfield. CWLP provides direct service to areas within Springfield's corporate limits and also provides electricity to those municipalities surrounded by the City of Springfield, such as Leland Grove, Jerome, Southern View, and Grandview. The areas served by CWLP can be seen in Figure 5. Along with their direct service, CWLP wholesales power to some surrounding communities and is part of greater Midwestern system buying and selling electricity. Areas outside the corporate limits of the City, but within its 1.5 mile subdivision jurisdiction are served by a combination of Ameren Electric, and other local electric cooperatives.

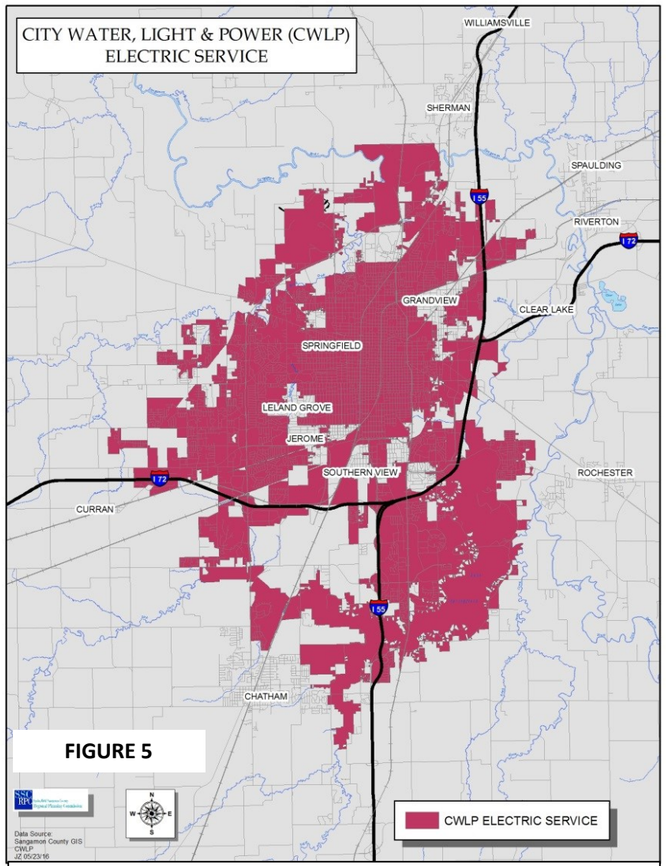


FIGURE 5

CWLP Electric directly serves customers within the City of Springfield.

CWLP's electric facilities include the Stevenson Drive plant complex, which houses the Dallman and Dallman 4 coal fired power stations and three diesel generators. In 2009, CWLP commissioned a new 200 megawatt power station. The project provided the first new base-load capacity added by CWLP in three decades and has increased the total net generating capacity by 17%. The construction of Dallman 4 incorporated state of the art emissions control systems making it one of the most environmentally friendly coal fired plants in the U.S. Adding the new capacity also allowed CWLP to decommission two inefficient plants built in the late 1950's and early 1960's (CWLP, 2009). In order to supplement CWLP existing facilities, CWLP has also entered into an agreement to purchase up to 120 megawatts of wind powered energy each year (CWLP, 2016).

Currently CWLP directly serves 70,039 individual electric meters though more than 950 circuit miles of cable. CWLP has the capability to generate a maximum of 572 megawatts (Bixby, 2016) to serve the City's current and future needs. The current capacity greatly exceeds the reported 2015 maximum native load demanded by consumers within the City, 395 megawatts, and the record demand was 420 megawatts (CWLP, 2016).

Like other utilities in the Springfield area, expansion of CWLP electric facilities is driven by development and annexation of property to the City. The utility takes on customers as they enter the Springfield corporate limits.

In Summary:

- **The extension of electric in Springfield is largely driven by development.**
- **CWLP has the ability to provide electric service anywhere within the corporate limits of Springfield. However, the density or type of development to be served may require the construction of a new substation or other transmission facilities.**
- **CWLP can currently generate 572 megawatts of power, and purchases up to an additional 120 megawatts of wind power. This capacity is sufficient to serve the current needs of the City and future growth.**

COMMUNICATION INFRASTRUCTURE

The modern communication infrastructure necessary for most purposes includes telephony, internet access, radio, and television. Due to technological advances in all of these areas, this infrastructure is available from providers on demand in all parts of the city. Anticipated advances in technology are expected to simply accelerate this availability.

Telephone access in Springfield is provided via landlines, wireless mobile, as well as through various forms of internet access. Landline access is available throughout the city, although cell phone access is commonplace for telephone communication. The city and its surrounding area are adequately served by the towers necessary to provide mobile phone access, and more-and-more of these towers are being placed in locations where they are not considered a visual blight. These "stealth" tower locations may be encouraged over the next several years and become commonplace. The availability of this access also makes internet access available through mobile connections.

Internet access is also widely available for most users, with 100% of the area capable of being served by fixed wireless providers. It is most often provided to businesses and households through wired provider services via cable and DSL, but it is also available through other fixed wireless means, such as by "dish" connections and mobile services. To the extent that access is limited, it is more often limited by cost than location.

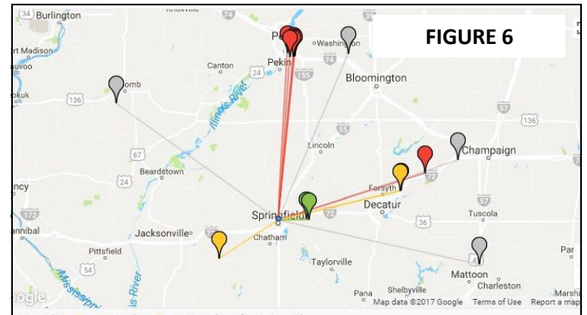


FIGURE 6

Station	Network	Channel	Location	Miles Away	Direction	Frequency (MHz)
KCIA	CBS	3	CHAMPAIGN, IL	66.8	ENE	680
WILL	PBS	12	URBANA, IL	54.4	ENE	192
WSEC	PBS	14	JACKSONVILLE, IL	25.2	SW	482
WAND	NBC	17	DECATUR, IL	44.5	E	494
WHOI	ABC	19	PEORIA, IL	58.9	N	506
WICS	NBC	20	SPRINGFIELD, IL	10.0	E	644
WMEC	PBS	22	MACOMB, IL	70.5	NW	518
WBUI	CW	23	DECATUR, IL	44.2	E	524
WEEK	NBC	25	PEORIA, IL	57.4	N	542
WMBD	CBS	31	PEORIA, IL	57.8	N	572
WYZZ	FOX	43	BLOOMINGTON, IL	63.3	NNE	560
WTVP	PBS	47	PEORIA, IL	57.2	N	668
WEIU	PBS	51	CHARLESTON, IL	73.1	E	692
WRSP	FOX	55	SPRINGFIELD, IL	10.8	E	656
WAOE	MY NETWORK TV	59	PEORIA, IL	58.3	N	626

Over the air television broadcast distance of Springfield. Source: Nocable.com.

In portions of Springfield's extra-territorial jurisdiction access to high-speed internet services is limited due to these areas not being served by cable television carriers who also offer internet access, along with telephone access. Access to the internet is also being advanced by the City of Springfield, which has provided free public wifi in the downtown area. It is anticipated that this service will continue to grow in the coming years.

There do remain residents of Springfield who do not have access to the internet due to the cost of the equipment and the cost of the service. Efforts have been made, however, to provide this service to poorer residents through Springfield's Lincoln Public Library, and it is also offered by some not-for-profit organizations. All of the schools systems and colleges serving Springfield and its extra-territorial jurisdiction have significant access to high speed internet services.

According to Radio Locator (www.radio-locator.com) there are currently 63 radio stations that may be within listening range of Springfield (using 39° 47' 00" N, 89° 39' 01" W as the center point for assessing range). These include AM & FM broadcast facilities as well as those broadcasting digitally. Access to digital radio services remains limited. The availability of radio is particularly critical to the area during storm events, but is also important in informing the public during disasters, as such events may cause loss of power and television availability. The Springfield area is served by NOAA All Hazards Weather Radio, broadcasting as WXJ75.

According to Nocable.com, six television stations provide adequate over-the-air digital access to Springfield residents, being within 50 miles of Springfield's center point (Figure 6). Ten additional stations in Champaign, Bloomington, Macomb, Peoria and Urbana are also in broadcast range of some portions of Springfield and its extra-territorial jurisdiction, being within 80 miles. Along with over-the–air television availability, the city is also adequately served by various paid television service providers. These include Directv, Dish, AT&T, Mediacom and Xfinity/Comcast.

The City of Springfield holds a cable television franchise agreement with Comcast, and as part of that agreement the company provides two channels to the city: Channel 4, which is designated as a public access channel, and Channel 18, which is provided to city government for its use.

In Summary:

- **Changes in technology are advancing communication availability to residents and businesses in the city and surrounding area.**
- **Springfield is adequately served by the infrastructure necessary for the four most common communication means: telephony, internet, radio, and television.**
- **Radio and television is particularly relevant and valuable to the public during hazardous weather and other similar events.**
- **While the internet infrastructure is well developed, there are still residents in the city and surrounding area who do not have access to the higher speed and quality of service that is often provided by wired internet providers, even though they can receive service from fixed wireless ones. Other residents are simply restricted by cost, which is being partially addressed by governmental bodies and not-for-profit organizations setting up places where the internet can be accessed by the public at no cost.**
- **Springfield's extension of the free public wifi internet access is likely continue into the future and should be encouraged.**

REFERENCES

Bixby, Brad (April 14, 2016). Interview by SSCRPC. Springfield, IL.

CDM Smith (2015). ***CWLP Water Demand Analysis: Final Report*****. Springfield City, Water, Light & Power: Springfield, IL.**

CWLP (2008). ***The History of Drinking Water in Springfield.*** **Springfield City Water, Light & Power: Springfield, IL.**

CWLP (2009). ***The Genesis of a Power Plant: Dallman 4*****. Springfield City Water, Light & Power: Springfield, IL.**

CWLP (2011). ***Getting Here: Building City Water, Light & Power*****. Springfield City Water, Light & Power: Springfield, IL.**

CWLP (2016). ***Electric Generation.*** **Accessed April 15, 2016. http://www.cwlp.com/electric/generation/generation.html.**

Higginbotham, John (March 31, 2016). Personal Communication.

Humphrey, Gregg (March 17, 2016). Interview by SSCRPC. Springfield, IL.

Johnson, Michael (April 12, 2016). Interview by SSCRPC. Springfield, IL.

Munks, Jamie (July 31, 2915). Springfield Metro Sanitary District Starts Second Major Plant Upgrade Project. ***State Journal Register.*** **Springfield, IL.**

Nelson, Wayne (April 21, 2016). Interview by SSCRPC. Curran, IL.

Nocable.com (2017). Television Availability. Accessed May 18, 2017. https://nocable.org/availability-report/zip/62763-springfield-il.

Nocable.com (2017). Broadcast Range of Springfield, Illinois. Accessed May 18, 2017. https://nocable.org/availability-report/zip/62763-springfield-il.

Office of Public Works (2014). ***Capital Improvement Plan – FY 2014*****. City of Springfield: Springfield, IL.**

Radio-Locator.com (2017). Accessed May 18, 2017. http://radio-locator.com/cgi-bin/locate?select=city&city=Springfield&state=IL

SMSD (2007). ***Wastewater Treatment Facilities Planning Report*****. Springfield Metro Sanitary District: Springfield, IL.**

APPENDIX 4: REVIEW OF SPRINGFIELD'S TRANSPORTATION SYSTEM

Transportation is an important consideration in the measurement of a community's vitality and long term success. Analyzing Springfield's future needs is not just about roads and highways, but requires that one knows about who the city's residents are, how they travel, the purposes for their travel, and the difficulties they encounter. For these reasons the information provided in Appendix 1, the results of the Community Survey in Appendix 6, and the comments received from the various other public engagement activities conducted, are as important as the number of highway miles, accessibility of rail, and number of flights per day from the local airport.

All modes of transportation must also be considered in such a review. As the Springfield Area Transportation Study's *2040 Long Range Transportation Plan* (SATS, 2015) for the metro area reminds us, residents with lower incomes are less likely to own an automobile, making them rely more heavily on public transportation, bicycling, and walking than do other residents. And as the city's residents age, how they might travel is often critical to their quality of life. Even access to job opportunities only exists when travel options are available.

While safe access for all users across all modes of transportation is the ultimate goal, the successful transportation network envisioned for Springfield must not only meet the needs of its users, but also strive to protect the community's social fabric and natural environment.

THE ROAD NETWORK

The Existing Road Network

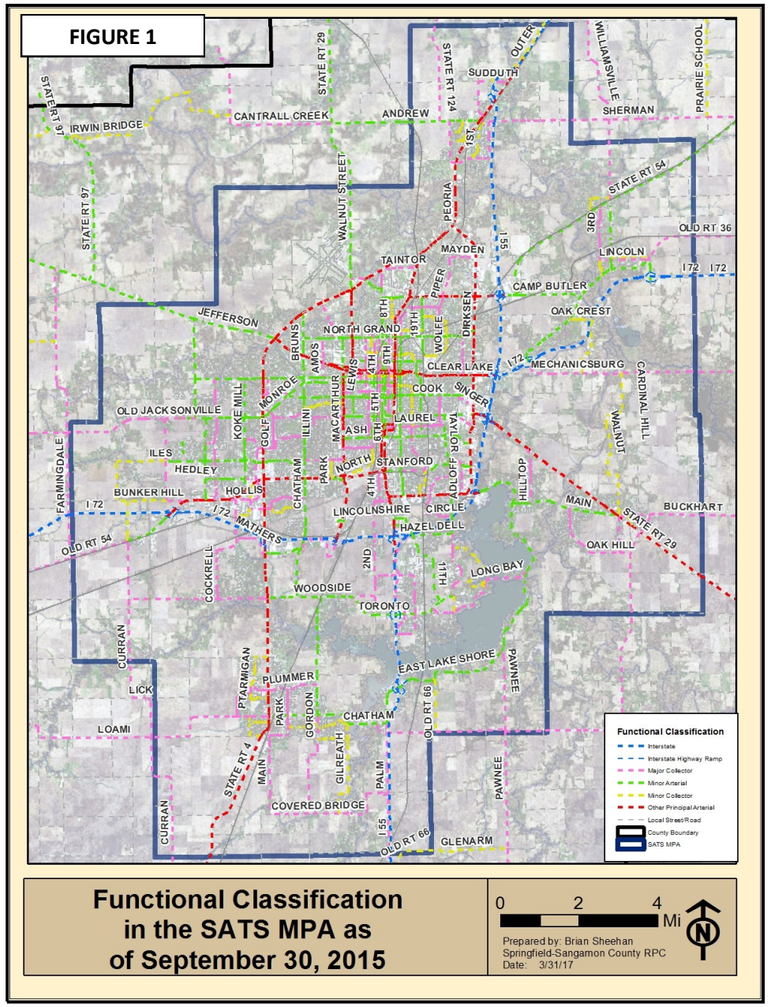
The arterial roadway network serving Springfield and the surrounding planning area, as shown in Figure 2 on the following page, is extensive. This network is classified by road function under definitions created by the Federal Highway Administration (FHWA) to establish expectations for roadway design as well as to determine eligibility for federal funding. While local roadway classifications may differ from the FHWA ones, Figure 1 applies them, identifying major roadway types (SATS, 2015). These include Interstate highways, but also include *Principal Arterials*, *Minor Arterials*, *Collectors*, and what are most often identified a *Local Roads and Streets.* Multiple jurisdictions are responsible for the network of roads and their related bridges in the planning area. Along with the city, this includes the state, the county and various townships.

In relationship to interstate highways, Springfield is bordered by I-55 to the east, and I-72 to the south. Major state routes include Illinois Route 4 (Veterans Parkway and Peoria Road) to the west and north. It is dissected by the principal arterial of Illinois Route 97 running east-west. Other east-west principal arterials include Wabash Avenue, Stanford Avenue and Stevenson Drive. I-55 business and Illinois Route 29 (Dirksen Parkway) provide access between the north and south portions of the city. Further access along principal arterials include MacArthur Boulevard, J. David Jones Parkway and Walnut Street.

Principal and minor arterials are intended to move traffic through the area using an interconnected network of major roads including state highways, county highways, multi-lane roads, and connectors. Minor arterials also aid in the ability to move relatively large volumes of traffic and are primarily located in the city center. The western and southeastern sectors have several minor arterials, while the northern and southcentral sectors have only a few minor arterials due to farmland and less dense populated areas. Collectors, local roads and streets complete the road network providing residents and visitors access to the City of Springfield.

There are 954.96 miles of roadway in the 17 sectors identified in this plan, including 49.29 miles of interstate and associated ramps, 62.29 miles of principal arterials, 107.84 of minor arterials, 88.31 of major collectors, 25.48 of minor collectors, and 621.76 of local roads and streets. The total number of road miles increases to 1,077.57 when those in Springfield's extra-territorial jurisdiction are included. The number that has gradually increased as development occurred and existing roads were expanded or upgraded to handle increased traffic.

FIGURE 1



Functional Classification in the SATS MPA as of September 30, 2015

0 2 4 Mi

Prepared by: Brian Sheehan
Springfield-Sangamon County RPC
Date: 3/31/17

Local roads in the city account for the largest percentage of the network: 65%. They provide access to adjacent properties in neighborhoods and commercial areas and carry no through traffic. Local roads are the most likely to increase in number and milage as they are the ones most likely to increase as Springfield's size and density grows. For example, between 2005 and 2015, 200 additional miles of local roads were added in the metro area, accounting for a 38% increase. The bulk of this increase occurred within Springfield and its extra-territorial jurisdiction. At the same time, the Daily Vehicle Miles of Travel (DVMT) declined by 26%. DVMT in the area has fluctuated over the past 20 years, showing a steady increase from 1993 to 2004, and then a noticeable dip in 2008. This decline coincided with a downturn in the economy, indicating a strong link between employment and vehicle use.

While new growth requires new roadways, consideration must also be given to the transportation needs of users in the existing areas. Needs change and roadways must be evaluated for their effectiveness. As always, safety is a priority. High collision locations are identified and strategies are employed to increase safety by reducing the number and severity of crashes. Such strategies include the use of traffic calming elements, improved wayfinding, and the addition of bi-directional turn lanes and roundabouts. Infill of missing links, completing sections of a previously nonexistent roadway to improve through travel, is also performed.

In Springfield the development of local roads and streets, particularly those serving new developments, are planned and developed reactively. By this is meant that they are most often engineered and installed by the land developer rather than the city. Plans for these new roadways are reviewed as specified in city ordinance.

In the case of developments that are served by unimproved major or minor arterials as specified in the city's Arterial Roadway Network Plan (see Figure 2, showing roadways on the plan as of October 2017 as well as local roads) and the Adjacent Substandard Roadway Improvement Agreement section of city code, the owner and/or subdivider developing a subdivision bordering on one or more substandard roadways under the jurisdiction of the city is obligated to pay a proportional share of the actual cost of the road improvements specifically and uniquely attributable to the development. Any additional road improvement expenses beyond those related to the impact of the development are the responsibility of the city.

The existing roadway network in the city is largely challenged by maintenance, reconditioning and repair. In addition, attention will need to be paid to reconstruction of segments, which will require the rebuilding of roadway within existing right-or-ways, adding additional lanes to some roadways, and replacement of some existing roads and bridges. This must be orchestrated to take place with the expansion of heavily travelled corridors, new roadways, and the construction of "missing links", which are identified gaps in the road network.

Road Network Improvement and Expansion

As mentioned previously, the existing road network serving Springfield is extensive, but as the population grows and business expands, the system must evolve. As the city grows, particularly as it builds outward, access to new developments is necessary. This will require the expansion of heavily travelled corridors and the upgrading or roadways from rural to urban design.

New construction to infill missing links in the road network will also be required, not only to address needs in those areas of growth, but also to provide access to the entire city. In addition, it is anticipated that the improvement and/or construction of roadway underpasses and overpasses at rail crossings will be necessary due to railroad relocation. This will be addressed further below.

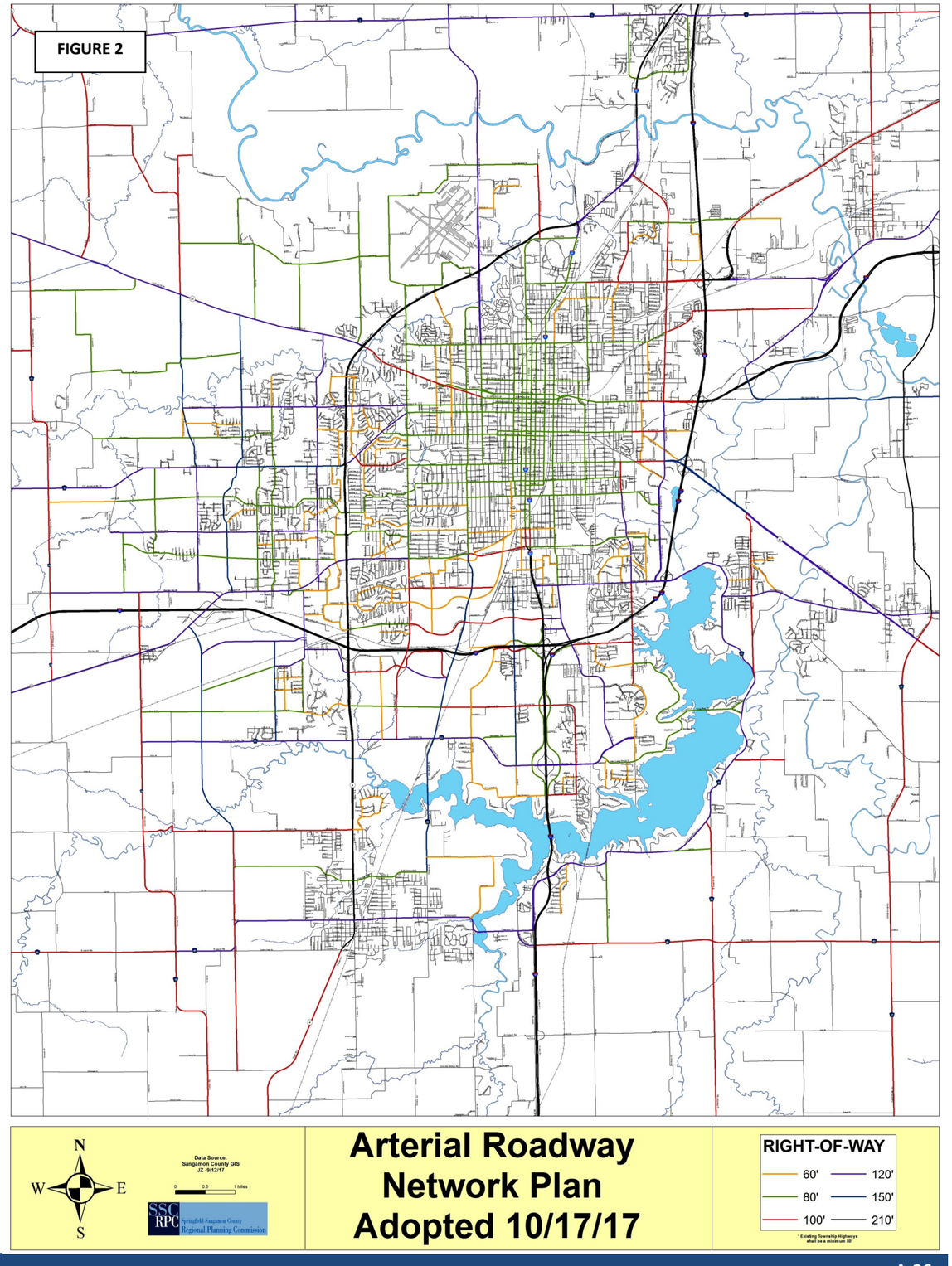
Over the next 20 years much of the focus on new and expanded roadways will be centered on Springfield's west and south sides. Figure 3, on the next page, shows the current metro road network and the additions planned over the next 20 years. Due to their complexity, transportation systems and projects are often based upon the prediction of future demands and categorized by the timeframe in which they are intended to be completed. The anticipated improvements shown in Figure 3 represent three roadway project types based upon likely development:

- *Committed Projects:* Projects intended to begin within the next 5 years;
- *Planned Illustrative Projects:* Projects likely to occur within 5 to 15 years;
- *Future Illustrative Projects:* Projects planned more than 15 years in the future.

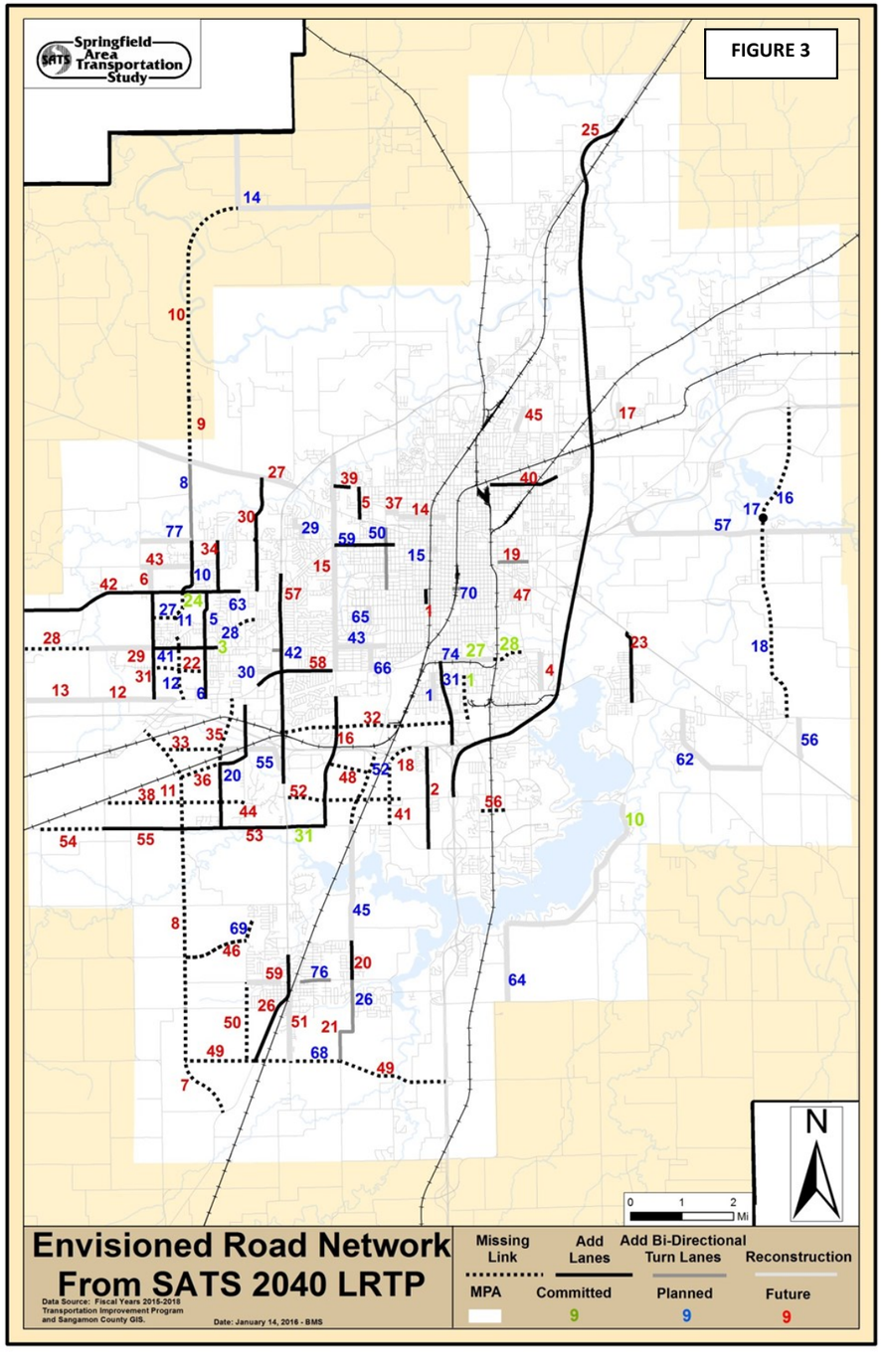
Tables displaying the nature of these projects are provided on the next page along with Figure 3.

Special attention should also be paid to missing links in the roadway system. One significant aspect of these activities should be addressing the limited availability of fully connected east-west arterials, as their absence limits business growth and development. Addressing these links would have a positive cost benefit outcome for the roadway network overall. Missing links in the metro system are identified in Figure 4 on the next page.

In developing the roadway network, particularly in cases where federal and state funding is involved, the *Complete Streets* policy will need to be considered. Complete Streets is a design and planning approach utilized by the City of Springfield and its federal and state transportation partners, which addresses the transportation needs of motorists, pedestrians, bicyclists, and transit riders, regardless of age or ability. Such an approach makes a clear commitment to provide for the safe travel of everyone using the roadways.



Additional data and supporting documentation regarding the various transportation networks for Springfield and the metro area described here, can be found in the regional Long Range Transportation Plan developed by the Springfield Area Transportation Study (SATS, 2015).



COMMITTED ROAD & BRIDGE PROJECTS (2015-2019)

MAP #	PROJECT NAME *(listed alphabetically)*	PROJECT DESCRIPTION	JURISDICTION	COST	PROJECT TYPE*
1	11th Street Extension: East Knox to Lincolnshire Boulevard	Construction Engineering, Construction, Sidepath, Sidewalks	Springfield	7,500,000	ML
3	Archer Elevator Rd: YMCA driveway to Concordia Village driveway and Iles Avenue: Meadowbrook Road to Rotary Park entrance	Reconstruction to urban arterial design criteria including a center turn lane and a roundabout at the intersection, Bike Lanes, Sidewalks	Springfield	4,000,000	AL
10	East Lake Shore Drive: Old Route 66 to Long Bay Drive	Reconstruction, Wide Shoulders	County	2,200,000	R
24	Old Jacksonville Road: Existing Bradfordton Road to Proposed Bradfordton Road	Widening to 5 lanes, Reconstruction, Construction Engineering	County	3,500,000	AL
27	Stanford Avenue: 11th Street to Fox Bridge Road	Overlay and widening, Sidepath, Sidewalk	Springfield	3,900,000	R
28	Stanford Avenue Extension: Fox Bridge to Taylor	Construction, Sidepath, Sidewalk	Springfield	5,200,000	ML
31	Woodside Road (C.H. 23): Chatham Road to IL-4	Widening to 5 lanes, Construction Engineering, Construction, Wide Shoulders	County	5,580,000	AL
			TOTAL COST	$31,880,000	

ML Missing Link
AL Adding Lanes
BTL Bi-direction Turn Lane
R Reconstruction

PLANNED ILLUSTRATIVE ROAD & BRIDGE PROJECTS (2020-2030)

MAP #	PROJECT NAME *(listed alphabetically)*	PROJECT DESCRIPTION	JURISDICTION	COST	PROJECT TYPE*
1	4th Street: Linton Avenue to St. Joseph Street	Widen & Resurface	Southern View	870,000	R
5	Archer Elevator Road: Old Jacksonville Road to Greenbriar Drive	Reconstruction, Add 2 Lanes, Bike Lanes, Sidewalks	Springfield, Curran Twp	2,485,000	AL
6	Archer Elevator Road: Greenbriar Drive to Wabash Avenue (except section from YMCA driveway to Concordia Village driveway)	Reconstruction, Add 2 Lanes, Bike Lanes, Sidewalks	Springfield, Private Developer	5,300,000	AL
8	Bradfordton Road: Jefferson Street to Washington Street	Widen (add 1 lane), Wide Shoulders	County	2,800,000	BTL
10	Bradfordton Road: from the S edge of Washington Street to the relocated intersection at Old Jacksonville Road	Widen to 4 Lanes with Center Turn Lane, Sidewalks, Storm Sewer	County	5,076,000	AL
11	Bradfordton Road: Old Jacksonville Road to Johanne Court (except for 1600' already built in Deerfield Subdivision)	New Construction (4 Lanes), Sidepath, Sidewalks	Springfield, Private Developer	3,975,000	ML
12	Bradfordton Road: Johanne Court to Wabash Avenue	New Construction (4 Lanes), Sidepath, Sidewalks	Springfield, Private Developer	7,290,000	ML
14	Cantrall Creek Road: Menard County Line to IL 29	Widening, Reconstruction, Construction Engineering, Wide Shoulders	County	3,240,000	R
15	Capitol Avenue: 2nd Street to 5th Street	Reconstruction, Streetscape Upgrade	Springfield	5,200,000	R
16	Cardinal Hill Road: I-72 to Mechanicsburg Road	New Construction (2 Lanes), Wide Shoulders	County	6,500,000	ML
17	Cardinal Hill Road: Sangamon River	Bridge Construction, Construction Engineering	County	6,480,000	ML
18	Cardinal Hill Road: Mechanicsburg Road to Buckhart Road	New Construction (2 Lanes), Wide Shoulders	County	4,320,000	ML
20	Cockrell Lane: Ogden Drive to Spaulding Orchard Road	Reconstruction (4 lanes), Bike Lanes, Sidewalks	Springfield, Private Developer	10,150,000	AL
26	Gordon Drive: Walnut Street to Hurstbourne Lane	Add Bi-Directional Left Turn Lane, Bike Lanes, Sidewalks	Chatham, Private Developer	2,000,000	BTL
27	Greenbriar Drive: Lenhart Road to Bradfordton Road	New Construction, Sidewalks	Private Developer	1,566,000	ML
28	Greenbriar Drive: West Road to Koke Mill Road	New Construction, Sidewalks	Private Developer	1,670,000	ML
29	Harbauer/Oxford: Washington Street to Churchill Road	Reconstruction, New Construction, Sidewalks	Springfield	1,325,000	R
30	Hedley Road: Koke Mill Road to West White Oaks Drive	Widen & Resurface, Bike Lanes, Sidewalks, Intersection Reconstruction at West White Oaks Drive	Springfield	1,200,000	R
31	I-55 Bus. (6th Street): Stanford Avenue to I-55	Reconstruction; add 2 Lanes, Sidewalks (to Lincolnshire), Bike Lanes (to Hazel Dell)	IDOT - District 6	20,000,000	AL
41	Iles Avenue: Lenhart Road to Rotary Park entrance	Reconstruction, Bike Lanes, Sidewalks	Springfield, Private Developer	3,860,000	AL
42	Iles Avenue: West White Oaks Drive to Veterans Parkway	Widen (add 1 Lane), Sidewalks	Springfield	950,000	BTL
43	Iles Avenue: Chatham Road to MacArthur Boulevard	Improve to urban section, Sidewalks	Jerome	3,200,000	R
45	Iron Bridge Road: Proposed Iron Bridge Road to Plummer Boulevard	Construction, Construction Engineering, Wide Shoulders	County	6,177,600	R
50	MacArthur Boulevard: Jefferson Street to South Grand Avenue	Add Bi-directional Lane	Springfield	3,470,000	BTL
52	MacArthur Boulevard: I-72 to Woodside Road at Iron Bridge Road	New 4-Lane Construction (no grade separations included)	County	5,100,000	ML
55	Mathers Road: Veterans Parkway to Mercantile Drive	New Construction	Private Developer	1,457,000	R
56	Maxheimer Road: Buckhart Road to IL-29	Upgrade to urban section, Sidewalks, Sidepath	Rochester	1,575,000	R
57	Mechanicsburg Road (C.H. 12): I-72 to Sangamon River	Construction, Construction Engineering, Wide Shoulders	County	6,048,000	R
59	Monroe Street: Glenwood Avenue to Chatham Road	Add 2 Lanes, Sidewalks	Springfield	2,875,000	AL
62	Oak Hill Road: West Main Street to Cardinal Hill Road	Upgrade to urban section, Sidewalks, Bike Lanes	Rochester	14,100,000	R
63	Old Jacksonville Road: W of Pine Creek Drive to Bradfordton Road	Reconstruct 2 Lanes; Add 2 Lanes, Sidewalks	County, Private Developer	4,000,000	AL
64	Old Route 66: New City Road to East Lake Shore Drive	Widening & Reconstruction	County	400,000	R
65	Park Street: N of Cherry Road to Laurel Street	Curb & Gutter, New Surface, Sidewalks, ROW Acquisition	Leland Grove	500,000	R
66	Park Avenue: Iles Avenue to Wabash Avenue	Upgrade to urban section, Sidewalks	Jerome	1,500,000	R
68	Pulliam Road Extension: IL-4 to Gordon Drive	New Construction, Separated Grade at RR Crossing, Sidepath, Sidewalk	Chatham, Private Developer	6,400,000	ML
69	Savannah Road Extension: Garvey Lane to Plummer Boulevard	New Construction, Sidewalk	Chatham, Private Developer	1,100,000	ML
70	South Grand Avenue: 9th Street to 11th Street	Bi-Directional Turn Lanes, Upgrade Signals	Springfield	300,000	BTL
74	Stanford Avenue: 6th Street to 11th Street	Overlay, Widening, Bike Lanes, Sidewalks	Springfield	2,600,000	R
76	Walnut Street: East Street to E of Breckenridge Drive	Add Bi-Directional Left Turn Lane, Sidewalks	Chatham, Private Developer	1,200,000	BTL
77	Washington Street: Bradfordton Road to Old Covered Bridge Road	New Construction	Gardner Township	1,000,000	R
			TOTAL COST	159,259,600	

ML Missing Link
AL Adding Lanes
BTL Bi-direction Turn Lane
R Reconstruction

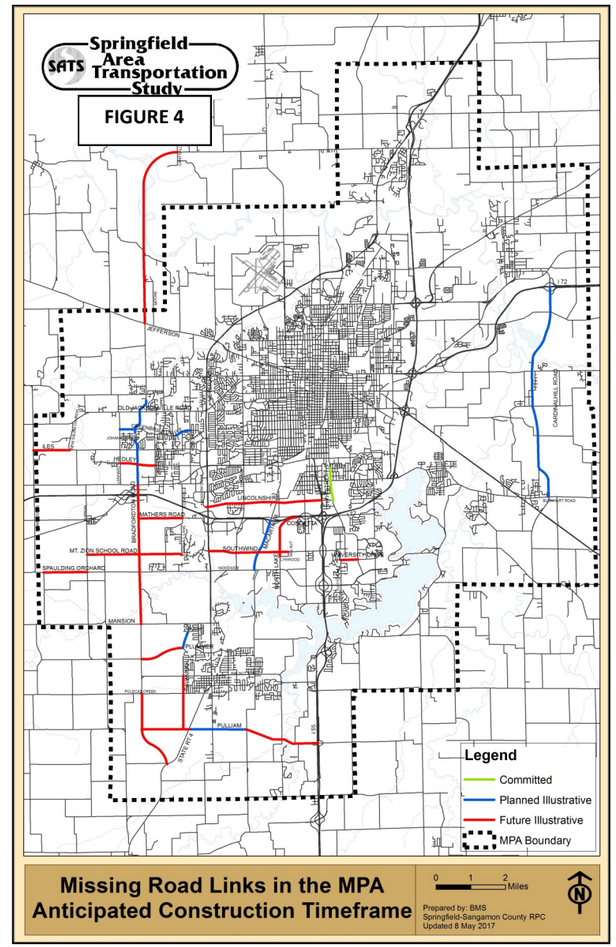
In Summary:

- **Springfield maintains an extensive road network.**
- **This network is expected to meet future population growth needs if missing links in the network, particularly complete east-west arterials, are filled and projects currently planned are completed within the anticipated time frames.**
- **The city will be challenged in addressing its roadway maintenance, reconditioning and repair needs.**
- **Attention will need to be paid to reconstruction of segments, adding additional lanes to some roadways, and replacement of some existing roads and bridges over the next 20 years.**

FUTURE ILLUSTRATIVE ROAD & BRIDGE PROJECTS (BEYOND 2030)

MAP #	PROJECT NAME (listed alphabetically)	PROJECT DESCRIPTION	JURISDICTION	COST	PROJECT TYPE
1	2nd Street: South Grand Avenue to Laurel Street	Add 2 Lanes, Sidewalks	Springfield	800,000	AL
2	2nd Street: Hazel Dell Road to Toronto Road	Add 2 Lanes, Sidewalks	Springfield, Private Developer	7,625,000	AL
4	Adloff Lane: Stanford Avenue to Stevenson Drive	Reconstruction, Sidewalks	Springfield, Private Developer	2,070,000	R
5	Amos Street: Jefferson Street to North Grand Avenue	Reconstruction, Add 2 Lanes, Sidewalks	Springfield	2,500,000	AL
6	Bradford Lane: Old Jacksonville Road to Old Salem Lane	Reconstruction	Private Developer	875,000	R
7	Bradfordton Road: Polecat Creek Road to IL 4	New Construction (3 Lanes), Wide Shoulders	County	3,750,000	ML
8	Bradfordton Road: Spaulding Orchard Road to Polecat Creek Road	New Construction (3 Lanes), Wide Shoulders	County	5,250,000	ML
9	Bradfordton Road Extension: Jefferson Street N to Moore Road	New Construction (2 Lanes), Wide Shoulders	County	1,600,000	ML
10	Bradfordton Road Extension: Moore Road to North Cantrall Creek Road	New Construction (2 Lanes), Wide Shoulders	County	10,250,000	ML
11	Bradfordton Road: Wabash Avenue to Spaulding Orchard Road	New Construction (5 Lanes) including 2 Bridges, Sidewalks, Bike Lanes	Springfield, Private Developer	15,000,000	ML
12	Bunker Hill Road: Wabash Avenue to Curran Road	Reconstruction, Sidewalks	Springfield, Private Developer	5,360,000	R
13	Bunker Hill Road: Curran Road to Farmingdale Road	Reconstruction, Sidewalks	Springfield	5,450,000	R
14	Carpenter Street: Walnut Street to 7th Street	Widen & Resurface, Sidewalks	Springfield	2,250,000	R
15	Chatham Road/Bruns Lane: Veterans Parkway to Wabash Avenue	Reconstruction, Sidewalks	Springfield	3,000,000	R
16	Chatham Road: Westchester Boulevard to Woodside Road	PE I, PE II, C & CE for Reconstruction and Addition of 2 Lanes, Wide Shoulders, Sidewalks	Springfield	8,000,000	AL
17	Colt Road: Gatlin Drive N to city limits	Reconstruction, Sidewalks	Springfield	1,625,000	R
18	Concetta Road: extended W to North Lake Road	New Construction, Sidewalks	Springfield	1,500,000	ML
19	Cook Street: McCreery Avenue to Livingston Street	Add Bi-Directional Turn Lane, Resurface, Sidewalks	Springfield	1,400,000	BTL
20	Gordon Drive: Plummer Boulevard to Walnut Street	Add 2 Lanes and Bi-Directional Left Turn Lane, Bike Lanes, Sidewalks	Chatham	2,200,000	AL
21	Gordon Drive: Hurstbourne Lane to Pulliam Road extended	Add Bi-Directional Left Turn Lane, Sidepath	Chatham, Private Developer	4,000,000	BTL
22	Hedley Road: Lenhart Road to Archer Elevator Road	New Construction	Private Developer	1,272,000	ML
23	Hilltop Road: IL-29 to Rochester Road	Reconstruction, Add 2 Lanes, Sidewalks	Springfield	5,220,000	AL
25	I-55: Southwind Drive to Sherman Interchange I-72: Veterans Parkway (IL 4) to I-55	Additional Lanes, Reconstruction, Interchange Resconstruction, Bridge Replacement	IDOT - District 6	500,000,000	AL
26	IL-4: Teal Drive in Chatham to S of Chatham	Additional Lanes, Land Acquisition, Utility Adjustment, PE, Sidewalks	IDOT - District 6	27,000,000	AL
27	IL 97: Old Covered Bridge Road to 0.1 mile W of Veterans Parkway	Reconstruction, Trail Bridge Replacement, Sidewalks (Winch Road to SVT)	IDOT - District 6	29,100,000	R
28	Iles Avenue: Emerson Road to Farmingdale Road	New Construction, Bike Lanes, Sidewalks	Springfield	4,500,000	ML
29	Iles Avenue: Lenhart Road to Emerson Road	New Construction, Bike Lanes, Sidewalks	Springfield	4,300,000	R
30	Koke Mill Road: Jefferson Street to Old Jacksonville Road	Reconstruction, Add 2 Lanes, Bike Lanes, Sidewalks	Springfield, Private Developer	8,280,000	AL
31	Lenhart Road: Old Jacksonville Road to Bunker Hill Road	Reconstruction, Add 2 Lanes, Bike Lanes, Sidewalks	Springfield, Private Developer	7,670,000	AL
32	Lincolnshire Boulevard East/West extension: Freedom Drive to 6th Street	New Construction, Sidewalks, Bike Lanes	Springfield, Private Developer	12,100,000	ML
33	Mathers Road: Mercantile Drive to Bradfordton Road extended	New Construction	Private Developer	843,000	ML
34	Meadowbrook Road: Washington Street to Old Jacksonville Road	Reconstruction, Add 2 Lanes, Bike Lanes, Sidewalks	Springfield, Private Developer	3,810,000	AL
35	Mercantile Drive/Cockrell Lane: Wabash Avenue to Spaulding Orchard Road	New Construction, Reconstruction (4 Lanes), Bridge over RR, Bridge over I-72, Bike Lanes, Sidewalks	Springfield, Private Developer, State	20,000,000	ML
36	Mercantile Drive/Bradfordton Road connector S of Mathers	New Construction, Bike Lanes, Sidewalks	Springfield	1,800,000	ML
37	Miller Street: Walnut Street to MacArthur Boulevard	Reconstruction, New Construction, Sidewalks	Springfield	775,000	R
38	Mt. Zion School Road/Workman Road Connector: Cockrell Lane to Curran Road	New Construction	Private Developer	2,830,000	ML
39	North Grand Avenue: Bruns Lane to Lilac Lane	Add 2 Lanes, Sidewalks	Springfield	815,000	AL
40	North Grand Avenue: 19th Street to Dirksen Parkway	Expand to 4 Lanes, Bike Lanes, Sidewalks	Grandview	5,000,000	AL
41	North Lake Road: Woodside Road to Concetta Road extended	New Construction, Sidewalks	Springfield, Private Developer	3,500,000	ML
42	Old Jacksonville Road (CH 8): Relocated Bradfordton Road (CH 17) to Farmingdale Road (CH 15)	Add 2 Lanes, Wide Shoulders	County	4,000,000	AL
43	Old Salem Lane: Bradfordton Road to Old Covered Bridge Road	New Construction	Private Developer	2,500,000	R
44	Panther Creek Drive/Mt. Zion School Road connector: Foxhall Lane to Cockrell Lane	New Construction	Private Developer	530,000	ML
45	Piper Road: Sangamon Avenue to Neil Street	Reconstruction, Sidewalks	Springfield	1,900,000	R
46	Plummer Boulevard Extension W to Bradfordton Road	New Construction, Sidepath, Sidewalks	Chatham, Private Developer	2,900,000	ML
47	Pope Avenue: South Grand Avenue to Laurel Street	Reconstruction, Sidewalks	Springfield	635,000	R
48	Prairie Crossing Drive Extension: Chatham Road to MacArthur Boulevard extension	New Construction, Sidewalks	Private Developer	1,980,000	ML
49	Pulliam Road Extension: Bradfordton Road extended to IL-4; and Gordon Drive to I-55	New Construction, Bridge over Sugar Creek, Interchange at I-55, Sidepath, Sidewalks	Chatham, Private Developer	16,500,000	ML
50	Savannah Road Extension: Walnut Street to Pulliam Road	New Construction, Sidewalks	Chatham, Private Developer	2,100,000	ML
51	South Main Street: IL-4 to Pulliam Road	Reconstruct 2 Lanes, ROW, add Turn Lanes at Intersections, Drainage, Sidewalks	Chatham	1,600,000	R
52	Southwind Road: Veterans Parkway to Walnut Street	New Construction	Private Developer	2,958,000	ML
53	Spaulding Orchard Road: Veterans Parkway to Mercantile Drive/Cockrell Lane	Add 2 Lanes, Wide Shoulders	County	1,250,000	AL
54	Spaulding Orchard Road: Curran Road to Farmingdale Road	New Construction (2 Lanes), Wide Shoulders	County, Private Developer	2,000,000	ML
55	Spaulding Orchard Road: Mercantile Drive/Cockrell Lane to Curran Road	Add 2 Lanes, Wide Shoulders	County	2,250,000	AL
56	University Drive: Cotton Hill Road to 11th Street	New Construction, Sidewalks	Springfield	1,375,000	ML
57	Veterans Parkway (IL 4): 0.3 mile N of Monroe Street/Old Jacksonville Road to 0.3 mile S of Mathers Road	Add 2 Lanes (4 to 6)	IDOT - District 6	45,000,000	AL
58	Wabash Avenue: Koke Mill Road to W of Chatham Road	Add 2 Lanes (4 to 6), Sidewalks	IDOT - District 6	25,000,000	AL
59	Walnut Street: Church Street to Savannah Road	Rehabilitation, Sidepath, Sidewalk	Chatham	1,200,000	R
			TOTAL	$838,998,000	

ML Missing Link
AL Adding Lanes
BTL Bi-direction Turn Lane
R Reconstruction



THE RAIL NETWORK

The City of Springfield is currently served by six railroads that dissect Springfield by way of three separate rail corridors: what are usually described as the 3rd Street, 10th Street and 19th Street corridors. These corridors are shown on Figure 5 on the next page.

Most of the rail traffic carried by these corridors flows through the city rather than serves it, with the exception of Amtrak, which offers direct passenger train service from Springfield to Chicago and St. Louis.

Passenger Rail Service

Amtrak service includes five trains daily: the *Lincoln Service*, supported by the Illinois Department of Transportation, which runs four round-trip trains between Chicago and St. Louis, and the *Texas Eagle*, which runs one round-trip train between Chicago and San Antonio, Texas. From these and other stations rail passage to other cities is possible. Amtrak is currently served by Springfield's 3rd Street rail corridor.

The number of passengers traveling on Amtrak through the Springfield station increased 133% between 2003 and 2013 (SATS, 2015, Pp. 42.) The largest increase occurred in 2007 after the State of Illinois began subsidizing the Lincoln Service and two trains (four one-way trips) were added. Ridership continues to increase, with 2011 being the only year in which there was a decrease in ridership. This was most likely due to construction along the rail corridor that required passengers to travel by bus around the construction areas.

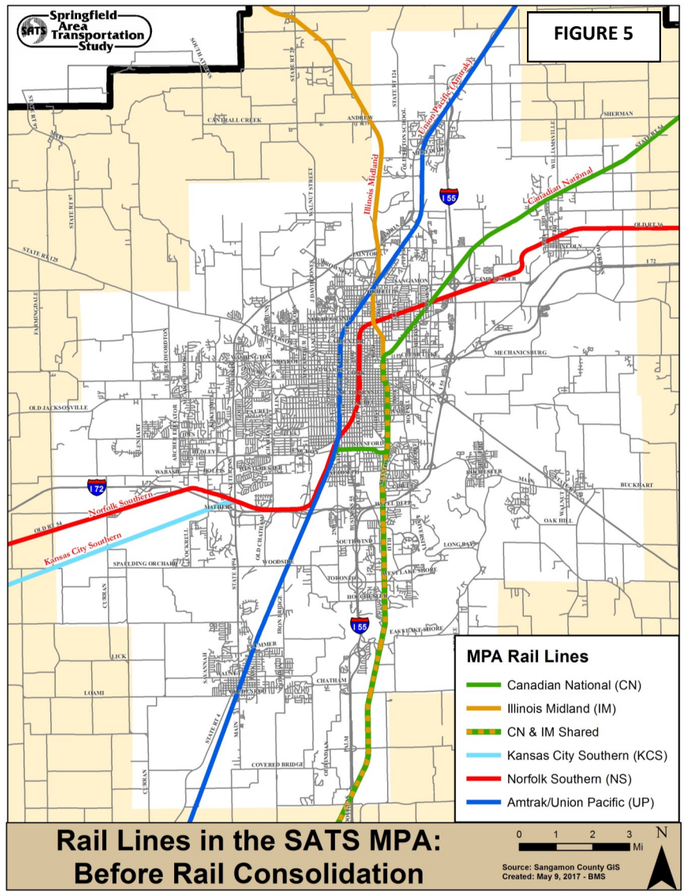
The Amtrak station in Springfield was built in 1895, but has been remodeled and updated several times. The most recent updating was in 2011. The station is served by several SMTD bus routes and is just a few blocks west of the current SMTD transfer center. These locations create a barrier for passengers moving from bus to train, or train to bus, however a new multi-modal transportation center is planned to the east to serve both bus and train passengers concurrent with the planned rail corridor consolidation onto the 10th Street rail line (addressed further below.) Pedestrian access to the passenger rail station is currently available through a well connected downtown sidewalk system, and bicycle lanes have been added only a block to the west.

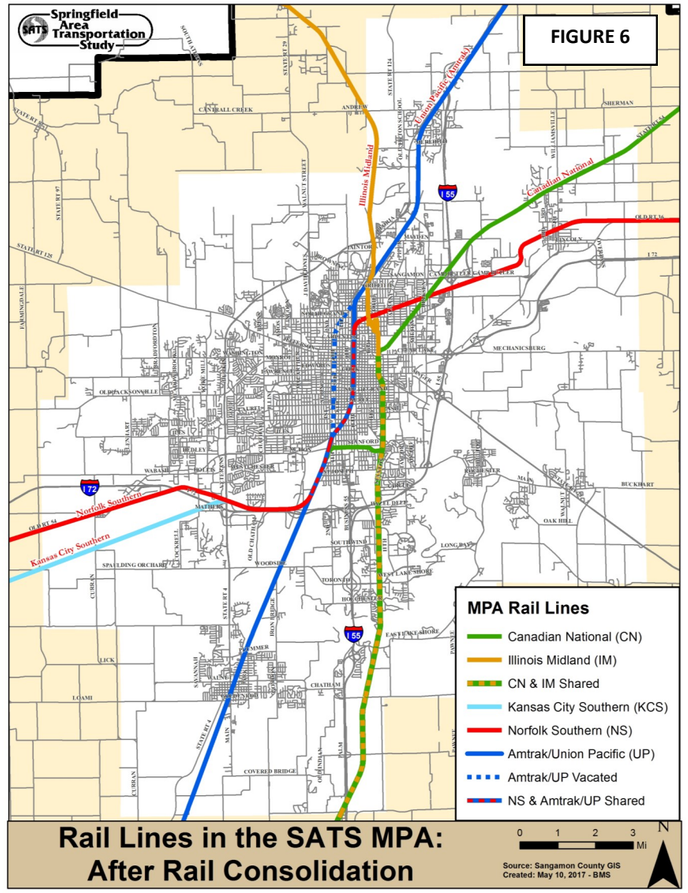
Freight Rail Service

Five rail freight companies maintain tracks through Springfield and the metro area. These include the Canadian National/Illinois Central (CN/IC), Illinois Midland (IM), Kansas City Southern (KCS), Norfolk Southern (NS), and Union Pacific (UP).

The CN/IC network extends from Chicago to the Gulf ports of New Orleans, LA, and Mobile, AL. It also stretches westward to Sioux City, IA, and Omaha, NB. The Canadian National maintains a rail yard in Springfield south of Moffat Ave. and west of the Adams Wildlife Sanctuary.

The IM is a short-line railway serving Peoria, Springfield and Taylorville, operating on 120 miles of track. Connections are made with UP, KCS, and NS. IM maintains a rail yard in Springfield south of North Grand Ave. between 15th and 19th streets.





KCS is the smallest of the Class 1 railroads serving the central and south central U.S. It provides service from Springfield to Kansas City and points south along the Gulf Coast.

NS is a major Class 1 railroad with extensive intermodal connections throughout mostly the eastern U.S. This railroad links customers in Springfield to all major eastern container ports and West Coast rail partners, offering international market access. NS maintains a rail yard east of 11th Street between Cook St. and South Grand Ave.

UP offers the largest Class 1 railroad network in the U.S., and it also carries the Amtrak trains serving Springfield. Its main line tracks cover most of the central and western states, and extend from Chicago to St. Louis through Illinois. The UP maintains a rail yard north of Sangamon Ave.

Rail Consolidation

The major factor affecting rail transportation in Springfield is the additional of high speed passenger rail service (HSR) and the subsequent efforts to consolidate the 3rd Street (UP) corridor with the 10th Street (NS) corridor, eliminating the 3rd Street one through Springfield.

As described by the Illinois Department of Transportation (IDOT), the primary purpose of the High Speed Rail Project (HSR) is to enhance the passenger transportation network within the Chicago to St. Louis corridor, resulting in a more balanced use of the modal components (SATS, 2015, Pp. 92-93). The current Chicago to St. Louis corridor operates on only one set of track, however the future vision for this corridor includes the full build out of an additional second track. The IDOT HSR project includes numerous improvements to the 3rd Street rail corridor through Springfield in order to facilitate increased train speeds (from 25 mph to 40 mph) by 2017. Included is a flyover south of Stanford Avenue to take the Union Pacific line over the Norfolk Southern line. Many rail projects included in the LRTP support the running of higher speed trains on the 3rd Street line. However, the ultimate goal is to consolidate the 3rd Street rail line onto the 10th Street corridor as a condition for HSR through Springfield.

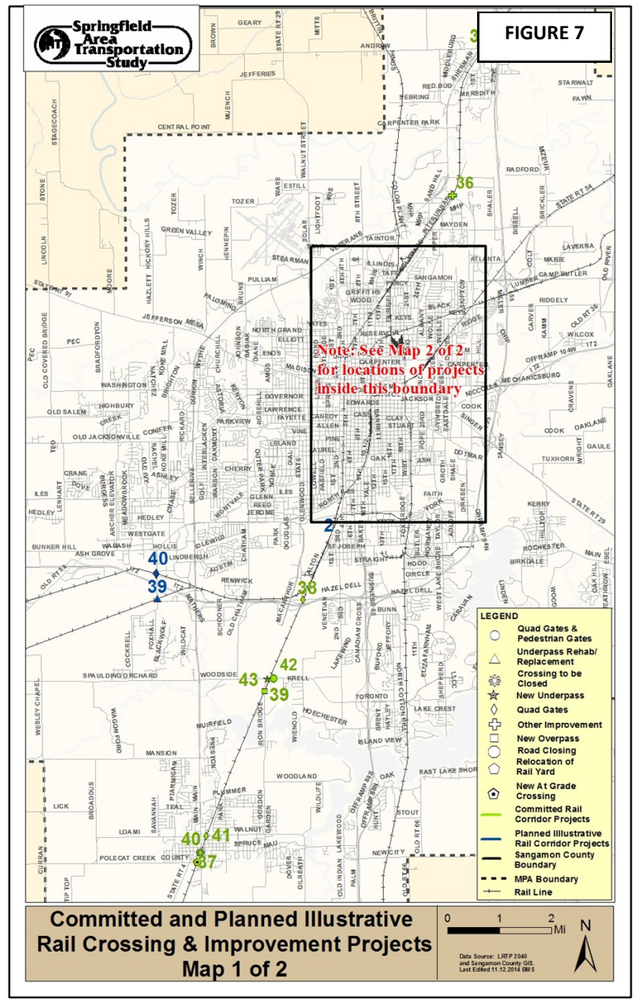
As outlined in the December 2012 Federal Railroad Administration's *Record of Decision for the Springfield Rail Improvements Project*, the selected alternative for HSR through Springfield consists of "relocating the existing Union Pacific freight and passenger rail corridor to a new location parallel to the Norfolk Southern tracks on 10th Street." The consolidated 10th Street corridor will include two Union Pacific (UP) tracks at 20-foot centers in a 75-foot right-of-way. The NS right-of-way will be 65 feet wide with one main track and the provision for a future track at 15 feet from the main track. New grade separations, crossing and street closures, and safety improvements will be necessary to facilitate the project. Improvements will also be made to the remaining at-grade crossings to allow implementation of quiet zones on the CN, UP, and NS rail corridors in the area. Once complete, rail traffic will be eliminated from the existing UP 3rd Street corridor from Ridgely Road to Hazel Dell Road.

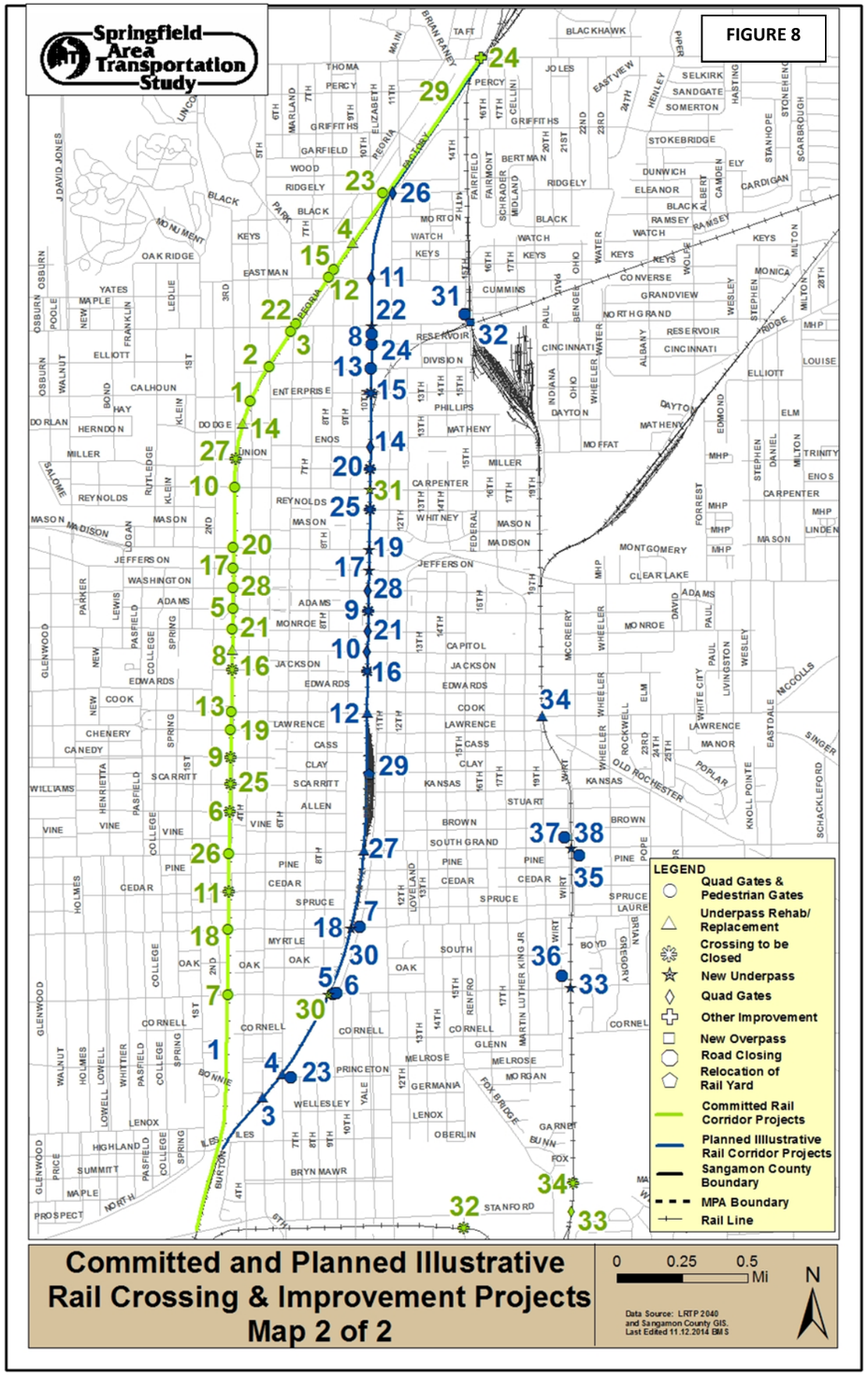
The elimination of rail along the 3rd Street corridor will allow for the potential redevelopment and reuse of this land. Additionally, the movement of 3rd Street passenger rail traffic to the 10th Street corridor will allow for the development of a multi-modal center at 10th Street and Adams Street to accommodate both SMTD and Amtrak passengers, moving the SMTD transfer center from Capital Ave. to the multi-modal center.

As the envisioned rail network differs significantly from that currently in place, Figures 5 and 6 provide before and after descriptions of Springfield's rail corridors subject to line configuration and consolidation. This consolidation will also require new grade separations, crossings and street closures, in addition to safety improvements. Figure 7 shows the location where improvements will occur, while Figure 8, on the next page, notes the location of both Committed and Planned Illustrative improvements.

HSR travel demands that both system safety and efficiency be addressed. The construction of overpasses and underpasses required to implement the system will greatly reduce the number of points at which rail and other traffic have the potential to collide. The installation of improved traffic signals and gates at traditional crossings will also enhance safety.

In addition, these improvements will also reduce the number and length of train caused delays affecting the road network.





COMMITTED RAIL CROSSING & IMPROVEMENT PROJECTS (2015-2019)

MAP #	PROJECT DESCRIPTION (listed alphabetically)	TYPE OF IMPROVEMENT	JURISDICTION	COST
	3rd Street/Current Union Pacific Corridor in Springfield			
1	4th Street	Quad Gates & Pedestrian Gates	State	762,000
2	5th Street	Quad Gates & Pedestrian Gates	State	867,000
3	6th Street	Quad Gates & Pedestrian Gates	State	w ith North Grand
4	9th Street	Underpass replacement	State	5,200,000
5	Adams Street	Quad Gates & Pedestrian Gates	State	601,000
6	Allen Street	Crossing to be Closed	Springfield	-
7	Ash Street	Quad Gates & Pedestrian Gates	State	863,000
8	Capitol Avenue	Underpass rehabilitation	State	150,000
9	Canedy Street	Crossing to be Closed	Springfield	-
10	Carpenter Street	Quad Gates & Pedestrian Gates	State	712,500
11	Cedar Street	Crossing to be Closed	Springfield	-
12	Converse Avenue	Quad Gates & Pedestrian Gates	State	w ith 8th St.
13	Cook Street	Quad Gates & Pedestrian Gates	State	703,000
14	Dodge Street	Underpass rehabilitation	State	150,000
15	Eighth Street	Quad Gates & Pedestrian Gates	State	1,935,000
16	Jackson Street	Crossing to be Closed	Springfield	-
17	Jefferson Street	Quad Gates & Pedestrian Gates	State	730,000
18	Laurel Street	Quad Gates & Pedestrian Gates	State	774,000
19	Lawrence Avenue	Quad Gates & Pedestrian Gates	State	586,000
20	Madison Street	Quad Gates & Pedestrian Gates	State	737,000
21	Monroe Street	Quad Gates & Pedestrian Gates	State	908,000
22	North Grand Avenue	Quad Gates & Pedestrian Gates	State	1,938,000
23	Ridgely Avenue	Quad Gates & Pedestrian Gates	State	1,720,000
24	Sangamon Avenue	New Bridge Deck on Underpass	State	1,500,000
25	Scarritt Street	Crossing to be Closed	Springfield	-
26	South Grand Avenue	Quad Gates & Pedestrian Gates	State	1,258,000
27	Union Street	Crossing to be Closed	Springfield	-
28	Washington Street	Quad Gates & Pedestrian Gates	State	833,000
29	Sangamon Avenue to Stanford Avenue	Fencing along corridor	State	4,000,000
	10th Street Corridor/Planned Rail Consolidation in Springfield			
30	Ash Street	Underpass	Springfield	20,000,000
31	Carpenter Street	Underpass	Springfield	19,639,000
	19th Street/Current Canadian Northern Corridor in Springfield			
32	14th Street	Crossing to be Closed	Springfield	-
33	Stanford Avenue extended	Quad Gates	State	-
34	Truman Road	Crossing to be Closed	Springfield	-
	High Speed Rail/Union Pacific Corridor Outside Springfield			
35	Andrew Road (in Sherman)	Roadway approach improvements & signal circuitry work	State	1,000,000
36	Dirksen Parkway	New hand railings & ballast retainers on Underpass bridge	State	20,000
37	Goldenrod (in Chatham)	New at grade crossing	State	2,500,000
38	Hazel Dell Road	Quad Gates	State	566,000
39	Iron Bridge Road south of Woodside Road	Overpass	Sangamon County	10,918,955
40	Spruce Street (in Chatham)	Crossing to be Closed	State	-
41	Walnut Street (in Chatham)	Quad Gates	State	710,000
42	Woodside Road	Quad Gates & Pedestrian Gates	State	930,000
43	Woodside Road	Underpass	Sangamon County	20,340,710
			TOTAL COST	103,552,165

PLANNED ILLUSTRATIVE RAIL CROSSING & IMPROVEMENT PROJECTS (2020-2030)

MAP #	PROJECT DESCRIPTION (listed alphabetically)	TYPE OF OF IMPROVEMENT	JURISDICTION	COST
	3rd Street/Current Union Pacific Corridor in Springfield			
1	Ridgely Avenue to Hazel Dell Road	Abandon rail corridor	State	N/A
2	Union Pacific corridor over Norfolk Southern corridor between Stanford Avenue and Hazel Dell Road	Flyover	State	60,000,000
	10th Street Corridor/Planned Rail Consolidation in Springfield			
3	5th Street	Underpass replacement	Springfield	11,300,000
4	6th Street	Underpass replacement	Springfield	10,600,000
5	9th Street at Ash Street	Road to be closed	Springfield	-
6	10 1/2 Street at Ash Street	Road to be closed	Springfield	-
7	10 1/2 Street at Laurel Street	Road to be closed	Springfield	-
8	10th Street at North Grand Avenue	Road to be closed	Springfield	-
9	Adams Street	Crossing to be closed	Springfield	-
10	Capitol Avenue	Quad Gates	State	1,900,000
11	Converse Street	Quad Gates	State	2,100,000
12	Cook Street	Underpass replacement	State	7,000,000
13	Division Street at rail corridor	Road to be closed	Springfield	-
14	Enos Avenue	Quad Gates	State	1,800,000
15	Enterprise Street	Crossing to be closed	Springfield	-
16	Jackson Street	Crossing to be closed	Springfield	-
17	Jefferson Street	Underpass	Springfield	14,200,000
18	Laurel Street	Underpass	Springfield	13,200,000
19	Madison Street	Underpass	Springfield	14,500,000
20	Miller Street	Crossing to be closed	Springfield	-
21	Monroe Street	Quad Gates	State	1,900,000
22	North Grand Avenue	Underpass	Springfield	14,000,000
23	Princeton Avenue at 6th Street	Road to be closed	Springfield	-
24	Reservoir Street at rail corridor	Road to be closed	Springfield	-
25	Reynolds Street	Crossing to be closed	Springfield	-
26	Ridgely Avenue	Quad Gates	State	2,000,000
27	South Grand Avenue	Underpass replacement	State	9,500,000
28	Washington Street	Quad Gates	State	1,600,000
29	Norfolk Southern Rail Yard	Relocation	State	17,300,000
30	Sangamon Avenue to Stanford Avenue	Add and upgrade tracks	State	88,000,000
	15th Street/Current Illinois & Midland Corridor in Springfield			
31	Michigan Street at North Grand Avenue	Road to be closed	Springfield	-
32	North Grand Avenue	Overpass	Springfield	18,600,000
	19th Street/Current Canadian Northern Corridor			
33	Ash Street	Underpass	Springfield	8,600,000
34	Cook Street	Underpass replacement	State	9,500,000
35	McCreery Avenue at South Grand Avenue	Road to be closed	Springfield	-
36	Wirt Avenue at Ash Street	Road to be closed	Springfield	-
37	Wirt Avenue at South Grand Avenue	Road to be closed	Springfield	-
38	South Grand Avenue	Underpass	Springfield	9,500,000
	Kansas City Southern Corridor in Springfield			
39	Cockrell Lane	Underpass replacement	State	10,000,000
	Norfolk Southern Corridor in Southwest Springfield			
40	Cockrell Lane	Quad Gates	State	2,000,000
			TOTAL COST	329,100,000

In Summary:

- **Springfield enjoys significant rail access, although most freight rail runs through Springfield rather than serves markets within it.**
- **The freight access the city does maintain would allow shipment to most all areas of the nation should local business and industry desire it.**
- **The city also enjoys passenger access to major metro areas via Amtrak, and passenger numbers have increased over time.**
- **The addition of high speed passenger rail holds significant promise, particularly given that this project calls for the consolidation of the existing 3rd Street rail corridor with the 10th Street one, eliminating one of the three rail corridors that bisect the city. This will allow for the redevelopment of what is now the 3rd Street corridor, and also allow the development of a multi-modal center bringing together both rail and public transit passengers in one place.**
- **The improvement of the rail corridor for HSR will have several additional benefits, including greatly improving safety by reducing the number of points at which rail and other traffic have the potential to collide and the installation of improved traffic signals and gates at traditional crossings, and improving road-way system efficiency by reducing train caused delays due to the construction of additional under– and over-passes.**

NON-MOTORIZED TRANSPORTATION

The Bicycle Network

Bicycling first became popular in Springfield in the 1880s, but as the road network developed in the Springfield area little consideration was extended to bicycle travel. Recent public engagement activities have indicated a strong interest in creating a safe and efficient bicycle network in the area, and the previously mentioned Complete Streets policy calls for it.

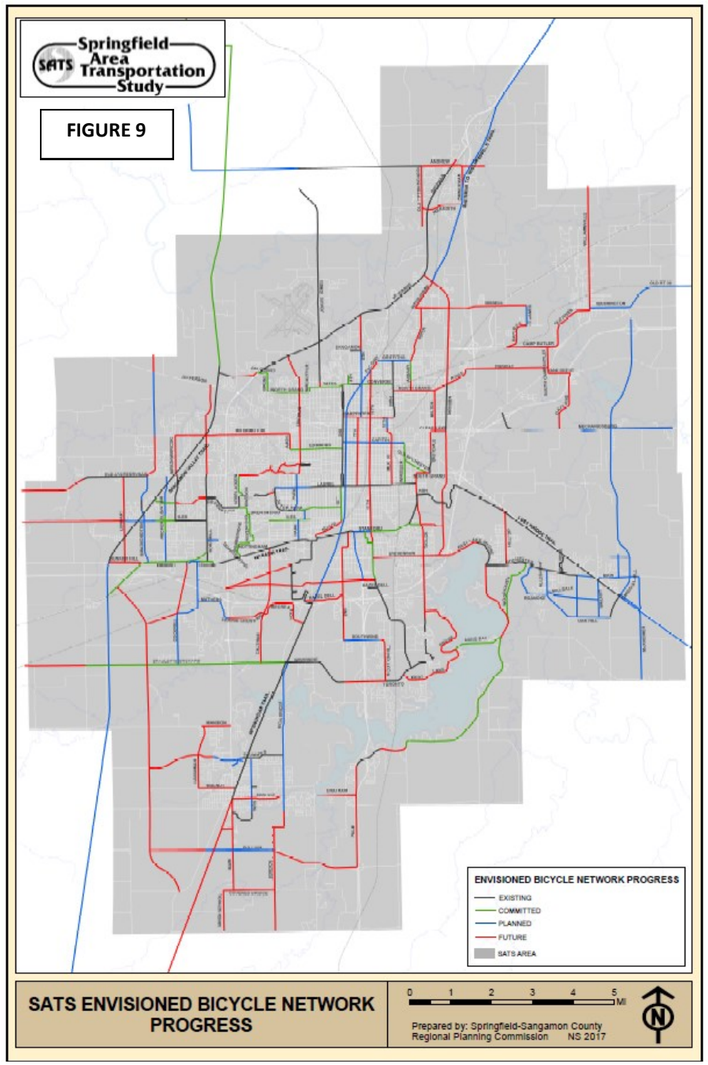
In August 2012 SATS finalized the *Bicycle and Pedestrian Plan* (SATS, 2012), the first bicycle plan and pedestrian plan for Springfield and the metro area. Development of the plan was done in coordination with adjacent communities, Sangamon County, and the Springfield Park District with robust public engagement. The City of Springfield adopted this plan in May 2013. The plan laid out a recommended network of corridors, the Envisioned Bicycle Network, that would provide interconnected bicycle facilities throughout the entire area with inter-modal connections. Existing bicycle accommodations in Springfield and the surrounding area are shown in the box to the right.

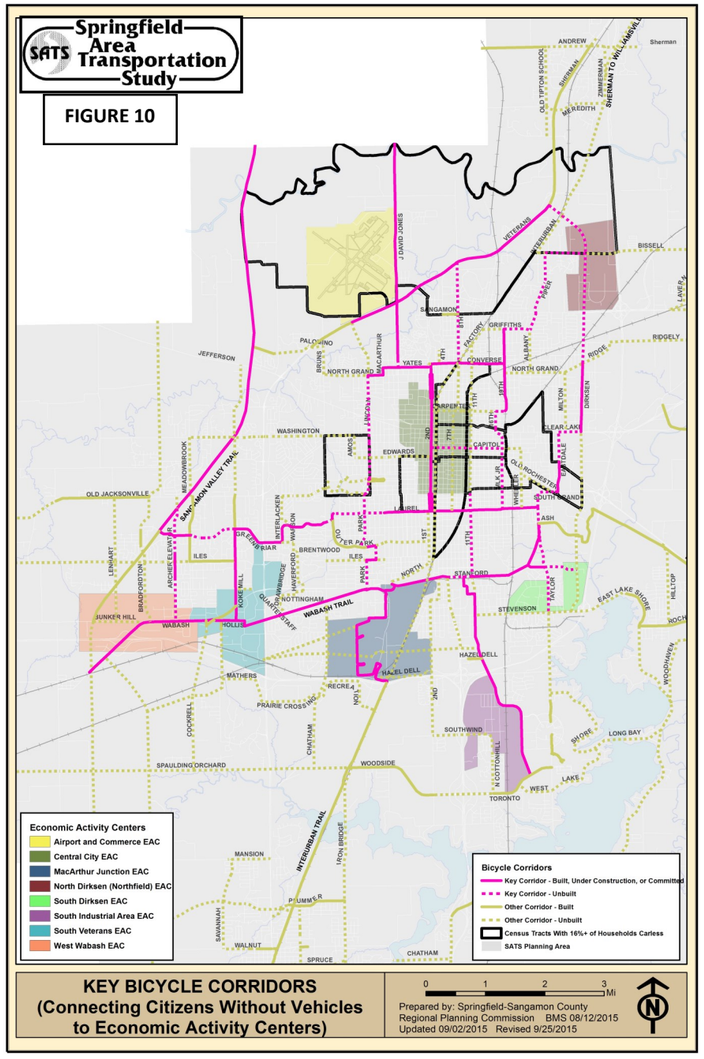
On-road connections of the multi-use trails are also desired and are anticipated to be completed for the existing trails during the period addressed in this Comprehensive Plan.

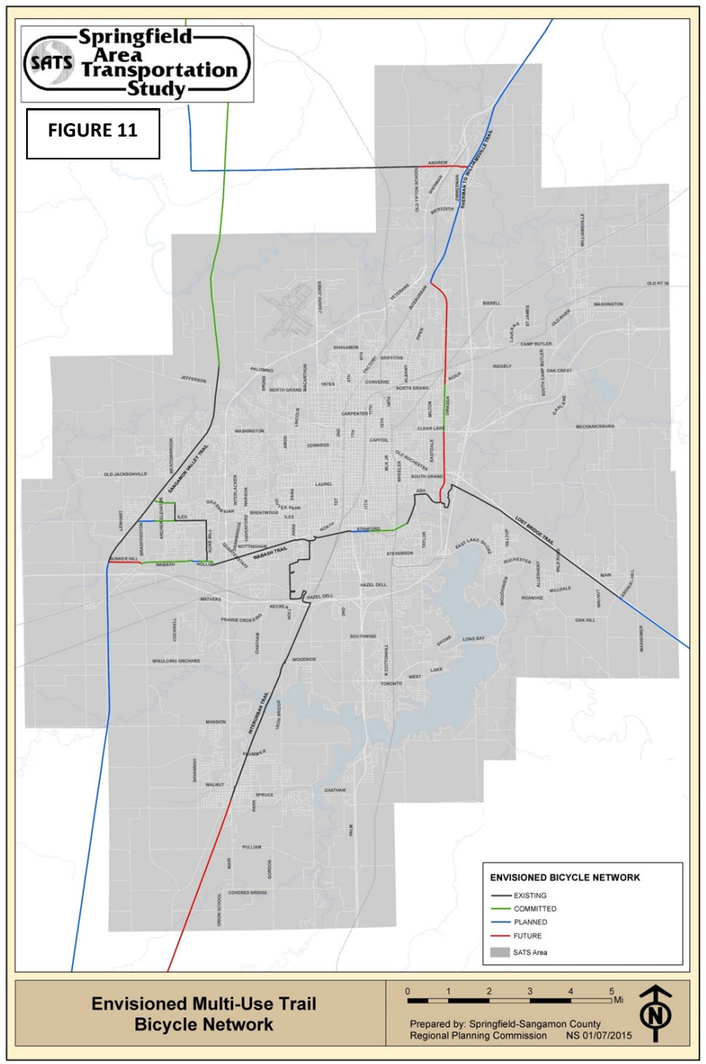
Although several multi-use trails and a few bike lanes had previously been installed, development of a bicycle network is just in the beginning phases. For example, the Route 66 Bicycle Trail, which runs from Chicago to St. Louis, goes through Springfield routed from Sherman along Peoria Road/Veterans Parkway to 8th Street, through the State Fairgrounds, and then using local streets down to the Interurban Trail.

The envisioned bicycle network for Springfield and the metro area is shown in Figure 9.

Existing Bicycle Accommodations	
Bike Lanes	10.9 miles
Lane Markings	0.5 miles
Path	6.9 miles
Paved Shoulders	23.1 miles
Trail	23.9 miles
Bike Route Wayfinding Signs	0. 2 miles
Combined Bike Parking Lanes	6.6 miles
Total	**72.1 Miles**







As bicycling is often used as a means of transportation to work by those who cannot afford an automobile or do not have access to one, SATS prioritized the key bicycle corridors that will connect citizens without vehicles to jobs in the Economic Activity Centers. This is shown in Figure 10 on the previous page. In addition, the plan identifies areas where multi-use trails exist or are to be developed. These routes are displayed in Figure 11.

The Pedestrian Network

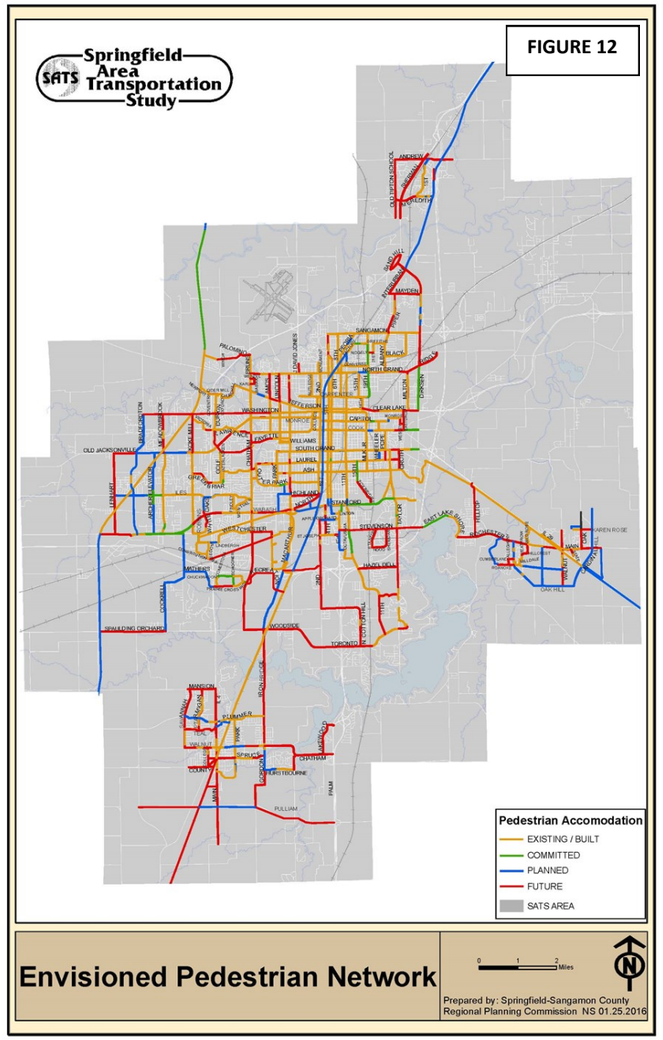
With adoption of the regional *Bicycle and Pedestrian Plan,* a Priority Pedestrian Network (PPN) was identified. This network creates an interconnected walkway throughout the Metropolitan Planning Area and is a priority for construction and maintenance. The PPN consists mostly of sidewalks but also shares the multi-use trails and paths included in the Envisioned Bicycle Network. Unlike the EBN, a good part of the PPN already exists.

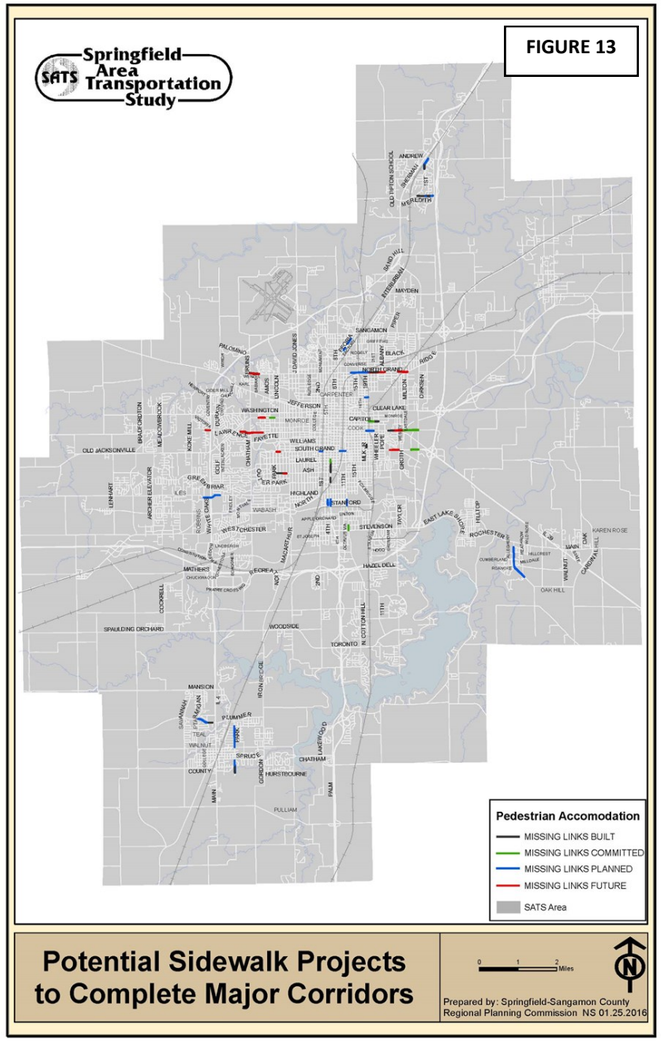
Those parts of the PPN that do not exist will be constructed as part of road projects or in connection with new development. Many of the infill sidewalks will be built through capital improvement programs or as individual lots are developed. Sidewalks along state roads require some local participation.

Many small "missing link" projects were identified that if undertaken would complete long stretches of walkways, usually amounting to several miles. Figures 12 and 13 show the status of the Priority Pedestrian Network projects in total and of the small "missing links" specifically.

In Summary:

- **Development of the infrastructure for non-motorized transportation in Springfield has lagged behind that of motorized, but shown an increase in recent years.**
- **The increased use of bicycles for transportation purposes, including use for other than recreational purposes, is particularly notable.**
- **The system for bicycles is a multi-jurisdictional one, and includes both on street and multi-use trails.**
- **Bicycle and pedestrian travel to Economic Activity Centers is of importance in future planning.**
- **Additional attention should be paid to missing links in the pedestrian network, as completing these links will have the largest impact.**
- **Public interest, the adoption of the Complete Streets policy, and the adoption of both pedestrian and bicycle network plans have all encouraged the development of additional infrastructure for non-motorized uses. This interest is expected to continue in the future.**





THE MASS TRANSIT NETWORK

Intra-City Bus Network

Public transportation in the City of Springfield is provided by the Sangamon Mass Transit District (SMTD), a body independent of the city. SMTD taxing boundaries were established in 1968, and it is identified as the designated provider of public transportation for the Springfield urbanized area by the Federal Transit Administration. This means that any urbanized area federal transit funding comes to SMTD. Figure 14 on the next page shows SMTD boundaries, extended Access Springfield paratransit service boundaries, and mainline fixed routes. For most of SMTD's history the urbanized area was contained within the district's boundaries. However, after the 2010 Census the urbanized area was expanded outside those boundaries and now includes the communities of Sherman, Spaulding, Riverton, Rochester, Chatham, and Curran. Passenger data is provided in Table 1 on the next page.

As the table indicates, SMTD's fixed line ridership increased by 122,786 riders between FY 2011 and FY 2016. This is a respectable increase of 7.46%, yet year-over-year ridership declined in two of these years (FY 13 and FY 16). At the same time, Access Springfield saw more robust growth, increasing ridership by 27.7% between FY 2011 and FY 2016, or 16,250 riders. The difference between these rates may be due to the lack of fixed line routes in the western portion of Springfield where the city has grown. The results of the Community Survey concerning bus use gives credence to this speculation.

The City of Springfield has grown outside of the SMTD boundaries, particularly that portion of the city west of Koke Mill Road. The west side of Springfield and the communities noted above are outside of the SMTD taxing district but within their federal and state transit funding areas, presenting some challenges to the public transportation network.

At the present time the transit district is served by 16 regular daytime mainline service routes that operate Monday through Saturday from 6:00 AM to 6:00 PM and originate and terminate at a downtown on-street transfer center located near the intersection of 5th Street and Capitol Avenue. Earlier mention was made that this transfer center is planned to move to a site located at Adams and 11th streets.

An additional 12 supplementary service routes assist on heavily traveled mainline route corridors during peak periods and provide transit to and from places that generate large numbers of passengers at specific times, but are not serviced by mainline routes. These supple-

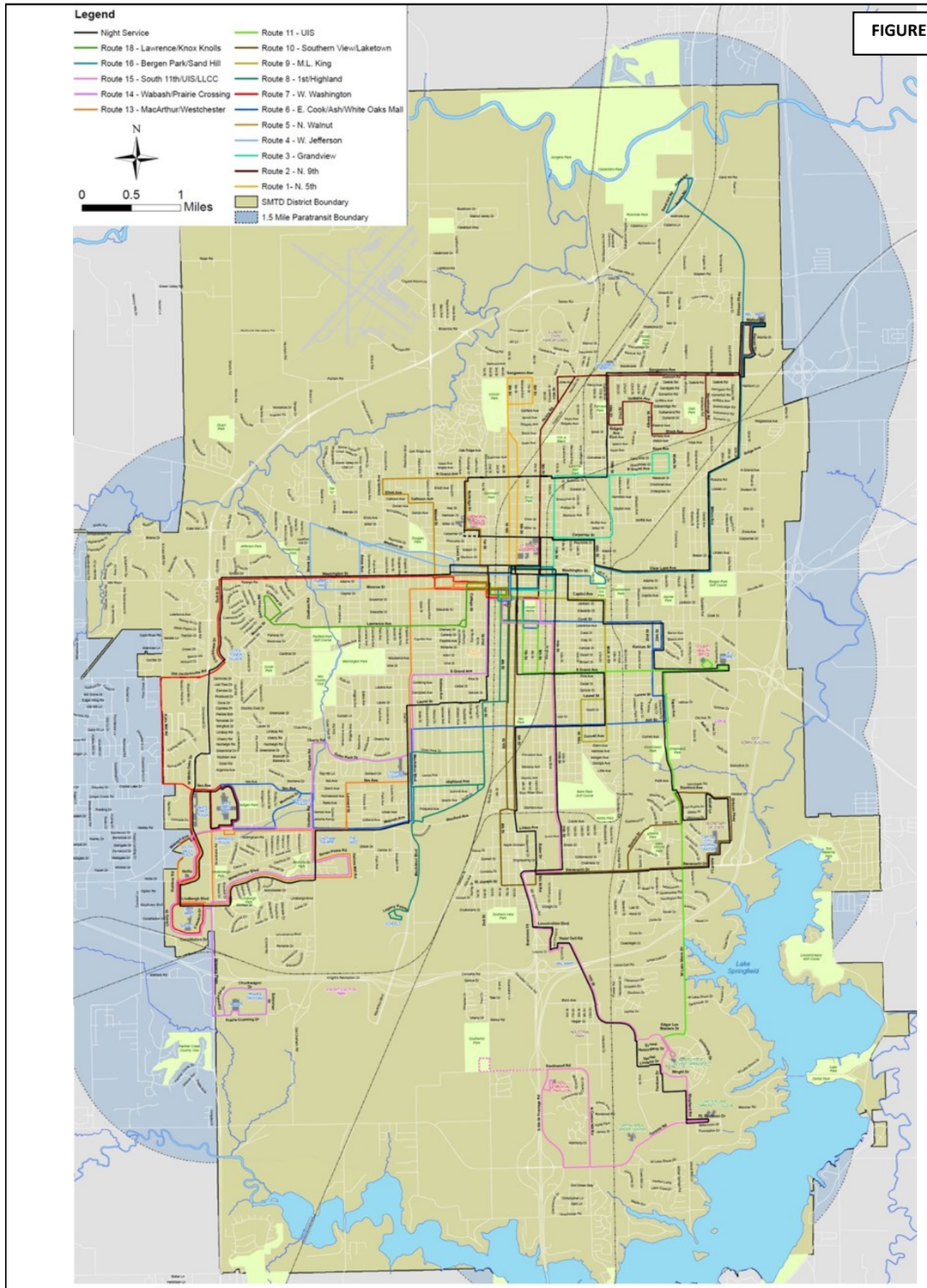


FIGURE 14

mentary service routes originate and terminate at various locations throughout the district and typically only consist of one or two departures per day.

SMTD also operates five separate transit routes on weeknights which originate and terminate at an on-street transfer center located on Washington Street between 5th Street and 6th Street to the north of the Old State Capitol. Night service operates from 6:45 PM to 11:30 PM Monday through Friday.

All SMTD buses are wheelchair accessible and include front mounted bicycle racks that can accommodate up to two bicycles at a time.

SMTD also provides paratransit service through Access Springfield within the entire SMTD boundary and within 1.5 miles of any SMTD fixed route regardless of the SMTD boundary. The Americans with Disabilities Act of 1990 (ADA) requires such service within ¾ mile of the fixed route network but allows an area up to 1.5 miles of fixed route service.

Access Springfield provides origin-to-destination service. Drivers may assist riders when boarding and alighting from the vehicle and in securing wheelchairs. Drivers will also assist riders who do not travel with a personal aide with entry into inaccessible doors. Drivers may not enter residences or provide assistance beyond the door. Access Springfield operates from 6:00 AM to Midnight, Monday through Friday and 6:00 AM to 6:00 PM on Saturday.

To address providing transit service outside of the SMTD boundaries, the transit district has contracted with Sangamon County to participate in the Sangamon/Menard Area Regional Transit (SMART), providing an on-demand service with no fixed routes to areas in Sangamon and Menard counties not currently served by SMTD bus service, and taking passengers from door to door. Passengers must schedule a ride in advance to make use of this service and the cost will be higher than using the SMTD fixed route buses.

The table below provides SMTD and Access Springfield ridership over the last six years.

Table 1

SMTD FIXED LINE AND ACCESS SPRINGFIELD RIDERSHIP

Fiscal Year	Fixed Line Passengers	Change from Previous Year		Access Springfield Passengers	Change from Previous Year	
		Number	Percent		Number	Percent
FY-11	1,644,238	--	--	58,620	--	--
FY-12	1,870,034	225,796	13.7	60,118	1,498	2.6
FY-13	1,799,810	(70,224)	(3.8)	63,584	3,466	5.8
FY-14	1,826,918	27,108	1.5	69,137	5,553	8.7
FY-15	1,902,417	75,499	4.1	74,130	4,993	7.2
FY-16	1,767,024	(135,393)	(7.1)	74,870	740	0.9

The Inter-City Bus Network

Greyhound Bus Lines is the only company providing strictly intercity bus service in Sangamon County. The Greyhound bus station is located at 2815 North Dirksen Parkway in Springfield, and the station facilities operate out of an independent business, Shaner's Tire.

Four buses operate daily, two in each direction between Chicago and St. Louis via Champaign and Springfield. This Greyhound route connects with Burlington Trailways in Champaign for east-west travel on I-74. In addition to passenger service, Greyhound offers freight options through its packaging express service.

The current housing of the Greyhound bus station inside a business on North Dirksen Parkway has been an improvement over the previous situation where passengers had to wait outside a closed building in an isolated area of South Dirksen Parkway. However, being away from the center of the city is not particularly convenient for many travelers. In addition, some trips arrive/depart when the business is closed and public transportation to the area is limited. There is hope that in cooperation with Greyhound the station can be moved to

the intra-city bus terminal which is planned to be part of a multi-modal transportation center in downtown Springfield. This location will provide quick access to the interstate via the Clear Lake/Madison/Jefferson corridor, will be within easy walking and biking distance for residents in the area and tourists, and will have direct access to Amtrak, intra-city buses, and cabs.

In Summary:

- **Springfield is currently served by a public transit network that operates both fixed line and origin to destination services. The latter is provided for those with disabilities.**
- **Although the fixed line system has seen some growth over the past six years, the origin to destination service shows more robust growth over the same period.**
- **The primary challenge the fixed line system faces is addressing areas of the city that have grown outside of the transit districts taxing area. SMTD does receive federal transit funding to serve these areas.**
- **Some increase in system use is expected to occur as SMART matures, as this on-demand system could link to the existing SMTD fixed route network.**
- **Inter-city bus availability is limited and located inconveniently for many travelers. This latter problem could be ameliorated if the inter-city bus station were moved to the planned multi-modal center in downtown Springfield.**

AIR TRANSPORTATION

The Springfield Airport Authority owns and operates the Abraham Lincoln Capital Airport. The airport is situated on 2,408 acres of land three miles northwest of downtown Springfield. The main entrance is located off Illinois Route 29. There is no public transit service to the airport, however taxicabs, hotel shuttles, and auto rentals are available. All parking spaces are considered long-term/short-term parking and are free of charge. The airport's passenger terminal and commercial aircraft serving the facility are accessible to people with disabilities, and the airport continues to make improvements annually to the terminal building and associated facilities.

The terminal building currently houses the Airport Authority offices, airline ticket counters and offices, a passenger services center and gift shop, Sky Club members-only lounges, car rental counters and offices, Transportation Security Administration offices, Federal Aviation Administration offices, Prairie Analytical, a Subway sandwich shop, a flight training school, and other smaller tenants.

The airport is also home to two full-service fixed based operators (FBOs) providing aircraft fueling, flight training, aircraft maintenance, charter service, and other aviation related services, as well as one full-service maintenance, refurbishing, and overhaul (MRO) station that specializes in business aircraft engine repair, avionics, interior customization and external refinishing and painting. There are also an estimated 145 general aviation aircraft based on the field.

The airport is also home to the Illinois Air National Guard and the Illinois Department of Transportation's Division of Aeronautics' engineering offices and flight operations. The Airport Authority is continuing various studies that are evaluating the feasibility of future development in the airport's commerce park located in the airport's south quadrant that is adjacent to Veterans Parkway.

Three airlines currently provide commercial air service to Springfield (SPI), collectively offering approximately 38 weekly departing flights from the city. United Airlines provides daily service to Chicago O'Hare International Airport (ORD) on regional jet aircraft, American Airlines provides daily service to Dallas-Ft. Worth International Airport (DFW) on regional jet aircraft, and Allegiant provides less-than-daily service to Punta Gorda/Ft Myers (PGD) and Sanford/Orlando (SFB) Florida on full size MD-80 or Airbus 320 aircraft.

In 2004, Abraham Lincoln Capital Airport served 222,900 total passengers and dipped to 113,199 total passengers in 2008. In 2014 the airport experienced growth as passenger totals reached 174,265, the second highest annual passenger count since 2004 and the highest annual traffic count in the last decade (2005-2014). The rising passenger counts can be attributed to the added less-than-daily flights to Florida on Allegiant in 2012 and the introduction of American Airlines' daily service to Dallas-Fort Worth in 2011.

The Airport Authority continues to actively pursue the potential to expand the service offerings with the incumbent carriers and seeks new commercial passenger service opportunities as they become available. As a result of numerous airline mergers during the past decade, there remain only four major airlines today in the United States, and only three of the four offer regional service to hub airports. Springfield is currently served by two of those airlines; United and American. There are few low cost carriers to court that currently have business models that would allow for service to Springfield. Springfield currently is served by one of those carriers; Allegiant.

Currently there are no daily freight carriers that operate scheduled flights from Abraham Lincoln Capital Airport. Minimal light freight transport does occur, which is shipped on commercial passenger carriers or with on-demand freight operators. The airport has available space for a start-up air freight transporter in the main terminal complex and can accommodate future freight/cargo warehousing and sorting facilities at the airport's commerce park in the south quadrant.

The Springfield Airport Authority works with the Federal Aviation Administration and the Illinois Department of Transportation in a coordinated planning process to support infrastructure improvements to support both general and commercial aviation users. Presently, the Airport Authority has no imminent plans for major facility expansion as current infrastructure is capable of meeting expected demand for the foreseeable future. Future capital improvement activities will focus on preservation, modernization and safety improvements to the existing facilities and infrastructure.

Air service development is an ongoing process and the airport continues to evaluate the changing landscape to find service opportunities that match the business models of various air service providers. The airport monitors a number of global, national, regional and local economic conditions to determine the best course of action when opportunities become available. The current focus is to maintain and grow frequency on United to Chicago and explore the possibility of connecting to other United Airlines hubs such as Denver or Washington-Dulles; maintain and grow flight frequency on American Airlines to Dallas- Ft. Worth, explore the possibility of connecting to other American Airlines hubs in Charlotte or Chicago, maintain and grow flight frequency to Allegiant's current destinations to Punta Gorda/Ft. Myers and Sanford/Orlando, and pursue additional destinations such as Las Vegas, Phoenix, Myrtle Beach and St. Petersburg/Clearwater. In recent years much effort has been given toward seeking out various charter opportunities to leisure destinations. That effort is expected to continue in future years.

SPI is one of very few airports to offer an airport staffed and equipped to provide full service ground handling service for commercial carriers. This is often used to help incentivize carriers' startup cost when starting a new route. This also translates into offering carriers a long-term competitive ground handling rate that helps to keep their operating cost low in Springfield.

In Summary:

- **Given the nature of air service and the number of carriers in the marketplace, Springfield is relatively well served by regional jet aircraft carriers, and it has seen a noticeable increase in passengers in recent years.**
- **Additional air service is possible, and the airport continues to recruit additional carriers.**
- **The presence of the Air National Guard and its associated facilities benefits the airport and offers the potential for additional growth.**
- **Land is available for development at the site and also offers the potential for additional growth, particularly for operations that often use various air services.**

REFERENCES

SATS (2015). ***2040 Long Range Transportation Plan*****. Springfield Area Transportation Study. SSCRPC: Springfield, IL.**

SATS ((2012). Bicycle and Pedestrian Plan for the Metro Area. Springfield Area Transportation Study. SSCRPC: Springfield, IL.

APPENDIX 5: REVIEW OF SPRINGFIELD'S COMMUNITY FACILITIES & PUBLIC AMENITIES

Community facilities and public amenities are an important aspect of urban areas. These entities provide a diverse range of uses and services to the residents of Springfield. Facilities such as medical centers and public safety responders improve the quality of life for citizens and visitors. Not only is the quality of life improved, but facilities of this type promote employment and economic prosperity.

EDUCATIONAL FACILITIES

Springfield is home to numerous educational services, opportunities, and institutions. There are a total of 55 educational facilities in Springfield. These establishments range from preschool to college and include everything else in between.

Springfield is served by seven school districts, although in some cases only small portions of the city are in these jurisdictions and none of them host facilities within the city's boundary. The largest school district serving the city is Springfield School District 186, and all of its facilities are within Springfield.

According to its website (www.sps186.org), District 186 currently educates more than 15,000 students from Kindergarten to 12th grade. As the main K-12 educational provider in the Springfield area, there are 22 elementary schools and five middle schools in District 186's jurisdiction. District 186 also includes three high schools, an adult education center, as well as the Early Learning Center (three to five year olds). They are shown in Figure 1.

District 186's schools are recipients of National Blue Ribbon awards and include some of the state's top academic performers. Millions of dollars in college scholarships are earned for students annually. District 186 embraces urban Springfield by exposing students to athletics, the arts, the local workforce and area institutions of higher learning (www.sps186.org).

Other academic institutions exist in Springfield that are not a part of District 186.

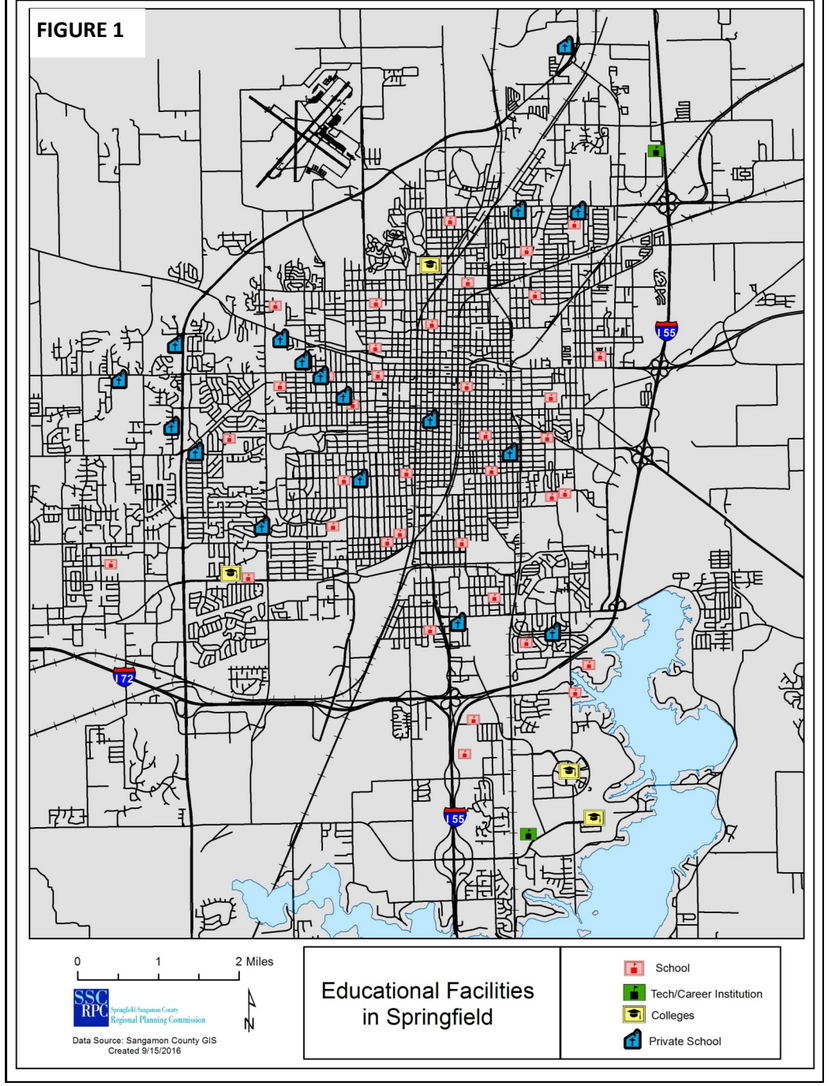
Parochial schools are the next largest provider of elementary and high school education in the city. There are eight elementary/middle parochial schools, as well as two parochial high schools: Lutheran High School and Sacred Heart-Griffin. These along with other private institutions exist and are noted in Figure 1.

Springfield is also home to four higher education institutions: Benedictine University at Springfield, Lincoln Land Community College, Robert Morris University, and the University of Illinois—Springfield. These institutions offer Associate, Bachelor's, Master's and/or Doctorate Degrees. Approximately 28,000 students are enrolled through the aforementioned schools.

Career and technical learning are also available in Springfield. For example, Capital Area Career Center and Midwest Technical Institute offer first-hand experiences related to skill development for certain careers. Programs such as welding, health services, and professional truck driving are available.

The final grouping educational entities serving Springfield are those categorized as providing alternative education. These schools offer special education and/or adult education. Hope School Learning Center, for example, allows children facing extraordinary cognitive, physical and emotional challenges to learn and thrive from new methods of education. The Lawrence Education Center provides a high school credit recovery program, adult basic education, GED preparation, and English as a Second Language (ESL).

FIGURE 1



HEALTH CARE & MEDICAL FACILITIES

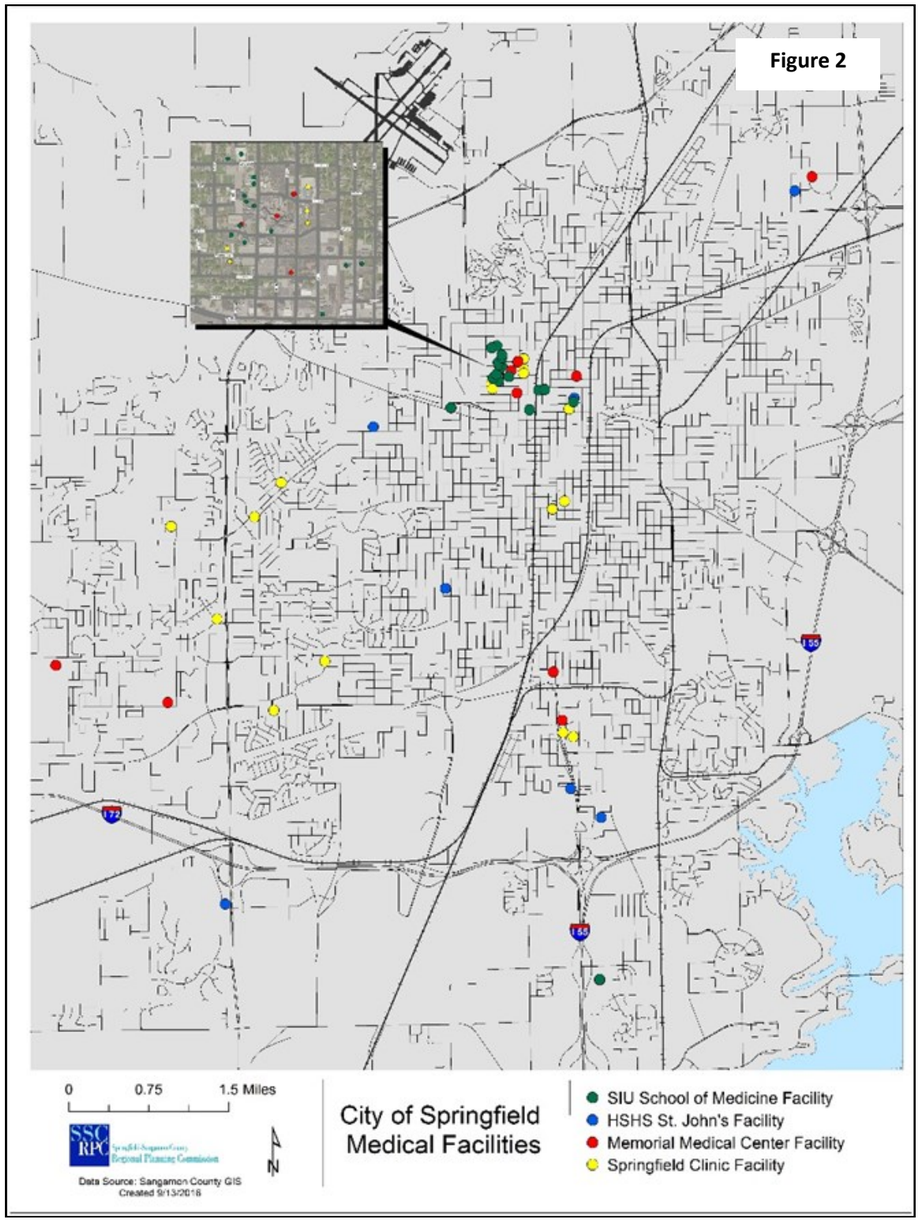
Health care facilities and medical centers are prominent entities throughout Springfield. Not only do Springfield's medical centers provide health coverage to a large population in central Illinois, they also offer employment to thousands of local residents. Along with providing healthcare and employment, medical education is another part of Springfield's medical presence. Springfield's local medical institutions and practices are nationally recognized, with physicians and their respective supporting facilities receiving recognition for progressive and successful medical practices, in such areas as pediatrics, cardiovascular disease, and medical education. In recognition of this, Springfield is the home of the state established Mid-Illinois Medical District.

Numerous and diverse medical specialties are prevalent throughout the Springfield area. There

are two major hospitals serving both in- and out-patient care: Memorial Medical Center and HSHS St. Johns Hospital.

While there are numerous physicians having independent practices, the city also contains two major physician group practices: Springfield Clinic and Southern Illinois University Physicians and Surgeons. It also houses numerous specialty practices, such as Prairie Cardiovascular. This expansive medical presence should not be surprising since Springfield is also home to the Southern Illinois University School of Medicine. All of these facilities are located either wholly or partially in the Mid-Illinois Medical District.

To provide a better idea as to the distribution of these facilities in Springfield, several of the major healthcare facilities in the city are shown in Figure 2.



PUBLIC SAFETY

Like any metro area, fire, crime, and crises cannot be permanently extinguished; but, cities can offer top-notch protection and services to combat them. With a population of more than 117,000, responding to emergencies is an unfortunate aspect of urban life, and Springfield accommodates numerous public safety organizations for the protection of its residents. The locations of their facilities are displayed in Figure 3.

Springfield's fire and police departments cover the entirety of the Springfield area. Station locations are based on having a geographically dispersion that helps ensure effective and efficient response.

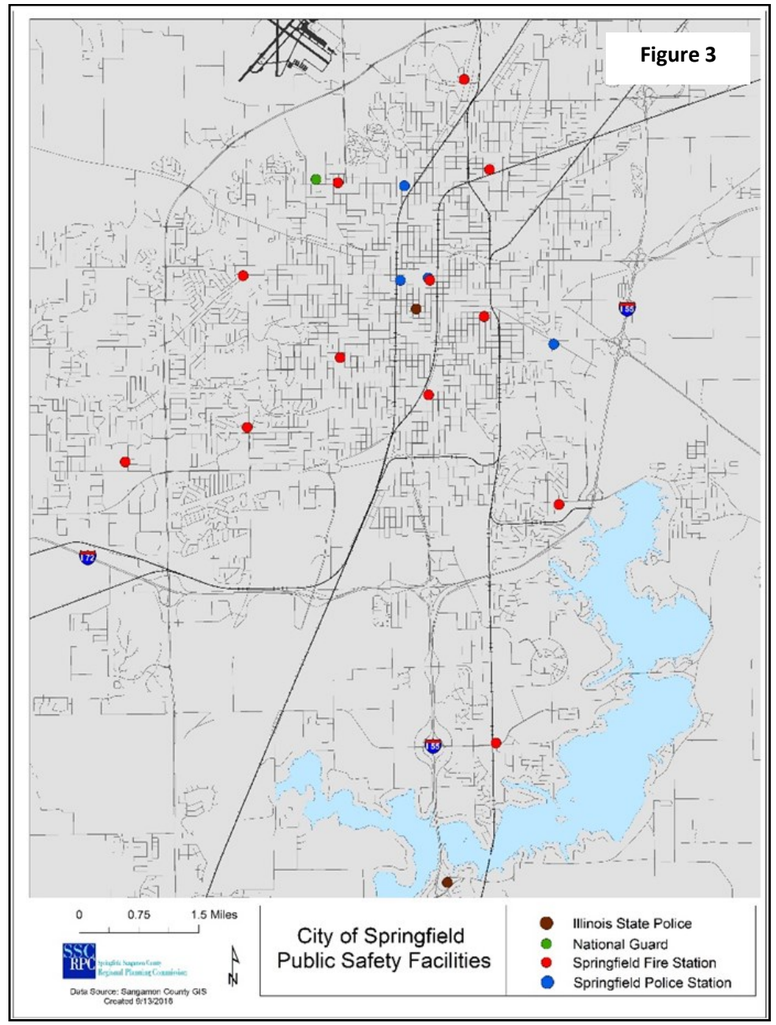
Springfield is home to other than municipal emergency and public safety entities as well. Being the state capital and a larger city in central Illinois, housing state-wide protective services in Springfield creates an efficient and effective choice for Illinois residents. For example, the Illinois State Police and National Guard both have locations in Springfield.

Illinois National Guard

Camp Lincoln is the home of Illinois's National Guard in Springfield. Located at 1301 N. MacArthur Blvd, Camp Lincoln is comprised of Joint Force Headquarters, 108th Sustainment Brigade, 33rd Infantry Brigade Combat Team, 404th Maneuver Enhancement Brigade, and the 65th Troop Command.

Illinois State Police

Created in 1922 by the Illinois General Assembly, the Illinois State Police comprises more than 3,000 individuals who protect the public and provide services throughout the state. Springfield houses two main locations for the state police. The main headquarters location is 801 S. 7th St. Suite 100-M, and the ISP Academy located at 700 East Lake Shore Dr.



OUTDOOR RECREATION

Springfield provides a number of recreational places and activities for its citizens and visitors.

Hiking, biking, sports, games, and other outdoor activities are available within the city and its extra-territorial jurisdiction.

Trails and parks are a popular destination for leisure activities. No matter the weather or time of year, Springfield currently provides access to one or more forms of continual recreation for residents. Summer offers multiple aquatic and outdoor activities, and indoor facilities provide recreation during colder times of the year.

The locations for recreational facilities and activities are shown in Figure 4 on the next page.

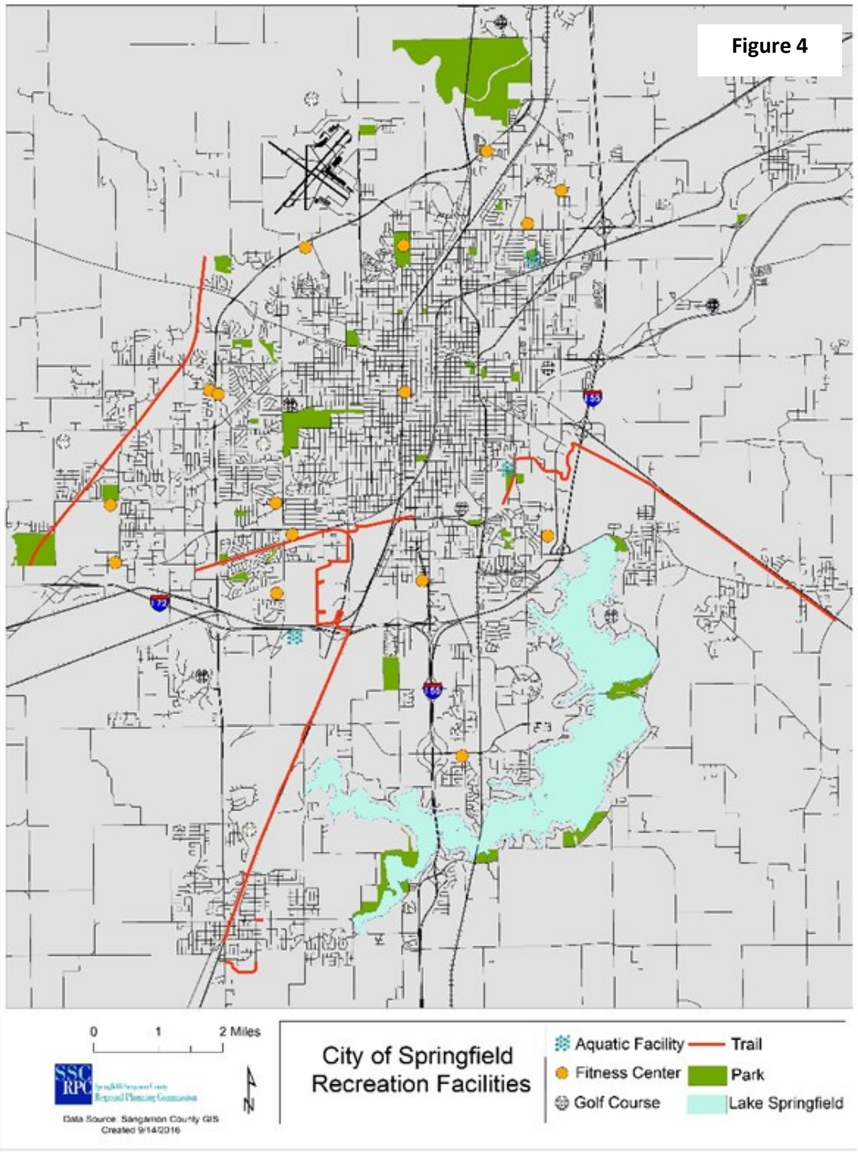


Figure 4

Parks

The Springfield Park District provides stewardship of 2,500 acres of land, of which, is used for parks, golf courses, baseball fields, and other athletic fields/courts. Along with managing parks and recreational spaces, the park district offers recreational and educational programs for people of nearly all ages. Programs like swimming lessons, golf lessons and dance lessons are available just to name a few.

During development of this plan the project Steering Committee was advised by the Park District's Board President that no additional parks are planned to be added during the next 20 years.

Trails

In Appendix 4, bicycle and multi-use trails were addressed. The Springfield Park District maintains five bicycle trails that accumulate 23 miles. These trails connect Springfield to its surrounding communities. Trails are open to cross-country skiers, wheelchairs, strollers, rollerbladers, and walkers; however, these uses only pertain to Park District trails.

The trail network is still under development, with the Sangamon Valley Trail, which runs north to south along the west side of the city and is being developed by Sangamon County in conjunction with other state and local partners, being the next large trail component to be added to the network. The first 5.5-mile segment of what will become a 38-mile multi-use trail, opened in summer 2011 . It currently runs between Centennial Park and Stuart Park in Springfield, and an additional northern segment is currently under development. When complete, this trail will link Girard, to the south, and Athens, to the north, along with the properties in between. The trail follows an abandoned right-of-way of the old St. Louis, Peoria and North Western Railway, which later became part of the Chicago and North Western Railroad.

Golf Courses

A number of courses are maintained by the Park District, but other courses are open to the public throughout Springfield as well. Most are 18-hole courses, but 9-hole courses exist. One course was in the past home to a PGA event. Panther Creek hosts the Lincoln Land Charity Championship in the Web.com PGA tour.

Aquatic Features

Lake Springfield is the main water feature in Springfield. It is Springfield's domestic water supply, but it also provides water-based recreation for approximately 600,000 visitors annually. The lake has about 4,200 acres of surface and 57 miles of shoreline. Canoes, pontoons, jet skis, rowboats, sailboats, motorboats and swimming are allowed (in certain areas) on the lake. Fishing is also allowed in certain areas of the lake.

Although activities continue to develop a second lake to supply Springfield's future water needs, Hunter Lake, the development of this lake has not been approved by state and federal regulators. Although this lake is planned and addressed in this document, it is not currently expected to offer the same types of outdoor aquatic uses as Lake Springfield.

Knight's Action Park, located at 1700 Recreation Dr., is home to a number of water slides and other water park attractions. A golf driving range, go-cart track, mini-golf course and a drive-in movie theatre are also housed in this theme park.

Public Pools

The Springfield Park District manages three aquatic facilities. These pools are open from Memorial Day through Labor Day. Eisenhower provides extensive swim lessons and is home to multiple competitive and recreational swim teams.

INDOOR RECREATION

Athletic Facilities

Along with the facilities offered by Springfield's YMCA, private fitness centers offer residents year-round opportunities for exercise. Whether it's weight-lifting, indoor sports, or swimming, these facilities can support many types of exercise and related activities.

Gymnasiums are similar to fitness centers, but are typically catered to athletics and sports equipment. Basketball and volleyball courts and soccer fields are more common indoor sports venues in Springfield. These facilities are shown in Figure 4.

Cultural and Entertainment Facilities

Cultural and entertainment facilities (see Figure 5) provide a combination of amusement and enlightenment for residents and visitors. Many of these cultural facilities are unique to central Illinois and inform visitors and residents of the local character.

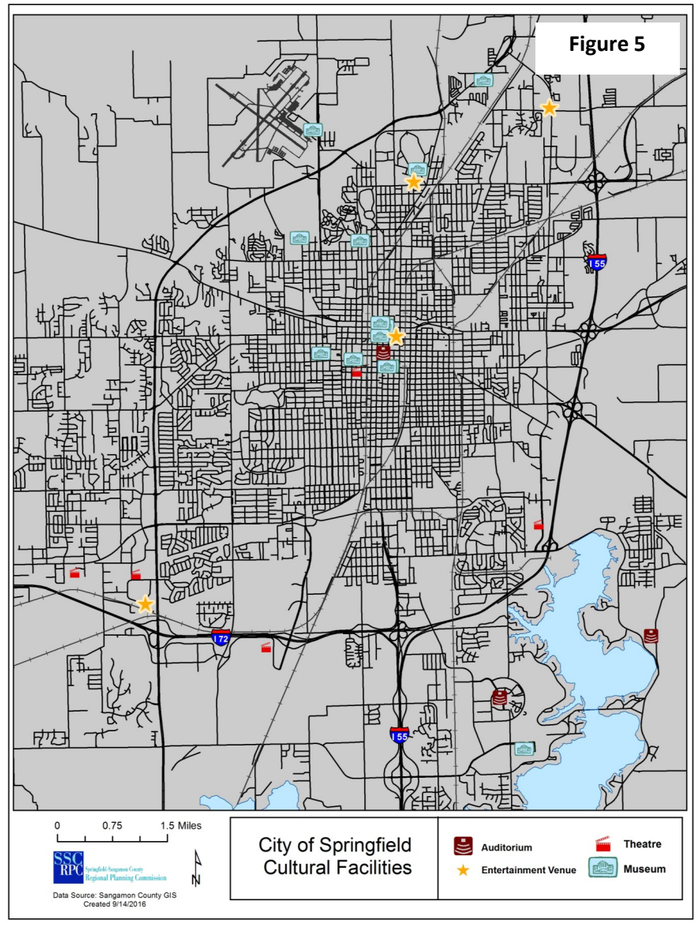


Figure 5

This category includes the many theatres, museums and night-life venues located in Springfield. For example, the Springfield Municipal Opera (The Muni), the Hoogland Center for the Arts, and the Springfield Theater Center, produce multiple live theatrical and musical performances. This is in addition to those provided at the Bank of Springfield Convention Center and the Sangamon Auditorium at the University of Illinois—Springfield.

Aside from public facilities offering entertainment, there are many commercial entertainment facilities in the city, including both movie theaters and nightclubs.

Historic Resources

Springfield is filled with time-honored spaces and edifices. Its cogent history attracts people from all over the world. Fragments from previous centuries and decades are evident throughout central Illinois. The primary sites are identified on Figure 6.

As the Home Town of Abraham Lincoln, Springfield is filled with buildings and places dedicated to President Lincoln and addressing the history of the city. National and local historic sites, libraries, and museums honor the 16th President of the United States. Other than the Lincoln-oriented historic sites, Springfield still harbors a host of historic resources. Other past and local politicians, artists, people, and places of prominence are remembered.

All-in-all, ten major active public historic sites are located in Springfield along with 16 museums.

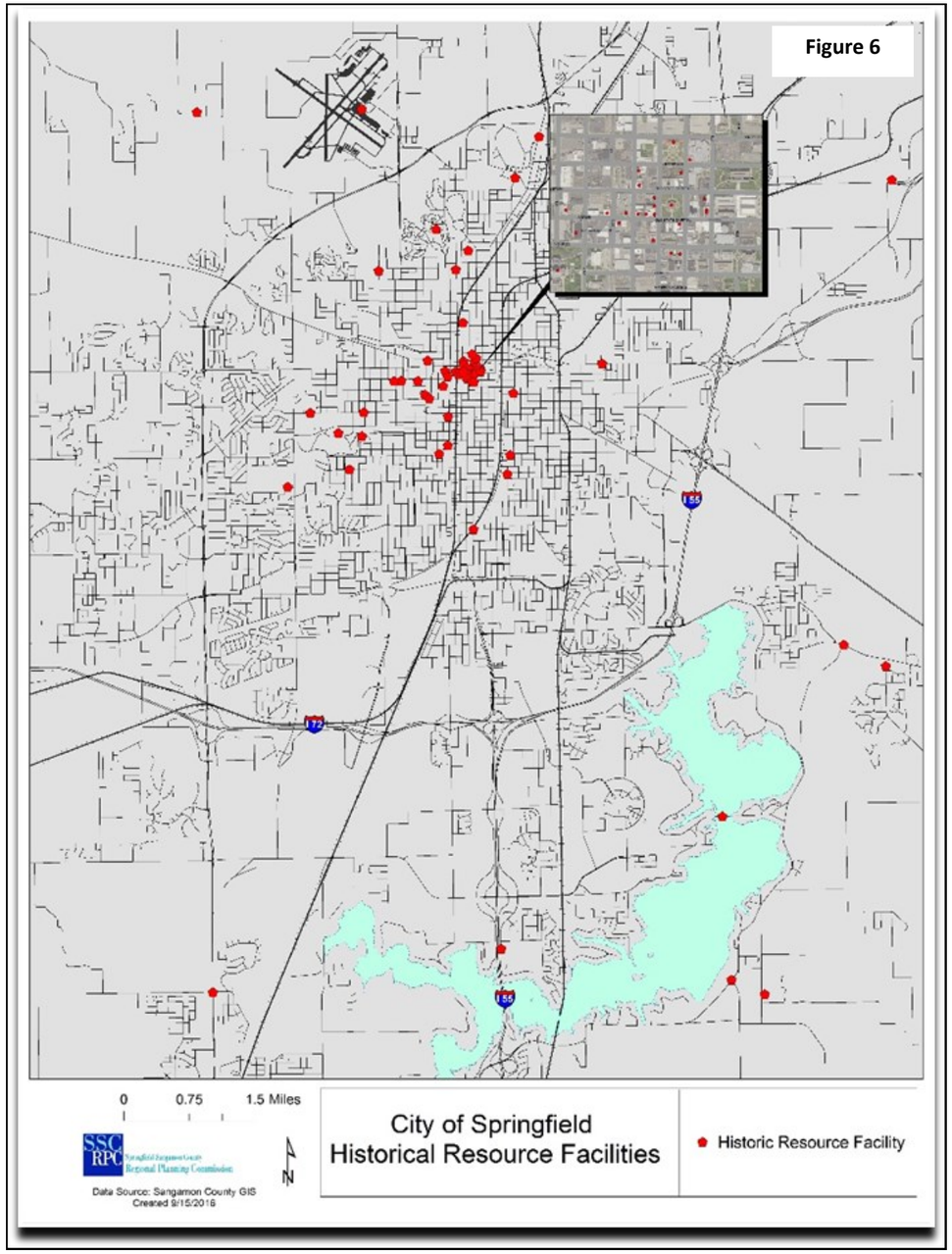
In Summary:

- **Springfield is supported by a well developed K-12 educational system, with Springfield District 186 serving most residents. However it must be recognized that many residents in the community are served by other bordering school districts as well as parochial schools.**
- **The city also is served by a number of higher education institutions that offer an array of degrees.**
- **Due to the presence of two major hospitals, the Southern Illinois School of Medicine, and other major general or specialized physician groups, health and medical care have become a major industry. Springfield is recognized as a regional medical center serving a population well beyond its borders.**
- **The city's public safety infrastructure is well developed with fixed facilities fairly well distributed.**
- **For a city of its size, Springfield hosts a number of facilities serving both outdoor and indoor recreational and entertainment needs.**

RESOURCES

Benedictine University at Springfield: www.Ben.edu.
City Water, Light and Power: www.cwlp.com/lake/lake.html.
HSHS St. John's Hospital: www. St-johns.org.
The Hope Institute: www.Thehopeinstitute.us/our-mission.
Illinois National Guard: www.Il.ngb.army.mil.
Illinois State Police: www.Isp.state.il.us.
Lincoln Land Community College: www.Llcc.edu.
Memorial Medical: www.memorialmedical.com.
Robert Morris University: www.Robertmorris.edu/springfield.
Southern Illinois University School of Medicine: www.Siumed.com
Springfield Clinic: www.springfieldclinic.com.
Springfield Park District: www.springfieldparks.org/parks.
Springfield School District 186: www.sps186.org.
University of Illinois-Springfield: www.uis.edu.

Figure 6



APPENDIX 6: REVIEW OF SPRINGFIELD'S COMMUNITY SURVEY

As part of its work for the City of Springfield in the development of this plan, the Springfield-Sangamon County Regional Planning Commission (SSCRPC) engaged the Survey Research Office (SRO) of the University of Illinois-Springfield to conduct a mail survey of Springfield's residents. This was a randomized survey involving over 100 questions intended to ascertain resident opinions and comments concerning: the city in general; economic growth and development; transportation; land use; environment and natural resources; and community amenities and facilities.

The survey was conducted from August 19, 2016, to September 15, 2016, with 5,000 surveys mailed. Respondents were provided the option of completing the survey and returning it to the SRO in a pre-addressed postage-paid envelope, or completing the survey on-line.

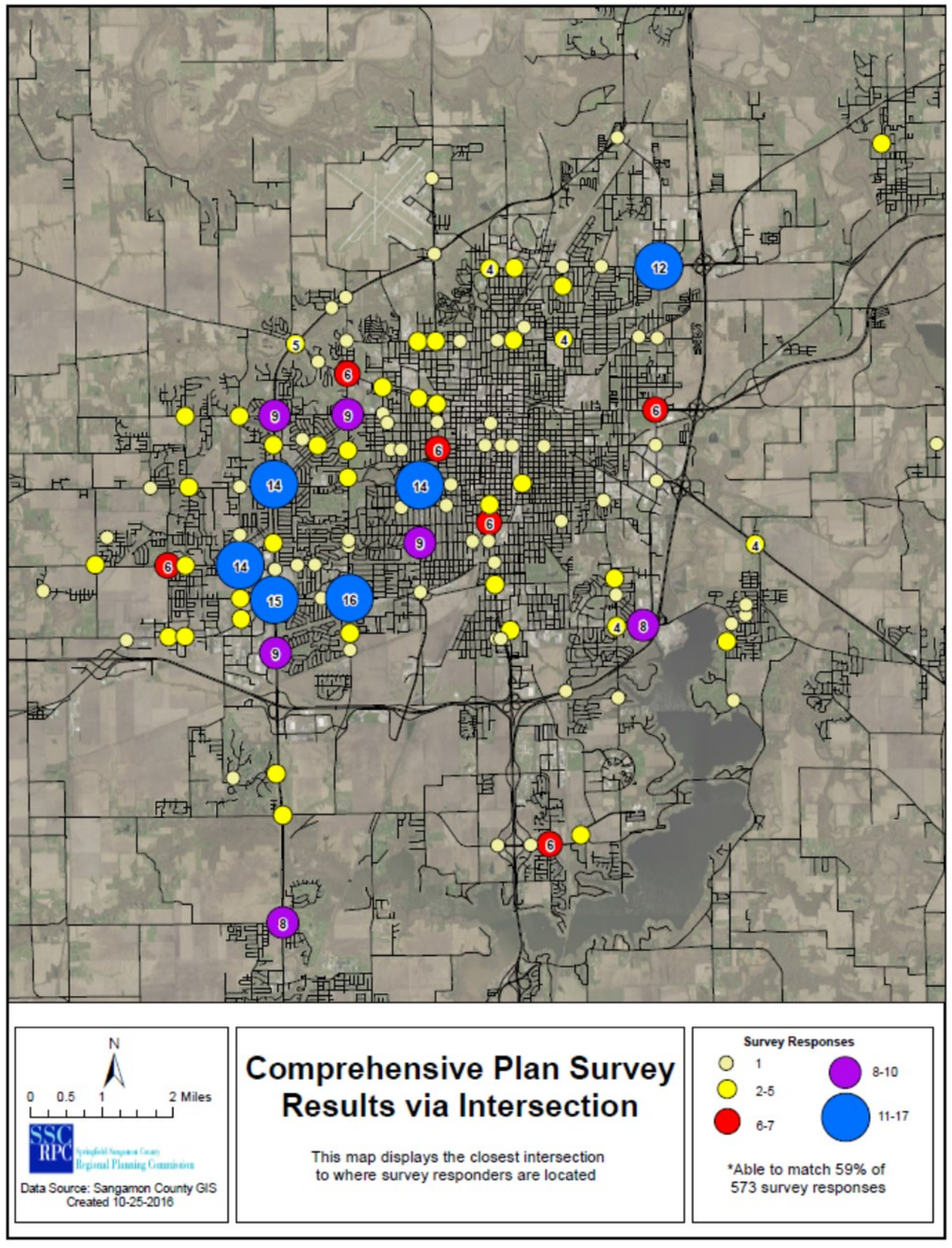
While most of the questions in the survey only required respondents to select from a group of responses, several open-ended questions were included as well. Due to the additional effort required in analyzing responses to open-ended questions, this report will not address them, leaving this to an additional report.

A set of demographic questions was also included to find out more about the respondents, but also to allow for the statistically weighted adjustment of the results so that any disparities in the number of residents in various demographic groups compared to the population as a whole, could be addressed. The statistical weighting took into account race, education, age and gender. Because gender was affected by the weighting of race and education, it resulted in a slightly better response rate for African-American females than African-American males.

From the original mailing, 573 surveys were returned. When the random responses were weighted, this resulted in a weighted return of 429 for analytic purposes. Even with weighting, the sampling error was only ± 4.72, well within an acceptable range for a survey of this type.

The SSCRPC and the SRO also provided residents not included in the random survey the opportunity to take part on-line. This was termed the "opt-in" survey. Participants in the random survey submitted their results on-line using a different code number than the opt-in respondents, allowing for the two groups to be separated. There were 313 residents not included in the random survey who took the opportunity to opt-in. While the SSCRPC has the results from both groups, and took these responses into account for planning purposes, only the results from the random survey will be presented in this report as it represents the scientific sample.

Respondents were promised that their responses would remain anonymous, and for this reason all returns were to the SRO, which compiled the results, calculated the weighting, and provided the tabular data reported on the following pages. However, it was important to know whether responses differed by area of the city, as well as if the responses were well-spread geographically. For this reason, and to maintain anonymity, the survey asked respondents to identify the road intersection nearest their home. A map showing the geographic distribution of responses is provided on the right. The SSCRPC found this distribution to adequately describe the density and location of the city's population, supporting the survey's results, even though a large number of surveys could not be associated with a specific location. The map represents all respondents that could be so associated.



RESPONSES TO GENERAL QUESTIONS ABOUT THE CITY

For land use planning purposes, the first question attempted to determine the rate of population increase that residents might desire *for the city as a whole*.

When reviewing the results of the survey as presented in the various tables of this section, please note that the total number of responses reported may not match the total number of respondents as some respondents did not answer all questions. This undercount should be considered in reviewing the results.

QUESTION: Springfield's population increased by 4% from 2000 to 2010. Over the next 20 years, what type of population growth rate should Springfield encourage overall?

Options	Respondent Answers	Percent
No growth at all	20	5.3%
Slower rate	82	21.4%
Same rate	191	50.0%
Faster rate	89	23.3%
TOTAL	381	100.0%

The results indicate that half of the respondents prefer the slower 4% growth, and are about evenly split between those seeking faster and slower growth.

Since the first question attempted to determine the rate of population increase that residents might desire for *the city as a whole*, the next question gauged their desire about population growth *in the area in which they live.*

QUESTION: Springfield's population increased by 4% from 2000 to 2010. Over the next 20 years, what type of population growth rate should Springfield encourage in your surrounding area?

Options	Respondent Answers	Percent
No growth at all	69	18.8%
Slower rate	78	21.3%
Same rate	162	44.4%
Faster rate	56	15.4%
TOTAL	365	100.0%

While the previous question found that half of the respondents desired that Springfield maintain its recent rate of growth, with the remainder fairly split between those desiring faster and slower growth, this question found that those desiring the same or faster rate growth for the city as a whole are less likely to prefer it for the area in which they live.

Public funding is logically linked to land use; both for the maintenance of capital items – such as roads, sewers and parks – as well as the development of new capital projects to support future additional growth. For this reason the survey attempted to gauge respondents' willingness to support various options to provide the funds necessary to make these public investments. The question was framed as follows:

QUESTION: ***The City of Springfield needs to ensure it is able to fund capital investments such as roads, sewers and parks over the next twenty years. Please rank the following strategies to fund capital investments with a "1" as your most preferred option and "8" as your least preferred.***

The eight options listed below were available for ranking, with the number and percentage of those selecting each ranking also presented.

Rank	Raising Sales Taxes		Finding New Efficiencies		Applying Taxes to Goods/ Services Not Now Taxed		Reducing Spending Through Cutting Programs/ Activities		Seeking State and Federal Grants		Raising Property Taxes		Bringing New Business to the City		Encouraging Growth of Local Business	
	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%	No.	%
1	8	2.8	62	19.3	5	1.5	12	3.9	42	13.9	1	0.3	94	32.0	80	27.4
2	5	1.6	32	10.1	14	4.7	18	5.7	25	8.2	5	1.7	100	33.9	109	37.1
3	7	2.5	79	24.6	14	4.6	18	5.7	83	27.7	4	1.2	53	18.2	49	16.6
4	12	4.1	79	24.6	31	10.2	48	15.4	71	23.7	6	2.1	23	8.0	34	11.6
5	28	9.4	39	12.1	59	19.6	81	26.0	46	15.4	19	6.3	14	4.9	12	4.0
6	61	20.1	10	3.2	119	39.6	38	12.0	23	7.6	33	10.9	4	1.5	6	2.0
7	125	41.6	11	3.5	44	14.8	41	13.3	4	1.4	64	21.4	2	0.6	4	1.2
8	54	17.0	9	2.7	15	4.9	56	18.0	6	1.9	169	56.1	3	1.0	0	0.1
T	301	100	320	100	300	100	313	100	300	100	301	100	294	100	293	100

As might be expected, increases in taxes score more poorly than other options, with the business growth – economic development related – choices scoring best.

However, to get a better idea as to how the options scored one against the other, the SSCRPC developed an indexed ranking system to allow a better comparison between the choices. It was established on the basis that for every 100 respondents, the lowest possible score for an option (that is, the most preferred) would be 100 (1x100), and the highest possible score (that is, least preferred) would be 800 (8x100). The SSCRPC did a simple weighted ranking, by multiplying the number of those choosing an option against the option weight, and then adjusted for the total number of respondents for each item. This resulted in an indexed "preference" ranking, from most to least preferable:

OPTION FOR INCREASING CAPITAL PROJECT INVESTMENTS	Preference Indexed Ranking	
Bringing New Business to the City	2.30	1st QUARTILE
Encouraging Growth of Local Businesses	2.41	
Finding New Efficiencies	3.38	2nd QUARTILE
Seeking State and Federal Grants	3.56	
Reducing Spending Through Cutting Programs/Activities	5.31	3rd QUARTILE
Applying Taxes to Goods/Services Not Now Taxed	5.45	
Raising Sales Tax	6.31	4th QUARTILE
Raising Property Taxes	7.12	

What is again apparent is that the two economic development related choices scored best, both being in the first quartile, while the sales and property tax increases scored worst, being in the last. The brackets shown on the table identify these quartiles. Of the tax choices, applying taxes to goods and service not now taxed scored best, but was at the bottom of the third quartile and still about twice as unpopular as the economic development options. What is notable, however, is that reducing spending by cutting programs or activities was almost as unpopular as applying new taxes (5.31 vs. 5.45).

To indicate the differences in popularity of the various options, raising property taxes was about three times more unpopular than bringing new business to the city, while applying taxes to goods and services not now taxed was only about two and a third times less popular than the new business option. Indeed, raising property taxes was about one and a third times less popular than applying taxes to currently untaxed items.

NEIGHBORHOODS

For land use planning purposes the survey also asked a series of questions concerning the status of the respondents' neighborhoods. The first portion of this examination dealt with seven specific problems, with the question posed this way:

QUESTION: ***Which, if any, of the following problems exist in your neighborhood?***

The first areas considered relate to infrastructure. The results follow:

PROBLEMS IN THE NEIGHBORHOOD RELATED TO CONDITION OF								
ROADS			SIDEWALKS			FLOODING & DRAINAGE		
	RESPONSES	%		RESPONSES	%		RESPONSES	%
Problems Exist	206	51.9%	Problems Exist	172	43.8%	Problems Exist	186	48.6%
Problems Don't Exist	191	48.1%	Problems Don't Exist	221	56.2%	Problems Don't Exist	197	51.4%
Total	398	100.0%	Total	393	100.0%	Total	383	100.0%

Respondents found there to be greater problems with roads in their neighborhoods than sidewalks, and by a palpable amount, with almost 44% noting problems with sidewalks compared to almost 52% with roads. Surprisingly a similar number of respondents – almost 49% -- reported that there were flooding or drainage problems.

The next areas addressed related to aspects of public safety. The results are as follow:

PROBLEMS IN THE NEIGHBORHOOD RELATED TO					
CRIME			INSUFFICIENTSTREET LIGHTING		
	RESPONSES	%		RESPONSES	%
Problems Exist	181	44.7%	Problems Exist	115	30.1%
Problems Don't Exist	224	55.3%	Problems Don't Exist	268	69.9%
Total	404	100.0%	Total	383	100%

The results related to crime were better than those related to infrastructure, but only marginally so, with almost 45% reporting problems. Street lighted fared much better, with almost 70% reporting that problems related to insufficient street lighting did not exist.

Two additional questions were asked to probe common issues associated with residential areas: noise and garbage. The results follow:

PROBLEMS IN THE NEIGHBORHOOD RELATED TO					
NOISE			GARBAGE		
	RESPONSES	%		RESPONSES	%
Problems Exist	116	30.1%	Problems Exist	76	19.8%
Problems Don't Exist	269	69.9%	Problems Don't Exist	310	80.2%
Total	386	100.0%	Total	386	100.0%

Pertaining to neighborhood noise, the response was quite positive, with almost 70% of respondents saying that they do not have such a problem in their neighborhood. Although garbage has been an often discussed issue in Springfield, about 8 of every 10 respondents reported that it was not a problem where they lived, indicating that this problem is likely a localized one rather than community-wide.

While the questions above asked about whether certain problems were seen as existing in the neighborhoods where the respondents lived, the survey also sought to gauge the importance of the issues by asking which was the biggest problem.

QUESTION: Which, if any, of the following problems is the biggest problem in your neighborhood?		
PROBLEM	Respondent Answers	Percent
Condition of roads	40	13.7%
Noise	16	5.5%
Garbage	9	3.1%
Condition of sidewalks	18	6.2%
Insufficient street lighting	12	4.2%
Other	38	13.3%
Crime	46	15.8%
Flooding or drainage issues	57	19.7%
None	54	18.5%
Total	289	100.0%

Notably, almost 19% said that none of the problems identified were big problems, and 13.3% reported that other problems were their largest concern. This means that almost a third of those responding did not see that any of the common problems associated with neighborhoods were a major concern to them. It is also notable that this question had a large undercount, suggesting that the problems entertained may be localized.

Responses identifying no problem trailed only flooding or drainage, the highest noted problem, with almost 20% calling flooding and drainage their biggest problem.

Overall, only two other problems saw more than 7% of residents claiming it to be their biggest problems: Crime (15.8%) and condition of roads (13.7%).

RESPONSES TO QUESTIONS CONCERNING ECONOMIC GROWTH AND DEVELOPMENT

As land use affects and is affected by development, it is important to assess the opinions of residents concerning economic matters. Based upon the results of this survey that indicate that economic development is the first choice among residents as the means of generating additional revenues for public investments, it is of additional importance.

Respondents were first asked to rate the city related to several areas to gauge the extent to which they saw Springfield providing economic growth and development opportunities.

One of the areas of interest was employment. Respondents were first asked their opinion regarding employment opportunities in Springfield.

EMPLOYMENT OPPORTUNITIES	Respondent Answers	Percent
Very Good	29	7.0%
Good	201	48.8%
Poor	154	37.4%
Very Poor	28	6.8%
Total	411	100.0%

Almost 56% of all respondents rated Springfield's employment opportunities as "good" or "very good", while only about 7% found them to be "very poor". It is notable, however, that the responses tended toward the middle, with "very poor" scoring as well as "very good".

Following- the employment question, residents were asked about opportunities to start a career in Springfield, yielding the following results.

OPPORTUNITIES TO START A CAREER	Respondent Answers	Percent
Very Good	23	5.7%
Good	178	44.4%
Poor	160	40.1%
Very Poor	40	9.9%
Total	400	100.0%

Again the results show an almost 50/50 split between those believing that the opportunity to start a career in Springfield was either good or very good, and those believing it to be poor or very poor. The SSCRPC believes that this result is indicative of the household and family wealth distributions seen previously in the *Community Characteristics* report.

While the two questions above related to employment and starting a career, the SSCRPC wished to gauge whether or not residents believed the city provided opportunities not just for *starting* a career but for career *growth*. The results of this ranking are provided below.

OPPORTUNITIES FOR CAREER GROWTH	Respondent Answers	Percent
Very Good	21	5.4%
Good	163	41.9%
Poor	168	43.2%
Very Poor	37	9.5%
Total	389	100.0%

Reflecting the results from the rankings above, 47.3% of respondents ranked the opportunities for career growth as either "good" or "very good", while almost 53% responded with a "poor" to "very poor" rating. The mid-range responses – "good' or "poor" – were within the same range, being marginally worse than the results of the question pertaining to starting a career.

While the previous questions were specifically related to employment, employment is driven by business growth. For this reason several questions were asked the measure the public's opinions about the opportunities there.

BUSINESS GROWTH OPPORTUNITIES	Respondent Answers	Percent
Very Good	10	2.5%
Good	165	43.5%
Poor	179	47.2%
Very Poor	26	6.8%
Total	379	100.0%

Overall, respondents tilted slightly toward the negative in their opinion of whether or not the city provided business growth opportunities, with 46% saying "good" or "very good", and 54% saying "poor" or "very poor".

We compare this response to that of the next question, which asked them specifically about business start-up opportunities.

RATING BUSINESS START-UP OPPORTUNITIES	Respondent Answers	Percent
Very Good	11	2.9%
Good	154	39.8%
Poor	188	48.7%
Very Poor	33	8.6%
Total	386	100.0%

The responses to this question nearly mirrored the responses to the previous one, but were marginally worse, with about 43% of respondents believing start-up opportunities were good to very good, while 57.3% believed otherwise. The major difference came from those reporting that start-up opportunities were believed to be "very poor".

Given its positioning in the regional retail marketplace, we also asked respondents their opinion concerning shopping opportunities. The results of this question are presented in the next table.

RATING SPRINGFIELD SHOPPING OPPORTUNITIES	Respondent Answers	Percent
Very Good	102	24.6%
Good	226	54.2%
Poor	79	18.9%
Very Poor	10	2.4%
Total	416	100.0%

It should not be surprising that almost 80% of the public finds the city providing "good" to "very good" shopping opportunities.

The SSCRPC wished to gauge the public's desire for various retail establishments for a number of reasons. First, businesses support and are supported by residential growth and development. Even though respondents might find shopping opportunities to be "good" to "very good", it is still necessary to determine what if any voids need to be filled. Second, it is useful to assess the need – or absence of a need – for certain businesses, as this affects projected land use and zoning. Third, to the extent that residents see business growth as a solution to municipal financial problems, retail establishments are a major contributor to local revenues through sales tax. And finally, the largest share of land use tends to be committed to residential and retail uses, and retail uses are most often those creating interactions with residential uses, and do so throughout the day and week, affecting transportation.

For these reasons, respondents were asked to review a list of business types and choose whether they would like to see more or less of them. The results of this question are presented in the following charts :

TYPES OF BUSINESSES AND SERVICES RANKED	Respondents Indicating MORE Are Needed	Percent	Respondents Indicating LESS Are Needed	Percent
Auto Dealerships	32	10.1%	289	89.9%
Motor Vehicle Parts, Accessory and Tire Stores	80	27.2%	214	72.8%
Furniture and Home Furnishings Stores	186	59.0%	129	41.0%
Electronics Stores	194	65.9%	100	34.1%
Home Appliance Stores	160	55.7%	127	44.3%
Garden Equipment/Supply Stores	186	63.2%	108	36.8%
Grocery Stores	158	56.2%	123	43.8%
Specialty Food Stores	258	78.4%	71	21.6%
Banks	39	13.4%	252	86.6%
Pharmacies or Drug Stores	92	33.2%	185	66.8%
Movies or Theatres	216	71.5%	86	28.5%
Beer, Wine and Liquor Stores	56	18.5%	249	81.5%
Health and Personal Care Stores	191	66.6%	96	33.4%
Gasoline Stations	83	29.6%	198	70.4%
Clothing and Clothing Accessory Stores	230	77.0%	69	23.0%
Shoe Stores	210	70.2%	89	29.8%
Jewelry Stores	91	33.8%	178	66.2%
Luggage or Leather Goods Stores	136	50.4%	134	49.6%
Sporting Goods Stores	132	48.3%	141	51.7%
Hobby Stores	220	75.4%	72	24.6%
Music or Musical Instrument Stores	203	70.1%	87	29.9%
Full Service Restaurants	210	68.3%	97	31.7%
Limited Service Eating Places: Fast Food	65	21.4%	240	78.6%
Drinking Places: Bars and Taverns	77	24.9%	231	75.1%
Office Supply Stores	111	41.4%	157	58.6%
Used Merchandise Stores	185	63.9%	105	36.1%
Specialty Item Stores: Artisan, Crafts, etc.	240	78.5%	66	21.5%
Book or Periodical Stores	238	77.1%	71	22.9%
General Merchandise Stores	171	61.8%	106	38.2%
Other Types of Stores	45	68.1%	21	31.9%

Respondent numbers provided may not match total respondents as not all responded to each question. Other Types of Stores was not included for some analytic purposes as the number selecting this choice was so small.

Particular attention is given to the uses that 60% of respondents found to be those the city needed more as well as less of. They are highlighted in the table above and listed in the following chart:

ESTABLISHMENTS OF WHICH AT LEAST 60% OF RESPONDENTS SAY THEY WOULD LIKE TO SEE LESS: Potentially less desirable uses in rank order.

Auto Dealerships (89.9%)
Banks (86.6%)
Beer, Wine and Liquor Stores (81.5%)
Limited Service Eating Places: Fast Food 78.6%)
Drinking Places: Bars and Taverns (75.1%)
Motor Vehicle Parts, Accessory and Tire Stores (72.8%)
Gasoline Stations (70.4%)
Pharmacies or Drug Stores (66.8%)
Jewelry Stores (66.2%)

Additional analysis of the results identified above will be useful in reviewing both current and future land use, as well as identifying areas where land use policies may need to be reviewed.

RESPONSES TO QUESTIONS CONCERNING TRANSPORTATION

Transportation is of critical importance in land use planning as it provides the connections through which goods are brought to market, employees travel to their places of work, residents are able to access the goods and services they need, and even take part in community life. And such planning must also entertain all of the modes of travel by which these connections can be made.

For these reasons the community survey for the Springfield Comprehensive Plan Project included a series of question addressing resident satisfaction with the transportation services provided, problems they encountered with the system, and the various modes of transportation they most often used.

The first set of questions related to residents satisfaction, and were prefaced in this way:

QUESTION: ***Please provide your level of satisfaction for the following transportation services. Are you very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied?***

The results follow:

AIR SERVICE: Abraham Lincoln Capital Airport	Respondent Answers	Percent
Very satisfied	71	19.2%
Somewhat satisfied	175	47.2%
Somewhat dissatisfied	86	23.1%
Very dissatisfied	39	10.4%
Total	371	100.0%

Overall, over 66% of respondents reported that they were either somewhat or very satisfied with Springfield's air service. Only about 10% reported that they were very dissatisfied.

As the purpose of this set of questions was to gauge resident satisfaction with various modes of travel, the question below was not intended to address the recreational use of bicycles, but the use of the trail and path system for transportation purposes.

BICYCLE NETWORK: Trails and Paths Used for Non-Recreational Purposes	Respondent Answers	Percent
Very satisfied	70	19.0%
Somewhat satisfied	185	50.1%
Somewhat dissatisfied	66	18.0%
Very dissatisfied	47	12.9%
Total	369	100.0%

The results found that 69.1% of respondents were either somewhat or very satisfied with the bicycle network for transportation purposes.

Given the local discussions concerning high speed rail and rail service in general, the survey asked about passenger rail service. The results are listed in the table below.

PASSENGER TRAIN SERVICE: Amtrak	Respondent Answers	Percent
Very satisfied	92	24.0%
Somewhat satisfied	222	57.6%
Somewhat dissatisfied	43	11.1%
Very dissatisfied	28	7.3%
Total	385	100.0%

Again, the results of this question show satisfaction, with 81.6% of respondents replying that they were either somewhat or very satisfied with local passenger train service. Only 7.3% were very dissatisfied.

The SSCRPC also wished to assess public satisfaction with bus service, both inter-city bus service such as that provided by Greyhound, and intra-city bus service such as that provided by the Sangamon Mass Transit District (SMTD). As with the previous questions, these also provided for a selection among four levels of satisfaction.

INTER-CITY BUS SERVICE: e.g., Greyhound	Respondent Answers	Percent
Very satisfied	33	10.3%
Somewhat satisfied	156	48.9%
Somewhat dissatisfied	88	27.5%
Very dissatisfied	43	13.3%
Total	320	100.0%

The responses to the above question found that almost 60% of residents were either somewhat or very satisfied with the existing inter-city bus service. It scored more poorly, however, in comparison to other transportation modes with only about 10% saying they were very satisfied, and 13.3% saying they were very dissatisfied.

However, and as we will find later, the responses to this and the following question may be due to more to infrequent use of the public transit systems, both inter- and intra-city, by residents than their general satisfaction with them.

PUBLIC BUS SERVICE: Sangamon Mass Transit District	Respondent Answers	Percent
Very satisfied	71	19.7%
Somewhat satisfied	186	51.5%
Somewhat dissatisfied	65	18.1%
Very dissatisfied	38	10.6%
Total	360	100.0%

Residents again showed satisfaction with this transportation service, with over 70% expressing that they were somewhat or very satisfied with it. Even about 20% indicated they were very satisfied, compared to about 11% saying they were very dissatisfied. As was noted on the previous page, it is somewhat surprising that 360 answered this question given other responses to the survey related to use of the public transit system.

Given that past discussions, particularly those arising in ward and other meetings, addressed the need for more and better sidewalks, particular attention was given to the following question, probing resident satisfaction with the sidewalk network.

SIDEWALK NETWORK	Respondent Answers	Percent
Very satisfied	69	17.5%
Somewhat satisfied	173	44.2%
Somewhat dissatisfied	84	21.6%
Very dissatisfied	66	16.8%
Total	392	100.0%

Respondents were somewhat less satisfied with the city's sidewalk network than some of the other modes of transportation, but only marginally so, with about 62% saying they were somewhat satisfied or very satisfied. At the same time, almost as many reported that they were very dissatisfied as reported that they were very satisfied.

The next portion of the survey also addressed transportation, asking a series of questions concerning typical transportation problems they may encounter in the city when using their motor vehicles. The question was as provided in the following table, and the items have been ranked from least to most problematic.

QUESTION: When driving or riding as a passenger in a motor vehicle, do you encounter any of the following problems?	YES	%	NO	%
Difficult to navigate streets	97	25.6%	283	74.4%
Poor signage	118	30.9%	263	69.1%
Traffic too fast	162	40.9%	234	59.1%
Traffic too slow	178	46.1%	209	53.9%
Pedestrians not obeying traffic laws	208	53.2%	183	46.8%
Bicyclists not obeying traffic laws	215	54.6%	178	45.4%
Congestion	224	57.1%	168	42.9%
Train caused delays	258	65.0%	139	35.0%
Poor road conditions	298	74.6%	101	25.4%
Timing of traffic signals	331	81.5%	75	18.5%

The first of the ranked items tend to relate to wayfinding, with residents finding Springfield's streets to be easy to navigate and have good signage. The public is somewhat split related to speed of the flow of traffic, with slightly more believing it is too slow rather than too fast. There is some concern by motorists about both pedestrians and bicyclists obeying traffic laws, which can indicate a potential traffic safety concern.

The most problematic areas, however, are reserved for problems related to traffic signal timing (81.5% say it is a problem), poor road conditions (74.6%), train caused delays (65.0%), and congestion (57.1%).

As it was believed that the city-center might present unique transportation related challenges, the survey contained three "yes/no" questions specific to the downtown.

QUESTION: Now thinking about downtown Springfield, do you encounter any of the following problems while driving or riding as a passenger in a motor vehicle?	YES	%	NO	%
One-way streets	184	45.4%	221	54.6%
Inability to find parking	290	70.5%	121	29.5%
Lack of adequate signage	101	25.8%	292	74.2%

As one might guess, adequacy of parking was identified as the most significant problem, with 70.5% reporting it as such. As the previous table showed, only timing of traffic signals and poor road conditions scored higher as a problem city-wide than parking did in the downtown area.

In addition, while more did not find the one-way streets in the downtown to be a problem than did (54.6% vs. 45.4%), the number indicating it was a problem is high enough to lend pause.

More positively, almost three-fourths of respondents believed that the downtown has adequate signage, appearing to indicate that traffic wayfinding is not a problem there for residents.

As noted previously, the survey sought the answers to questions related to the use of public transit. The questions asked and the resulting responses are indicated in the following tables, and should be considered in light of the previous responses related to satisfaction with public transit.

QUESTION: Do you currently use public bus service in Springfield?	Respondent Answers	Percent
Yes	61	14.4%
No	365	85.6%
Total	426	100.0%

Even though a previous question showed the public fairly well satisfied with public bus service in the city, as indicated in the table above, the vast majority of respondents do not use it.

As this was anticipated, the survey wanted to explore both the proximity of bus stops to respondents as well as the means they used to get to work. The assumption was that proximity to a bus stop affects both satisfaction with transit service and its use.

The response to this question is presented below.

QUESTION: In minutes, how long would it take you to walk to the nearest city bus stop from where you live?	Respondent Answers	Percent
Less than 3 minutes	74	23.5%
Between 3 and 5 minutes	120	38.1%
Between 6 and 10 minutes	44	13.9%
Between 11 and 15 minutes	27	8.4%
Between 16 and 25 minutes	14	4.3%
26 minutes or more	37	11.8%
Total	316	100.0%

The response to this question indicates that over 60% of respondents were less than a five minute walk from a bus stop. For planning purposes a five minute walk is usually considered a leisurely walk of one-fourth mile or less. This leads us to believe that people are not using the bus for other reasons than proximity to a route.

Respondents were then asked to indicate the modes of transportation they did use to get to work and how often they used them. The responses are as follow on the next page starting with two questions about car use. These first two questions were intended to not only assess the extent to which cars were used to get to work, but also the proportion of that use that might involve carpooling.

USING A CAR TO GET TO WORK					
CAR (with just 1 person)	Responses	Percent	CAR POOL (2 or more people)	Responses	Percent
Always	208	67.7%	Always	4	1.3%
Several times a week	41	13.3%	Several times a week	36	13.2%
Several times a month	17	5.5%	Several times a month	20	7.4%
Several times a year	4	1.3%	Several times a year	43	15.9%
Never	37	12.1%	Never	168	62.1%
Total	308	100.0%	Total	270	100.0%

As one can see from the results above, most people travel alone to work in their cars rather than carpool. The SSCRPC believes that this is indicative of the relatively low cost of gasoline during the period in which the survey was taken, but also to the rather close proximity of most Springfield residents to their place of work. All-in-all, however, the results from this question, as well as others above and that follow, indicate that Springfield is an automobile dependent community.

The same question was asked concerning the use of other modes to get to work.

OTHER MEANS OF GETTING TO WORK						
	PUBLIC TRANSIT		WALK		BICYCLE	
	Responses	Percent	Responses	Percent	Responses	Percent
Always	11	4.3%	8	3.1%	1	0.3%
Several times a week	6	2.3%	15	5.5%	9	3.4%
Several times a month	3	1.2%	7	2.7%	8	3.1%
Several times a year	10	3.8%	22	8.2%	27	10.2%
Never	230	88.3%	216	80.5%	222	83.0%
Total	261	100.0%	268	100.0%	267	100.0%

As one can see from the results above, individuals driving cars alone is the most likely mode of transportation from home to work in Springfield, and bicycles the least likely. Even walking to work scored slightly better.

To better describe the rankings, we include a chart that combines the "Always" and "Several times a week" responses.

MODE OF TRAVEL TO WORK	Always	Several Times a Week	Total
Car (1 person)	67.7%	13.3%	81.0%
Carpool (2 or more people)	1.3%	13.2%	14.5%
Walk	3.1%	5.5%	8.6%
Public Transit	4.3%	2.3%	6.6%
Bicycle	0.3%	3.4%	3.7%

RESPONSES TO QUESTIONS CONCERNING LAND USE

As the plan is addressing land use, the survey addressed various forms and types of land use, as well as resident satisfaction with various aspects of land use.

The first set of questions relates to several common forms of retail development. As mentioned previously, retail forms were singled out as those are the forms with which residents most often inter-act, and aside from residential housing, is one of the largest contributors to intense private land use in the city. Five questions were asked concerning the form that retail development in the city should take, and respondents were asked to rank them from their most preferred retail development form strategy (1) to their least preferred retail development form (5).

The tables presenting the retail form rankings begin on the next page. Each question began as follows:

> **QUESTION:** ***What form should new retail areas in Springfield take? Please rank the following items, with "1" as your most preferred strategy and "5" as your least preferred.***

Much of the retail development that has occurred in Springfield is in the form most often called "strip malls". Strip malls are primarily found along major arterials, and can be quite large, although in a smaller scale they can also be found serving as neighborhood shopping areas. Springfield has several large shopping centers designed as strip malls and it is the most common form of shopping complex to be found in the city.

The table below provides an assessment of resident preference for strip malls as a form of development.

PREFERENCE FOR STRIP MALLS AS FORM OF RETAIL ESTABLISHMENT	Respondent Answers	Percent
1.00: Most Preferred	33	10.8%
2.00	44	14.3%
3.00 Neutral	55	18.1%
4.00	69	22.7%
5.00: Least Preferred	104	34.0%
Total	305	100.0%

Although they are quite common in Springfield, almost 60% of respondents rated strip malls as either a "4" or "5", indicating it was a least preferred form. Only 25% responded that they preferred this form of retail development.

The next question asked about their preference for stand-alone stores. Many major retail chains prefer not to locate in buildings that house other retailers, such as strip or enclosed malls, but instead to locate in stand-alone buildings with their own parking. These forms also exist in Springfield, sometimes with a group of other developments, including strip and enclosed malls.

PREFERENCE FOR SEPARATE BUILDINGS WITH THEIR OWN PARKING AS A FORM OF RETAIL ESTABLISHMENT	Respondent Answers	Percent
1.00: Most Preferred	58	19.4%
2.00	54	17.9%
3.00 Neutral	99	33.1%
4.00	57	18.9%
5.00: Least Preferred	32	10.7%
Total	300	100.0%

There was little preference expressed for stand-alone retail development. About one-third of those responding expressed little preference either way, while 37.3% had a high preference for this form and 29.6% expressed a low preference.

The survey then asked about residents' preference for enclosed indoor malls. Springfield residents are familiar with enclosed indoor malls, with White Oaks shopping mall being the primary – if not sole – example in the city.

PREFERENCE FOR ENCLOSED INDOOR MALLS AS A FORM OF RETAIL ESTABLISHMENT	Respondent Answers	Percent
1.00: Most Preferred	40	13.3%
2.00	28	9.2%
3.00 Neutral	54	18.1%
4.00	78	25.9%
5.00: Least Preferred	101	33.5%
Total	302	100.0%

As the results presented in the table above show, enclosed indoor malls also score poorly, and in the same range as strip malls, with almost 60% scoring them "4" or "5" as less preferred, and only about 23% scoring them "1" or "2" as most preferred.

Traditional "main street" style development can occur in many ways, and often occurs within newer forms of development outside of city centers, so respondents were asked to rate this form. The results concerning this form are provided next.

PREFERENCE FOR TRADITIONAL "MAIN STREET" STYLE AREAS AS A FORM OF RETAIL ESTABLISHMENTS	Respondent Answers	Percent
1.00: Most Preferred	74	25.5%
2.00	100	34.5%
3.00 Neutral	52	17.8%
4.00	48	16.7%
5.00: Least Preferred	16	5.5%
Total	291	100.0%

As a form of shopping area, "main street" style shopping areas scored very well, with 60% of survey respondents rating them "1" or "2" in the preference rankings. Only 22.2% indicated that they did not prefer such shopping areas, rating them "4" or "5".

The final form of shopping area offered in the survey was the "village square" type of development. Although seen less in Springfield than in some larger metro areas, this form of development is becoming more common and is akin to a development form sometimes called a "life style" center. It is generally includes a mix of uses, including retail, residential and open spaces.

PREFERENCE FOR "VILLAGE SQUARE" STYLE AREAS AS A FORM OF RETAIL ESTABLISHMENTS	Respondent Answers	Percent
1.00: Most Preferred	98	33.2%
2.00	76	25.6%
3.00 Neutral	35	11.8%
4.00	40	13.6%
5.00: Least Preferred	47	15.8%
Total	296	100.0%

Village square style developments scored in the same range as main street style areas in terms of respondent preference with almost 60% listing this form as their first or second preference.

Overall, the rankings of the various forms provided in the survey – based on first or second preference – are as shown in the next table:

FORM RANKING BASED ON PERCENTAGE LISTING FORM AS FIRST OR SECOND PREFERENCE	Percent Listing Form as First or Second Preference	Percent Listing Form as Last or Next to Last Preference
Traditional Main Street Form	60.0%	22.2%
Village Square Type	58.8%	29.4%
Separate Buildings with Own Parking	37.3%	29.6%
Strip Malls	25.1%	56.7%
Enclosed Indoor Malls	22.5%	59.4%

Only enclosed indoor malls were less preferred than strip malls. However, there was only a slight difference between village square and separate building type development in regard to those scoring them as their last or next to last preferences.

As the questions above addressed the form that Springfield residents thought retail development should take, the next set of questions asked about the form of residential development that respondents preferred.

Five different forms of residential development were probed: Single family homes with large lots; single family homes, with no indication of lot size; Duplexes; Apartments; and Manufactured and mobile homes. *Styles* of housing, such as townhouses, were not included as it was thought that some residents may not be familiar with this style, and because the style itself is not necessarily relevant to land use and the zoning that flows from it.

Tables showing the responses to the four forms considered in the survey follow on the next page, beginning with the survey asking the respondent's preference concerning single family homes on large lots.

PREFERENCE FOR LARGE LOT SINGLE FAMILY HOMES	Respondent Answers	Percent
1.00: Most Preferred	104	35.1%
2.00	96	32.5%
3.00 Neutral	37	12.6%
4.00	46	15.6%
5.00: Least Preferred	13	4.3%
Total	297	100.0%

As one might guess, single family homes were highly preferred as the form of new residential development that respondents preferred, with almost 68% ranking this form either "1" or "2". Only about 20% gave it an unfavorable ranking.

This result becomes clearer in the next set of responses in which the "large lot" description was eliminated.

PREFERENCE FOR SINGLE FAMILY HOMES (No specification of lot size)	Respondent Answers	Percent
1.00: Most Preferred	164	53.5%
2.00	118	38.5%
3.00 Neutral	21	6.9%
4.00	3	0.8%
5.00: Least Preferred	1	0.2%
Total	306	100.0%

It is clear from the response to this question that residents prefer single family residences as the future form of residential land use development, with 92% rating it "1" or "2". Only 1% of respondents rated this form poorly for new development. One should note that single family homes in general score better than single family home on large lots, even though the specific size of the "large lot" was not addressed in the question above.

However, this does not mean that they completely reject other forms, as the next table shows in regard to duplexes.

PREFERENCE FOR DUPLEXES	Respondent Answers	Percent
1.00: Most Preferred	16	5.2%
2.00	68	22.0%
3.00 Neutral	178	57.9%
4.00	31	10.1%
5.00: Least Preferred	15	4.8%
Total	307	100.0%

Springfield residents answering the question were generally neutral in regard to their preference concerning duplexes, with almost 60% (57.9) selecting "3" as their choice. However, there was a slight leaning toward the positive, with 27% of respondents ranking them "1" or "2".

The survey also asked about apartments.

PREFERENCE FOR APARTMENTS	Respondent Answers	Percent
1.00: Most Preferred	23	7.6%
2.00	14	4.5%
3.00 Neutral	51	16.8%
4.00	180	59.4%
5.00: Least Preferred	35	11.6%
Total	303	100.0%

There was more of a negative leaning toward apartments than was the case with duplexes. While only 11.6% rated them as a "5", indicating least preferred, almost 60% (59.4) rated apartments "4". Only about 12% offered a positive rating.

Finally, the survey asked the respondents to rank their preference concerning manufactured and mobile homes. This ranking is provided in the following table.

PREFERENCE FOR MANUFACTURED & MOBILE HOMES	Respondent Answers	Percent
1.00: Most Preferred	3	1.0%
2.00	14	4.7%
3.00 Neutral	21	6.9%
4.00	34	10.9%
5.00: Least Preferred	237	76.5%
Total	310	100.0%

As the table indicates, for Springfield residents the least preferred form of housing is manufactured and mobile homes, with almost 90% (87.4) rating them "4" or "5". Indeed, almost 77% rated them "5", the lowest score of the group of residential types.

Overall, the rankings of the various forms provided in the survey – based on first or second preference – are as follow:

FORM RANKING BASED ON PERCENTAGE LISTING FORM AS FIRST OR SECOND PREFERENCE	Percent Listing Form as First or Second Preference	Percent Listing Form as Last or Next to Last Preference
Single family homes (regardless of lot size)	92.0%	1.0%
Large lot single family homes	67.6%	19.9%
Duplexes	27.2%	14.9%
Apartments	12.1%	71.0%
Manufactured & mobile homes	5.7%	87.4%

With this information, the survey then asked another series of questions concerning housing, focusing on such common concerns as maintenance, quality, supply, price and variety. The question was phrased as:

QUESTION: ***How do you rate Springfield in each of the following areas?***

The respondent had four forced choices: Very Good, Good, Poor, and Very Poor. The results are shown in the table below.

	HOW SPRINGFIELD RATES IN TERMS OF								
	VERY GOOD		GOOD		POOR		VERY POOR		TOTAL
	Responses	%	Responses	%	Responses	%	Responses	%	No.
MAINTENANCE OF HOUSING	13	3.2%	239	59.7%	139	34.7%	10	2.4%	400
QUALITY OF HOUSING	19	4.7%	273	67.8%	104	25.8%	7	1.7%	402
SUPPLY OF HOUSING	38	9.4%	255	63.2%	92	22.9%	18	4.5%	403
PRICE OF HOUSING	70	17.3%	233	57.8%	74	18.4%	26	6.5%	403
VARIETY OF HOUSING TYPES	51	12.6%	236	58.6%	102	25.2%	15	3.6%	403

Overall, and as the table above shows, residents found various conditions related to Springfield housing to be good, with the highest ranking ("Very Good" plus "Good") given to price of housing (75.1%), and the lowest ("Poor" plus "Very Poor") to maintenance (37.1%).

The survey also gauged two specific housing needs (affordable housing and senior/assisted living) asking whether or not the city should encourage more or less of these two types of land uses.

AFFORDABLE HOUSING	Respondent Answers	Percent
More	289	77.3%
Less	85	22.7%
Total	375	100.0%

SENIOR/ASSISTED LIVING	Respondent Answers	Percent
More	327	87.6%
Less	46	12.4%
Total	373	100.0%

As the tables above indicate, residents were supportive of both land uses, but more supportive of land being utilized for senior/assisted living than affordable housing.

It was similarly important to assess the publics' interest in a number of other land uses. The responses to these uses are indicated in the tables below.

The question asked was the same as for the two residential uses identified above:

QUESTION: ***Should the City of Springfield encourage more or less of the following types of land uses?***

Ten land uses were specified and the results for each are presented in the following table.

	INTEREST IN OTHER LAND USES					
	MORE		LESS		TOTAL	
	Responses	Percent	Responses	Percent	Responses	Percent
RETAIL DEVELOPMENTS	189	53.8%	162	46.2%	351	100.0%
PARKS/OPEN SPACES	320	84.1%	61	15.9%	381	100.0%
INDUSTRIAL AND/OR MANUFACTURING AREAS	257	68.8%	116	31.2%	373	100.0%
MOTELS AND/OR HOTELS	112	33.3%	224	66.7%	336	100.0%
CONVENIENCE STORES	85	24.5%	261	75.5%	346	100.0%
AMUSEMENT PARKS	251	71.9%	98	28.1%	349	100.0%
OFFICE PARKS	163	49.2%	168	50.8	331	100.0%
DEPARTMENT STORES	198	57.1%	148	42.9%	346	100.0%
RESTURANTS	214	59.8%	144	40.2%	358	100.0%
BARS OR TAVERNS	85	24.3%	265	75.7%	350	100.0%

As the table above indicates, the only uses that residents thought that less land should be set aside for are bars or taverns, convenience stores, motels/hotels, and office parks. It should be noted, though, that the response for office parks is within the survey's error range, so may be treated as equal. Conversely, parks and open space ranked highest, followed by amusement parks and industrial.

The table below provides a ranking from those in which residents believe that more land should be set aside for compared to the uses for which they believe less land should be set aside.

USE	% Responding MORE	% Responding LESS
PARKS/OPEN SPACES	84.1%	15.9%
AMUSEMENT PARKS	71.9%	28.1%
INDUSTRIAL/MANUFACTURING AREAS	68.8%	31.2%
RESTAURANTS	59.8%	40.2%
DEPARTMENT STORES	57.1%	42.9%
RETAIL DEVELOPMENTS	53.8%	46.2%
OFFICE PARKS	49.2%	50.8%
MOTELS/HOTELS	33.3%	66.7%
CONVENIENCE STORES	24.5%	75.5%
BARS OR TAVERNS	24.3%	75.7%

Given the on-going discussion concerning Springfield's downtown area, a set of questions regarding land use in that area was also asked. These questions were phrased:

QUESTION: ***Thinking about downtown Springfield, how important, if at all, do you think it is to encourage the following uses?***

The responses are shown in the following table.

USES TO ENCOURAGE IN THE DOWNTOWN

	VERY IMPORTANT		SOMEWHAT IMPORTANT		NOT VERY IMPORTANT		NOT IMPORTANT AT ALL		TOTAL
	Responses	%	Responses	%	Responses	%	Responses	%	No.
RETAIL SHOPPING	249	60.5%	102	24.9%	27	6.5%	34	8.2%	411
OFFICES	143	35.1%	176	43.4%	53	13.0%	34	8.5%	406
HOUSING	181	44.4%	141	34.5%	68	16.6%	19	4.6%	409
ENTERTAINMENT	253	62.2%	104	25.7%	24	5.8%	25	6.3%	407
SMALL BUSINESS	274	67.4%	90	22.1%	20	4.9%	23	5.6%	407

Surprisingly, respondents did not rate the encouragement of downtown housing as being very important. Every use but office had a larger percentage of respondents rating them as "very important" than does housing. Even when the "very important" and "somewhat important" selections are combined, housing still shows a lower combined percentage than uses other than office. Even so, housing still scores relatively well.

But as the table below, which combines the percentage rating the use as "very" or "somewhat important", indicates, small business, entertainment and retail shopping are those most encouraged for the downtown area.

DOWNTOWN USE TO BE ENCOURAGED	Combined "Very Important" and "Somewhat Important" Percentages	Combined "Not Very Important" and "Not Important at All" Percentages
SMALL BUSINESS	89.5%	10.5%
ENTERTAINMENT	87.9%	12.1%
RETAIL SHOPPING	85.4%	14.7%
HOUSING	78.9%	21.2%
OFFICES	78.5%	21.5%

The survey then asked the respondents to consider a number of policies that might be implemented to guide future growth and development in the city. The question was posed in this way:

QUESTION: ***How important, if at all, are the following proposed strategies to guide future growth and development?***

The results for each strategy are provided in the next table.

IMPORTANCE OF PROPOSED STRATEGIES TO GUIDE FUTURE GROWTH AND DEVELOPMENT

	VERY IMPORTANT		SOMEWHAT IMPORTANT		NOT VERY IMPORTANT		NOT IMPORTANT AT ALL		TOTAL
	Responses	%	Responses	%	Responses	%	Responses	%	
KEEPING ENVIRONMENTAL POLLUTION LOW	285	68.3%	99	23.7%	18	4.3%	16	3.7%	416
INVESTING IN EXISTING PARKS AND GREEN SPACES	272	65.9%	110	26.7%	15	3.7%	15	3.6%	413
ANNEXING AREAS NOT CURRENTLY WITHIN THE CITY'S LIMITS BUT ARE COMPLETELY SURROUNDED BY IT	139	34.4%	142	35.0%	89	21.9%	35	8.7%	404
ANNEXING UNINCORPORATED SUBURBAN AREAS ADJACENT TO THE CITY	102	25.5%	133	33.3%	125	31.3%	39	9.8%	400
MAINTAINING AND ENHANCING THE VISUAL APPEARANCE OF BUILDINGS AND LANDSCAPING	287	69.1%	106	25.4%	8	2.0%	14	3.4%	415
PROTECTING NEIGHBORHOODS FROM ENCROACHMENT BY NON-RESIDENTIAL LAND USES	245	59.7%	122	29.8%	21	5.0%	22	5.5%	410
ATTRACTING NEW BUSINESSES TO SPRINGFIELD	349	83.4%	62	14.7%	7	1.8%	0	0.0%	418
ENCOURAGING SUSTAINABILITY	300	73.4%	92	22.6%	15	3.6%	1	0.4%	409
PROTECTING OLDER NEIGHBORHOODS	258	61.8%	131	31.3%	26	6.2%	3	0.7%	418
DEVELOPING DOWNTOWN	257	62.1%	113	27.3%	29	7.1%	14	3.5%	414

All-in-all, the strategy that scored best as "very important" was attracting new businesses to Springfield (83.4%), while the one scoring lowest as "not important at all" was annexing non-incorporated suburban areas (9.8%). However the results show the high level of importance given to *each* strategy, as each had about 60% or more identifying it as somewhat or very important.

For this reason we have ranked all of the choices in the table based upon the combined percentage indicating the strategy was "very important" or "somewhat important".

LAND USE STRATEGIES RANKED	Combined "Very Important" and "Somewhat Important" Percentages
Attracting new businesses to Springfield	98.1%
Encouraging sustainability	96.0%
Maintaining and enhancing the visual appearance of buildings and landscaping	94.5%
Protecting older neighborhoods	93.1%
Investing in existing parks and open spaces	92.6%
Keeping environmental pollution low	92.0%
Protecting neighborhoods from encroachment by non-residential land uses	89.5%
Developing downtown	89.4%
Annexing areas not currently within the city's limits but that are completely surrounded by it	69.4%
Annexing unincorporated suburban areas adjacent to the city	58.8%

Looked at in this way one finds that all of the strategies scored rather well, with the lowest scoring one – annexing unincorporated suburban areas adjacent to the city – still having almost 60% of residents finding it to be a very or somewhat important strategy. Beyond this strategy, all scored about 70% or better. Clearly, though, attracting new businesses is the strategy most supported by respondents.

RESPONSES TO QUESTIONS CONCERNING THE ENVIRONMENT AND NATURAL RESOURCES

While a number of the questions discussed previously touch on the environment and the city's natural resources, this section of the community survey specifically addressed the area.

The first set of questions attempted to gauge the extent to which residents were engaged in environmentally friendly activities. The questions and responses to them are provided in the next table.

QUESTIONS	RESPONDENT ANSWER (number followed by percentage)		
	YES	NO	TOTAL
If you drive a motor vehicle, do you find alternative transportation to work in response to an increase in the price of gasoline?	47/13.9%	293/86.1%	341/100.0%
If you drive a motor vehicle, do you decrease the amount of driving	208/55.8%	165/44.2%	372/100.0%
In the past year, have you reduced the amount of energy consumed in your home?	281/69.4%	124/30.6%	404/100.0%
In the past year, have you reduced the amount of water consumed in	228/56.2%	178/43.8%	406/100.0%
In the past year, have you recycled?	312/75.8%	100/24.2%	412/100.0%
In the past year, have you used public bus service?	68/16.8%	337/83.2%	405/100.0%
In the past year, have you walked or biked to work?	94/24.4%	293/76.6%	387/100.0%
In the past year, have you planted trees or shrubs?	227/55.5%	182/44.5%	409/100.0%
In the past year, have you shopped at a farmer's market?	288/69.7%	125/30.3%	413/100.0%

Overall, the responses show particular efforts in all areas except seeking transportation alternatives to gasoline powered vehicles, although respondents report that they do reduce the amount of driving they do based upon gasoline prices.

The survey then asked a series of questions to determine areas in which they believed city resources should be committed to achieve certain environmental goals. The wording of the question asked was:

> **QUESTION:** ***How important, if at all, is it for the City of Springfield to devote resources into protecting or preserving the following?***

The responses to this question as it relates to the specific goals addressed are presented in the sections and tables that follow.

WATER RESOURCES

One of the areas considered by this set of question is water resources, and associated with that, Lake Springfield. Four areas were assessed.

IMPORTANCE OF PROTECTING AND PRESERVING THE FOLLOWING WATER RESOURCES	VERY IMPORTANT		SOMEWHAT IMPORTANT		NOT VERY IMPORTANT		NOT IMPORTANT AT ALL		TOTAL
	Responses	%	Responses	%	Responses	%	Responses	%	
PROTECTING OR PRESERVING DRINKING WATER QUALITY	392	92.5%	18	4.2%	0	0.0%	14	3.2%	424
PROTECTING OR PRESERVING LAKE SPRINGFIELD	316	76.9%	67	16.3%	11	2.8%	16	4.0%	410
PROTECTING OR PRESERVING QUALITY OF WATER RESOURCES	363	87.8%	35	8.5%	1	0.3%	14	3.3%	414
PROTECTING OR PRESERVING QUANTITY OF WATER RESOURCES	318	76.8%	68	16.5%	11	2.7%	17	4.1%	414

All of these areas were considered very important, with the highest percentage of respondents saying that protecting or preserving drinking water was (92.5%), and the lowest, protecting or preserving quantity of water resources, still having almost 77% of respondents indicating it was very important. This latter response was closely tied to protecting or preserving Lake Springfield, which differed by only one-tenth of a percent. Statistically this was a tie.

LAND RESOURCES

Four questions were asked associated with land resources. The responses to these questions are shown in the table to the upper right.

Respondents appear to value protecting and preserving areas prone to flooding highest, with almost 63% saying it was very important, which increases to almost 89% when the "somewhat important" choice is added. The lowest rated as "very important" was protecting or preserving open spaces and land not currently developed 40.6%, but even so, this rises to almost 82% when the "somewhat important" responses are added. In fact, the protecting or preserving agricultural land becomes only slightly more important (84.3%) when the two importance choices are combined.

IMPORTANCE OF PROTECTING AND PRESERVING THE FOLLOWING LAND RESOURCES	VERY IMPORTANT		SOMEWHAT IMPORTANT		NOT VERY IMPORTANT		NOT IMPORTANT AT ALL		TOTAL
	Responses	%	Responses	%	Responses	%	Responses	%	
PROTECTING OR PRESERVING AGRCULTURAL LAND AROUND THE CITY	219	53.9%	124	30.4%	44	10.8%	20	5.0%	407
PROTECTING OR PRESERVING OPEN SPACES AND LAND NOT CURRENTLY DEVELOPED	166	40.6%	167	41.0%	52	12.8%	23	5.5%	408
PROTECTING OR PRESERVING ACCESS TO NATURAL AREAS	241	59.1%	133	32.5%	20	4.9%	14	3.5%	409
PROTECTING OR PRESERVING AREAS PRONE TO FLOODING	260	62.8%	108	26.0%	31	7.5%	15	3.7%	414

AIR QUALITY

Only one question was included in the survey regarding air quality, with almost 80% of respondents saying it was very important. These responses are shown in the table below.

PROTECTING OR PRESERVING AIR QUALITY	Respondent Answers	Percent
Very important	334	79.8%
Somewhat important	64	15.4%
Not very important	5	1.2%
Not important at all	15	3.6%
Total	419	100.0%

WASTE AND ENERGY

Two questions were asked related to waste and energy. The first related to programs meant to maintain solid waste management efforts (e.g., the landfill) and encourage recycling as a means of reducing materials going to the landfill.

PROTECTING OR PRESERVING REFUSE MANAGEMENT AND RECYCLING PROGRAMS	Respondent Answers	Percent
Very important	252	62.0%
Somewhat important	94	23.2%
Not very important	37	9.0%
Not important at all	24	5.8%
Total	407	100.0%

The second pertained to programs supporting the use of renewable energy.

PROTECTING OR PRESERVING RENEWABLE ENERGY PROGRAMS	Respondent Answers	Percent
Very important	243	58.9%
Somewhat important	110	26.7%
Not very important	35	8.5%
Not important at all	25	6.0%
Total	413	100.0%

Slightly over 85% of respondents said that protecting or preserving refuse management and recycling programs were either very or somewhat important, and a slightly higher number (about 85%) reporting the same for renewable energy resources. This response was especially tilted toward "very important", with both questions gaining about 50% of this response.

WILDLIFE

Only one question was asked in this area, and it related to protecting or preserving endangered and threatened species.

PROTECTING OR PRESERVING ENDANGERED AND THREATENED SPECIES	Respondent Answers	Percent
Very important	170	41.2%
Somewhat important	146	35.4%
Not very important	65	15.8%
Not important at all	31	7.6%
Total	412	100.0%

Respondents were supportive, but not quite as supportive on this question as they were on the others, with only 41.2% saying it was very important and 35.4% saying it was somewhat important, for a combined percentage of 76.6%.

As in other areas, we attempted to do a ranking to determine how residents gauged the importance of each item. This ranking combined the percentage of respondents indicating an item was "very" important with the percentage saying it was "somewhat" important. This table is presented below.

ITEM TO BE PROTECTED AND PRESERVED	Combined "Very Important" and "Somewhat Important" Percentages	Percentage Responding that the Item was "Very Important"
Drinking Water Quality	96.7%	92.5%
Quality of Water Resources	96.3%	87.8%
Air Quality	95.2%	79.8%
Quantity of Water Resources	93.3%	76.8%
Lake Springfield	93.2%	76.9%
Access to Natural Areas	91.6%	59.1%
Areas Prone to Flooding	88.8%	62.8%
Renewable Energy Sources	85.6%	58.9%
Refuse Management and Recycling Programs	85.2%	62.0%
Agricultural Land Around the City	84.3%	53.9%
Open spaces and Land not Currently Developed	81.6%	40.6%
Endangered and Threatened Species	76.6%	41.2%

As can be seen from the table, the highest ranking items also have a great degree of support given the percentage of respondents that identified them as "very" important.

It is also clear that Springfield residents give a high preference to the importance of their drinking water as four of the top five items relate to that. Even so, all of the environment related items included in the survey had high percentages of support, with none of them supported by less than 75% of respondents when the top two importance response categories are combined, and only two (open space and land not currently developed; endangered and threatened species) are below 50% in the "very" important ranking.

RESPONSES TO QUESTIONS CONCERNING COMMUNITY AMENITIES AND FACILITIES

The final area considered in the survey addressed the facilities and amenities found in the community that add to quality of life. The first set of questions gauged the level of satisfaction that respondents had related to a series of common public facilities and amenities, using the following question for all:

> **QUESTION: Please provide your level of satisfaction for the following amenities and facilities. Are you very satisfied, somewhat satisfied, somewhat dissatisfied, or very dissatisfied with the following?**

The tables on the next page provide the responses to each item addressed in the survey.

Public Facilities

The first set of items relate to satisfaction with four types of public facilities: parks, libraries, public schools and institutions of higher education.

SATISFACTION WITH CERTAIN COMMON PUBLIC FACILITIES	VERY SATISFIED		SOMEWHAT SATISFIED		SOMEWHAT DISSATISFIED		VERY DISSATISFIED		TOTAL
	Responses	%	Responses	%	Responses	%	Responses	%	
PARKS	166	41.0%	205	50.9%	25	6.2%	8	1.9%	403
PUBLIC LIBRARIES (e.g., Lincoln Public Library)	111	27.4%	189	46.5%	80	19.8%	26	6.3%	406
PUBLIC SCHOOLS	68	17.4%	186	47.6%	96	24.5%	41	10.6%	391
HIGHER EDUCATION INSTITUTIONS (e.g., UIS, Lincoln Land Community College)	149	37.2%	184	45.8%	37	9.2%	31	7.8%	402

Overall, respondents expressed a moderately high level of satisfaction with these amenities and facilities, particularly for parks. Indeed, the public facility gathering the greatest degree of satisfaction were parks, with 41% responding that they were very satisfied. On the other hand the lowest were public schools, where on 17.4% responded that they were very satisfied. Even so, almost 50% of respondents indicated they were somewhat satisfied with the public schools. This result may be affected by the fact that multiple school districts serve Springfield residents, so that a positive response by residents in one or more districts may off-set a lower rating in others, affecting the overall results. Of course the reverse could be true as well, as a poor rating in one or more districts could reduce the rating overall.

When the percentages responding that they were somewhat satisfied were added to the percentages of those very satisfied, we find same satisfaction ranking:

TYPE OF PUBLIC FACILITY OR AMENITY	Ranking by Total Percentage of "Very Satisfied" and "Somewhat Satisfied" Responses Combined
PARKS	91.9%
HIGHER EDUCATION	83.0%
PUBLIC LIBRARIES	73.9%
PUBLIC SCHOOLS	65.0%

Arts and Entertainment

The next five items considered included common arts and entertainment amenities: theaters for live productions, movie houses, various live entertainment venues, city-wide events, and neighborhood events.

SATISFACTION WITH ARTS & ENTERTAINMENT AMENITIES	VERY SATISFIED		SOMEWHAT SATISFIED		SOMEWHAT DISSATISFIED		VERY DISSATISFIED		TOTAL
	Responses	%	Responses	%	Responses	%	Responses	%	
THEATER (e.g., musicals, theater productions, concerts)	144	36.6%	160	40.8%	55	14.0%	34	8.6%	392
MOVIES	139	34.5%	182	45.0%	65	16.1%	18	4.5%	404
LIVE ENTERTAINMENT VENUES (e.g., clubs, dance halls)	56	14.3%	171	43.8%	92	23.5%	72	18.4%	390
CITY-WIDE EVENTS (e.g., music and food festivals)	116	28.3%	183	44.8%	81	19.9%	28	7.0%	409
NEIGHBORHOOD EVENTS	49	12.5%	137	34.7%	169	42.9%	40	10.0%	395

The entertainment amenity that received the highest total of those most satisfied with what Springfield has to offer was live theater, with 36.6% being very satisfied. Movie houses were a close second with 34.5% reporting they were very satisfied; well in the range of the survey error. Neighborhood events had the smallest number reporting that they were very satisfied, but live entertainment was close to this, with only 14.3% reporting that they were very satisfied.

ARTS AND ENTERTAINMENT	Ranking by Total Percentage of "Very Satisfied" and "Somewhat Satisfied" Responses Combined
MOVIES	79.5%
THEATER	77.4%
CITY-WIDE EVENTS	73.1%
LIVE ENTERTAINMENT VENUES	58.1%
NEIGHBORHOOD EVENTS	47.2%

When the percentages responding that they were somewhat satisfied was added to the percentage of those very satisfied, we find a slight reshuffling of the satisfaction ranking, as shown in the next table:

Recreation

The final set of questions dealt with recreational facilities of various kinds. The results are provided in the next table.

	SATISFACTION WITH RECREATIONAL AMENITIES								
	VERY SATISFIED		SOMEWHAT SATISFIED		SOMEWHAT DISSATISFIED		VERY DISSATISFIED		TOTAL
	Responses	%	Responses	%	Responses	%	Responses	%	
INDOOR RECREATIONAL ACTIVITIES	41	10.6%	145	37.0%	163	41.7%	42	10.7%	390
OUTDOOR RECREATIONAL ACTIVITIES	65	16.3%	227	56.6%	85	21.1%	24	6.0%	401
ACCESS TO OUTDOOR RECREATION FOR CHILDREN	86	22.1%	180	46.3%	100	25.7%	23	6.0%	389
ACCESS TO RECREATION FOR THE ELDERLY	55	14.9%	137	37.1%	133	36.1%	44	11.9%	368

The recreational amenity that received the highest total of those most satisfied with what Springfield has to offer was that for children, with 22.1% being very satisfied. Indoor recreational facilities scored lowest at only 10.6% being very satisfied. It is important to note, however, that none scored well as "very satisfied".

When the percentages responding that they were somewhat satisfied was added to the percentage of those very satisfied, there was again a reshuffling of the satisfaction ranking. **What is most notable is that only slightly more than half of the respondents for access to recreation for the elderly to be satisfactory, and slightly less than half found indoor recreation activities to be unsatisfactory.**

RECREATION	Ranking by Total Percentage of "Very Satisfied" and "Somewhat Satisfied" Responses Combined
Outdoor recreation activities	72.9%
Access to recreation for children	68.4%
Access to recreation for the elderly	52.0%
Indoor recreation activities	47.6%

Overall, and looking at the combined percentages of responses that indicated some level of satisfaction with the public facility or amenity, only four were found to be satisfactory by less than 65% of respondents: Live entertainment venues (58.1% reported satisfactory); Neighborhood events (47.2%); Access to recreation for the elderly (52%); Indoor recreation facilities (47.6%).

While a large percentage of respondents reported that they were pleased with the parks in Springfield, for land use planning purposes one must remember that parks and outdoor recreational areas take up large pieces of ground and need to be located not only where residents are but where they are expected to be in the future. For this reason a question was asked to assess the proximity of residents to existing parks. The results of this question are presented in the following table.

QUESTION: How close is the nearest park or outdoor recreational area to your home?	Respondent Answers	Percent
Close enough to walk to	209	50.6%
Too far to walk	20	4.7%
Too far to ride a bike to	8	1.9%
I must drive to a park or outdoor recreational area	99	23.9%
Close enough to ride a bike to	78	18.8%
Total	414	100.0%

As the table indicates, half of the respondents reported that parks and recreational areas are within walking distance of their home, with almost 19% (18.8) saying they were close enough to reach by riding a bike. However, almost 24% reported that they would have to drive to reach such an area.

Finally, respondents were asked to identify any amenity that they would like to see more of from a list. They could check as many items as they liked. The following table shows the strength of their selections in rank order.

QUESTION: Which of the following amenities would you like to see more of in Springfield? (Please check all that apply)	Number of Respondent Selecting	Percent
RECYCLING FACILITY	203	49.8%
ADULT RECREATION	199	48.8%
WIRELESS INTERNET SERVICE	193	47.4%
INDOOR RECREATION FOR CHILDREN	186	45.7%
OUTDOOR ENTERTAINMENT FACILITIES	183	44.8%
SWIMMING FACILITIES	175	42.8%
BIKE TRAILS	168	41.2%
PLAYGROUNDS FOR CHILDREN	168	41.2%
NEIGHBORHOOD OR REGIONAL LIBRARIES	163	40.0%
BIKE PATHS	163	39.9%
ADULT EDUCATION	146	35.9%
OUTDOOR PICNIC OR MEETING AREAS	119	29.1%
COMMUNITY BULLETIN BOARD	91	22.2%
MEETING ROOMS AVAILABLE TO PUBLIC	84	20.7%
OTHER, PLEASE SPECIFY:	51	12.5%
TOTAL	2293	562.0%

SURVEY DEMOGRAPHICS (Weighted)

The tables that follow here provide the weighted demographics of the respondents to the survey.

RESPONDENT POPULATION CHARACTERISTICS

GENDER	Number	Percent
Male	202	48.0%
Female	219	52.0%
Total	422	100.0%

RACE	Number	Percent
White	332	78.8%
African American/Black	70	16.6%
Native American	8	1.9%
Asian	11	2.6%
Pacific Islander	0	0.1%
Total	422	100.0%

HISPANIC or LATINO/A	Number	Percent
Yes	11	3.0%
No	361	97.0%
Total	372	100.0%

AGE	Number	Percent
18-34	118	29.2%
35-54	130	32.4%
55+	154	38.4%
Total	402	100.0%

RESPONDENT EDUCATIONAL CHARACTERISTICS

HIGHEST LEVEL OF EDUCATION	Number	Percent
Less than high school	13	3.0%
High school diploma or equivalent	90	21.4%
Trade or technical school beyond high school	17	4.1%
Some college	129	30.7%
Four year college degree	89	21.2%
Graduate or professional degree	82	19.6%
Total	421	100.0%

RESPONDENT INCOME CHARACTERISTICS

INCOME	Number	Percent
Up to $29,999	45	15.3%
$30,000 - $44,999	49	16.5%
$45,000 - $59,999	36	12.1%
60,000 - $74,999	40	13.6%
$75,000 - $99,999	44	14.8%
$100,000 - $149,999	50	16.9%
$150,000+	32	10.8%
Total	295	100.0%

RESPONDENT LOCATION OF EMPLOYMENT

WHERE CURRENTLY EMPLOYED	Number	Percent
In Springfield	271	90.5%
In Sangamon County	12	3.9%
In another county	16	5.4%
In another state	1	0.2%
Total	299	100.0%

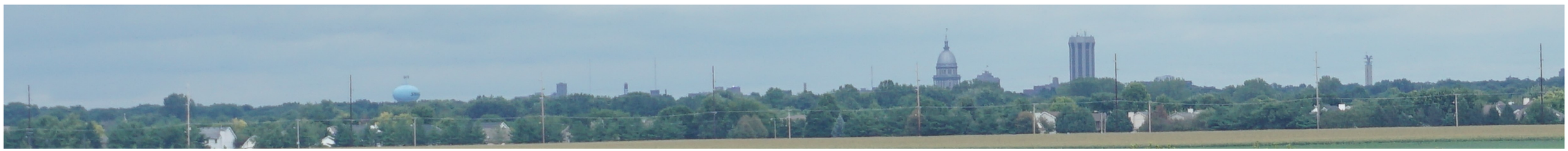
RESPONDENT RESIDENTIAL CHARACTERISTICS

WHAT KIND OF BUILDING DO YOUR CURRENTLY LIVE IN?	Number	Percent
Single family house	294	71.2%
Duplex	42	10.1%
Multi-family apartment	44	10.7%
Mobile or manufactured home	16	3.9%
Other, specify:	18	4.2%
Total	413	100.0%

DO YOU RENT OR OWN YOUR HOME?	Number	Percent
Rent	119	27.9%
Own	307	72.1%
Total	426	100.0%

Survey developed by the Survey Research Office (SRO) of the University of Illinois-Springfield in conjunction with the Springfield Comprehensive Plan Steering Committee. The survey was conducted by the SRO under contract with the Springfield-Sangamon County Regional Planning Commission (SSCRPC). Survey results were analyzed by the SSCRPC and submitted to the Steering Committee for review and comment.

As noted at the beginning of this appendix section, results were weighted by the SRO to better reflect the demographic data.



Comprehensive Plan
City of Springfield, Illinois
2017-2037

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