



Green Valley Area Future Land Use and Growth Management
Plan 2040

The Existing Area Report

Kendig Keast Collaborative

Adopted October 21, 2019





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The Existing Area 1 | INTRODUCTION

INTRODUCTION

This report provides background and insights about the Green Valley Area as it is today. This information is presented in topic areas relevant to the Green Valley Area's long-range plan for physical growth and development. This document will be technically referred to as the Green Valley Area's "Sub-Area Plan." The report also highlights key planning considerations for the years ahead, which will set the stage for updating the Plan in terms of community needs and desires for the next 20 years; in this case, through Future Year 2040.

This sub-area plan is an extension of the ongoing comprehensive planning effort undertaken for all of Pottawatomie County. Through the collection of public input, review of previous studies, and interactions with local staff it is understood that this sub-area may undergo accelerated growth pressure in the coming decades due to its proximity to Manhattan and available greenfield development sites. This plan enables the County to pro-actively identify appropriate land uses, infrastructure needs,

and growth patterns to react to development proposals while considering local and County-wide issues.

The report content is based on initial background studies to date by the County's community planning consultant, Kendig Keast Collaborative, as well as leadership from County government, and community input received to this point. A community survey regarding area priorities was distributed to the area resident's via the County's website and mailed directly to area homes. During the Existing Area phase, a community Town Hall meeting was held in the Green Valley. At the Town Hall attendees worked in groups to identify top priorities for governance, future land use, the roads, and major facilities. The Existing Area report also points readers to other sources for more detailed information to ensure the brevity of this document and to avoid duplication of available reports and profiles of Pottawatomie County.

KANSAS PLANNING AUTHORITY

Counties in Kansas derive their authority for comprehensive planning from the State. Kansas state statute 12-747 states "A county planning commission is authorized to make or cause to be made a comprehensive plan for the coordinated development of the county, including references to planning for cities as deemed appropriate."

The state statute provides that in the preparation of the comprehensive plan, the following elements may be examined:

- Past and present conditions and trends relating to land use, population and building intensity;
- Public facilities, transportation and transportation facilities;
- Economic conditions;
- Natural resources; and
- Any other element deemed necessary to the comprehensive plan.

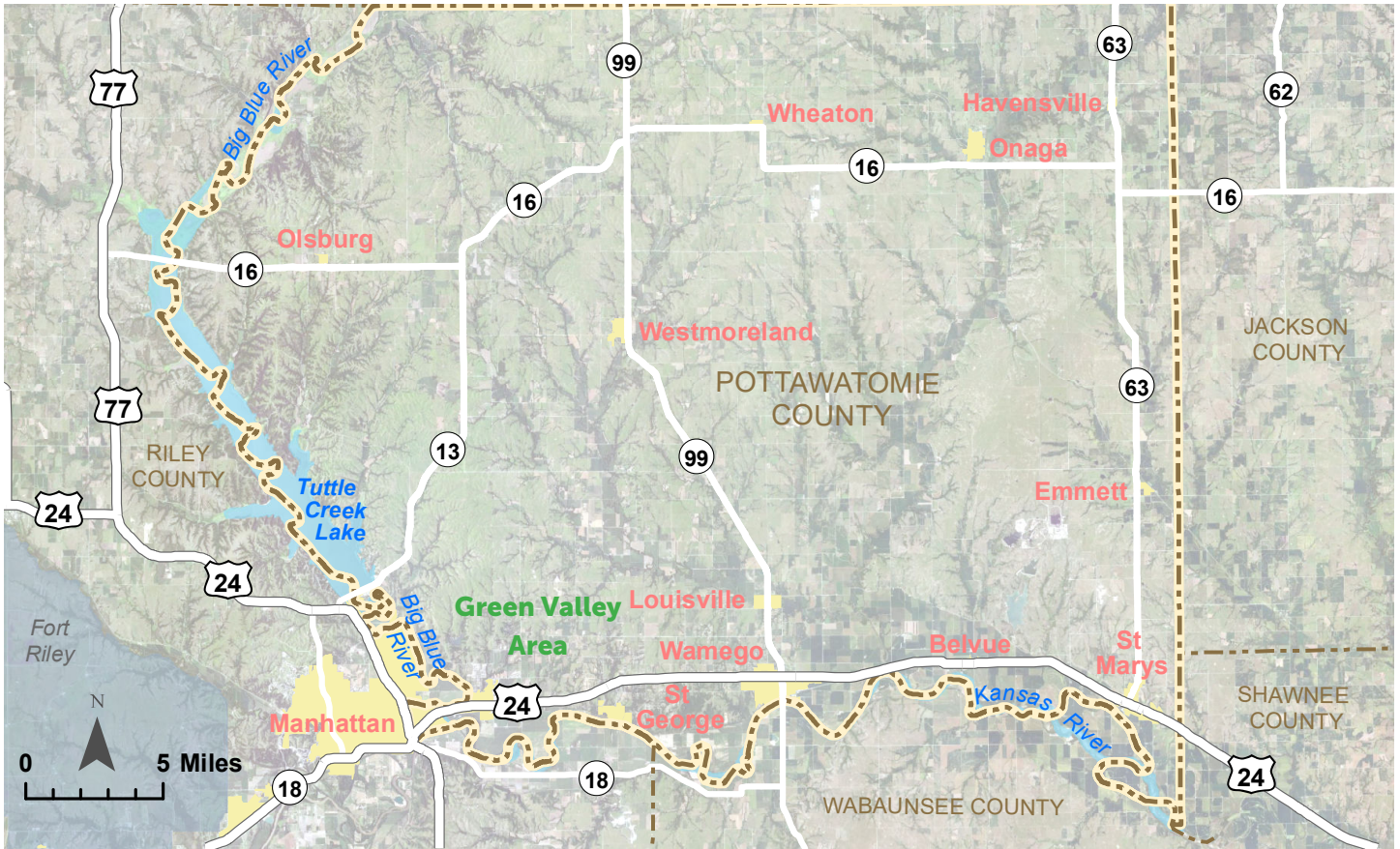
The resulting plan may present recommendations for:

- The general location, extent and relationship of the use of land for agriculture, residence, business, industry, recreation, education, public buildings and other community facilities, major utility facilities both public and private and any other use deemed necessary;

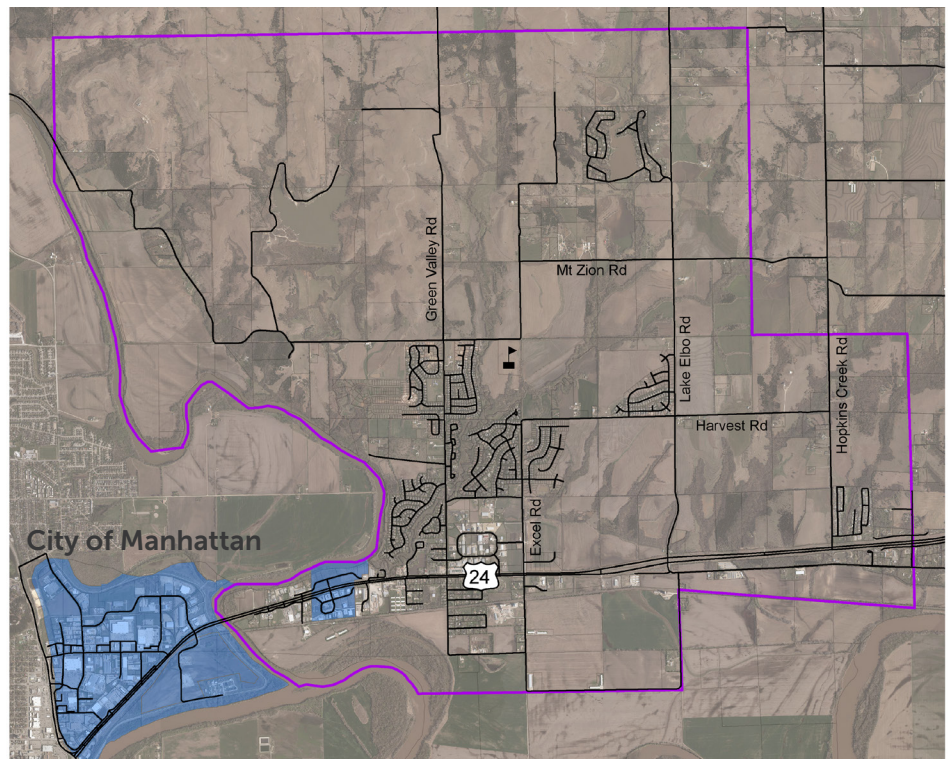
- Population and building intensity standards and restrictions and the application of the same;
- Public facilities including transportation facilities of all types whether publicly or privately owned which relate to the transportation of persons or goods;
- Public improvement programming based upon a determination of relative urgency;
- The major sources and expenditure of public revenue including long range financial plans for the financing of public facilities and capital improvements, based upon a projection of the economic and fiscal activity of the community, both public and private;
- Utilization and conservation of natural resources; and
- Any other element deemed necessary to the proper development or redevelopment of the area.

The applicable state laws will be reviewed within the appropriate sections of this Comprehensive Plan to ensure the County remains on firm legal ground but also to be sure that all planning tools are thoroughly understood and how they can best be utilized for this Sub-Area plan.

Map 1: Regional Context



Map 2: Green Valley Area Boundary



GUIDING CHANGE

Planning is concerned with the future. Whether linear or iterative, planning is a process composed of a series of conceptual phases related to one another in an orderly fashion. It usually begins with establishing a series of actionable, programmatic objectives - *what is it we are trying to accomplish?* Objectives are then framed by a series of underlying premises, assumptions or conditions, based on an understanding of key issues pertaining to the community within which the plan is being developed - *what factors must we consider that will prevent or enable reaching our objectives, and within what time frame?* Once objectives and planning premises are defined, policies and strategies are formulated, the implementation of which will accomplish the desired results. Alternative plans of action may be developed and carefully evaluated, to determine the best course of action. Operational plans reflecting commitments to process, time and resource expenditures are developed to then carry out the program of activities.

STEERING COMMITTEE



A Steering Committee comprised up of elected officials, developers, residents, and representatives of local non-profit entities has been established to help guide this sub-area plan process.

The Committee has met at several critical points during the research process to ensure that this plan will address important topics to the Green Valley Area.

BENEFITS

As discussed, a sub-area plan is a long-range (20 years), community-based, policy document that lays the groundwork for how communities can take charge of, invest in, and realize their future.

Sub-Area Plans of Comprehensive Plans:

- Provide public officials with a greater understanding of existing conditions in their community, and the larger trends and forces that are impacting growth and development (or lack thereof); and a long-term outlook at the potential consequences of land use, infrastructure, and other decisions;
- Establish priorities for implementation strategies and actions to achieve preferred outcomes;
- Place communities in favorable positions when pursuing and securing grants and capital partnerships;
- Offer an opportunity for constructive and meaningful public input, education, and engagement through a variety of forums; including one-on-one meetings, focus groups, town hall-style community workshops, and online surveys;
- Provide policy guidance and legally defensible basis for effective and implementable land development regulations; and
- Provide a framework to enable local officials to make better-informed decisions based upon a coordinated plan to guide the orderly growth and development of their community.

Engaging in a comprehensive sub-area planning process will enable Pottawatomie County (and Green Valley residents) to have a greater measure of control over its future and the opportunities and challenges that change will bring. Pottawatomie County's last

Comprehensive Plan was completed in 1994. Since then, the County has experienced tremendous growth in the ensuing twenty-four years, with much of this growth in the Green Valley Area. This new sub-area plan will be the first plan specific the area and is a direct result of a recommendation from the Joint Flint Hills Land Use Study.

Planning enables the County to pro-actively manage future growth and development / redevelopment as opposed to reacting to development proposals on a case-by-case basis without adequate and necessary consideration of community-wide issues.

APPROACH (EXISTING AREA – FUTURE AREA)

The Plan focuses first on providing a snapshot of existing conditions, through the lens of multiple plan elements, and culminates in this report. The Existing Area report of the Sub-Area Plan summarizes existing conditions as well as the status of the strategies and recommendations found within the several plans and studies developed by local and regional agencies - what has been implemented, and what have been the barriers to implementation.

Rather than creating a document that discusses each element of the plan in isolation, as is sometimes the case using the traditional approach, this approach allows for the plan to better show the relationships between the various plan elements.

This report includes a discussion about the Area's history, location and physical characteristics and highlights the Area's demographic composition and trends. A summary of key indicators, from the latest available U.S. Census data (including the 2010 U.S. Census, the 2012-2016 American Community Survey 5-year estimates, and Census estimates for 2018 created by ESRI) and other sources illustrate historical and current conditions and context relevant to the Sub-Area Plan. Sub-Area plans are future-oriented, and prescribe policies that are intended to advance a set of preferred conditions. As such, The Future Area component and its implementation strategies, programs, and projects will be the focus of this plan. The Future Area portion of the Plan includes recommended strategies, programs and initiatives, actions and projects for accommodating growth, development and redevelopment of the Area's neighborhoods, districts and corridors, while preserving community character, enhancing quality of life, and improving economic well-being.





HISTORICAL TIMELINE - POTTAWATOMIE COUNTY / GREEN VALLEY AREA

1854 - The Kansas-Nebraska Act is signed, making settlement legal

1856 - The legislature petitions to create Pottawatomie County - named for the Pottawatomie tribe of Indians

1857 - Governor Geary appoints first county officials. St. George is first city platted in the county

1951 - The Great Flood of 1951 occurs, spurring the construction of the Tuttle Creek Dam

1962 - Tuttle Creek reservoir is completed

1972 - Timber Creek Sewer and Water Districts Created

1974 - Pottawatomie County prepares first Comprehensive Plan

1991 - Pottawatomie County Economic Development Corporation (PCEDC) established

1991 - Blue Township Sewer District Created

1994 - Pottawatomie County 2020 Comprehensive Plan adopted

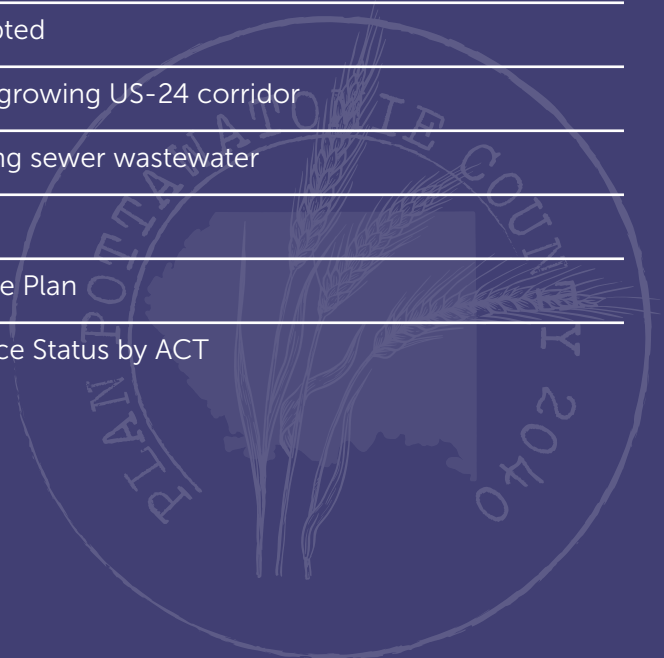
2009 - US-24 Corridor Management Plan developed for fast-growing US-24 corridor

2009 - Sewer Plan Closes and City of Manhattan begins treating sewer wastewater

2017 - Flint Hills/Fort Riley Joint Land Use Study Update

2018 - Pottawatomie County embarks on new Comprehensive Plan

2018 - Pottawatomie County granted Work Ready Maintenance Status by ACT





The Existing Area 2 | COMMUNITY PROFILE

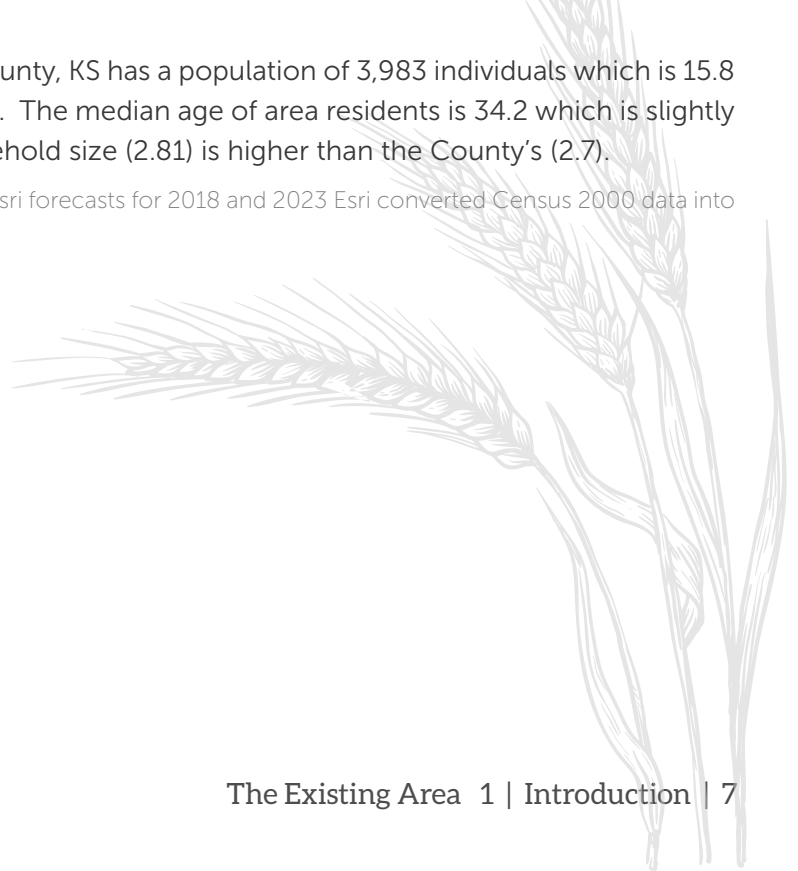


1 - Age and Household Size - 2018 Estimate

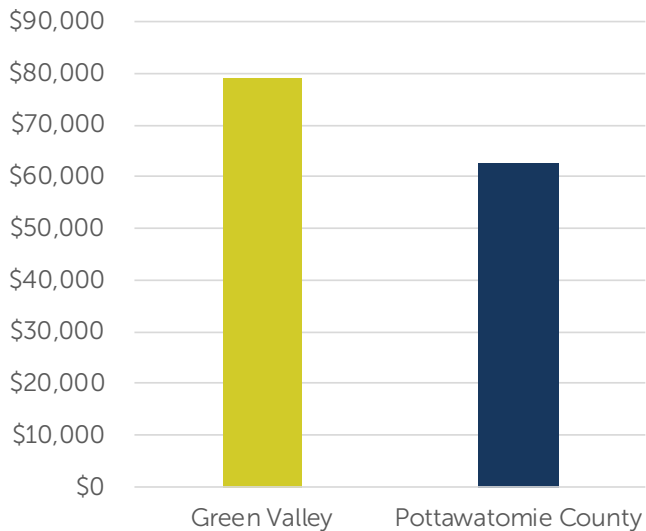
CATEGORY	GREEN VALLEY AREA	POTTAWATOMIE COUNTY
Population	3,983	25,078
Median Age	34.2	34.8
Average Household Size	2.81	2.7

The Green Valley Area located in Pottawatomie County, KS has a population of 3,983 individuals which is 15.8 percent of Pottawatomie’s total 25,078 population. The median age of area residents is 34.2 which is slightly lower than the County at 34.8. The average household size (2.81) is higher than the County’s (2.7).

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2018 and 2023 Esri converted Census 2000 data into 2010 geography.



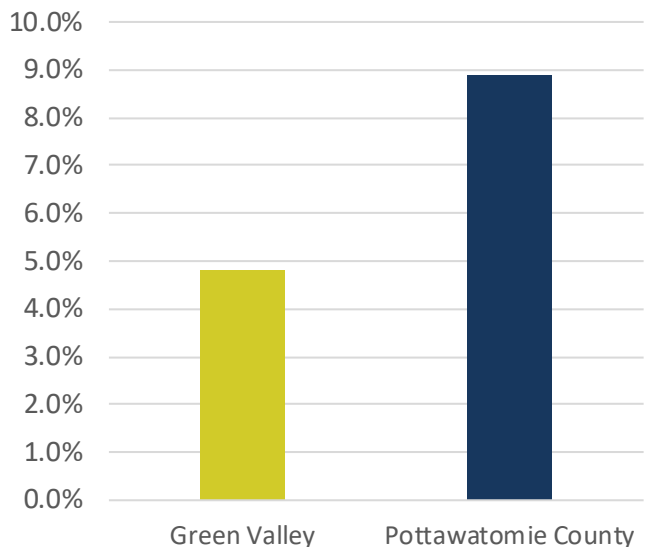
2 - Income - 2018 Estimate



Median income in the Area (\$78,985) is higher than the rest of the County (\$62,500). On average, Green Valley Area households earn 126 percent more than Pottawatomie County households. Retail and service businesses use median income as one of their primary criteria for location decisions. Based on this information, the Green Valley Area may have a competitive advantage in the category.

Source: U.S. Census Bureau, Census 2010 Summary File 1. Esri forecasts for 2018 and 2023 ESRI converted Census 2000 data into 2010 geography.

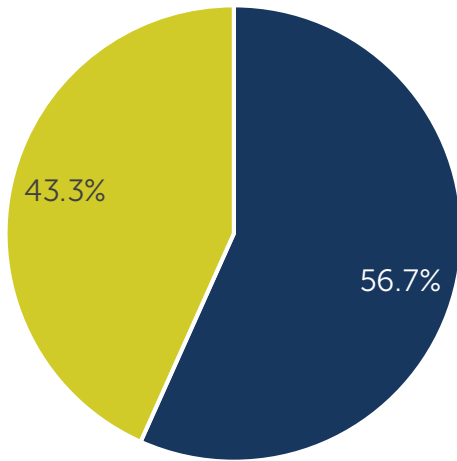
3 - Poverty Rate - 2018 Estimate



4.8 percent of the households in the Area are considered at or below the poverty rate. This is lower than the poverty rate for the County (8.9 percent).

Source: U.S. Census Bureau, 2012-2016 ACS.

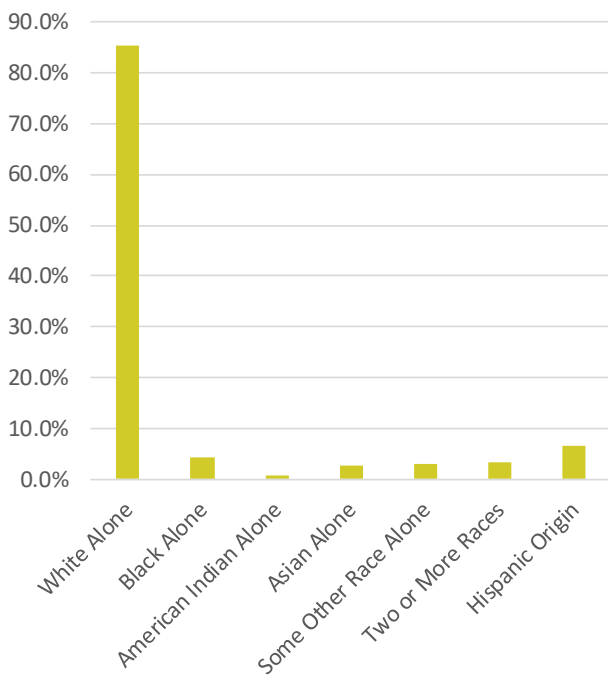
4 - Educational Attainment - 2018 Estimate



43.3 percent of the Area's population over the age of 25 have earned a bachelor's degree or higher. This would place the Area amongst the highest education attainment percentages in the County and close to Riley County which is 46 percent.

Source: U.S. Census Bureau, 2012-2016 ACS.

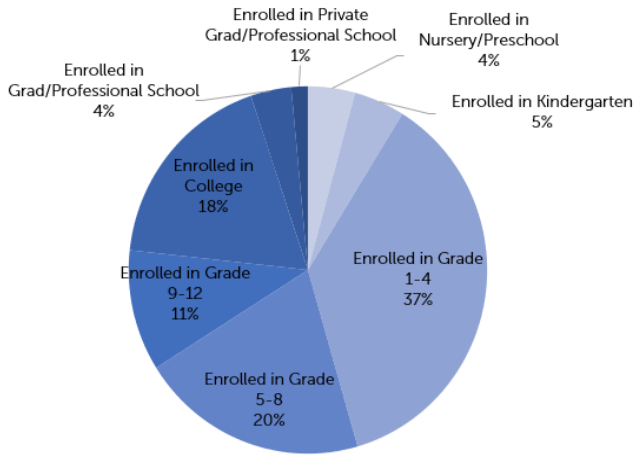
5 - Ethnicity and Race - 2018 Estimate



The Green Valley Area has a Hispanic population of approximately 7.8 percent. This is a larger percentage than Pottawatomie County (5.2 percent).

Source: U.S. Census Bureau, 2012-2016 ACS.

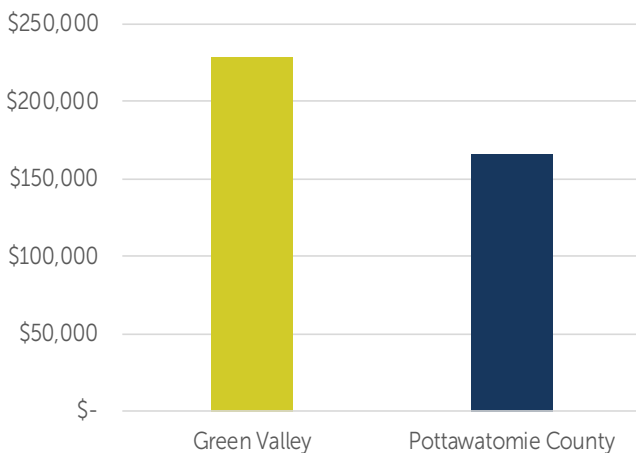
6 – School Enrollment - 2018 Estimate



The majority of Green Valley residents enrolled in school (73 percent) are in the elementary to high school grades, with 42 percent enrolled in kindergarten through the fourth grade. This, in combination with the larger household size, implies that a large portion of the Area’s residents are young families with school-age children and may need/benefit from public and private services that cater to this group such as schools, parks, and family-oriented retail, service, dining, and entertainment options.

Source: U.S. Census Bureau, 2012-2016 ACS.

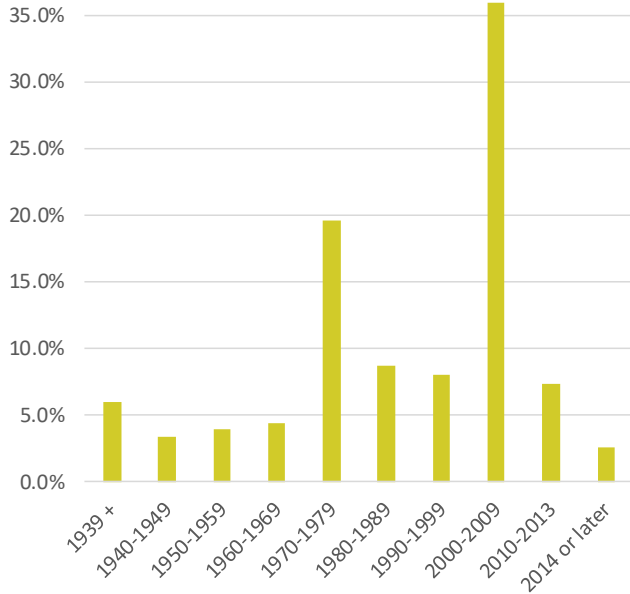
7 – Home Value - 2018 Estimate



The median value of a home in the Green Valley area is higher (\$228,359) than Pottawatomie County (\$165,900). This is most likely due to the recent construction of new single-family homes in the area reflected in the percentage of houses that have been built since 1989 (see category 8-Age of Housing). This higher median home value may also correspond to the higher median income observed in this Area.

Source: U.S. Census Bureau, 2012-2016 ACS.

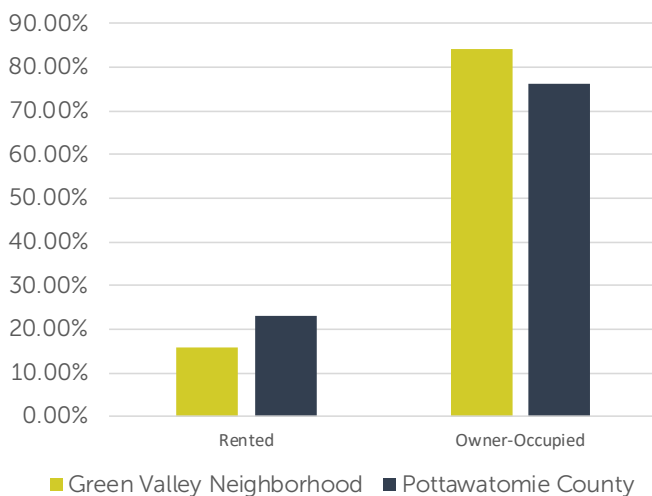
8 – Age of Housing - 2018 Estimate



The majority of homes in the Green Valley area (53.9 percent) have been built since 1989 with the largest number of homes (457) built between 2000-2009. In contrast, 62.4 percent of the homes in Pottawatomie County were built before 1989. This underscores the fact there has been more construction activity in the Area when compared to the County and that development pressure is increasing as residents look for more options outside of the City of Manhattan.

Source: U.S. Census Bureau, 2012-2016 ACS.

9 – Housing Tenure - 2018 Estimate

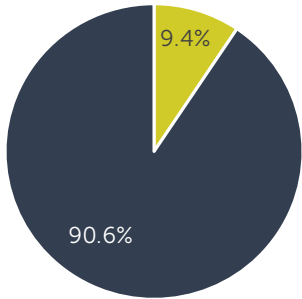


The Green Valley Area has a higher percentage (84.2 percent) of owner-occupied housing units than in Pottawatomie County as a whole (76.1 percent). Given that there has been recent residential construction activity in this area, there may be an opportunity to develop units that cater to the underserved residents of Pottawatomie County and the regional market. An increase in the number of units will also help attract local retail, service, and dining options while diversifying the Area's housing stock.

Source: U.S. Census Bureau, 2012-2016 ACS.

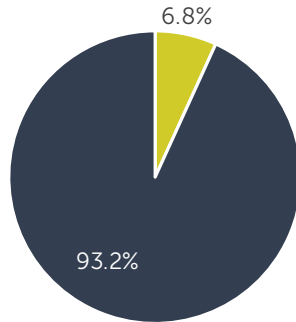
10 – Vacancies - 2018 Estimate

Pottawatomie County



■ Vacant ■ Occupied

Green Valley

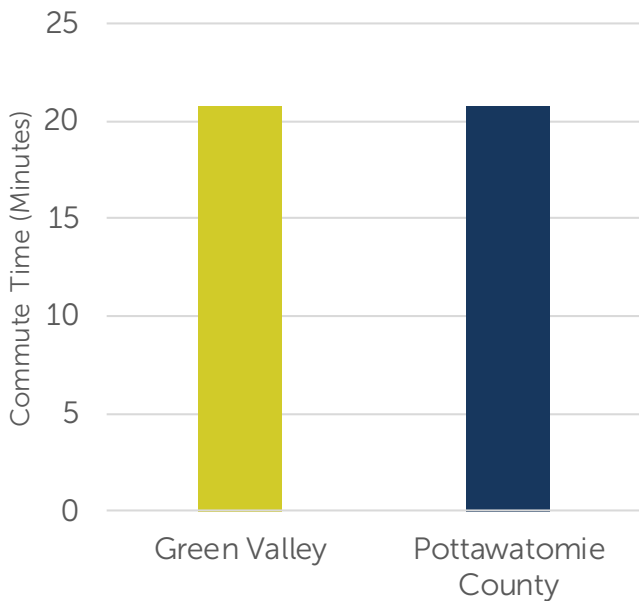


■ Vacant ■ Occupied

Combined rental and owner vacancy rates are lower in the Green Valley Area (6.8 percent) than in Pottawatomie County as a whole (9.44 percent) and generally low in the County as compared to benchmark communities in the County-wide comprehensive plan. This indicates that this is a desirable neighborhood and that there is a strong desire to live in the area. Increases in housing construction may be needed to help offset this high demand.

Source: U.S. Census Bureau, 2012-2016 ACS.

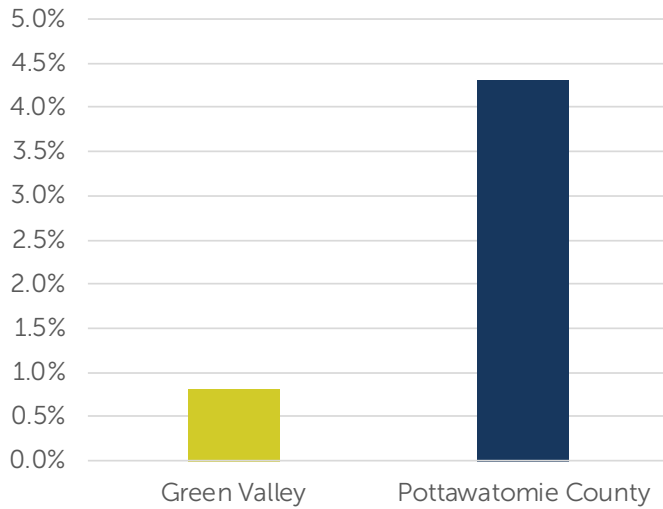
11 – Commute - 2018 Estimate



The average commute time for Green Valley residents is approximately 20.8 minutes and is consistent with the average commute time of Pottawatomie County at 20.8 minutes. The area’s location along Highway 24 in between Manhattan and eastern Pottawatomie County make access and commute time a competitive advantage in the region.

Source: U.S. Census Bureau, 2012-2016 ACS.

12 - Unemployment - 2018 Estimate

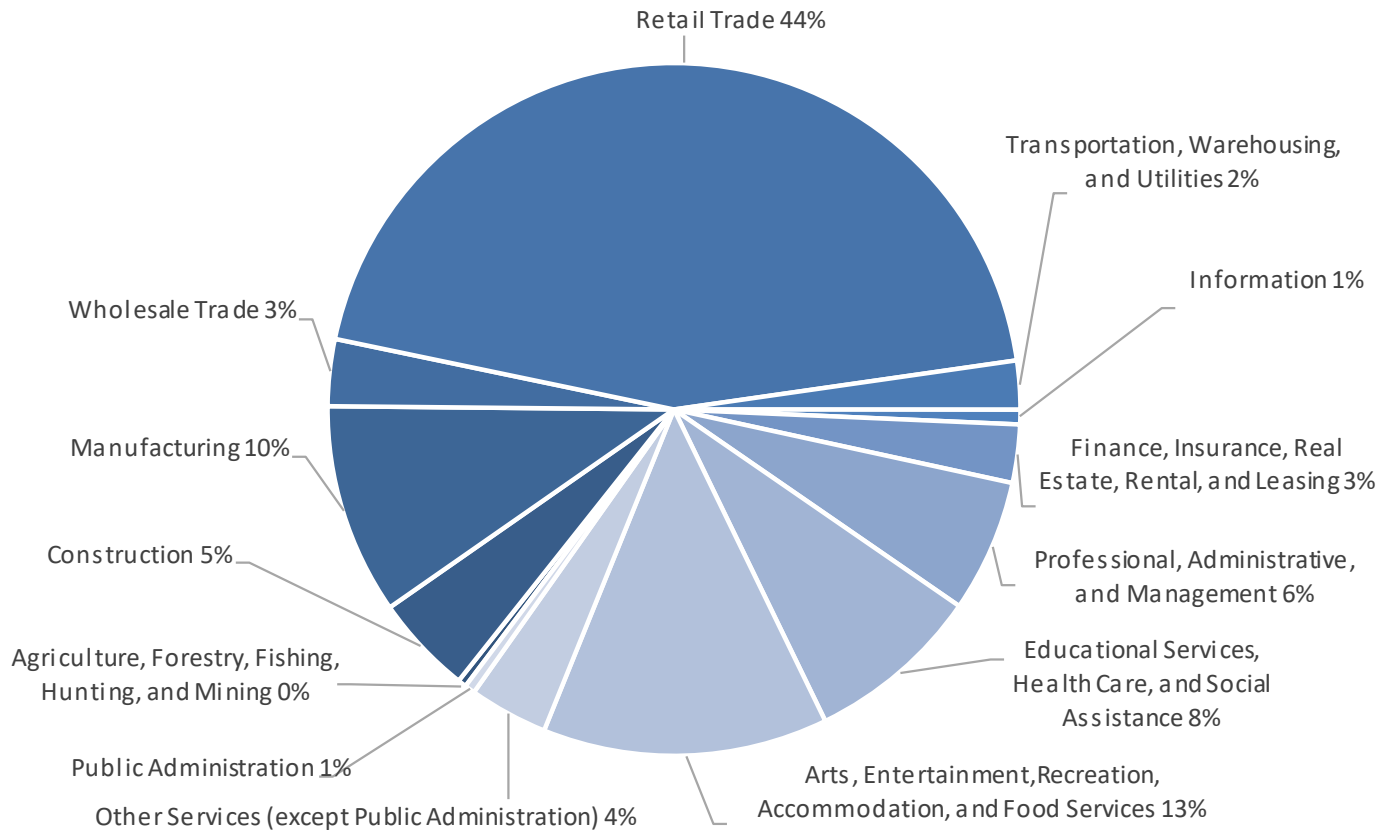


Unemployment in the Green Valley Area is very low (0.8 percent) and lower than the average rate of unemployment in Pottawatomie County (4.3 percent). The unemployment rate for the County is considered full employment and may indicate a need for more workers with skill sets that match those of growing area industries.

Source: U.S. Census Bureau, 2012-2016 ACS.



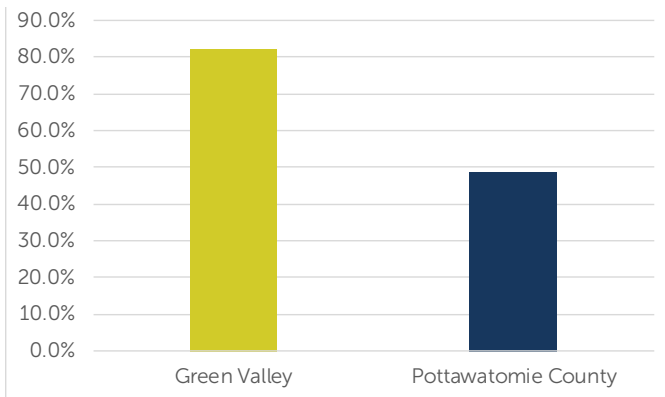
13 - Employment - 2018 Estimate



In the Green Valley Area, the largest employment industry is the retail trade and accommodations sector (44 percent). The second and third largest industries are the arts, entertainment, and food service category (13 percent) and manufacturing (10 percent).

Source: U.S. Census Bureau, 2012-2016 ACS.

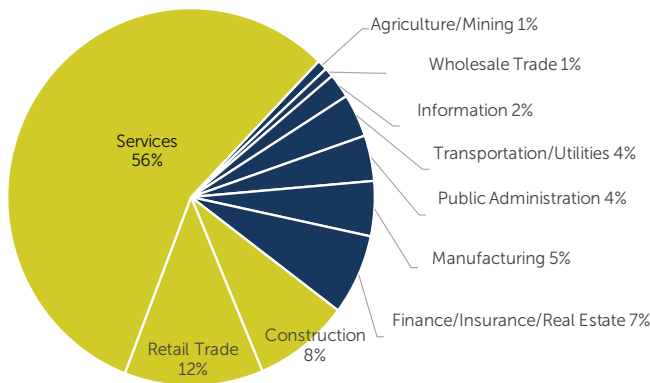
14 – Employment Location Outside of Pottawatomie County - 2018 Estimate



There is a relatively high percentage of the Green Valley Area workforce 1,498 (82.3 percent) that work outside of the Green Valley Area and in a different County when compared to all of Pottawatomie County (48.9 percent).

Source: U.S. Census Bureau, 2012-2016 ACS. On the Map Data, 2015.

15 – Resident Employment Industries - 2018 Estimate



The majority of the residents in the area (56.3 percent) work in the educational services, health care, and social assistance industries followed by retail trade 12.2 percent and construction (8.4 percent) is the third largest. Taking this information into consideration in combination with the low unemployment, commute time, and difference between the industries that area residents work in as compared to industries located in the area, there may be opportunities to attract businesses and create jobs that cater to the existing skill sets and needs of area residents.

Source: U.S. Census Bureau, ACS 2012-2016

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The Existing Area 3 | LAND USE AND DEVELOPMENT

EXISTING LAND USE AND CHARACTER

The Green Valley area is in an unincorporated area of Pottawatomie County. Zoning and development regulations are governed by Pottawatomie County, and current development reflects land use decisions guided both by development regulations and the local and regional marketplace. This section discusses land use as a means of understanding development and growth trends in the Green Valley area. Existing land use is divided into categories and described in terms of type, location, and physical

characteristics. Since a variety of factors influence land use, those factors and circumstances that have led to the development pattern in this area are discussed as well as land use or elements within near proximity to this neighborhood that are influenced by the larger development and growth patterns in surrounding properties.

The location and extent of land uses in a community affect property values, neighborhood stability, traffic flow, character, and economic development opportunities specifically in the Green Valley Area.

Major Retail Locations:

- Small scale retail development along US Highway 24 corridor (Such as US-24 and Green Valley Road).
- Vehicle dealerships located along the US Highway 24 corridor (Flint Hills Auto Center, Brooks Yamaha, Freiling Auto Sales).
- Stand-alone retail establishments such as Feldkamp’s furniture, Ashely Furniture Stores,

and Tractor Supply Company.

- Retail incorporated into the Manhattan City Limits located in the Green Valley Area (Heritage Square South and North).
- Retail within portion of Manhattan located in Pottawatomie County (McCall Road).



Retail: US Highway 24 and Green Valley Road

Major Public Uses:

- Fire Station 1, Blue Township Fire District Facility.
- Green Valley Community Center and Valley View Memorial Park.
- Pottawatomie County State Lake #2.
- School U383 elementary school (under construction).

Major Institutional Uses:

- Churches and religious facilities throughout the area.
- Flint Hills Christian School.
- St. Patrick Cemetery.
- Farmer’s Cooperative Association.



Public: Green Valley Community center



Institutional: Flint Hills Christian School

Major Industrial Locations:

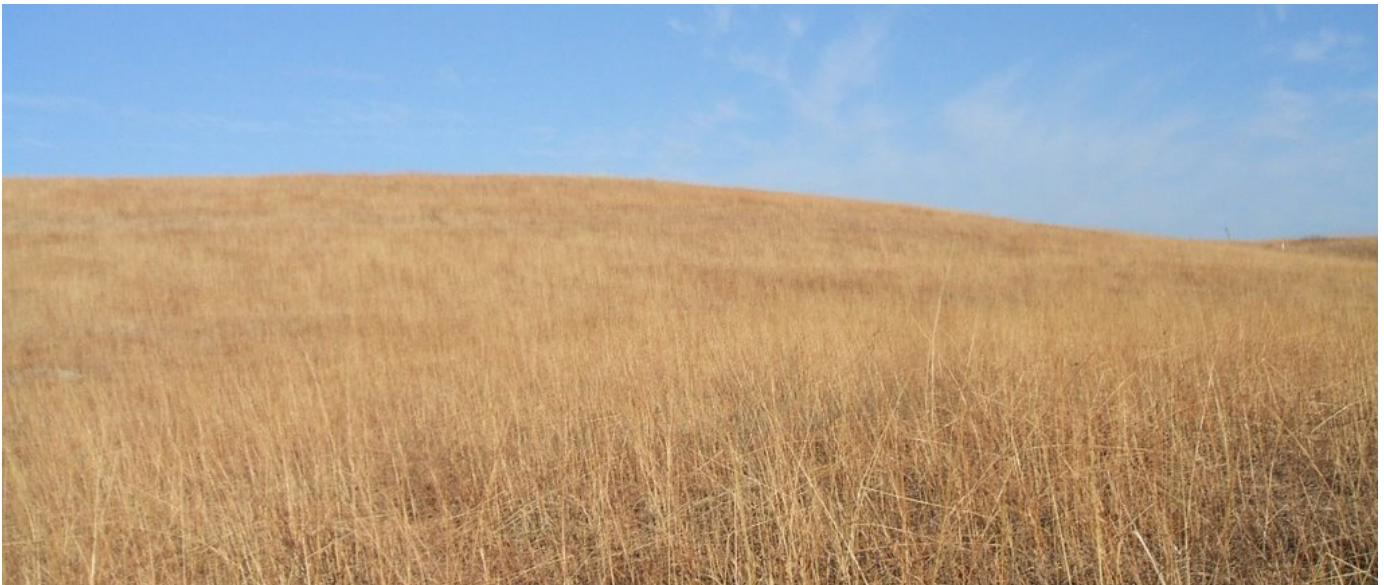
- Green Valley Industrial Park (primarily light industry).



Industrial: Green Valley Industrial Park

Major Agricultural Locations:

- Although development is reducing the amount of land in farms in the Green Valley, the majority of land, particularly in the northern and eastern portions of the study area, remain dedicated to agricultural and/or ranching purposes.
- The Manhattan Commission Company ("The Sale Barn")
- Nelson's Hatchery



Current Allocation of Land Use Types

Displayed on Map 3 , Existing Land Use, are the respective locations of major land use types in the Green Valley Area:

- Agriculture;
- Rural Residential;
- Suburban/ Urban Residential Uses;
- Commercial uses (retail, office, and services); and
- Industrial Uses (including utilities).

The map highlights that agriculture and rural residential are still the largest land uses in the Green Valley Area. Agricultural represents the majority of the land within the Green Valley at 81.5 percent, which is slightly less than Pottawatomie County at 87 percent. This map also highlights the commercial and residential development patterns starting in the western portion of the area and continuing east and north along US-24.

The Green Valley area is comprised of 16.3 square miles, of which rural/farmland comprises 13 square miles.

LAND USE ALLOCATION	
LANE USE CATEGORY	PERCENT
Agricultural	81.6%
Commercial	1.1%
Duplex	0.2%
Heavy Industrial	0.1%
Institutional	0.1%
Light Industrial	0.5%
Mobile Homes	0.6%
Park	1.9%
Place of Worship	0.2%
Rural Residential	5.8%
Single Family Residential	4.1%
Undeveloped	0.9%
Utility	0.1%
Vacant	1.3%
Water	1.0%

Table 1: Current Allocation of Land Use Categories

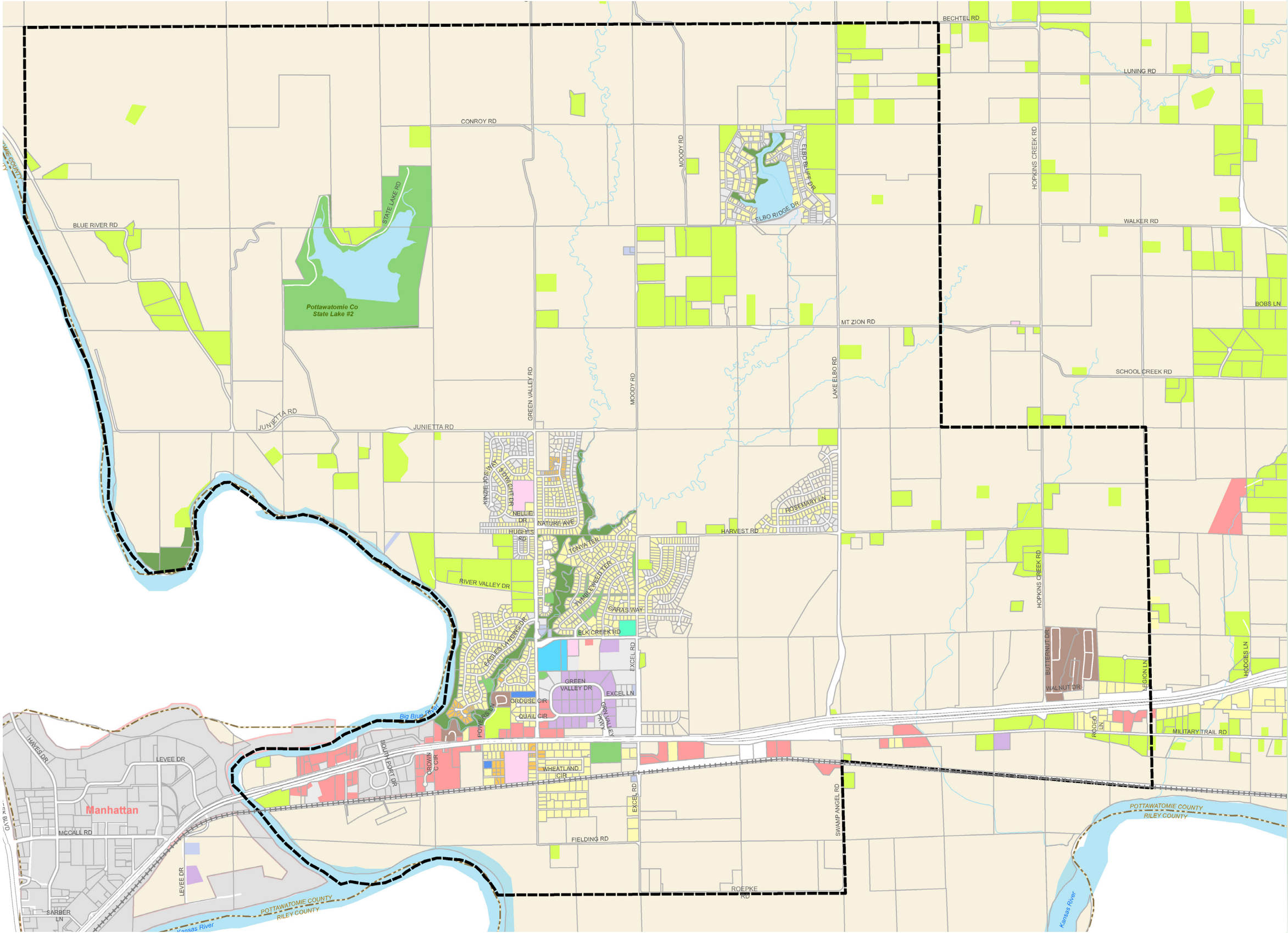
HOW DO LAND USE AND CHARACTER COMPARE?

This Plan elaborates on the common definition of land use to address the “look and feel” of development, instead of only identifying how land is used, such as single or multifamily residential, commercial, or industrial designations, character also defines the intensity of development and the design features that contribute to its specific nature and appeal. It is this combination of land use and the site and building design attributes that determine the character of development.

A land use and character approach offers many benefits, including:

- Assurance as to the compatibility of adjacent development;

Map 3, Existing Land Use



Existing Land Use

- Green Valley Area Plan Boundary
- Parcel Boundary
- Undeveloped
- Park
- Agricultural
- Rural Residential
- Single Family Residential
- Duplex
- Mobile Homes
- Cemetery
- Institutional
- Place of Worship
- Public
- Commercial
- Industrial
- Utility
- Vacant



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- Design flexibility to protect natural resources and valued open space;
- Predictable results in the development process;
- Ability to better plan for infrastructure needs;
- Planned development by right;
- Streamlined development process; and
- Buffering that is commensurate with the level of impact on adjacent and abutting properties.

have attempted to help preserve the rural character and historically agricultural lands within the County. Newer County regulations, such as the subdivision entrance paving policy, enacted five years ago, are an outgrowth of the fast rate of housing development in the southwestern portions of the County.

HOUSING STOCK AND CONDITIONS

Development regulations in Pottawatomie County

A WORD ON ZONING

Pottawatomie County has had County-level zoning since 1962. Zoning "is the classification of land into districts for the purpose of regulating the use of land; placement, size of buildings, and activities associated with property. Zoning is the primary means of ensuring that nearby lands are compatible, and the public health, safety and welfare are protected."

Pottawatomie County has two types of zoning districts, standard zoning districts and planned zoning districts. Standard zoning allows a limited number of adaptations and is more restrictive. In contrast, planned zoning enables greater flexibility in design, whereby you can mix uses that are basically compatible. For instance, a developer may want to develop a parcel into single family residential but reserve a specific area for duplexes and maybe even an area for office commercial use. Pottawatomie County currently has 17 different standard zoning districts and four different types of planned zoning districts. Since the Green Valley Area is unincorporated part of Pottawatomie County, these same zoning districts and standards are utilized in the review and approval of Area developments.

Source: Pottawatomie County



When zoning was first instituted in the County, the entirety of the County was zoned Agricultural. The growth and change in development in the County has led to an increase in the number and type of zoning districts. The current allocation of land by zoning districts in the Green Valley Area can be seen in **Table 2**.

Table 2: Current Allocation of Zoning Districts

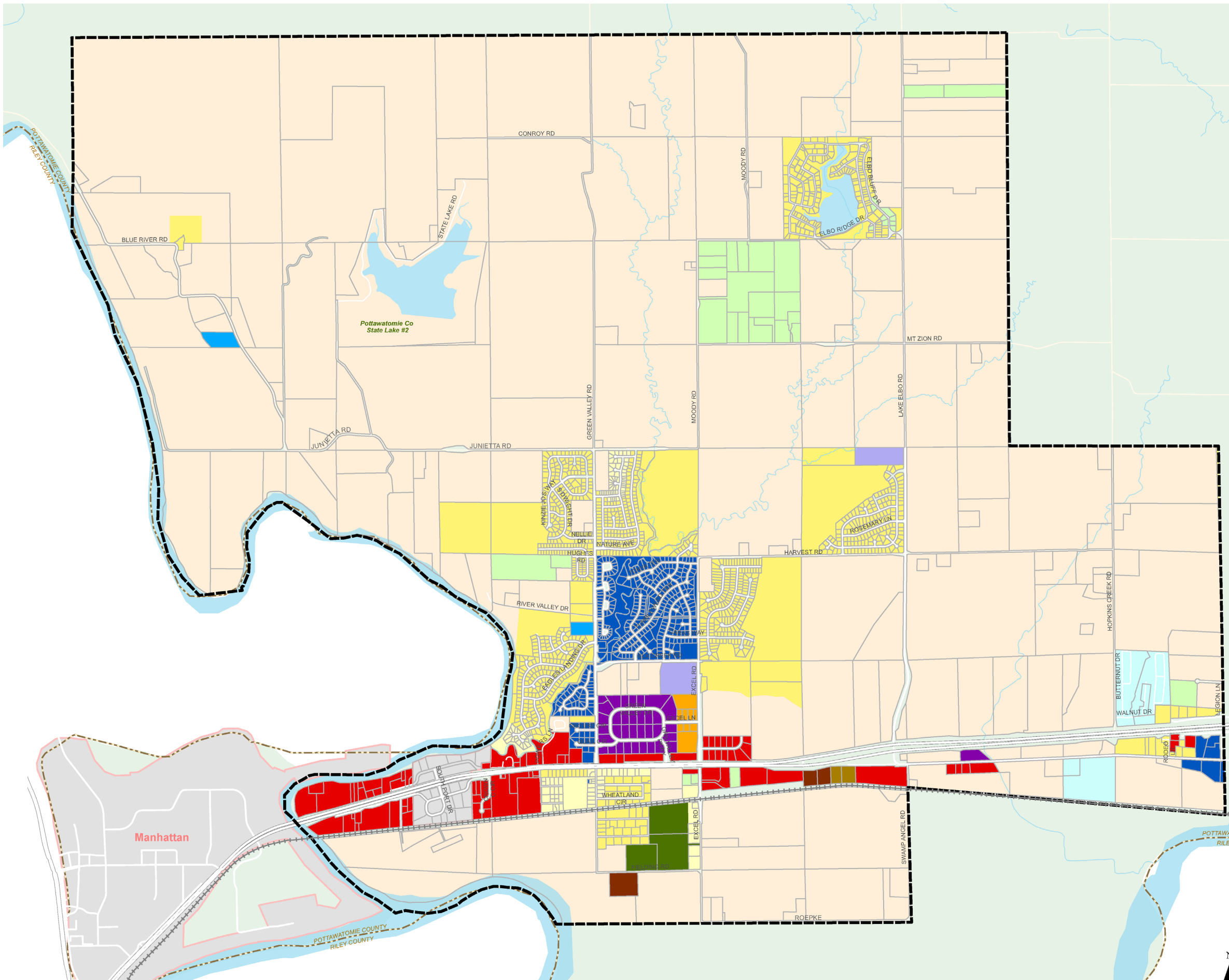
ZONING ALLOCATION	
ZONING DISTRICT	ACRES
Ag-Business	48.51
Ag-Residential	216.32
Agricultural	8,495.99
City of Manhattan	47.75
General Manufacturing	6.31
General Service	17.42
Heavy Exclusive Manufacturing	16.63
Highway Commercial	218.20
Mobile Home Park	88.84
Overlay	30.01
Planned Commercial	63.37
Planned Unit Development	177.44
Planned Unit Rural District	12.03
Single Family Residential	917.75
Two Family Residential	73.61
Total	10,430.19

Although agriculture remains the predominant land use type and zoning category within the Green Valley Area and Pottawatomie County, 1,793 residential lots were developed or platted for a total of 759.1 acres in the last 20 years. Given the area’s location this trend is expected to continue.

Figure 1: Existing Zoning by District



Map 4: Green Valley Area Zoning



Zoning

- Green Valley Area Plan Boundary
- Parcel Boundary

Zoning District

- Ag-Business
- Ag-Residential
- Agricultural
- City Zoning
- General Manufacturing
- General Service
- Heavy Exclusive Manufacturing
- Highway Commercial
- Mobile Home Park
- Overlay
- Planned Commercial
- Planned Unit Development
- Planned Unit Rural District
- Single Family Residential
- Two Family Residential



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The Green Valley Area has a total of 1,411 housing units as of 2018 (there are another 1,156 lots available or under development).

Housing Types: By far the most prevalent type of housing found in the Green Valley Area is single family homes, with 84.9 percent of all units being single unit detached homes. The next most prevalent type of housing is mobile homes, at 8.9 percent of housing units. Multifamily units account for approximately three percent of housing units, with the remainder of units being duplexes (3.3 percent) and the 'other' category that includes boats, RVs, vans, and other non-traditional housing units that account for slightly more than half a percent of total units in The

Green Valley Area.

Age of Housing Stock

The number of older homes (constructed in 1989 or earlier) in the Green Valley Area is 46.1 percent, and homes built since 1989 are 53.9 percent. The statewide average is 73.4 percent of homes constructed before 1989, which indicates that the area has had a higher than average number of newer homes constructed. This data confirms that the Area has seen substantial construction and underscores the importance of planning for the sustainable development of new subdivisions and support infrastructure in the area.

Figure 2: Housing Type Breakdown, Green Valley Area



Source: U.S. Census Bureau, American Community Survey (ACS), 2016.

Vacancy

Owner-occupied units comprise 84.2 percent of all housing units while 15.8 percent are renter occupied. Overall vacancy is very low, with only 6.8 percent of all units unoccupied as of 2018. The homeowner vacancy rate is 2.1 percent, which is less than half of the rental vacancy rate of 5.3 percent. A rule of thumb often used by economists is that five to eight percent is a “natural” vacancy level that promotes healthy functioning of the housing market, as well as supporting a community’s economic development. When the vacancy rate is too low, demand for housing will push up rents and prices as consumers

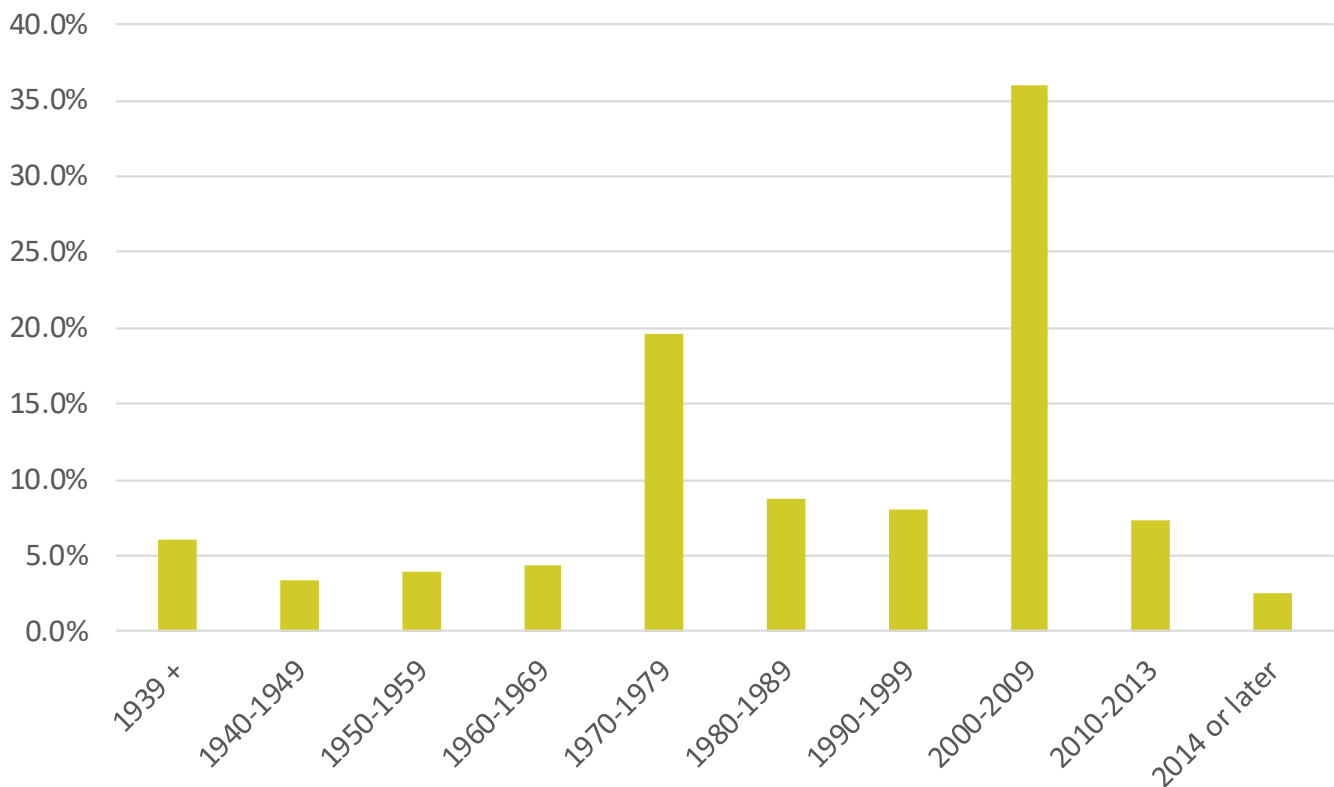
vie for scarce units. Conversely, when vacancy rates are higher, new and relocating households can be accommodated by the existing stock of housing, and new units are not necessary.

THE AFFORDABILITY EQUATION

The Value of Existing Homes

The median value of owner-occupied units in the Green Valley Area is \$228,359 which is above the median value of homes in Pottawatomie County at \$165,900 and neighboring Riley County (\$184,500),

Figure 3, Percent of Housing Built by Decade



Source: U.S. Census Bureau, American Community Survey (ACS), 2016.

which is reflective of the amount of new construction of single family homes that has occurred in the area over the last 10 years. Along with home prices, income is the other essential factor that determines the “affordability” of housing within a market area. The following indicators capture various aspects of the income picture in the Green Valley Area.

Median Household Income

The estimated median household income (2018 ESRI Business Analyst) in the Green Valley Area is \$78,985.

This median household income is higher than Pottawatomie County \$62,500. It is also higher than in the comparison counties of Riley County (\$46,609), Jackson (\$54,700), Shawnee (\$52,088), Jefferson (\$56,777) and Miami County (\$63,353).

Poverty Level

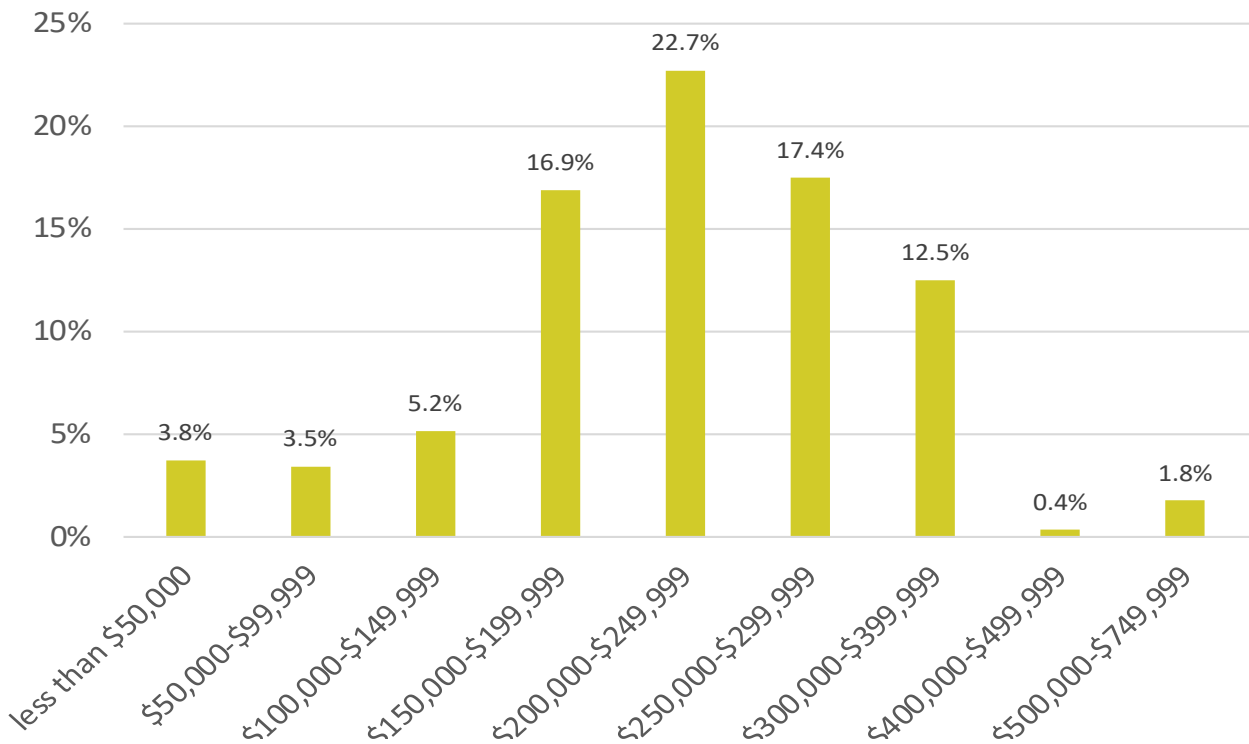
In the Green Valley Area 4.8 percent of individuals are below the poverty level. This is lower than

Pottawatomie County (9.0 percent) and several surrounding counties, (Riley County 21.7 percent Shawnee County 14.5 percent, in Miami County 9.6 percent, Jefferson County 9.1 percent, and Jackson County 8.2 percent).

HOUSING RELATED EXPENDITURES

A common way to gauge housing affordability is to consider monthly owner costs relative to household income. Housing costs are typically considered unaffordable when they surpass 30 to 35 percent of household income. Given a median household income of \$78,985 in the Green Valley Area the median household income should aim to pay no more than \$1,974.6 monthly (30 percent) toward housing costs, with an absolute maximum of \$2,303 per month (35 percent). Detailed in the Table “Monthly Housing Cost Capacity of Households”, are

Figure 4: Value of Owner-Occupied Units, Pottawatomie County



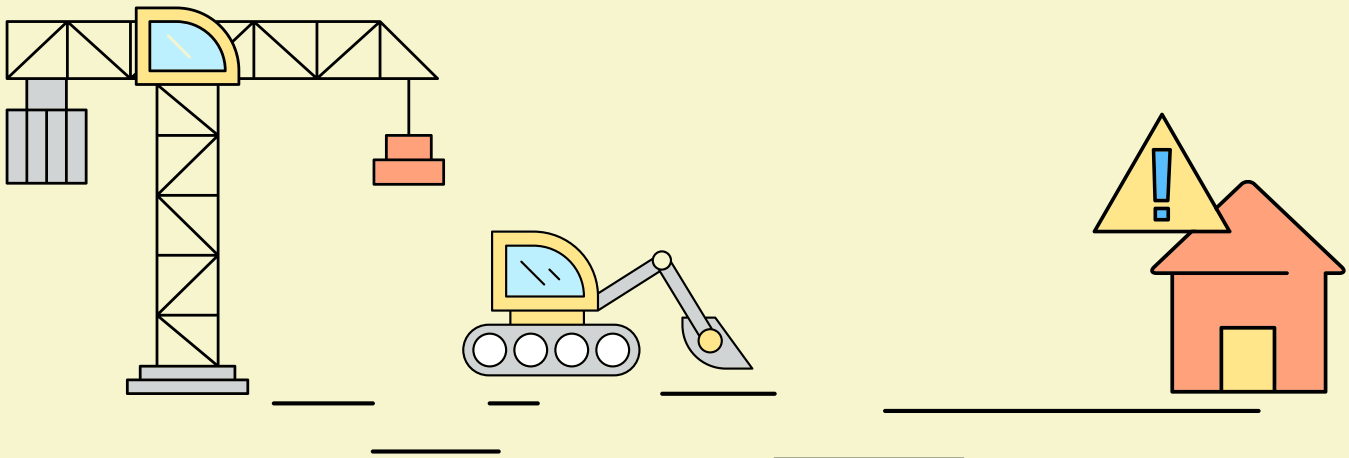
Source: U.S. Census Bureau, 2012-2016 ACS.

BUILDING CODES

"At this time, with the exception of ADA requirements for commercial buildings, the County has not adopted any building codes. It is the responsibility of the buyer to check the quality of construction and to make sure proper codes have been followed."

Early engagement discussions during the County Comprehensive Plan process revealed that the current lack of building codes in the County has led to some concerns about the quality of new development in parts of the County. Although participants noted that by and large development is of good quality concerns were raised that some builders have cut corners and some homes have had building quality issues as a result. Discussions with the builder and development community noted support for building codes among builders to "even the playing field" and ensure quality output. Pottawatomie County has been in discussions with the City of Manhattan for some time to coordinate the possibility of instituting building codes in the fast-growing Blue Township area. This same issue is noted in this Sub-Area Plan as development in the Green Valley Area is governed and approved by Pottawatomie County officials.

Source: Pottawatomie County, KKC.



the monthly 'affordability' (30 percent of income) amounts for households at various points above or below the area's median household income.

A traditional metric to evaluating whether a home is affordable to a home-buyer is by comparing their household income to the value of the home. An affordable, self-sustaining housing market, with adequate value and revenues to support market-rate new construction typically exhibits a value to income ratio between 2.5 to 3.0. Ratios above 3.0 present significant affordability issues while ratios below 2.0 are significantly undervalued relative to income.

INCOME TO VALUE COMPARISON AND RENTAL COSTS (2015)	
MEDIAN HOUSEHOLD INCOME	\$78,985
MEDIAN HOME VALUE	\$228,359
VALUE/INCOME RATIO	2.89
MEDIAN GROSS RENT	\$1,029
RENT AS % OF INCOME	15.6%

Source: U.S. Census Bureau, 2016 ACS, KKC

AFFORDABLE HOME OWNERSHIP	
MAXIMUM HOME PRICE AFFORDABLE TO MEDIAN HH INCOME	MINIMUM HH INCOME TO AFFORD MEDIAN PRICE SINGLE FAMILY HOME

AFFORDABLE HOME OWNERSHIP	
\$236,955	\$76,119

Source: KKC

In the Green Valley Area housing affordability varies

MONTHLY HOUSING COST CAPACITY OF HOUSEHOLDS		
PERCENT OF MEDIAN HOUSEHOLD INCOME	ANNUAL INCOME AMOUNT	AFFORDABLE MONTHLY HOUSING COST (30% OF INCOME)
150%	\$118,478	\$2,961.90
125%	\$98,731	\$2,468.30
100%	\$78,985	\$1,974.60
75%	\$59,239	\$1,481.00
50%	\$39,493	\$987.30

Source: U.S. Census Bureau, 2016 ACS, KKC.

for renters and owners and also varies for owners with and without a mortgage. Green Valley’s median gross rent (\$1,029) represents only 15.6 percent of monthly median income. However, a high percentage of renters (41 percent) are paying more than 30 percent of their incomes toward housing cost. This data suggests that there are not many rental options in the Green Valley area and that the available options are towards the higher end of the rental spectrum and that an under supply of rental units is present.

PROS AND CONS OF LOW RENT

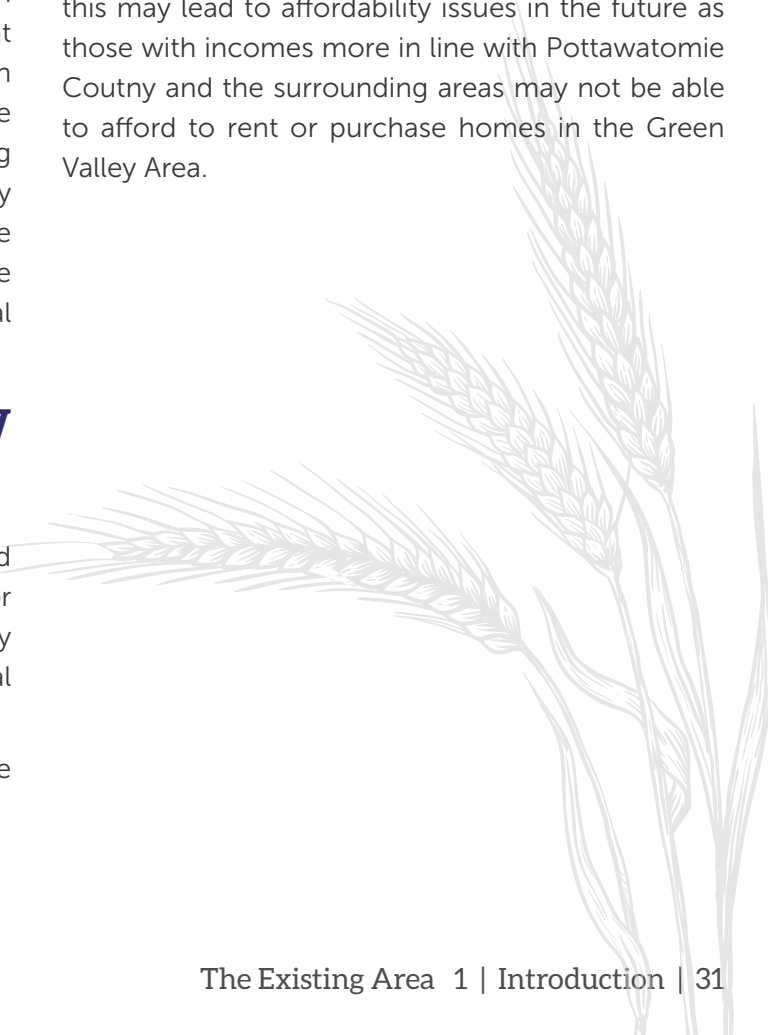
Lower rents reduce housing costs for individuals and families who cannot afford to purchase a home or will not be in the area for long. However, consistently low rents can have some adverse effects on local housing conditions by:

- Potentially discouraging long-term maintenance of rental properties.

- Not sending a signal to the market to supply more new units.
- Potentially discouraging renters from making the leap to home ownership because of the gap in monthly cost.

For owner-occupied units (non-rental) in the Green Valley Area, 60 percent are housing units with a mortgage and 40 percent are housing units without a mortgage. The monthly housing costs are much lower for those housing units without a mortgage. For owners both with and without a mortgage the percent of owners paying more than 30 percent of their income toward housing costs is much lower than for renters, suggesting that housing affordability may primarily be a rental affordability issue rather than a home ownership affordability issue.

Homes are being developed in the Green Valley Area that are affordable to residents with a higher income as reflected in the median income and median home value of households in the community. However, this may lead to affordability issues in the future as those with incomes more in line with Pottawatomie County and the surrounding areas may not be able to afford to rent or purchase homes in the Green Valley Area.





Opportunities:

- Capitalize on growth in the area and in particular along the US-24 corridor
- Proximity to Manhattan
- Agricultural land available for development
- High Median Income
- Affordable homes in comparison to Green Valley Area income



Challenges:

- County development regulations not necessarily resulting in desired land use outcomes
- The pace of growth along the and north of the US-24 corridor
- Lack of more diverse housing developments with varying price points
- Long-term governance of the Blue Township Sewer District



Key Community Input:

- New residential development should be primary single-family homes and duplexes
- Commercial and industrial development need to be located along the US-24 corridor
- Market demand should be examined when new developments are reviewed for approval



Major Accomplishments in Recent Years:

- 490 residential lots platted in 2018
- Excel Road and US-24 property is shovel ready



Relevant Plans/For More Information:

- Pottawatomie County Development Regulations (www.pottcounty.org)
- Pottawatomie County Development Plan 2020 (www.pottcounty.org)
- 2015 Manhattan Urban Area Comprehensive Plan (www.rileycountyks.gov)
- 2017 Flint Hills/Fort Riley JLUS Update (www.flinthillsregion.org)
- Pottawatomie County Economic Development Corporation Website (www.ecodevo.com)
- 2019 Pottawatomie County Comprehensive Plan



The Existing Area 4 | TRANSPORTATION AND MOBILITY

Land use planning and transportation planning influence one another. Mobility includes the movement of people and goods through a community via roadways, sidewalks, bike lanes, pathways, and transit facilities. The transportation and mobility section of the Existing Area Plan assesses existing conditions in the Green Valley and determines key opportunities and challenges for future transportation and mobility planning efforts.

REGIONAL CONTEXT

The Green Valley Area is in the Flint Hills Metropolitan Planning Organization (FHMPO) planning area. The FHMPO was created after the 2010 Census when the Manhattan Urbanized Area crossed the 50,000 population threshold. FHMPO was the first new MPO created in the State of Kansas in more than thirty years. An MPO is a regional transportation planning organization and provides access to, and programming for, federal transportation funding. An MPO brings together regional transportation partners to approach transportation planning

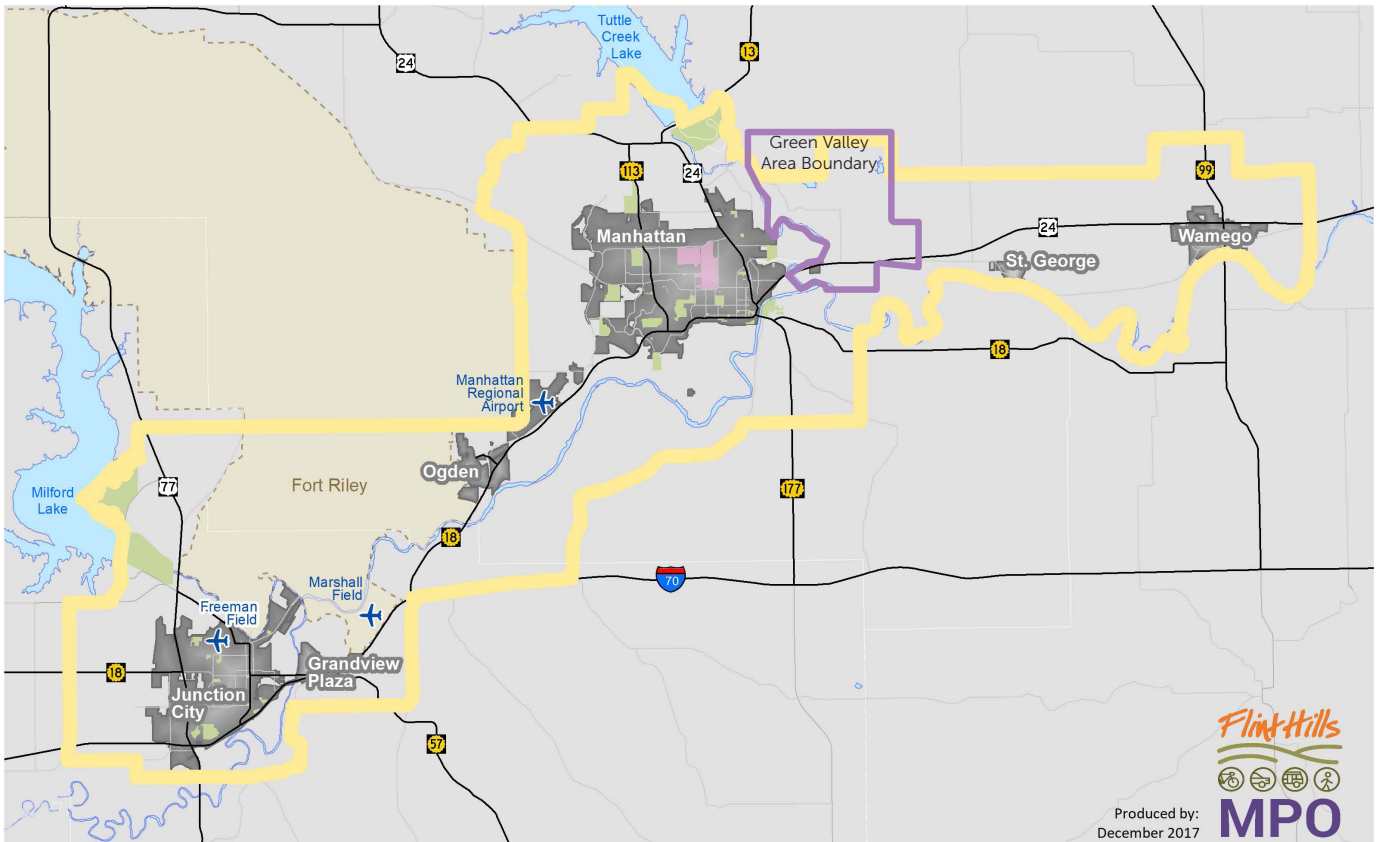
decision making, including the state department of transportation providers, and local jurisdictions.

The Metropolitan Planning Area (MPA) for FHMPO covers a portion of Pottawatomie County and Pottawatomie County elected officials have a place on the FHMPO policy board.

The portion of the County located in their planning area is included in the MPO's travel demand modeling, which forecasts potential trips based on forecasts of population, employment, and land use and is used as an input in transportation project funding prioritization. The majority of the Green Valley Area is included in the FHMPO boundary and is part of their Transportation Impact Planning area boundary as depicted in **Map 5**.

The FHMPO has identified Blue Township as "the largest residential growth area, with upwards of an additional 3,000 single-family housing units and more than 40-acres of commercial and employment development at full build out". The FHMPO adopted the Flint Hills Transportation Plan which guides transportation investments within the

Map 5: FHMPO Planning Area Map



Source: Flint Hills Metropolitan Planning Organization (FHMPO)

FHMPO planning area.

The FHTP identifies the following transportation issues that are relevant to the Green Valley Area as it plans for long term mobility within this boundary:

- Growth in Blue Township is expected to continue at rates higher than the rest of the region. East US-24 is already at capacity and level of service (LOS) will only continue to decline;
- The Big Blue River creates a natural barrier to east/west travel between Riley and Pottawatomie Counties. As such, east/west trips are funneled through US-24 since alternatives are limited. The rivers associated creeks and other water features are a great asset to communities in the region, but they can also act as a barrier to travel, often

requiring an indirect route that adds significant time and distance. In addition, there are many hills that also present a challenge to non-motorized travel. In many cases, there is little that can be done about the steep climbs themselves, but dedicated facilities, which are currently lacking in the region, offer safety benefits and comfort as users climb steep grades; and

- Planned growth in the MPA, especially in Manhattan and Blue Township, may necessitate strategic right-of-way (ROW) preservation as guided by be an adopted future roadway network to accommodate long-term transportation demands.

FHMPO's 2018-2021 Transportation Improvement

Program (TIP) is the federally required funding document that contains all federally funded and/or regionally significant transportation projects that may be implemented in the MPA in the next four years. Given the current and expected residential growth in the Green Valley area, the Flint Hills Transportation Improvement Plan (FHTIP) has included recommendations in the area. Figure 7 highlights projects completed or included in the TIP for the Green Valley Area

ROAD SYSTEM IN THE GREEN VALLEY AREA

Roads are categorized by their function, whether to serve a neighborhood or to move traffic from one side of a community to the other in a relatively short amount of time. Other factors in determining

functional classification are the number of driving lanes, speed limits, and the number of property access points along the roadway. **As seen in Map 6:** 2013 Kansas Department of Transportation Functional Classification Map, while the majority of roads in Pottawatomie County are classified as local roads, there are also a high number of major and minor collectors. US-24 is the only principal arterial in the County.

KDOT also classifies streets located in urban boundaries and has included a portion of the Green Valley Area in the City Manhattan Road Classification Map. **Map 7** shows the Green Valley portion of the KDOT map. This map indicates that KDOT classifies Green Valley Road, Junietta Road, Military Road, and Excel Road as major collectors, and Elk Creek Road, Harvest Road, and Lake Elbo Road as minor collectors. In addition US-24 is a principal arterial.

Figure 5: Green Valley Project Location from the FHTIP

TIP #:	FHTIP #:	Project Name:	Length (mi):					
2-17-2016	49	Intersection: US-24 & Green Valley Rd & Green Valley Trail	0.00					
KDOT #: KA 4490 01	Project Sponsor: KDOT	Class: Principal Arterial	Project Type: Expansion					
Location: US-24 & Green Valley Road Intersection		Bike/Ped? Yes	ITS? No					
FFY	Phase	Fed	State	Local	Total	Source	AC	Description:
2018	CONST	2,880.0		720.0	3,600.0	TA & NHPP		Construct dual left turn lanes for EB US-24 traffic turning NB onto Green Valley Rd. Install new signals and widen Green Valley with multiuse path.
		2,880.0		720.0	3,600.0			5-17-2016

TIP #:	FHTIP #:	Project Name:	Length (mi):					
1-01-2018		US-24 Frontage Road SE of Excel Intersection	0.16					
KDOT #: KA 4596 01	Project Sponsor: Pottawatomie County	Class: N/A	Project Type: Expansion					
Location: South side of US-24, South and East of Excel Rd		Bike/Ped? No	ITS? No					
FFY	Phase	Fed	State	Local	Total	Source	AC	Description:
2019	CONST	-	300.0	6.3	306.3			Construct a frontage road south of US-24 to access properties south and east of Excel Rd and eliminate access points on US-24
2-2018 (C19)		-	300.0	6.3	306.3			

TIP #:	FHTIP #:	Project Name:	Length (mi):					
4-22-2018		US-24 & Crown C Intersection	0.23					
KDOT #: KA 5133 01	Project Sponsor: KDOT	Class: Principal Arterial	Project Type: Safety					
Location: US-24 & Crown C, approximately 1 mile east of Manhattan city limits		Bike/Ped? No	ITS? No					
FFY	Phase	Fed	State	Local	Total	Source	AC	Description:
2020	CONST		1,009.0		1,009.0			Add left turn bay for EB/NB on US-24 with 3.4 access at Crown C. SB right turn lane on US-24. Entrance north of US-24 will be realigned with Crown C. Includes extension of frontage road
4-2018 (C20)			1,009.0		1,009.0			

- Excel Road Capacity Improvements to widen Excel Road to three-lanes including sidewalk to the west side of Excel. Improvements Cost (\$2,729,000) **Project complete.**
- Excel Road Turn Lanes – Add turn lands on US-24 at Excel road and widen Excel Road to Elk Creek Road including bike path. Project Cost (\$966,700) **Project complete.**
- Green Valley Road from Nellie Drive to Junietta. Project is road widening (3-lanes) and pavement Project Cost (\$1,944,400).
- The US-24 and Green Valley Road intersection and Crown C improvement projects are being sponsored by the Kansas Department of Transportation (KDOT). The frontage road to the southeast of the US-24 and Excel Road Intersection are being sponsored by Pottawatomie County.

Source: Flint Hills Metropolitan Planning Organization (FHMPO)

The functional classification of roads range from local roads to interstates. As seen in **Figure 6**, as the functional classification of the road increases, the travel mobility increases while the access decreases. For example, an interstate has controlled, limited access, only allowing motorists to enter and exit the facility at designated points. The interstate has a higher level of mobility (at least in its design – congestion is another matter), allowing higher speeds along the facility, as there is an increased proportion of through traffic. Minor arterials, collectors, and local streets have a high degree of access and are designed for lower levels of mobility.

Road System Conditions

The Road and Bridge Division of Pottawatomie County is responsible for over 1,180 miles of roads in the unincorporated areas of Pottawatomie County and approximately 1,360 bridge and drainage structures. Many of the County’s roads, like those of many rural counties across the nation, were originally designed to handle rural traffic, farm to market. Increasingly, roads near the US-24 Corridor are carrying exurban and suburban residential traffic at levels for which they were not designed. It is estimated that 85 percent (nearly 1,000 miles) of the County’s road miles are gravel or dirt roads.

A gravel road has a maximum capacity of 50 vehicles

per hour before grading cannot maintain a safe travel surface. Currently, a significant number of gravel roads between Wamego and Manhattan exceed this capacity. Elm Slough Road, Salzer Road, Flint Rock Road, Rockenham Road, and Chapman Road all have traffic counts that exceed 350 vehicles per day, far beyond the carrying capacity of a gravel road. By contrast, a modern paved road should be able to handle nearly 2,400 vehicles per hour and maintain an adequate level of service.

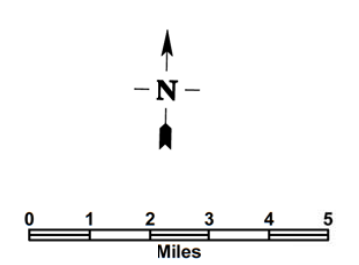
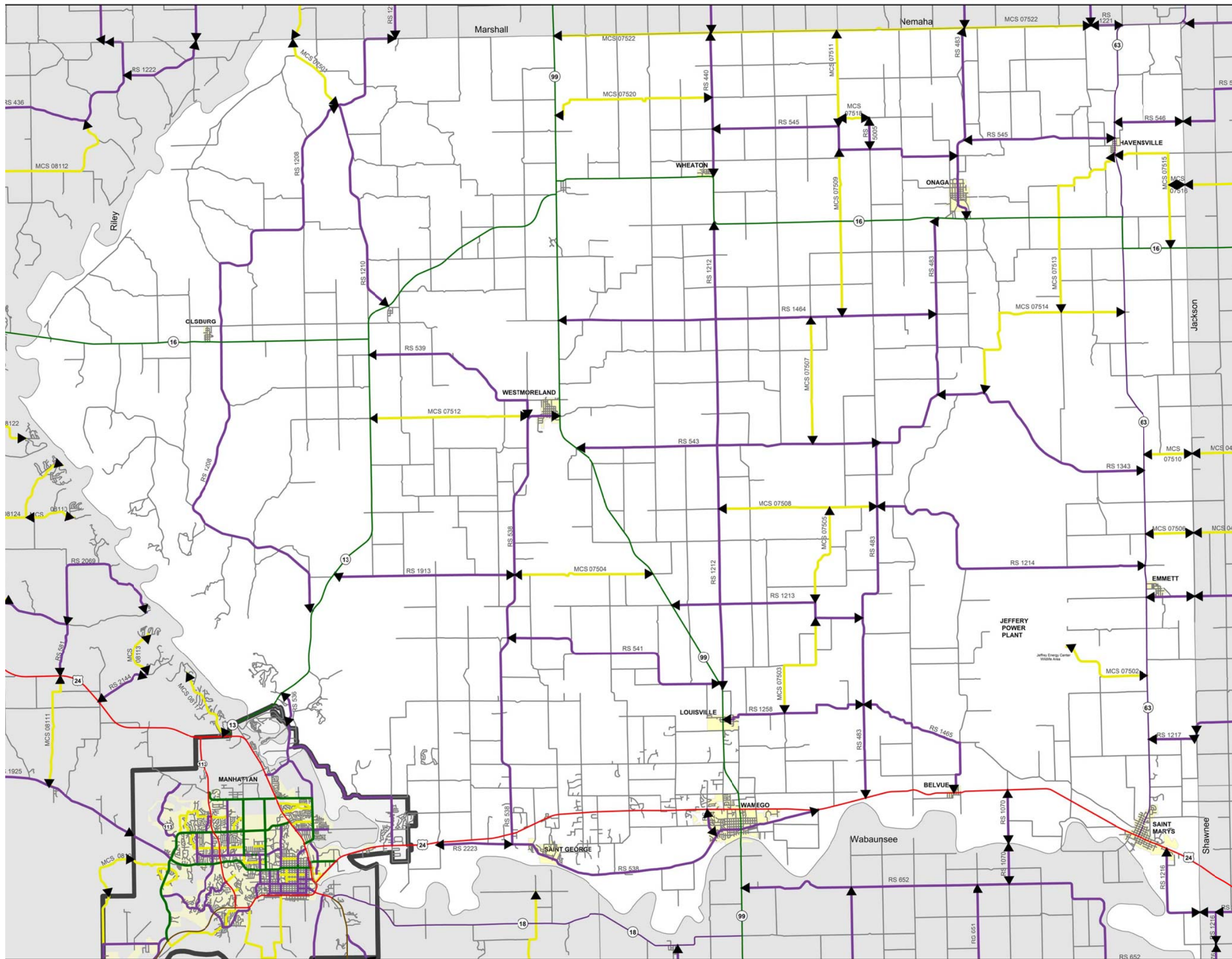
Currently, nearly 50 of the County’s roughly 183 miles of paved roads have surfaces older than 16 years. In order to adopt a 15-18 year overlay schedule for county roads, the County does between 10 and 12 miles of overlays each year. Prioritization of road overlays is based almost entirely on the age of the asphalt surface. The 2018 asphalt contract includes 10.1 miles of road overlays, 0.83 miles of new asphalt, and 0.7 miles of road patching.

In-house and upcoming projects in the Green Valley area include the Green Valley Road and US-24 intersection, the US-24 and Crown C Circle improvements, and the Limerick Lane frontage road.

During the public input process residents noted that gravel roads do not hold up well with the increased traffic from development and need to be paved as new developments are approved.

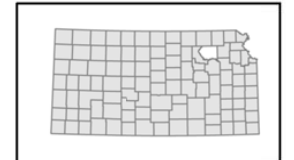


Map 6: 2013 Kansas Department of Transportation Functional Classification Map



- FUNCTIONAL CLASSIFICATION**
5 - 10 YEAR FUTURE
- Interstate
 - Other Freeway/Expressway
 - Other Principal Arterial
 - Minor Arterial
 - Major Collector
 - Minor Collector
 - Local Road
 - City Limits
 - Urban Boundaries
 - Wildlife Area

COUNTY APPROVAL 06-19-13
F.H.W.A. APPROVAL 10-01-13



Functional Classification
Map of
Pottawatomie County 75

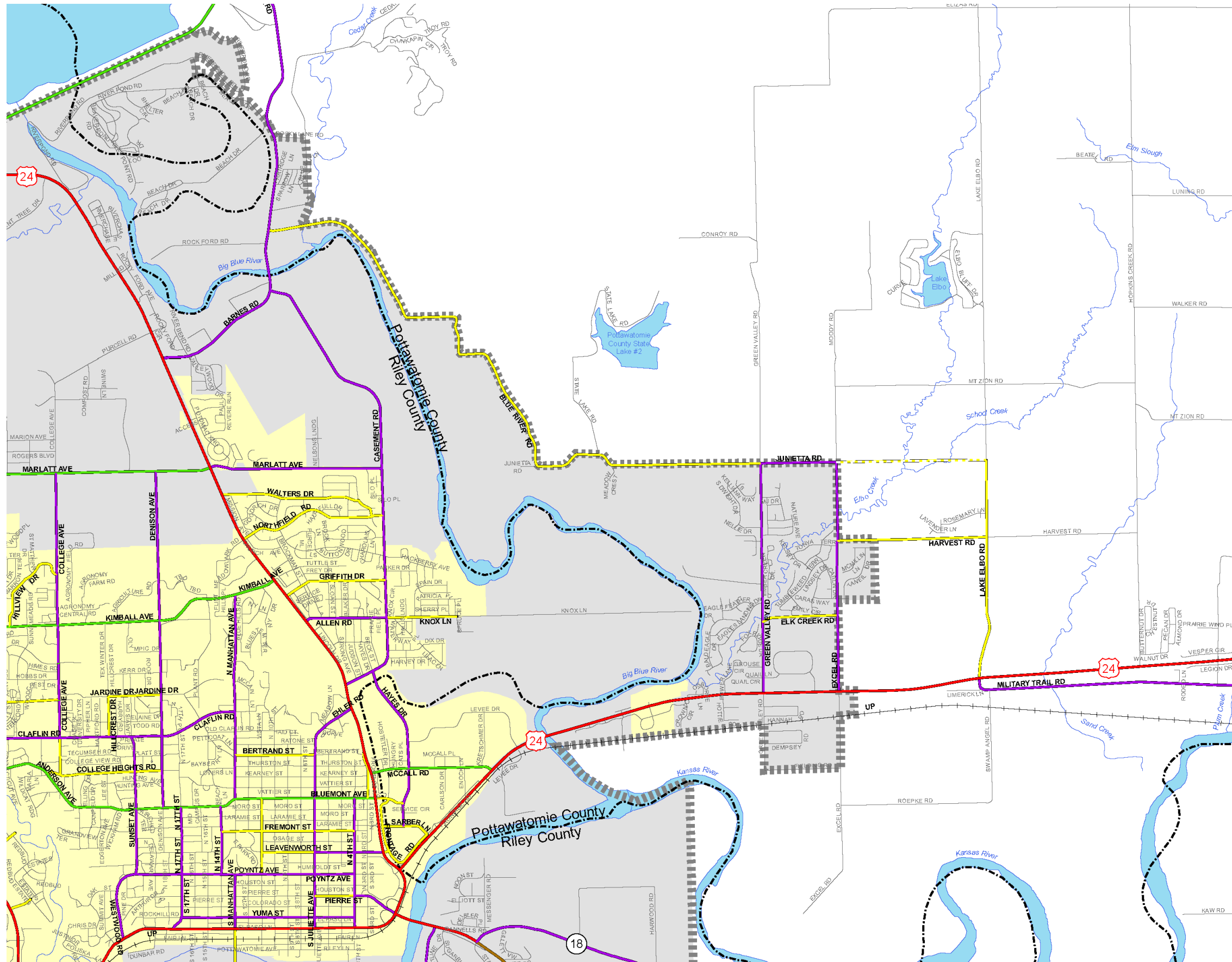
KANSAS
PREPARED BY THE
KANSAS DEPARTMENT OF TRANSPORTATION
BUREAU OF TRANSPORTATION PLANNING
IN COOPERATION WITH THE
U. S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION



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Map 7: 2013 Kansas Department of Transportation Functional Classification Map



HIGHWAY MARKERS

- Interstate Numbered Highway
- Kansas Turnpike Authority
- U.S. Numbered Highway
- State Numbered Highway

FUNCTIONAL CLASSIFICATION 5 - 10 YEAR FUTURE

- Interstate
- Other Freeway/Expressway
- Other Principal Arterial
- Minor Arterial
- Major Collector
- Minor Collector
- Local Road

BOUNDARIES

- 2010 Urban Cluster
- Proposed Urban Boundary
- Urban Boundary
- Corporate City Limit
- County Boundary
- State Boundary

DRAINAGE

- Major River
- Lake, Reservoir, or Pond
- River or Major Drainage

OTHER

- Proposed Roadway
- Railroad

CITY OF
Manhattan

PREPARED BY THE
KANSAS DEPARTMENT OF TRANSPORTATION
BUREAU OF TRANSPORTATION PLANNING
IN COOPERATION WITH THE
U.S. DEPARTMENT OF TRANSPORTATION
FEDERAL HIGHWAY ADMINISTRATION



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COMMUTING

The average commute time to work for residents in the Green Valley Area is 20.8 minutes with 44 percent traveling less than 10 miles to get to work. (ACS, 2012-2016 5-year average)

Most workers in the Green Valley Area get to work by driving in their vehicle alone (86.1 percent), with an additional 8.9 percent carpooling in a vehicle and 0.4 percent (9 individuals) using public transportation to get to work (0.1 percent). (ACS, 2012-2016 5-year average)

Another way of thinking about commuting is to examine how many people commute from the Green Valley Area to an employer located outside of Pottawatomie County. There are an estimated 1,809 commuters in the Area and 287 or 16 percent of these commuters also work in Pottawatomie County. The majority, 1,489 individuals or 82 percent, work outside of Pottawatomie County.

US-24 CORRIDOR

US-24 is the primary east-west corridor through Pottawatomie County and it has been experiencing increased traffic demands due to the population growth along the corridor.

In 2009 a Corridor Management Plan was completed for US-24 from Manhattan to just east of Wamego. Partner agencies in the study included Pottawatomie County, the Kansas Department of Transportation, the City of Manhattan, the City of St. George, and the City of Wamego.

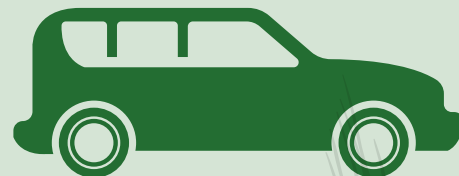
The impetus for the plan was the rapid growth experienced along the corridor, and the resulting strain on the infrastructure. The plan included an assessment of infrastructure, a market analysis, land use assessment, and an implementation plan. The plan also included extensive public involvement. Recommended improvements along the corridor,

HOW THE GREEN VALLEY GETS TO WORK



**DRIVE IN
CAR ALONE**

86.6%



CARPOOL

9.0%

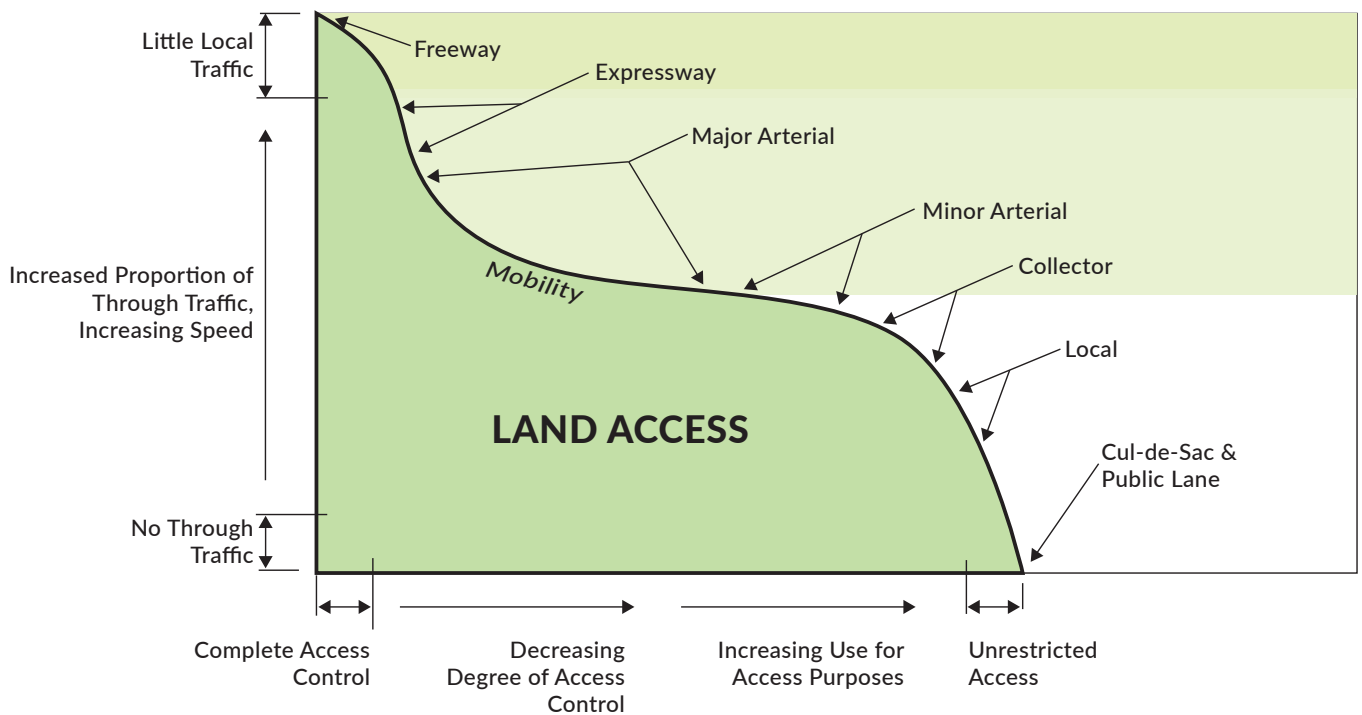
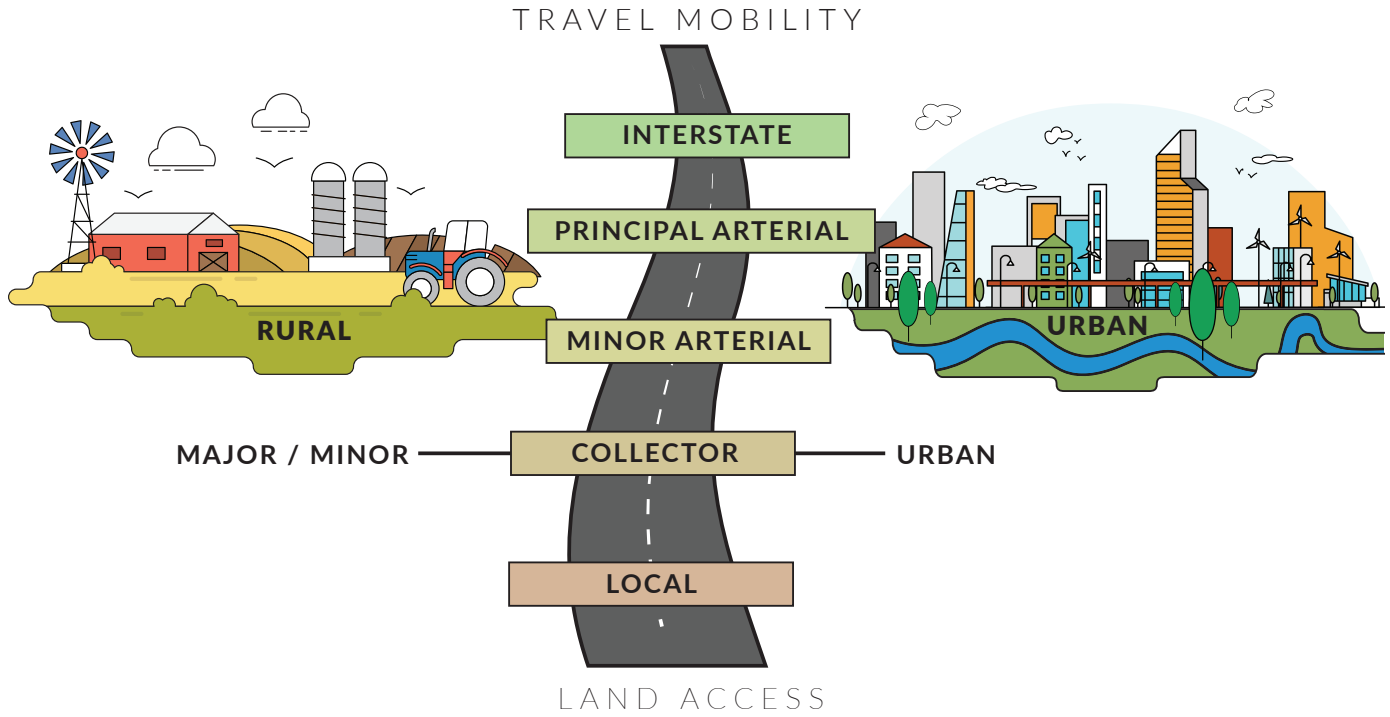


WALK

0.1%

Figure 6: Relationship Between Mobility and Land Access

How Do Roads Function?



Source: Kendig Keast Collaborative

which may be found in the implementation section of the plan, included turn-lane improvement, interchange improvements, changes to speed limits, and more.

Traffic on US-24

In 2012, the FHMPPO performed a Bluetooth analysis of traffic patterns for specific routes in their jurisdiction. One of the corridors studied was US-24 near the Blue River crossing and heading east through the Green Valley Area. What this study illustrated is that there were 23,406 vehicles traveling over the Blue River bridge per day.

More recent traffic estimates from the Pottawatomie County EDC show that there are now 25,500 vehicles traveling through this same corridor. For an increase of almost 2,000 trips per day in the last 7 years. As residential development continues in the area this number will continue to increase as this bridge is the only major traffic crossing between the Blue Township area and the City of Manhattan.

Transportation Safety

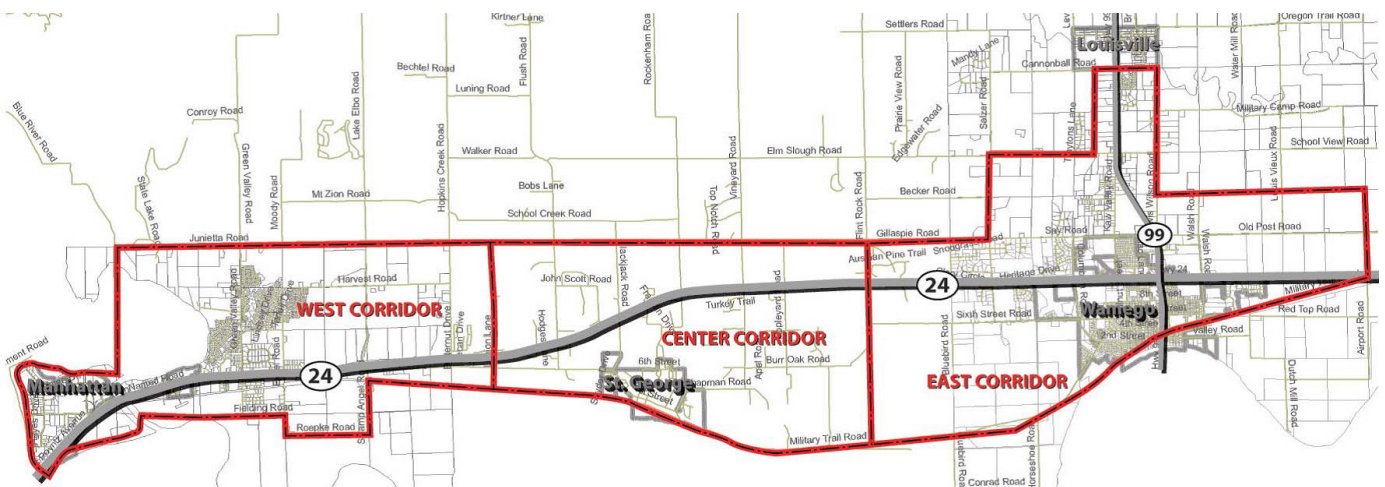
The FHMPPO released a summary of Pottawatomie County Crash data from the 2011-2017 time frame. Of the 1,991 crashes observed 53 percent were

caused by animals and removed from the reporting. One of the focus areas of this report was the US-24 corridor.

Map 9 above shows that the number of non-animal related accidents is high on US-24 at intersections of major collectors (as indicated by the darker orange and red colors). Some of highest amount of accidents occur in the Green Valley Area section of US-24 which corresponds with the increases in daily trips across the Blue River on this route.

During public meetings, attendees mentioned that the number of curb-cuts and intersections on US-24 create safety concerns and exacerbate the existing traffic issues. **Map 10** shows the location of intersections and curb-cuts on the portion of US-24 in the study area. The Approximate two-mile stretch of road from the Blue River to Excel Road has 10 full intersections (two with traffic signals), three U-turn intersections, and 32 property private property access points for a total of 45 various ingress and egress points. While US-24 is classified as a principal arterial, the amount of curb-cuts and intersections make this road function as more of a collector street and affect this arterial's ability to function at an optimal level of service.

Map 8: US-24 Corridor Management Plan Study Area



US-24 Corridor Plan and the Green Valley

There were specific goals related to the west corridor section of US-24 and specifically the following goals for the Green Valley Area:

US-24 from Blue River Bridge to Green Valley Road Plan - partners should consider consolidating three of the seven existing median openings in this section and upgrading the remaining median openings to provide adequate deceleration and acceleration lanes for left turn and right turn movements.

This action includes reconstruction of the intersection with Crown Circle to provide proper access.

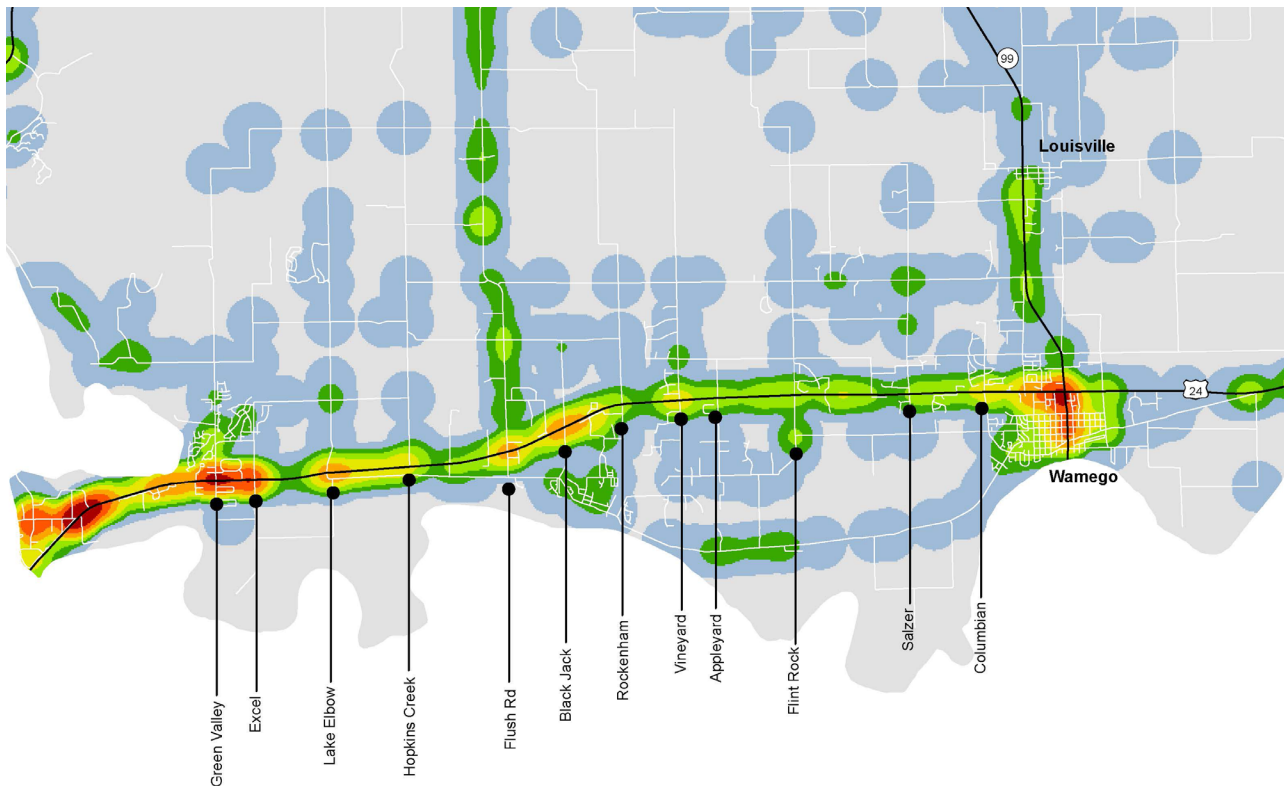
Green Valley Road and US-24 Intersection – The signal timing at this intersection should be reviewed to confirm it is functioning efficiently for the existing traffic volumes. After analyzing the existing traffic count information, the team determined that a southbound right-turn lane should be constructed on Green Valley Road to improve the function of this intersection. Additionally, field reviews indicate the eastbound left-turn lane on US-24 should be extended to remove turning vehicles from the through traffic flow.

US-24 from Green Valley Road to Excel Road – Plan partners should consider consolidating two of the three existing median openings in this section and upgrading the remaining median openings to provide adequate deceleration lanes and median channelization to allow right in - right out - left in movements at the intersection with Green Valley Parkway / Cemetery Drive.

US-24 from McCall Road to Green Valley Road (including Blue River Bridge) – Widen US-24 to provide six through lanes and required turn lanes to serve the expected 20 year design traffic volume of about 37,500 vpd along this section. The Blue River bridge would also need to be widened and raised to meet 100-year flood standards.” A task force of participating jurisdictions has continued to meet on a regular basis since the completion of the corridor plan and several of the recommendations from the corridor plan have been implemented. Despite this progress, the congestion and safety issues along the corridor persist and were mentioned as a key concern during area plan town hall and community survey activities.



Map 9: US-24 Corridor - All Crashes 2011-2017



 US 24 Corridor - All Crashes: 2011 - 2017

PT_Crash_US24

PUBLIC TRANSPORTATION

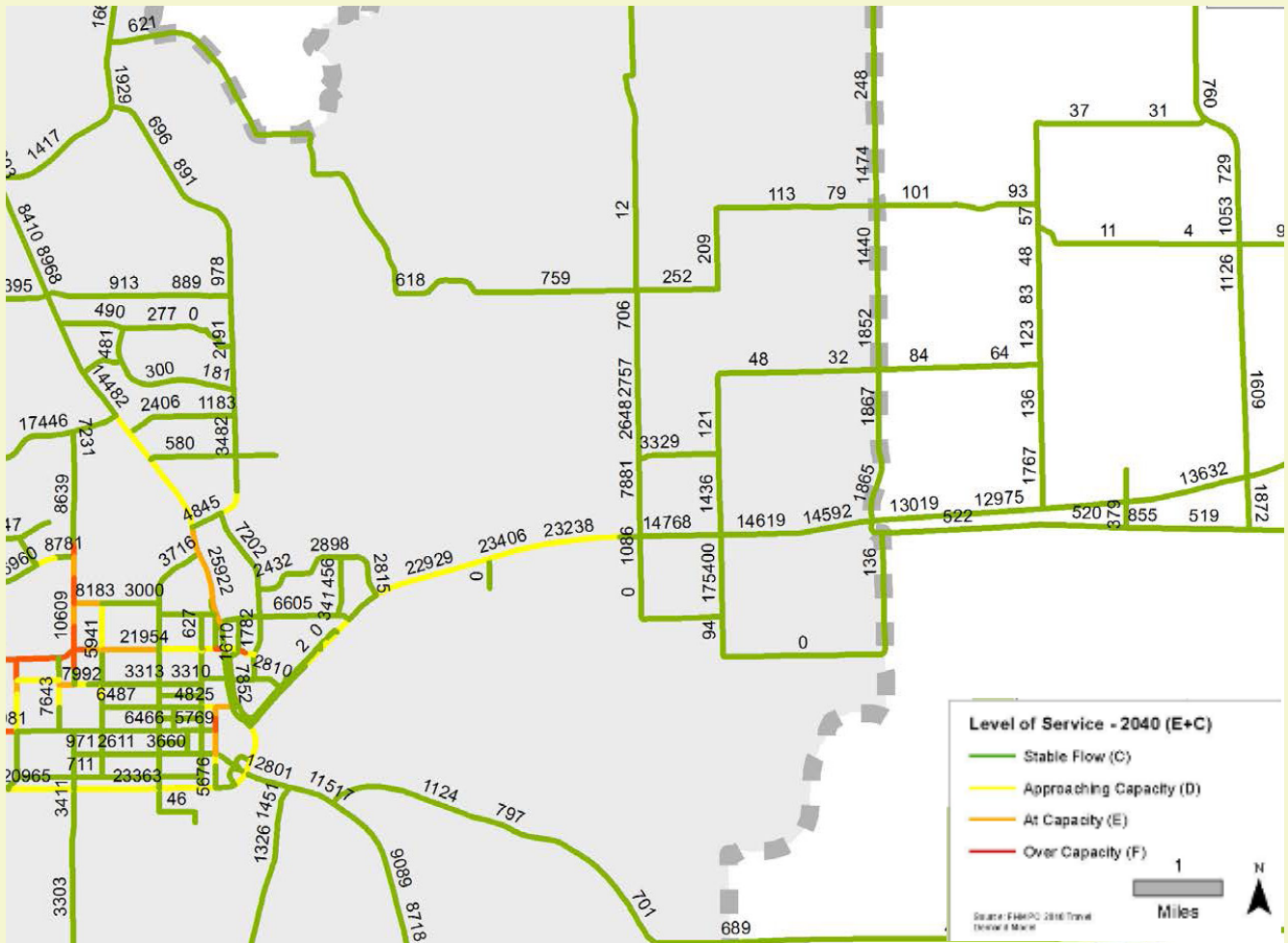
Pottawatomie County provides demand response transit service throughout the County. Demand Response service (as opposed to fixed route service) operates on an as-needed basis, with residents calling to schedule a ride. The service is used for non-emergency medical, financial, social service, grocery and recreation trips. The service has a suggested donation range based on the mileage of the trip, ranging from \$1.00 for local trips to \$5.50 for round trips of 70 miles or greater. The service is also partially funded by the Kansas Department of Transportation (KDOT).

- The Flint Hills Area Transportation Agency (FHATA) in Riley County also operates service

in Pottawatomie County. The Green Valley is eligible for this service. Most localities in the area are within 3-miles of the City of Manhattan limits and are charged a fare of \$2.00. The demand service is available from 7:00 a.m. through 5:00 p.m. Monday through Friday.

- The Flints Hills Area Transportation Agency (FHATA) has identified that a route modification of the Wamego Regional Shuttle to serve Blue Township may be warranted.

Figure 7: Increasing Traffic and Commuting Flows on US-24

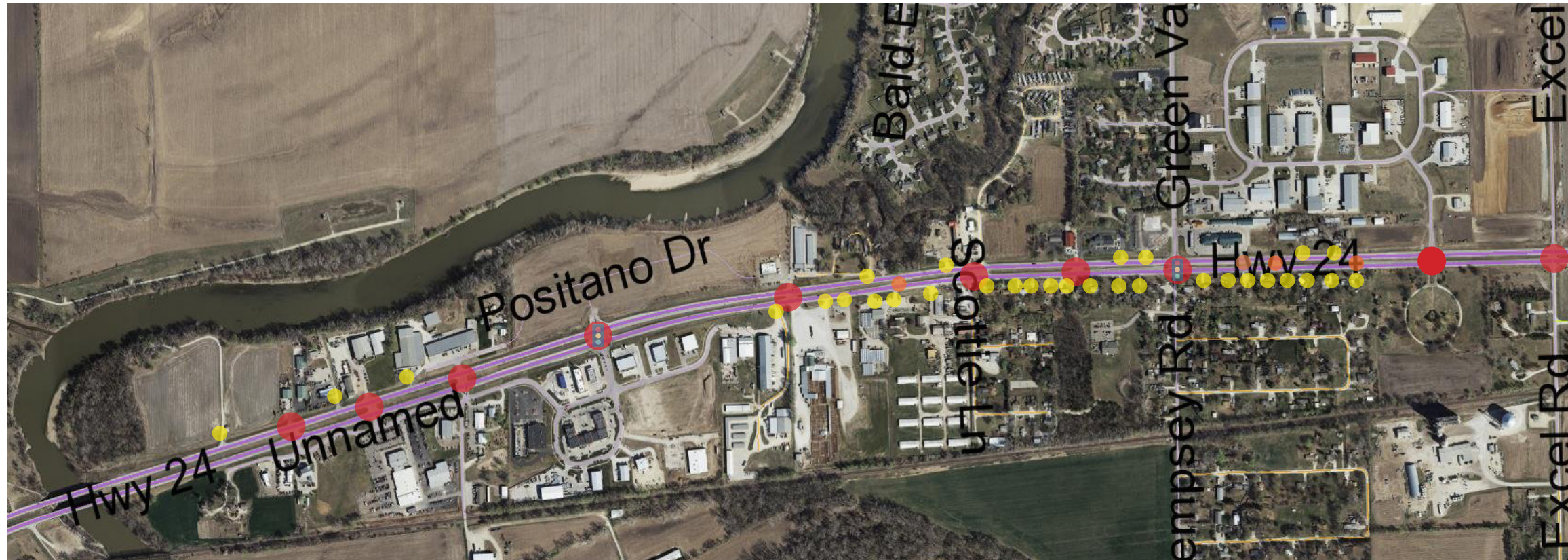


2018

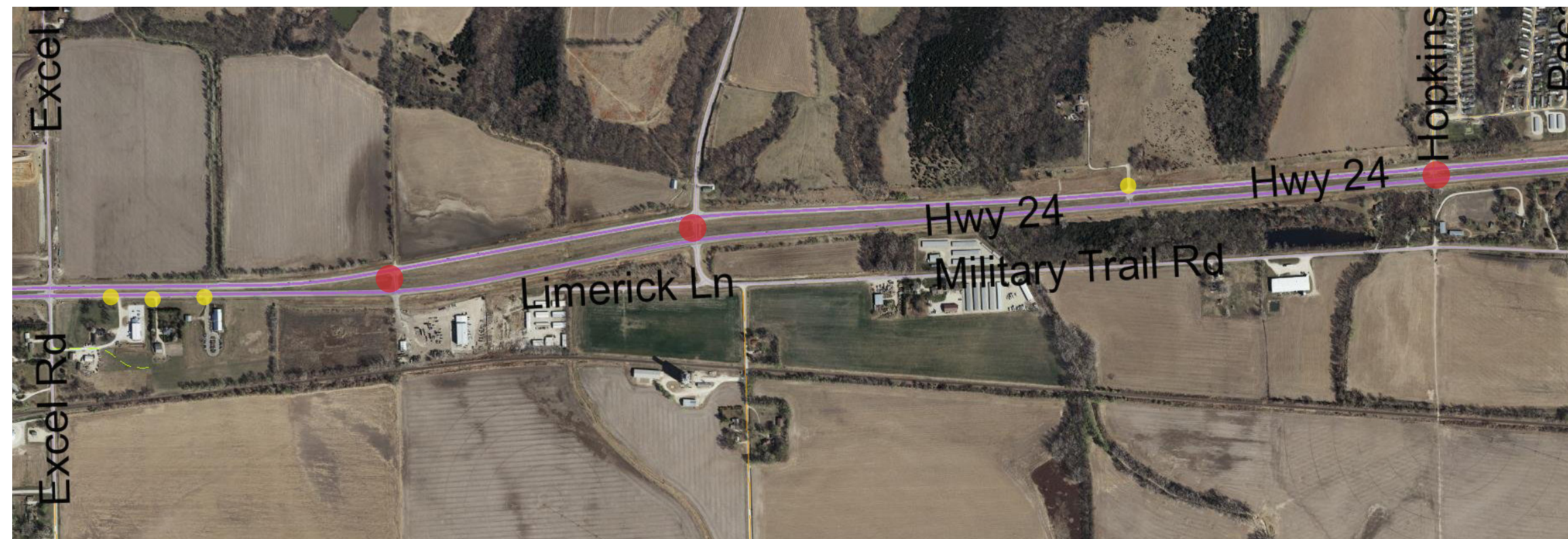
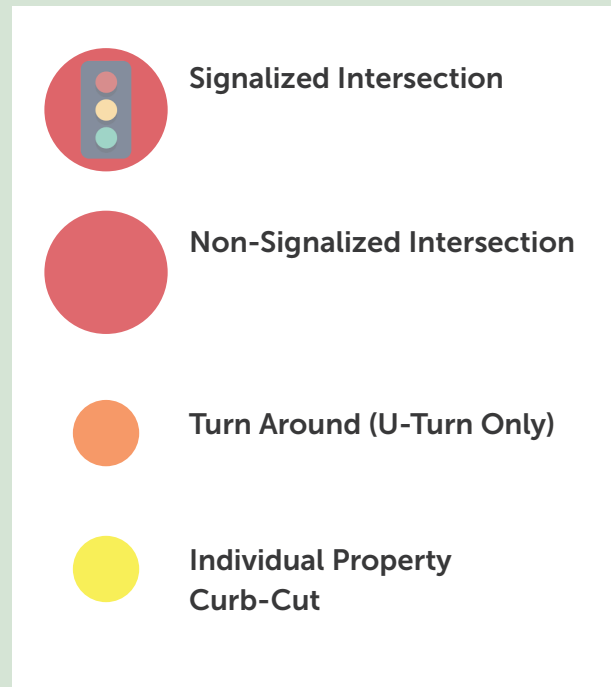
25,500 Total Vehicle Traffic

790 Heavy Commercial Traffic

Source: Pottawatomie County, KS EDC



Map 10: Location of Intersections and Individual Property Access Points on US-24



Source: Pottawatomie County GIS (Aerial Photo), KKC

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CONNECTIONS TO MANHATTAN

During early engagement discussions the desire for an additional road connection to Manhattan from Pottawatomie County (in addition to US-24, the primary route) came up frequently. Concerns over the existing single route range from emergency service access and flooding concerns to traffic congestion alleviation. Discussions about a potential second route have been ongoing. Questions regarding costs, final location, economic impact, and traffic congestion relief have yet to be fully answered.

In 2009 the US-24 Corridor Study contained a recommendation for a second connection to Manhattan connecting Marlatt Road in Manhattan to Junietta Road in Pottawatomie County. The Study indicated that the connection would be expected to serve 6,000 vehicles per day (vpd) at its eastern terminus with US-24 and 12,000 vpd at the western terminus of Tuttle Creek Blvd.

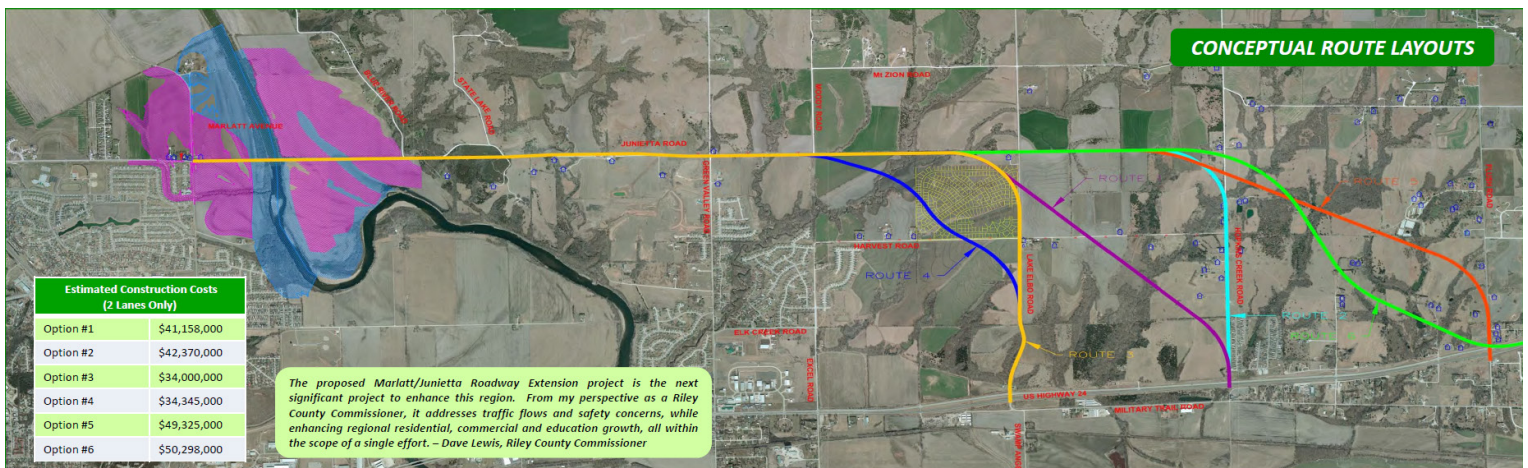
In 2012, Pottawatomie County completed a con-

ceptual route study examining six different options (see Figure 8). The study provided conceptual route layouts, cost estimates for each route, and traffic engineering and analyses.

The FHMPPO developed the region's first traffic demand model (TDM) in 2015. The TDM modeled four scenarios out to 2040: "do-nothing", Blue River crossing at Barnes/Dyer Rd, Blue River Crossing at Marlatt/Junietta Rd, and expansion of US-24 to six lanes. Of these scenarios, only expansion of US-24 to six lanes was shown to alleviate capacity issues.

Finally, the FHMPPO received funding from KDOT for a Bluetooth Origin and Destination Study to collect traffic information primarily along US-24 in Pottawatomie County and Tuttle Creek Blvd in Manhattan. The study found that nine percent of trips originating at Green Valley Rd and US-24 Highway are seen at Tuttle Creek Blvd and Marlatt Rd.

Figure 8: 2012 Conceptual Route Layouts for Second Blue River Crossing



Source: FHMPPO.

ACTIVE TRANSPORTATION

Transportation via walking and bicycling, or “active transportation” is increasingly recognized as an important component of a healthy lifestyle. Walking and bicycling are also popular for recreation, whether in a neighborhood or along nature paths or trails. Currently, many of the local, minor collector, and major collector roads in the Green Valley Area do not have sidewalks or bike trails to connect to local and regional resources. While more recent developments do include internal neighborhood sidewalks.

Although there are currently few dedicated active transportation facilities in Green Valley, a Transportation Alternatives (TA) project was recently (October 2017) awarded by KDOT to Pottawatomie County for implementation in FY 2018-2019. The federal TA program funds pedestrian and bicycle projects throughout the nation.

The Green Valley Road Multi-Use Trail is being sponsored by Pottawatomie County. This means that the County is providing the local match (\$156,262) for the project, while KDOT is providing the remainder of the funding (\$781,310). The Green Valley Road Multi-Use Trail will provide a safe walking and bicycling trail convenient for residents in the Blue Township area of the County. A sidewalk was also recently added to the west side of Excel Road.

GOODS MOVEMENT: RAIL ACCESS

Pottawatomie County is served by two Union Pacific rail lines. Rail remains an important means by which to transport goods. Although there can sometimes





Opportunities:

- The majority of the Green Valley Area is within planning area of FHMPO
- Potential to increase coordination with other transportation entities such as FHMPO, KDOT, Riley County, and City of Manhattan
- Possible new Blue River crossing to connect to the Manhattan area
- As development continues potential for required sidewalks and/or bike trails as part of new subdivision developments
- Potential route modification to Wamego regional shuttle to include Blue Township



Challenges:

- Lack of active transportation and transit options for Area residents
- Congestion and safety issues along key intersections of US-24 corridor
- Lack of multiple routes between Manhattan/Fort Riley from Green Valley Area
- Commuting patterns add to the congestion on US-24
- Lack of sidewalks in residential subdivisions and along minor and major collectors



Key Community Input:

- A second Blue River crossing is desired to reduce traffic congestion and increase public safety
- Traffic Mitigation on US-24 is needed (frontage roads, widen road, new traffic signal at major intersections, align curb-cuts)
- Increase crosswalks and safe routes to school
- Market demand should be examined when new developments are reviewed for approval



Major Accomplishments in Recent Years:

- Awarding to Pottawatomie County of Transportation Alternatives funding for Green Valley Multi-Use Trail
- Implementation of some of the US-24 corridor plan projects



Relevant Plans/For More Information:

- Flint Hills MPO (www.flinthillsmo.org)
 - › Flint Hills Transportation Plan
 - › Flint Hills Transportation Improvement Program
 - › US-24 Bluetooth Study
 - › Marlatt/Junietta Extension Conceptual Route Study
- Flint Hills Area Transportation Agency (ATA) (www.rileycountyks.gov)
- Kansas Department of Transportation (KDOT) (www.ksdot.org)
- Pottawatomie County Public Transportation (www.pottcounty.org)
- Pottawatomie County Public Works Department, Road and Bridge Division (www.pottcounty.org)
- US-24 Corridor Management Plan (www.pottcounty.org)

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The Existing Area 5 | GROWTH CAPACITY AND NATURAL RESOURCES

GROWTH HISTORY AND TRENDS AND FACTORS INFLUENCING GROWTH PATTERN

Pottawatomie County and the surrounding region continue to grow. From 2010 to 2018 the County's total population increased from approximately 21,500 to nearly 25,000 or a 16.6 percent increase. While the entire county's population has grown, population increases are distributed unevenly with the majority of growth happening in the townships along the US-24 corridor. The table below showcases the concentrations of growth in different townships. Some of the largest percentages of population growth are in Blue (30.3 percent), St. George (23.8 percent), and Louisville (19.9 percent) Townships. Cumulatively, this is 74 percent of all the population growth in the County concentrated in these three areas.



Table 3: Population Growth by Township 2010-2018

TOWNSHIP	TOTAL NUMBER OF HOMES BUILT 2010 – 2018
Belvue Township, KS	6
Blue Township, KS	545
Blue Valley Township, KS	9
Center Township, KS	2
Clear Creek Township, KS	8
Emmett Township, KS	7
Grant Township, KS	3
Green Township, KS	13
Lincoln Township, KS	5
Lone Tree Township, KS	5
Louisville Township, KS	76
Mill Creek Township, KS	7
Pottawatomie Township, KS	33
Rock Creek Township, KS	11
Shannon Township, KS	18
Sherman Township, KS	8
Spring Creek Township, KS	5
St. Clere Township, KS	0
St. George Township, KS	244
St. Mary's Township, KS	29
Union Township, KS	18
Vienna Township, KS	3
Wamego Township, KS	12
Pottawatomie County, KS	1,067

Source: Pottawatomie County

The Green Valley area is primarily located in Blue Township with a portion in St. George Township. These two areas experienced the largest share of the County’s growth since 2010, when examining new homes permitted in the County (See Table 3). Out of the 1,067 homes built since 2010, a combined 789 (73.9 percent) are within these two geographies. The Green Valley Area has a current population of 3,983 an increase of 912 since 2010 census and 527 homes have been built since 2010.

The Area’s location directly east of Manhattan, KS and regional access provided by US-24 has led development and growth in this area. Given the amount of green space and recent growth trends in the community, additional development is likely to continue. The uneven growth across townships is displayed in **Table 3**, with townships such as Blue Township experiencing rapid growth (545 home permits from 2010-2018), while other townships such as St. Clere had zero permits in that same time frame.

Rural Water Districts

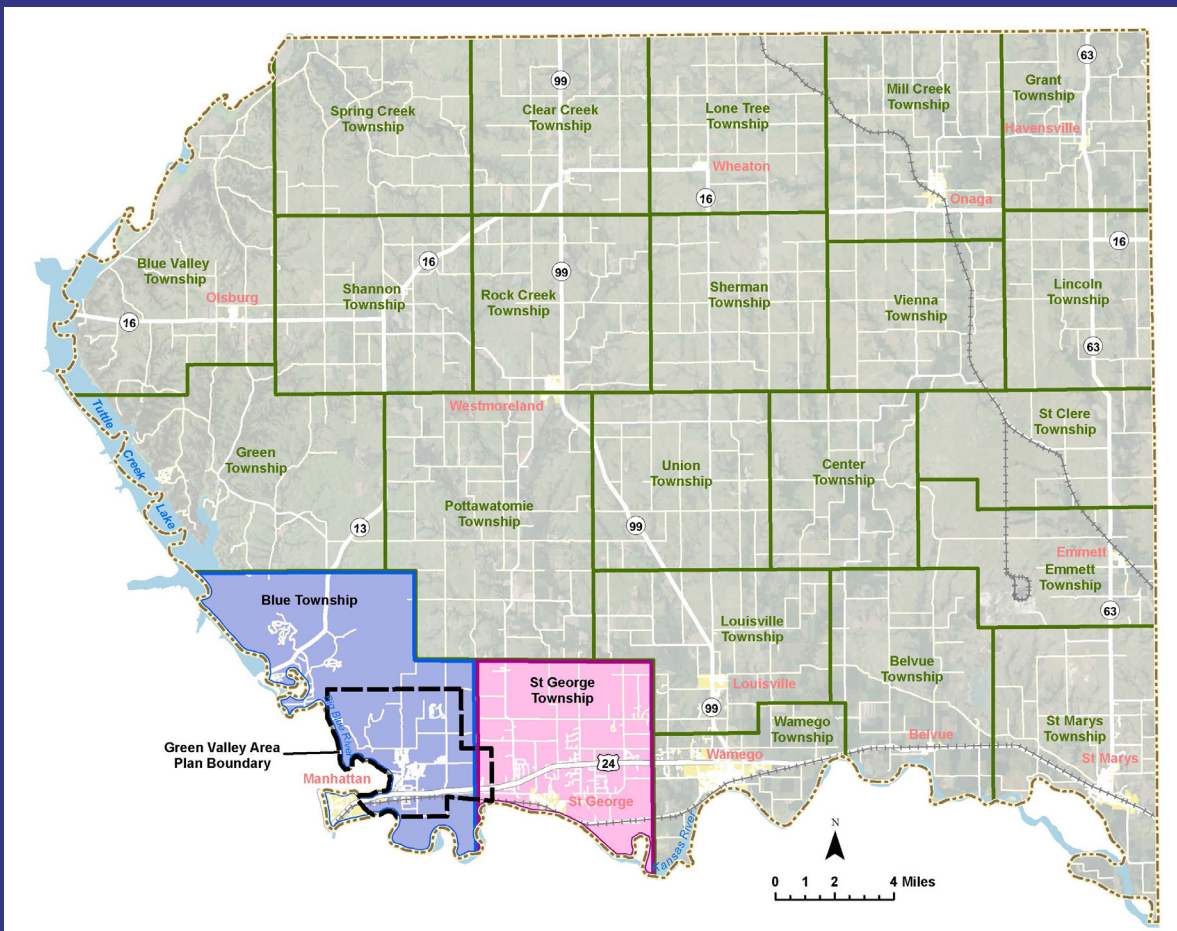
Rural Water Districts supply the majority of Pottawatomie County communities with potable water. There are four Rural Water Districts that supply water to County constituents and Rural Water District 1 (RWD1) serves the Green Valley Area. This District does not provide water to the Timbercreek Subdivision as this development is supplied water from Pottawatomie County. See **Map 12**

Water Usage and Water Quality

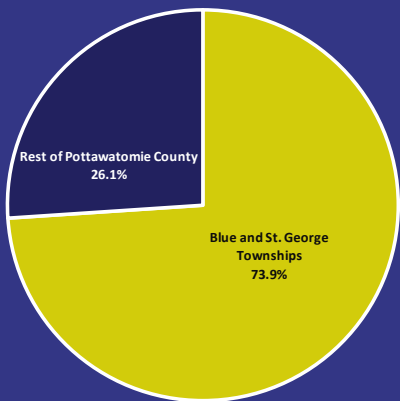
The quality and safety of public drinking water in the United States is governed by the Safe Water Drinking Act. The Safe Water Drinking Act sets standards for containment levels and monitoring requirements and States must report violations of to the Environmental Protection Agency.

During public engagement meetings participants raised concerns about the amount of water supply available for new construction and adequate pressure

BY THE NUMBERS: HOUSING CONSTRUCTION BY TOWNSHIP



Percent of Growth in Blue and St. George Townships



73.9%

of homes built in Pottawatomie County in Blue and St. George Townships

789

Homes built in Blue and St. George Townships between 2010 and 2018

Source: Pottawatomie County

for commercial buildings.

Sanitary Sewer

Pottawatomie County has developed a Sewer Master Plan for the Blue Township Sewer District, (see **Map 13** below), Pottawatomie County Utility Service Area. The current system serves 3,460 people through 1,278 service tap connections.

Facilities include:

- Six lift stations
- Sewer main: 105,20 feet of 6" diameter to 30" diameter pipe
- Forcemain: 22,205 feet of 1.5" diameter to 14" diameter pipe

The study also noted that all sanitary sewer collected within the District gets conveyed to the City of Manhattan's Wastewater Treatment Facility (WWTF) through the Blue Township Lift Station and is allotted up to seven percent of the City's treatment capacity through the Inter-local Agreement. Manhattan WWTF's current design capacity is 11 million gallons with 770,000 gallons per day reserved for this area. This available capacity is well above the current District flow rates (198,000 gpd).

Building upon the future land use assumptions in the 2015 Manhattan Urban Area Comprehensive Plan, the sewer master plan states that there is potential to increase the Area's population by 66,641 residents at full build-out. At the existing two percent growth rate, it would take 120 years to reach this build out scenario. If the growth rate increased to 3.5 percent, it would take 85 years to reach full build-out.

Based on these projections, the Sewer Master Plan consultant team modeled flow, trunk main sizes, and new lift stations and identified Phase 1 capital improvements.

Even though sufficient capacity for growth exists at the treatment facility, the draft Sewer Master

Plan highlighted future capital improvements and a development cost analysis for future phased projects. The full build-out of capital projects, including inflation, totals over \$200 million.

Map 116 illustrates the location and potential phasing of sanitary sewer service extensions.

Emergency Services

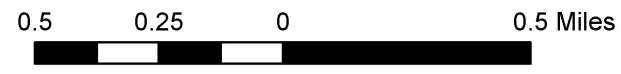
As the Area grows, emergency service providers (EMS, Fire, Sheriff) need to be able to keep up with increasing demand. The County Comprehensive plan through early engagement activities discovered that emergency response times are considered good across the County and that there is a strong desire to ensure that emergency responders receive what they need to keep doing their jobs well.

The Local Emergency Planning Committee (LEPC) is a forum in which the County's many different emergency service providers can come together to coordinate and prepare for emergency responses, including creating the Local Emergency Operations Plan. The committee is set-up to meet quarterly, although early engagement with emergency responders indicated that the LEPC had not been able to convene on a regular basis due to scheduling conflicts and staffing needs. The need for increased communication and coordination among the many different emergency service providers emerged as an early opportunity. The BOCC is also considering a plans for a new ambulance / sheriff sub-station in Blue Township.

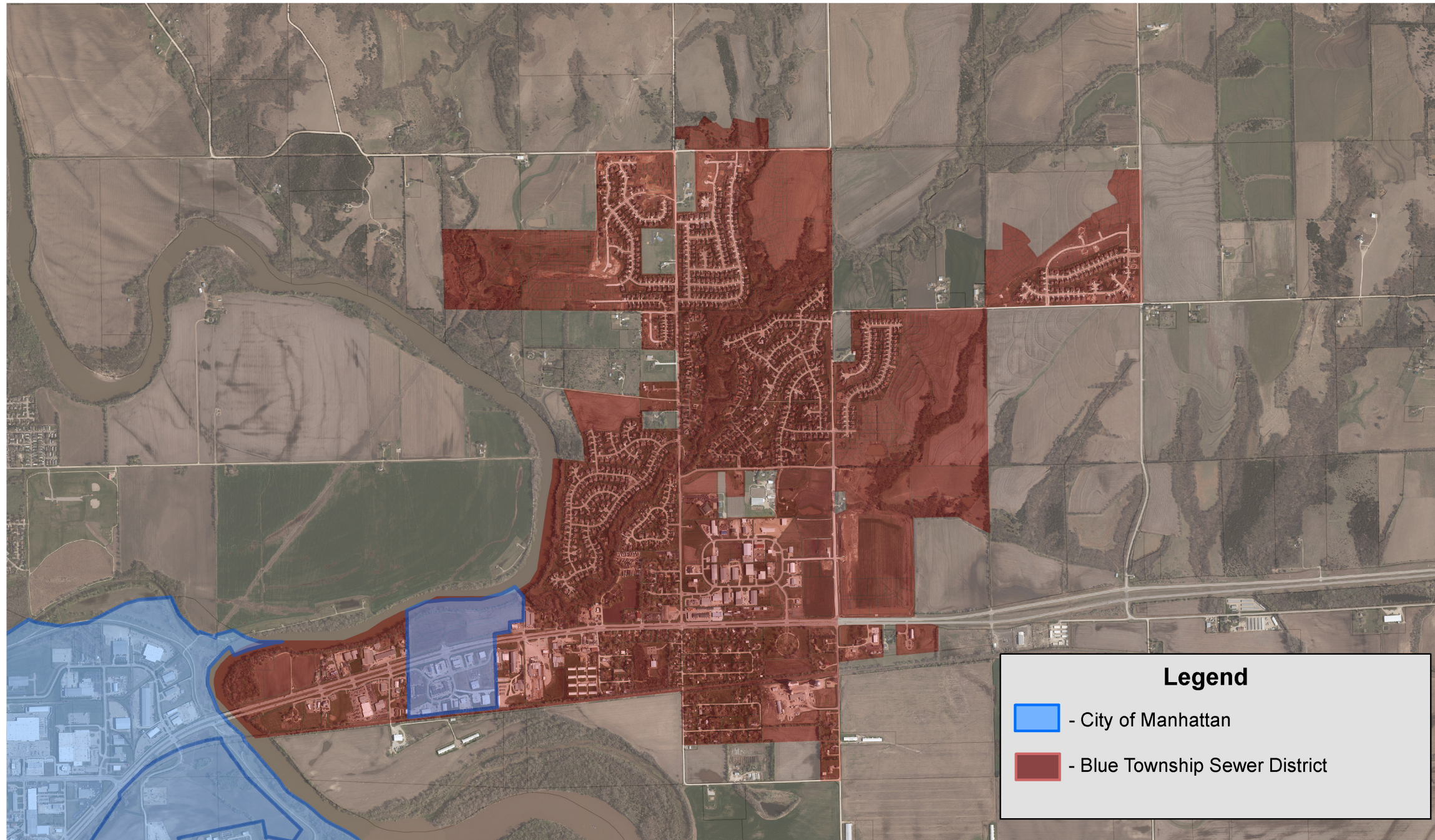
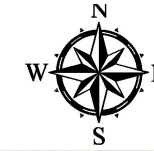
Fire

The County only has one paid fire position, the Fire Supervisor. The rest of the County's fire personnel are volunteers. The Green Valley Area is served by the Blue Township Fire Department and Station 1 located south of US-24 on Scottie Lane.

Sheriff



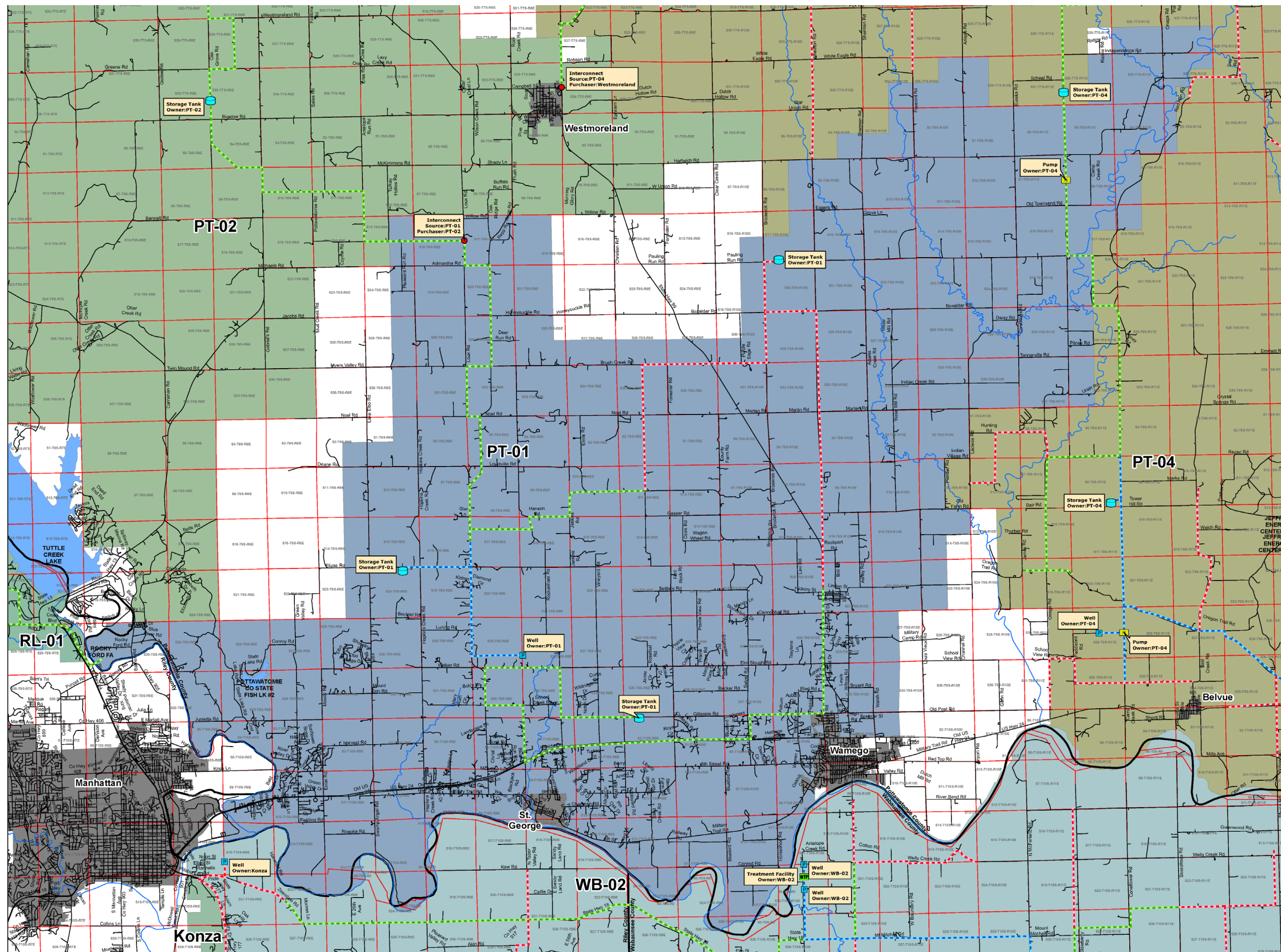
Blue Township Sewer District Boundary



Source: Pottawatomie County.

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Legend

- Interconnect
- Pump
- Storage Tank
- ◆ Surface Intake
- Treatment Facility
- Well

Water Mains

- Less than 4 inch
- 4 to 6 inch
- greater than 6 inch
- Roads
- Streams
- PLSS
- County Boundary
- City Boundary
- Lakes

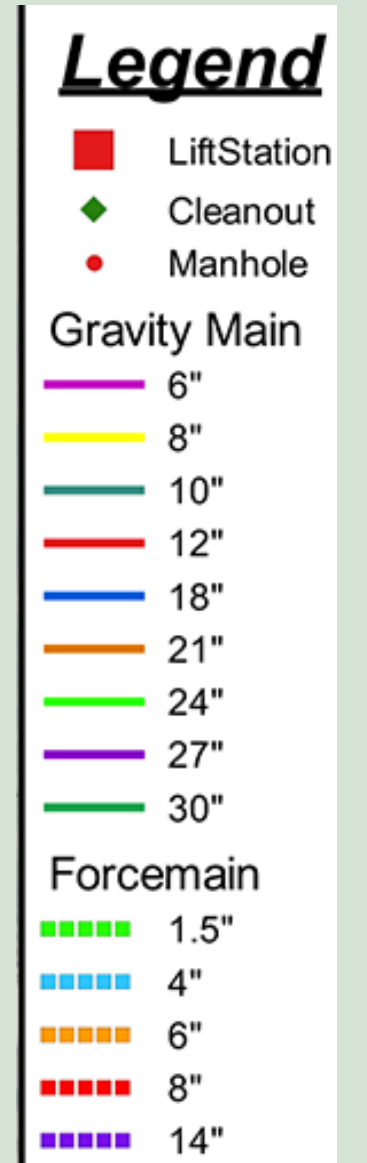
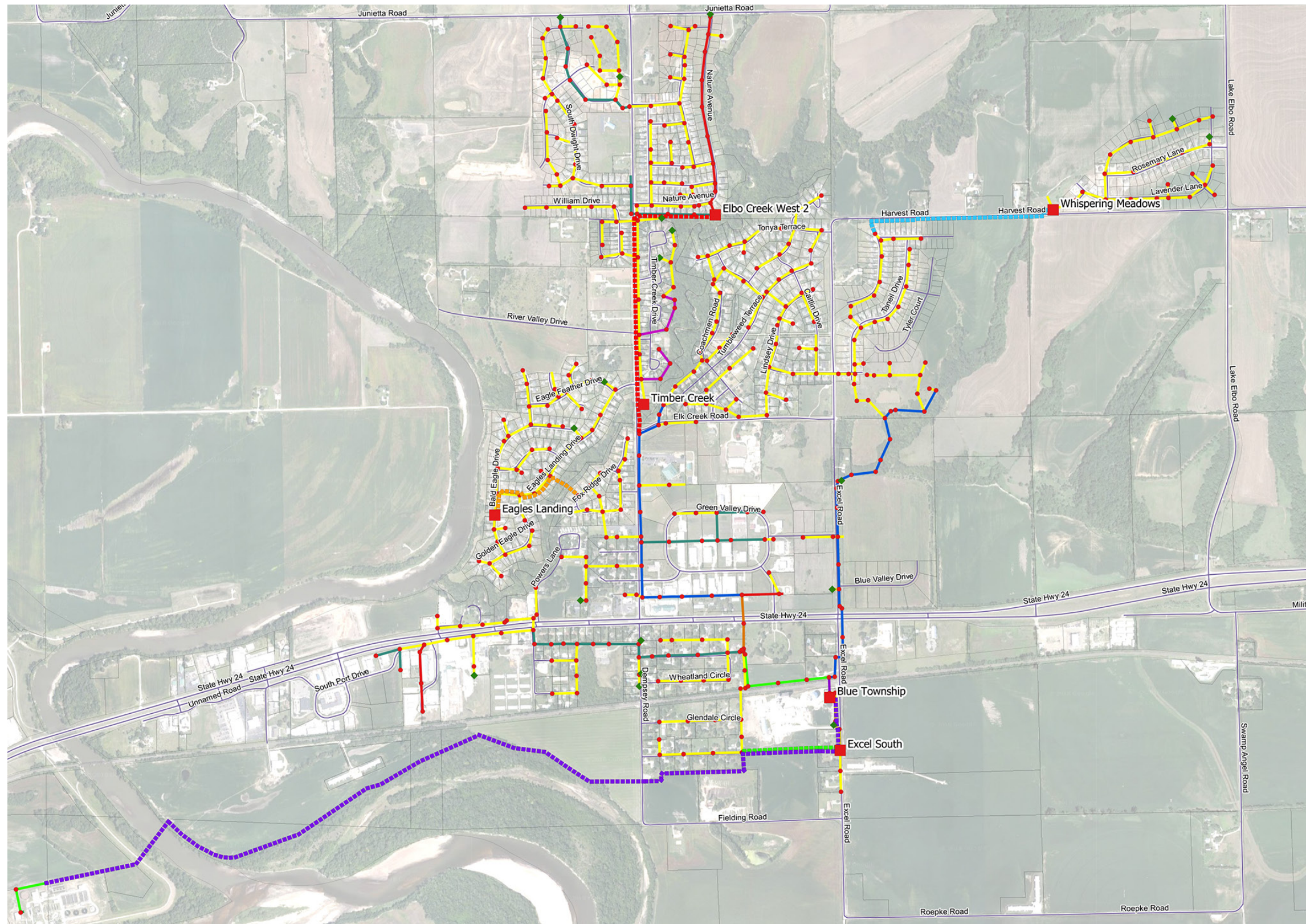


Source: Kansas Rural Water Association.

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Map 14: Existing Sanitary Sewer System

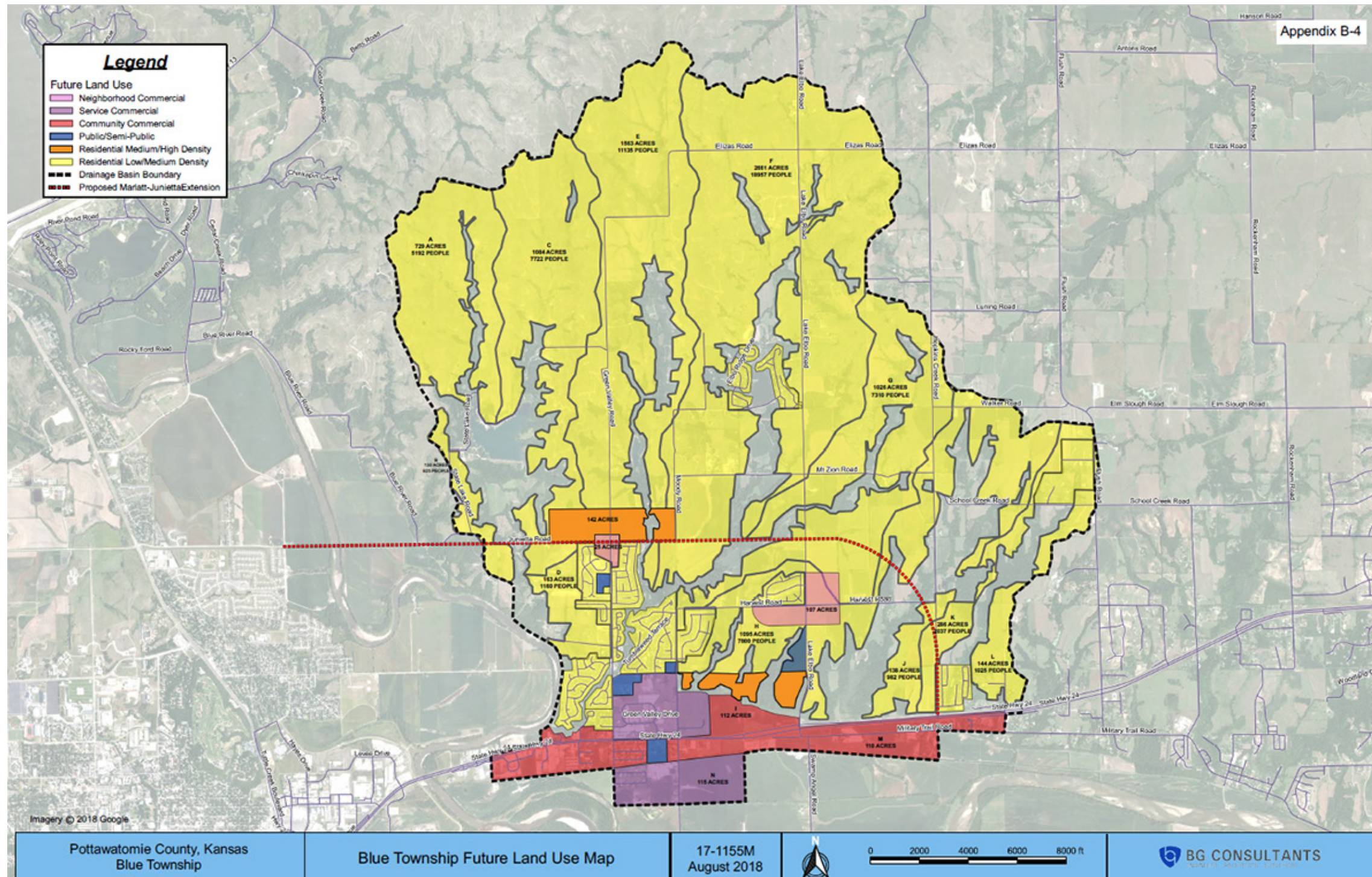


Source: Blue Township, Pottawatomie County Sewer Master Plan 2018

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Map 15: Sanitary Sewer System Full Build-Out Land Use

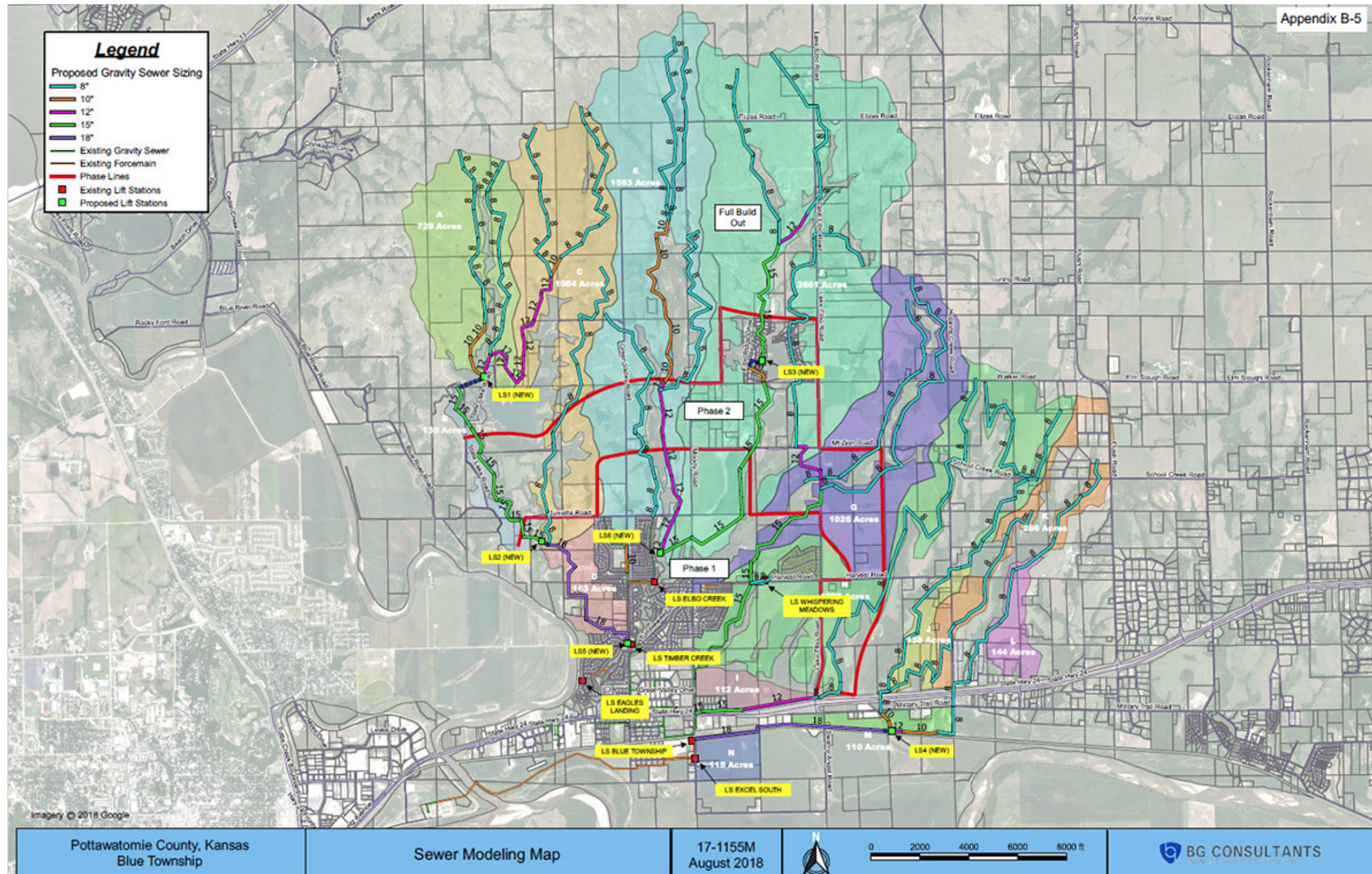


Source: Blue Township, Pottawatomie County Sewer Master Plan 2018

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Map 16: Sanitary Sewer System Full Build-Out Piping



Source: Blue Township, Pottawatomie County Sewer Master Plan 2018

In addition to the County Sheriff's department, there are municipal police departments in the incorporated communities within the County. Riley County serves as the municipal police for the City of Manhattan and also respond to portions of Pottawatomie County when needed. The Sheriff's Office divisions include a records department, communication center, patrol, investigations, the jail, and K-9.

SCHOOLS

The Green Valley Area is located in Unified School District 383 which also serves Riley County and consists of nine elementary schools, two middle schools, and one high school (all located in Riley County). In November of 2018, a bond issue was approved to construct a new elementary school in Blue Township to accommodate residential growth in the area. The School District purchased a property on the south side of Junietta Rd at the meeting point of Moody Rd. for the location of this new school.

As the area continues to grow, demand for these resources will increase and development projects may need to help for their pro-rated share in the cost of improvements.

NATURAL RESOURCES AND RECREATION

Natural Resources and Amenities

Situated in the Flint Hills region of Kansas, this Area offers access to areas of great scenic beauty and access to formal open space and natural areas.

There are several tributaries to the Big Blue and Kansas Rivers that traverse the community and create scenic views, steep slopes, and wooded areas. These features create enticing development opportunities for both residential and recreational uses.

Access to these recreational and natural features could be leveraged to attract new development opportunities, but new constructions should occur in a manner that also protects these assets. Access and development opportunities will increase with a potential second Blue River Crossing to Manhattan.

Green Valley Area Facilities

There are no County park facilities in the Area and formal recreation opportunities are currently limited; however, there are a number of assets and facilities in and adjacent to the community that include:

- Green Valley Community Center (Owned by Blue Township); and
- Pottawatomie County State Park 2 - Pottawatomie County State Park 2 is a 179-acre park with a large lake, boat ramp, campsite and picnic facilities;

The Green Valley Area also provides access to:

- Tuttle Creek Park – Located at the northwest boundary of the neighborhood Tuttle Creek State Park has over 1,200 acres and features boat rentals, a "beach", an archery and firing range, walking and biking trails, a Frisbee golf course and more; and
- Tuttle Creek Lake – Located at the northwest boundary, Tuttle Creek Lake is a reservoir that provides boating, recreation, and potential development opportunities.

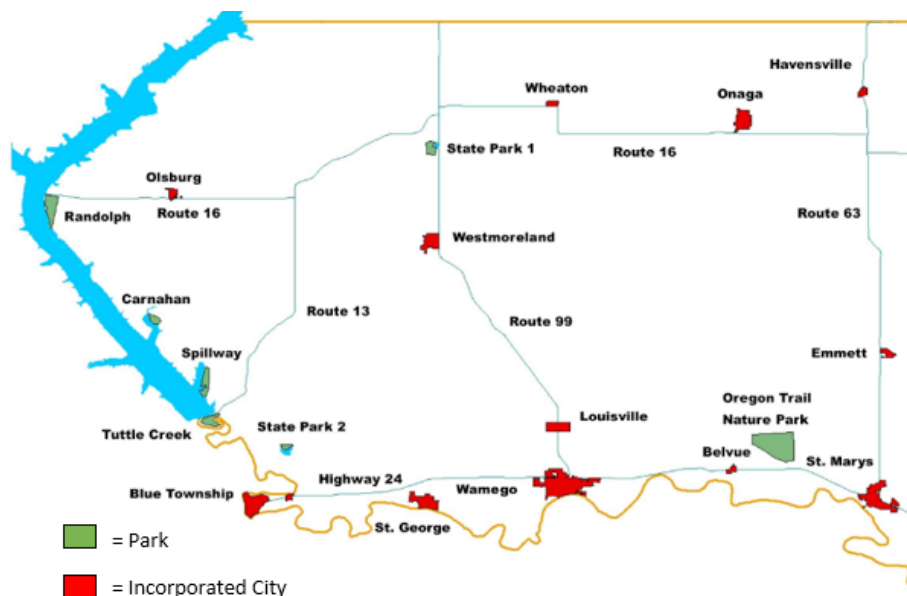
Existing County Regulations

The Pottawatomie County Comprehensive Plan notes the following two significant growth regulations that impact the local study area:

1. The Quarter-Quarter Rule - In the A-1 Agriculture zoning district (81.5 percent), the Quarter-Quarter Rule restricts the total housing density of each quarter-quarter of a section of land (approximately 40 acres) to two; and
2. The Paved Road Requirement - All new County subdivisions are required to be located on a continuously paved road to all entrances of the subdivisions.

Because subdivisions in Pottawatomie County are defined as anything more than two houses in the quarter-quarter section, the Paved Road Requirement and the Quarter-Quarter Rule are intimately tied. The County plan notes that the combination of these two regulations has affected the location of County growth, which is another factor that has increased development pressure on the Green Valley Area.

Map 17: Location of Green Valley Area and Pottawatomie County Parks



FLOODPLAIN AND STORMWATER

Big Blue and Kansas River Floodplain Management Plan: The Big Blue and Kansas River Floodplain Management Plan, completed in January 2017, was spearheaded by the U.S. Army Corps of Engineers, with the City of Manhattan, Riley, and Pottawatomie Counties being major partners. There were potential development properties along US-24 located in potential floodplain areas as shown on **Map 17**:

One item to consider is the following development constraints stated in the Blue Township section of the Big Blue and Kansas Rivers Floodplain Management Plan

- To the north and west side of Heritage Square along US-24 is floodway and floodplain of the Big Blue River. Development and redevelopment in the floodway is severely constrained by floodplain regulations, and due to the potential impact should be largely prohibited. Development in the floodplain, while less restrictive than development in the floodway, should be largely discouraged to limit the impacts of development on the overall Big Blue and Kansas River floodplains. Development in the floodplain would need to comply with any local, state, and federal floodplain regulations.

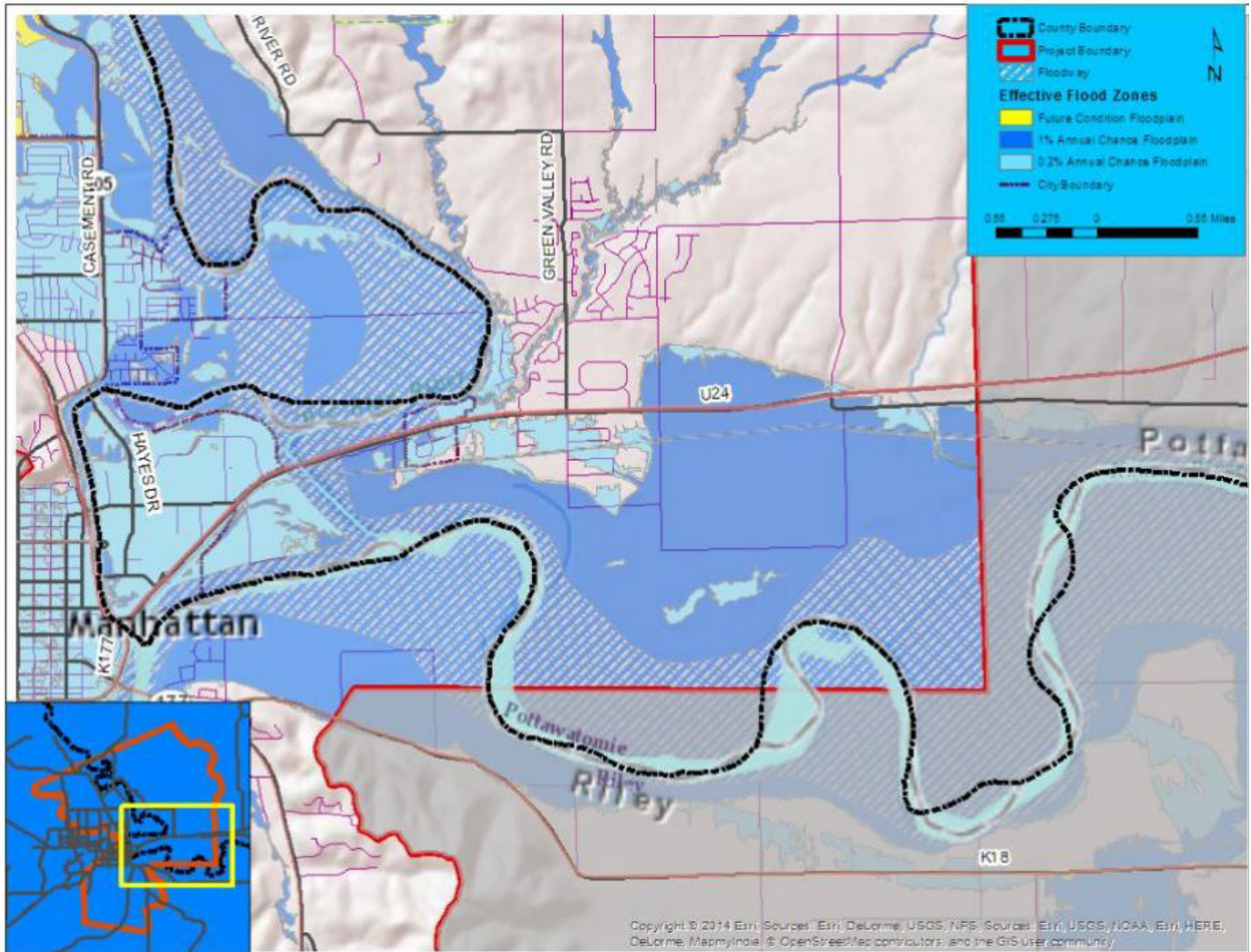
There were also a few specific recommendations for this Area and surrounding areas. These include:

- Establishing a city and county development coordination process;
- Additional or revised stormwater detention requirements;
- Higher standard floodplain regulations;
- Additional or revised erosion control and water quality requirements;
- Develop a Big Blue River Recreation Plan; and
- Maintain and expand flood control facilities.

2016 Stormwater Management Plan

In November of 2016 Pottawatomie County approved a Stormwater Management Plan. Within this plan are specific recommendations for Best Management Practices (BMPs), Illicit discharge detection and elimination, construction site stormwater runoff control, post-construction stormwater management programs and monitoring, and pollution prevention. These elements will be an important part of the regulatory matrix as development continues in the Green Valley Area.

Map 18: Big Blue and Kansas Rivers Floodplain Management



Source: Big Blue and Kansas Rivers Floodplain Management Plan



Opportunities:

- Due to proximity to the City of Manhattan and access to eastern Pottawatomie County the Area will likely experience continued residential growth
- Available greenspace and existing access to infrastructure will steer development to the area
- Scenic topography and access to recreation opportunities increase the desirability of living and visiting the area
- Potential Blue River crossing and Manhattan connection
- Ability to create new recreational opportunities in and near the study area



Challenges:

- Sewer Infrastructure upgrades may be expensive
- Floodplain management regulations and local flooding may impede development on properties south of US-24
- Lack of existing recreation opportunities and formal open space
- Growth may increase demands on public safety systems (Police, Fire, and Schools)



Key Community Input:

- New residential development should be single-family and duplex development
- Commercial development needs to be located along the US-24 corridor
- Locate industrial uses east towards Lake Elbo Road
- Preserve and better utilize State Park No. 2 to provide increases recreational activities



Major Accomplishments in Recent Years:

- U383 siting new elementary school in Blue Township
- Coordination with City of Manhattan for utilities serving Blue Township area
- Blue Township Sewer Master Plan launched



Relevant Plans/For More Information:

- Pottawatomie County Development Regulations (www.pottcounty.org)
- Pottawatomie County Comprehensive Plan 2040 (www.pottcounty.org)
- 2015 Manhattan Urban Area Comprehensive Plan (www.rileycountyks.gov)
- Big Blue and Kansas River Floodplain Management Plan (www.cityofmhk.com)



The Existing Area 6 | ECONOMIC DEVELOPMENT AND MARKET DEMAND



ECONOMIC OPPORTUNITY

The Green Valley Area is experiencing similar economic changes, challenges, and opportunities as those observed in Pottawatomie County.

Agriculture and ranching industries historically drove Pottawatomie County's economy. However, as the region's economy has evolved and so have the businesses locating in the County which now also boasts manufacturing, retail, healthcare, and educational employment. Green Valley is experiencing this economic diversification and growth as well.



Photo Source: Pottawatomie County

REGIONAL CONTEXT

Pottawatomie County and the Green Valley Area both benefit from their proximity to Manhattan and much of the recent development activity generated from recent success stories. One important arrival is the National Bio and Agro-defense Facility (NBAF) at Kansas State that presents possible opportunities for collaboration and business growth in Pottawatomie County. NBAF is expected to be operational by 2022-2023 and will be the U.S. Department of Homeland Security’s primary animal disease research facility in the nation. This new facility has the potential to bring 40 businesses and laboratories to the greater Manhattan region and generate an economic return of \$3.5 billion in its first 20 years.

The NBAF facility highlights the interconnected nature of the entire region and additions or contractions to Fort Riley and/or Kansas state will impact the County and the Green Valley Area. In recognition of this vital relationship, a regional economic development partnership partner program named the Greater Manhattan Economic Partnership (GMEP) launched in January 2018. This strategic alliance brings together the Manhattan Area Chamber of Commerce

and Pottawatomie County Economic Development Corporation (PCEDC).

The Green Valley Area is directly east of Manhattan, with Highway US-24 running through the center of the community and linking Fort Riley and Manhattan to eastern Pottawatomie County. Due to its strategic location and local growth pressure, this area will likely continue to see increased development.

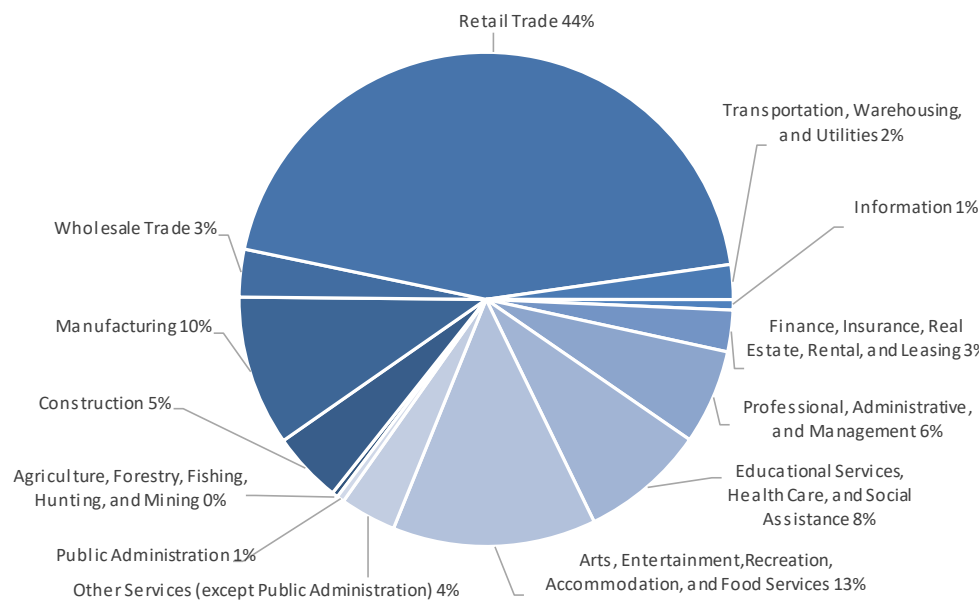
Green Valley Economic Indicators

Influences from regional growth factors are evidenced by the 2,543 people working in the Green Valley Area area. The largest employment industry is the retail trade and accommodations sector at 44 percent which serves community residents and increased demand from residential construction. The second and third largest industries are the arts, entertainment, and food service category (13 percent) and manufacturing (10 percent) which have started developing in the area due to land availability.

Location Quotients

Location quotients are a way to compare how a local area’s employment industries compare to a larger economy/area. This measure gauges the

Figure 9: Employment Categories of Green Valley Businesses - 2018



concentration of business (by industry category) a local area (Green Valley) as compared to a broader economy. A ratio above 1.0 indicates that there is a higher concentration of employment in a specific industry in the area suggesting that a competitive advantage related to these types of businesses may exist. A ratio under 1.0 means that there is not a concentration of a specific industry in the local area. The following table compares the Green Valley Area to Pottawatomie County, the State of Kansas, and the United States economies.

This analysis shows that there are concentrations of retail trade (1.77), accommodations and food services (1.52), transportation and warehousing (1.34), and manufacturing (1.31) when compared to Pottawatomie County. However, when compared to the State of Kansas and US economies, the analysis does not show a concentration/advantage in the transportation and warehousing industry. Businesses that are considering the area for a new location also prefer to see these high concentrations of employees. Clusters indicate that there is an

Table 4: Location Quotients Summary

GREEN VALLEY LOCATION QUOTIENTS BY NAICS CODE			
NAICS CODES/ CATEGORIES	LOCATION QUOTIENT TO POTT COUNTY	LOCATION QUOTIENT TO KANSAS STATE	LOCATION QUOTIENT TO UNITED STATES
Agriculture, Forestry, Fishing and Hunting	0.39	0.22	0.84
Mining	0.00	0.00	0.00
Utilities	0.08	0.12	0.09
Construction	0.78	0.67	1.04
Manufacturing	1.31	2.83	1.19
Wholesale Trade	0.47	0.79	0.71
Retail Trade	1.77	3.27	3.35
Transportation and Warehousing	1.34	0.80	0.86
Information	0.39	0.29	0.25
Finance and Insurance	0.69	0.42	0.66
Real Estate, Rental and Leasing	1.23	0.34	0.58
Professional, Scientific and Tech Services	0.69	0.54	0.61
Management of Companies and Enterprises	0.00	0.00	0.00
Administrative and Support and Waste Management and Remediation	1.03	0.62	0.73
Educational Services	0.23	0.46	0.19
Health Care and Social Assistance	0.65	0.79	0.44
Arts, Entertainment and Recreation	0.90	0.61	0.52
Accommodation and Food Services	1.52	1.87	1.30
Other Services (except Public Administration)	0.57	0.27	0.64
Public Administration	0.10	0.08	0.07
Unclassified Establishments	0.73	0.02	0.25

existing trained workforce and supply chain/supportive businesses to help their businesses grow. The groupings observed also correspond to the growth observations by residents.

Area Top Employers

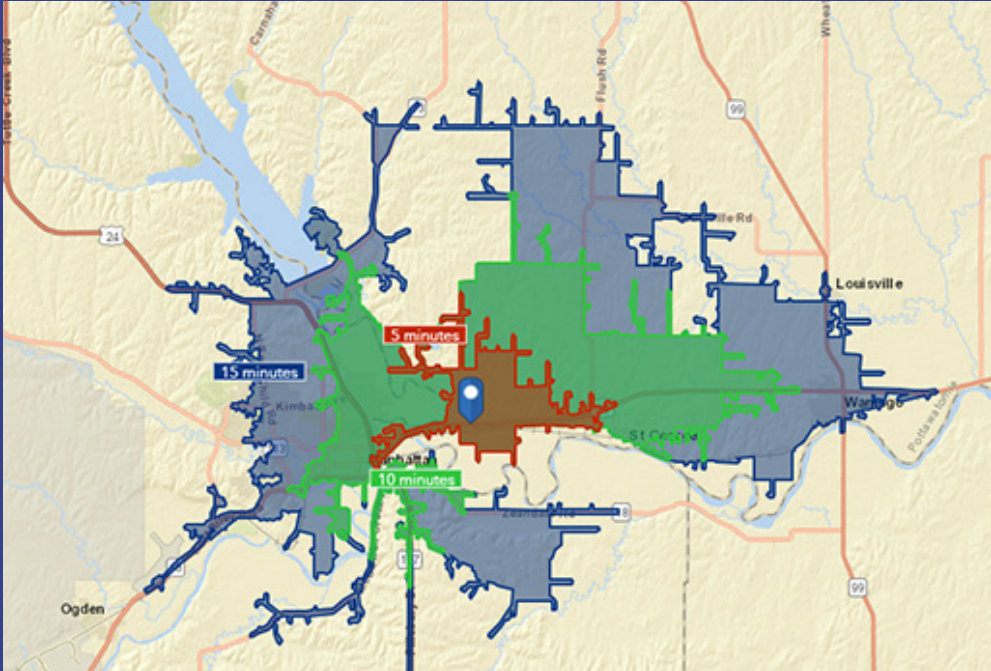
Approximately 160 business comprise the Green Valley Area business community. Diamond Roofing with around 60 employees, is the largest. The rest of the businesses employ 20 persons or less, indicating that small entrepreneurial and startup companies are locating in this area.

Table 5: Retail Gap Analysis Summary

RETAIL GAP SUMMARY TABLE			
DRIVE TIMES	5 MINUTE	10 MINUTE	15 MINUTE
2017 Industry Summary	Leakage/Surplus Factor	Leakage/Surplus Factor	Leakage/Surplus Factor
Total Retail Trade and Food & Drink	-54.0	-37.7	-20.7
Total Retail Trade	-55.6	-34.6	-18.8
Total Food & Drink	-31.5	-56.4	-35.3
2017 Industry Group	Leakage/Surplus Factor	Leakage/Surplus Factor	Leakage/Surplus Factor
Motor Vehicle & Parts Dealers	-56.1	-28.2	-19.7
Furniture & Home Furnishings Stores	-47.3	-14.7	13.6
Electronics & Appliance Stores	10.7	-48.4	-18.9
Bldg Materials, Garden Equip. & Supply Stores	-69.8	-48.2	-34.8
Food & Beverage Stores	41.6	-25.1	-24.4
Grocery Stores	54.6	-24.2	-24.0
Specialty Food Stores	100.0	-37.5	-27.1
Beer, Wine & Liquor Stores	8.2	-28.7	-26.9
Health & Personal Care Stores	41.5	18.2	2.6
Gasoline Stations	-1.0	12.4	8.6
Clothing & Clothing Accessories Stores	-93.4	-83.8	-67.6
Sporting Goods, Hobby, Book & Music Stores	-43.3	-62.3	-36.6
General Merchandise Stores	-55.2	-18.7	7.7
Department Stores Excluding Leased Depts.	100.0	-30.8	-5.1
Miscellaneous Store Retailers	-3.5	-27.6	-10.2
Nonstore Retailers	-14.0	10.5	13.1
Food Services & Drinking Places	-31.5	-56.4	-35.3

Source: Copyright 2018 Infogroup, Inc. All rights reserved. Esri Total Residential Population forecasts for 2018. Data Note: Data on the Business Summary report is calculated using Esri's Data allocation method which uses census block groups to allocate business summary data to custom areas.

Gap Analysis Drive -Times



A retail gap analysis is used to determine if there is room for growth in retail and service businesses. This analysis examines the demand for types of companies by looking at the amount of money spent in an area (in this case how many people live within 5, 10, and 15-minute drive times from the Area). These drive times were chosen to represent local shoppers (5 minutes), shoppers from nearby locations (Manhattan, KS and eastern Pottawatomie County 10 minutes), and the broader region (15 minutes).

Retail Gap Analysis

A retail gap analysis is used to determine if there is room for growth in retail and service businesses.

The analysis creates a number called a leakage factor. Negative (shown in red) figures indicate that the area has a surplus of spending (more money is spent at local businesses by shoppers that live outside the community). A negative factor can also indicate a cluster of specific business categories that attract shoppers from the entire region and brings additional revenues to the local economy. A positive number (shown in green) indicates that there is what's called "leakage" and that residents within an area are shopping outside the area for goods and services in these categories. This positive ratio represents an opportunity to provide these services within the community and capture more local spending. The analysis revealed that there are limited opportunities to capture more spending in the electronic and appliance stores, food and beverage (includes sub-categories), and health and personal care stores

categories in the 5-minute drive time. This leakage is concentrated in the 5-minute drive time indicating that new local sized stores can help capture this demand. Based on the limited leakage observed in the 10 and 15-minute drive times, buildings should be sized to accommodate smaller business footprints.

The analysis also indicates surpluses in the Motor Vehicle Parts and Dealers and Furniture Store categories. These businesses tend to co-locate to provide options for shoppers. Even though the gap analysis shows a surplus, there may be an opportunity to expand these types of businesses in the Area's commercial shopping districts.

Another item to note is the number of retail categories showing large surpluses such as Food Services and Drinking Establishments, indicating that resident's needs are being met in nearby shopping centers.

Residential growth/construction is likely to occur in this area. An increase of rooftops in the 5-minute drive time area will also increase the demand for local retail and service businesses. Developments such as

Heritage Square North (currently being developed) illustrate that the perceived need for new retail and service business space.

Education and Training

In the Green Valley 93.6 percent of residents 25 years or older have earned a high school diploma, and 43 percent have obtained a bachelor's degree or higher. The percent of those with bachelor's degrees or above is 11 percent higher when compared to the rest of Pottawatomie County (32 percent).

Source: U.S. Census Bureau, ACS 2012-2016 and ESRI forecasts converted into specific geography.

Higher Education: The Green Valley Area and Pottawatomie County are adjacent to Manhattan, the home of Kansas State University. KSU's enrollment is approximately 24,700 students and a top 75 public university in the nation. KSU maintains a Pottawatomie County Extension Office in Westmoreland.

Taxes

Property Tax

Pottawatomie County has the second lowest mill levy in the state of Kansas. According to the County-wide comprehensive plan, "the 2017 levy is 29.25, a 0.732 levy change from the 2016 levy of 28.5" and lower than other Kansas Counties. The tax rates in Green Valley are similar. However, the total levy for County residents varies by location in the County, with other taxing entities including schools, libraries, drainage districts, cemeteries, hospitals, fire districts, watersheds, rural highway, cities, townships, and third-class cities.

During the County Comprehensive Plan process, residents expressed both positive and negative views of the current tax rate. Some see the low mill levy as holding the Area back from having the financial resources it needs. Others consider the low mill levy as a positive that drew them to live in the Area and making the Area an attractive location for business

investments.

Sales Taxes

Pottawatomie County's sales tax rate is 7.5 percent. Of this, 6.5 percent goes toward the Kansas sales tax rate, and one percent goes towards Pottawatomie County. Unincorporated Green Valley Area properties have a 1.45 percent lower sales tax rate when compared to those in the City of Manhattan (8.95 percent).

Lower property and sales tax rates may create a competitive advantage for attracting developments to the area as compared to surrounding community's sites in higher taxed locations.



Source: KKC

Economic Development Organizations and Green Valley

The PCEDC formed in 1991 as an alliance of local business people, County, and City Commissioners to focus on assisting business and industry expansion and attraction of new companies. The PCEDC played a significant role in recent successes in the Green Valley Area such as spearheading the Green Valley Business Park Development (the last development lot sold in 2015). The success of this development showcases the demand for new “shovel ready” sites for new businesses to locate. Additional PCEDC achievements that assist both Green Valley and Pottawatomie County businesses include:

- 2015 - Business Education Workforce Development Round-table formed;
- 2016 - Pottawatomie County granted Work Ready certification by ACT;
- 2017 - Small business loan program granted Level One status, enabling PCEDC to make loans up to \$75,000 with flexible terms;
- 2018 - Greater Manhattan Economic Partnership launched; and
- 2018- Pottawatomie County granted Work Ready Maintenance Status by ACT to assist with workforce development.

The PCEDC’s 2015 Labor and Target Industry Analysis noted the following industries target-ed for growth opportunities in the County:

- Food processing;
- Agri-sector technology businesses;
- Agricultural industrial manufacturing/fabricated metals products;
- Agricultural recycling materials and metals
- Bio-products for energy/plastics/chemical markets and natural health products ;
- Data center/call center; and
- Warehouse/distribution.



Opportunities:

- Proximity to Manhattan and regional connections to Fort Riley and eastern Pottawatomie County via US-24
- Potential to attract target growth industries with existing PCEDC and GMEP programs, workforce training, and educated workforce and potential development sites
- Comparatively low property tax mill levy and sales tax rates are advantageous to businesses as compared to surrounding localities
- Strong market fundamentals to attract limited retail and service business shown in gap analysis include: high median Income, high average home price, recent residential construction activity (as stated in Chapter 3 Land Use) and potential to increase rooftops through new residential development, motor vehicle sales and service and furniture store clusters noted as potential to attract similar businesses



Challenges:

- Lack of “shovel ready” sites for manufacturing / target industries
- Existing floodplain issues may affect development sites along Highway. 24
- Competition from neighboring retail and industrial business centers
- Retail growth limited until increase in rooftops generates increase for demand



Key Community Input:

- Increased retail and shopping options on US-24
- Employment manufacturing development should be located on US-24 near Lake Elbo Road



Major Accomplishments in Recent Years:

- Last lot in the Green Valley Business Park sold in 2015
- Pottawatomie certified as a Work Ready County
- New regional economic development partnership



Relevant Plans/For More Information:

- PCEDC Labor and Target Industry Analysis (www.ecodevo.com)
- PCEDC Economic Development Strategic Plan (www.ecodevo.com)
- PCEDC 2015 Implementation Plan (www.ecodevo.com)
- PCEDC Annual Report (www.ecodevo.com)
- PCEDC Market Analysis (www.ecodevo.com)
- Pottawatomie County mill levy comparison (www.pottcounty.org)
- 2014 Comprehensive Economic Development Strategy, Flint Hills Economic Development District (www.flinthillsregion.org/fhedd)