



GUIDING GROWTH FOR A VIBRANT AND THRIVING

LENEXA

COMPREHENSIVE PLAN

Land Use Scenarios Overview

What are land use scenarios & why is the City testing them?

- **Future land use map is a key component of the Comprehensive Plan**
 - *Will identify where various uses are compatible and desirable in Lenexa, and*
 - *Will guide development in the community for the next 10-20 years*
 - *Is a key legal factor in reviewing rezoning requests*
- **New development will bring with it both benefits and challenges**
 - *Benefits: new jobs and housing options*
 - *Challenges: increased traffic and demand on the City's infrastructure*
- **Land use scenarios are tested to better understand the impacts of future development**
 - *Provide high level information about land use relationships and the positive and negative impacts of potential development*
 - *Help to determine what the City's future land use map should include*
 - *Inform planning for capital improvement projects and other public investments needed to make future development realistic and a net benefit to the community*

Land Use Scenario Components

- Land Use Categories
- Testing Factors
- Scenarios
- Planning Areas

What land uses are being considered?

- Land use classifications from currently adopted Comprehensive Plan utilized as starting point
- **Residential Land Uses**
 - **Low-Density Residential (0.5 du/ac):** detached single-family housing preferably incorporating lot clustering to protect environmentally sensitive areas
 - **Suburban-Density Residential (3.5 du/ac):** detached single-family housing
 - **Medium-Density Residential (8 du/ac):** detached and attached single-family housing
 - **High-Density Residential (16 du/ac):** attached single-family housing and multifamily housing
 - **Urban Residential (16+ du/ac):** multifamily housing and mixed-use development
- **Mixed Use Land Uses**
 - **City Center (28 du/ac):** mix of employment, shopping, entertainment, retail, residential, recreation, and civic uses in an urban environment
 - **Mixed Use (12 du/ac):** mix of retail, office, residential, and institutional uses within a single development or within proximity to one another

What land uses are being considered?

■ Non-Residential Land Uses

- **Neighborhood Commercial:** Retail, office, or personal services with a gross leasable area of 30,000 to 125,000 square feet intended to serve surrounding neighborhoods within a 1-to-3-mile radius
- **Community Commercial:** Concentrations of commercial uses with a gross leasable area of 125,000 to 400,000 square feet that provides services for a 3-to-6-mile trade area radius
- **Regional Commercial:** Large commercial uses in concentrations with gross leasable areas exceeding 400,000 square feet that serve a 5-to-15-mile trade area radius
- **Business Park:** Developments providing space for uses that may include light assembly and manufacturing, or warehousing and distribution
- **Office/Research and Development:** Uses that combine office with research and related manufacturing or assembly with little or no sales of product
- **Office/Employment Center:** Buildings used for the conducting of business where little or no sales of product, manufacturing, or warehousing occur

What factors are being tested?



Build Out Population. To calculate the range of projected population increase resulting from the build out of the land use scenarios, the City's average household size, per the U.S. Census, was multiplied by a range of new housing units that could be developed in various areas of the City. The range of new housing units was calculated based on a dwelling unit per acre calculation. The projected population ranges have been added to Lenexa's current population of 58,388 (2021) to calculate the Total Population reflected on the maps.



Job Creation. To project the number of new jobs that could be brought into Lenexa resulting from new, nonresidential development, the average number of employees per square foot of various land uses was utilized. The projected number of new jobs are added to Lenexa's current total jobs (62,494 in 2022).



Traffic. To calculate traffic impact, trip generation numbers were utilized to project the number of vehicle trips that would result from new development. A "trip" for trip generation/transportation planning purposes is a one-way trip (usually vehicle but could also be walking, biking or transit where applicable) to or from a property. If someone makes a series of linked trips (i.e. stopping at daycare and shopping on the way home from work), that would be considered multiple trips.

For residential development, trips are calculated based on the number of new units. For nonresidential development, trips are calculated based on square footage. The City's planned transportation system, as shown in the Roadway Network map in the Data Atlas, will accommodate all land use scenarios with improvements made as needed for each.

What factors are being tested?



Fiscal Impact. To calculate how new development may impact the City's revenue and expenditures, Lenexa's current municipal costs per capita were utilized to estimate expenses related to future growth in population and employment resulting from future development. Municipal costs include fire and safety, parks and recreation, community development, finance, legal, information technology, human resources, non-departmental, municipal services, municipal court, transfers out and governing body expenses.



Parkland Provision. A best practice is to provide parkland at a ratio of 10 acres of parkland per 1,000 residents. Lenexa enjoys over 1,600 acres of parkland today (City and County parks combined), providing approximately 27 acres of parkland to each 1,000 residents. Even in the most aggressive growth scenario, the current amount of parkland is sufficient to serve future residents. Even so, not every part of Lenexa is well served with a park nearby and so parkland will be explored and integrated as development occurs.



Government Facilities and Employment Growth. To calculate how new development could impact the City of Lenexa government, the current number of employees per 1,000 residents was calculated. The result was then multiplied by the projected build out population to determine how the City would need to increase its staff size to maintain the level of service offered today.



Stormwater Management. To project the amount of additional stormwater infrastructure that may be needed to accommodate future development, the number of acres of land assigned to each land use category was multiplied by a standard number of feet of stormwater sewer needed.

What is the difference between the scenarios?

Scenario 1: Future Land Use Map - Adopted

Scenario 1 reflects the City's currently adopted Future Land Use Map with updates made to it to account for recently approved rezoning of land. It was utilized to determine the impacts of the City's current vision for future land use.

Scenario 2: Future Land Use Map - Reimagined

Scenario 2 reimagines the Adopted Land Use Map by modifying key undeveloped areas into a mix of uses that reflect today's market trends and demands.

Much has changed in Lenexa and throughout the region and country that has led the City to ask whether its Adopted Future Land Use Map still makes sense for Lenexa. For example, in 2016, the last update, the office market was very strong and additional office parks were envisioned in the community. Today, the office market is very weak and additional office parks are not expected.

Scenario 3: Future Land Use Map - Reimagined with Increased Density

Scenario 3 is the same Land Use Map as Scenario 2; however, the density envisioned within the residential land use categories in Scenario 3 have been increased relative to the residential densities in Scenario 2.

For example, the Suburban-Density Residential land use category's density was increased from 3.5 dwelling units per acre in Scenario 2 to 5.0 dwelling units per acre in Scenario 3. This additional density would be introduced in the form of accessory dwelling units and new missing middle housing.

What is the difference between the scenarios?

Residential Land Use Densities in **DWELLING UNITS PER ACRE** per Scenario

Land Use Designation	Scenario 1 Density	Scenario 2 Density	Scenario 3 Density
Low-Density Residential	0.5	0.5	0.5
Suburban-Density Residential	2 – 3.5	2 – 3.5	3 - 5
Medium-Density Residential	6.5 - 8	6.5 - 8	8 - 12
High-Density Residential	12 - 16	12 - 16	18 - 22
Urban Residential	16 - 22	16 - 22	22 - 28

What is the difference between the scenarios?

Mixed-Use Land Use Residential Densities in **DWELLING UNITS PER ACRE** and Nonresidential Intensity in **SQUARE FEET PER ACRE** per Scenario

Land Use Designation	Scenario 1 Density / Intensity	Scenario 2 Density / Intensity	Scenario 3 Density / Intensity
City Center	26.5 - 29.5	26.5 - 29.5	32.5 - 35.5
	26,800 - 27,800	26,800 - 27,800	26,800 - 27,800
Mixed Use	10.5 - 13.5	10.5 - 13.5	14.5 - 17.5
	18,000 - 19,000	18,000 - 19,000	18,000 - 19,000

What is the difference between the scenarios?

Nonresidential Intensity in **SQUARE FEET PER ACRE** per Scenario

Land Use Designation	Scenario 1 Density	Scenario 2 Density	Scenario 3 Density
Neighborhood Commercial	5,100 – 6,100	5,100 – 6,100	5,100 – 6,100
Community Commercial	5,600 – 6,600	5,600 – 6,600	5,600 – 6,600
Regional Commercial	4,300 – 5,300	4,300 – 5,300	4,300 – 5,300
Business Park	8,700 – 9,700	8,700 – 9,700	8,700 – 9,700
Office / Research and Development	800 – 1,800	800 – 1,800	800 – 1,800
Office / Employment Center	2,100 – 3,100	2,100 – 3,100	2,100 – 3,100

Why is additional density being studied in Lenexa?

- Use land, utilities, and other resources efficiently
- Support housing affordability and availability
- Increase access to amenities and job opportunities
- Respond to shifts in preferred living patterns
 - *Aging in place*
 - *Multigenerational living*
 - *Housing choice – renter vs. owner*

How could additional density be realized in Scenario 3?



**ACCESSORY
DWELLING UNITS**



**MISSING MIDDLE
HOUSING**



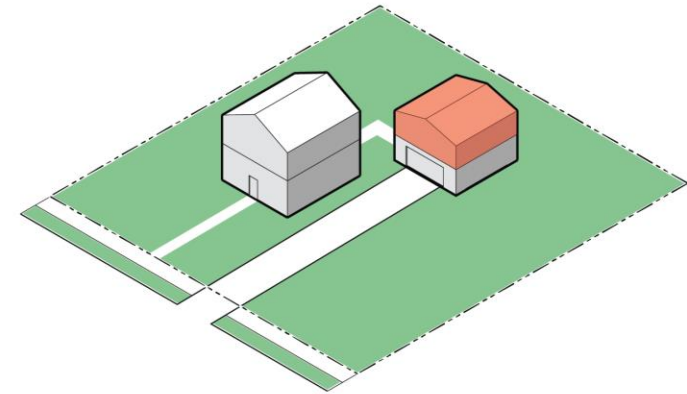
**HIGHER DENSITY
MULTIFAMILY**

How could additional density be realized in Scenario 3?

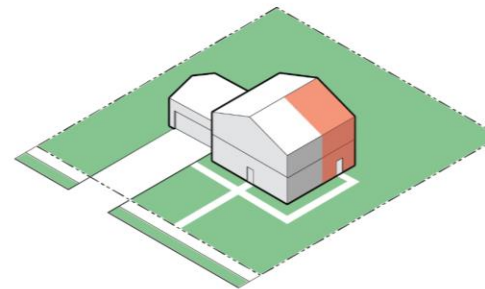
Accessory Dwelling Units

- Also called granny flats, in-law units, backyard cottages, secondary units, carriage houses, and more
- A smaller, independent dwelling unit that may be detached, attached, or internal to the primary dwelling on a parcel
- More likely to be used in new developments designed for such rather than in existing neighborhoods potentially challenged with HOA regulations and design challenges
- Several benefits, including:
 - *accommodating multigenerational living and supportive housing;*
 - *providing a source of additional income for homeowners; and*
 - *Affordability compared to other housing types*

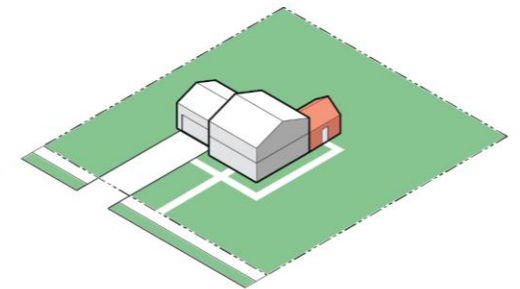
Detached Accessory Dwelling Unit



Internal Accessory Dwelling Unit



Attached Accessory Dwelling Unit

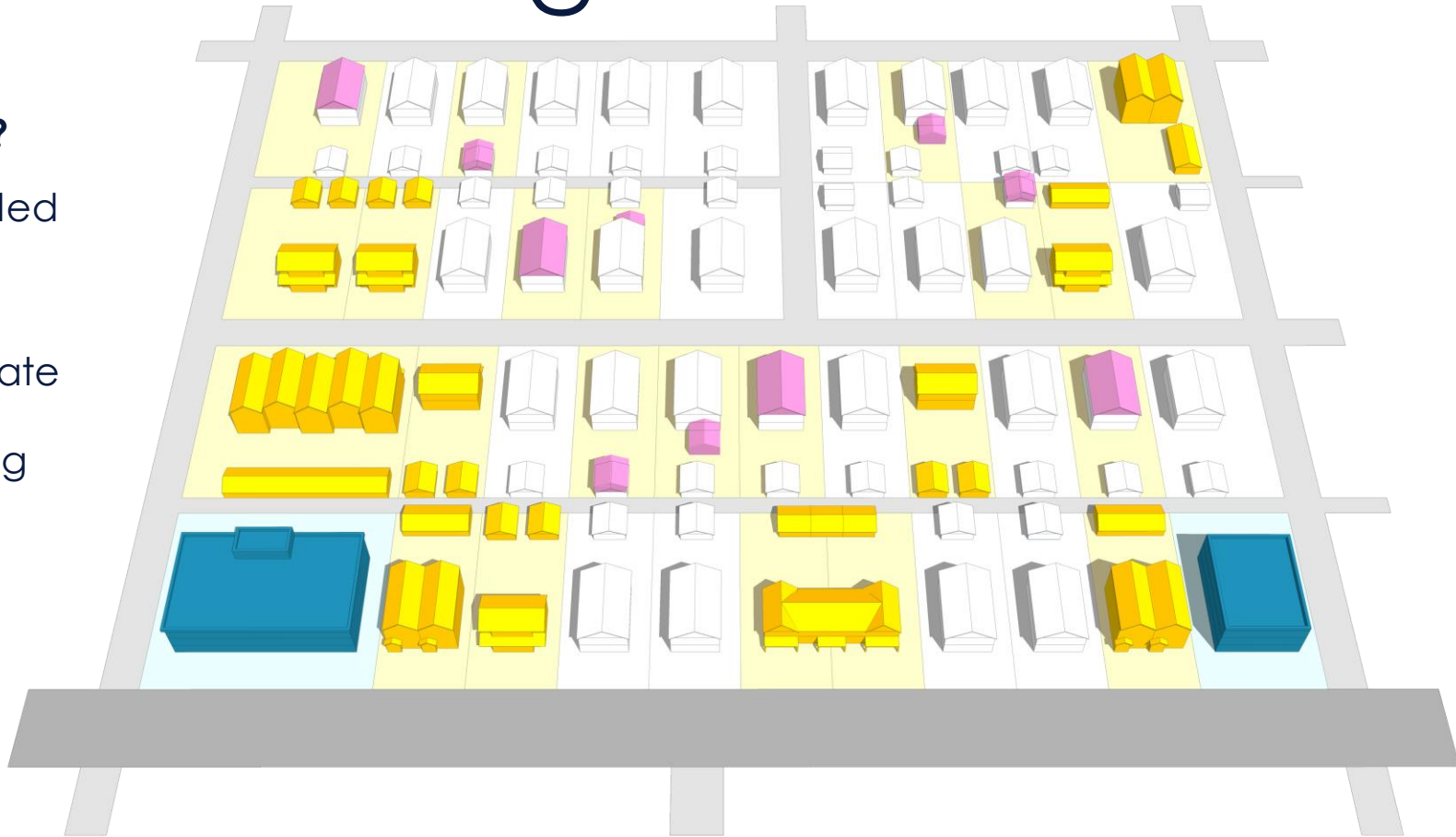


How could additional density be realized in Scenario 3?

Missing Middle Housing

What is missing middle housing?

- A range of single-family-scaled buildings with multiple residential units
- Opportunity to accommodate additional housing in the community while maintaining established neighborhood character



This diagram illustrates how various missing middle housing types (shown in yellow) and ADUs (shown in pink) may be incorporated into a neighborhood.

How could additional density be realized in Scenario 3?

Missing Middle Housing

What type of housing is considered missing middle housing?

- Duplex
- Townhome
- Triplex / Quadplex
- Multi-Unit Home



Duplex Example



Townhome examples



Multi-Unit Home examples



How could additional density be realized in Scenario 3?

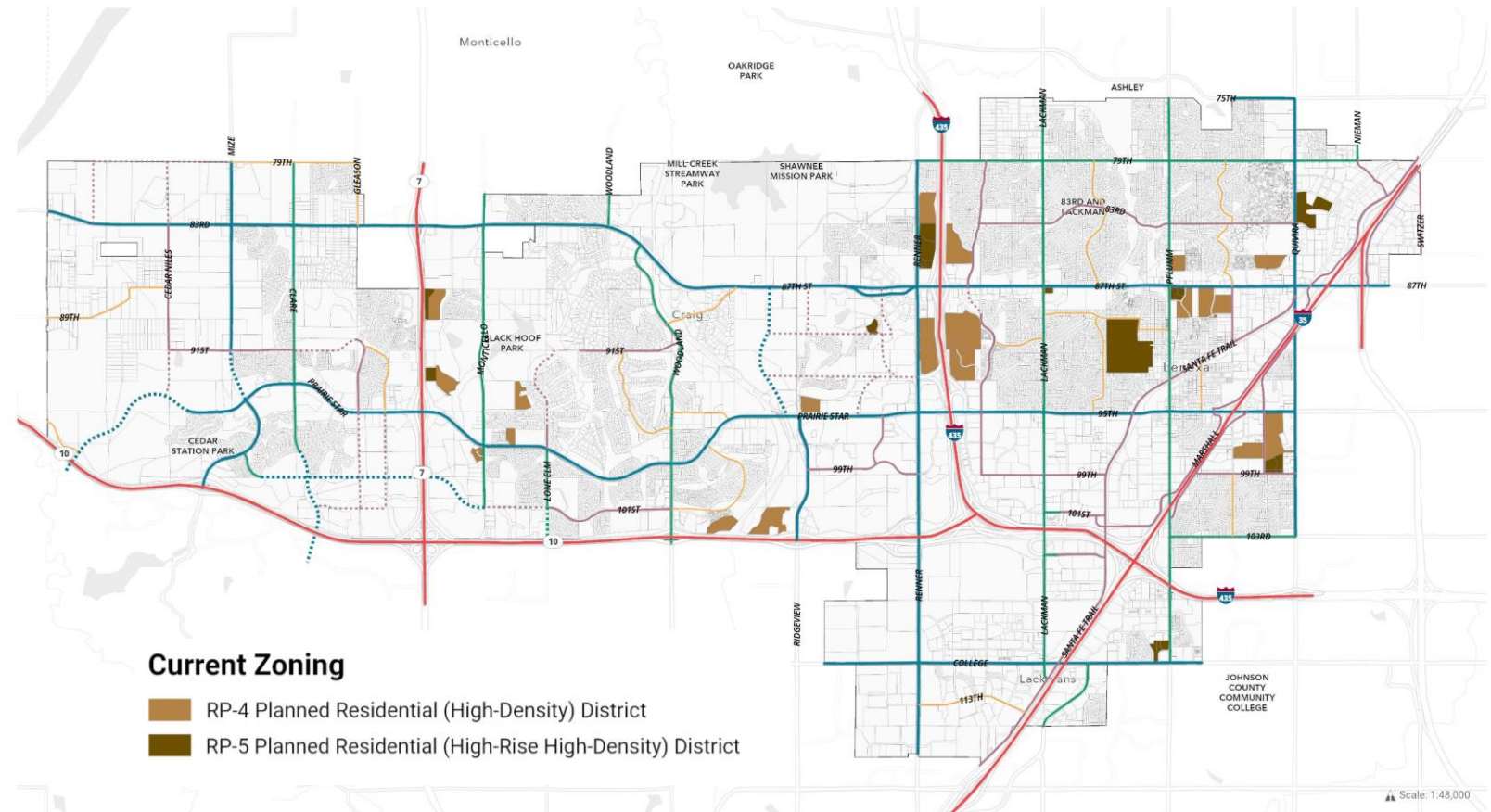
Higher Density Multifamily

- Apartments
- Condominiums



Where is higher density multifamily allowed in Lenexa today?

- Higher density multifamily apartments and condominiums are currently allowed in Lenexa's RP4 and RP5 zoning districts, as shown on the map to the right.
- The location of multifamily housing flanking state highways has proven appropriate to buffer lower density residential uses from the highway.

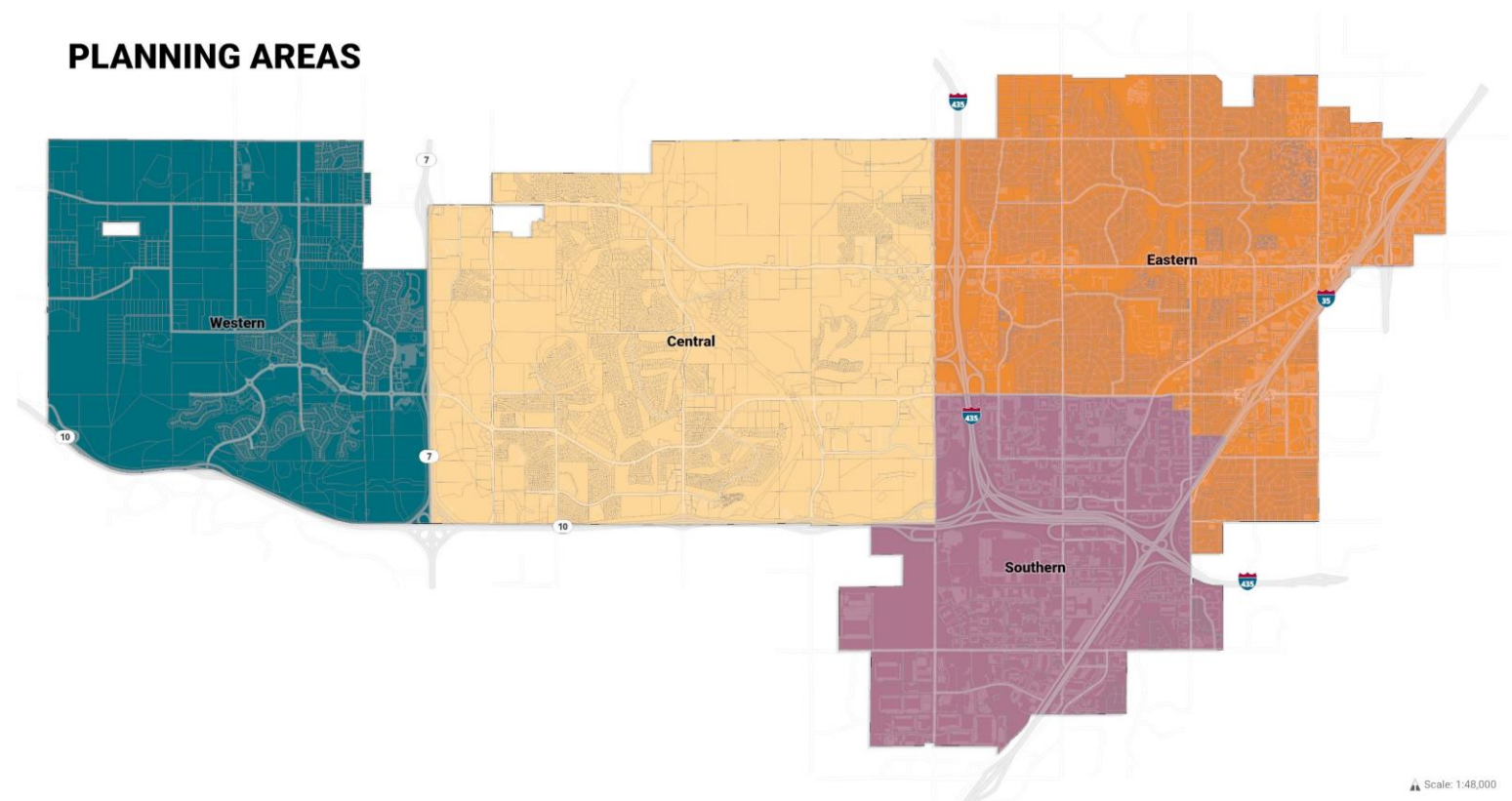


Planning Areas

Development and growth potential varies across Lenexa.

To better understand the potential of the various areas of the City, Lenexa was divided into planning area quadrants.

- Western
- Central
- Eastern
- Southern

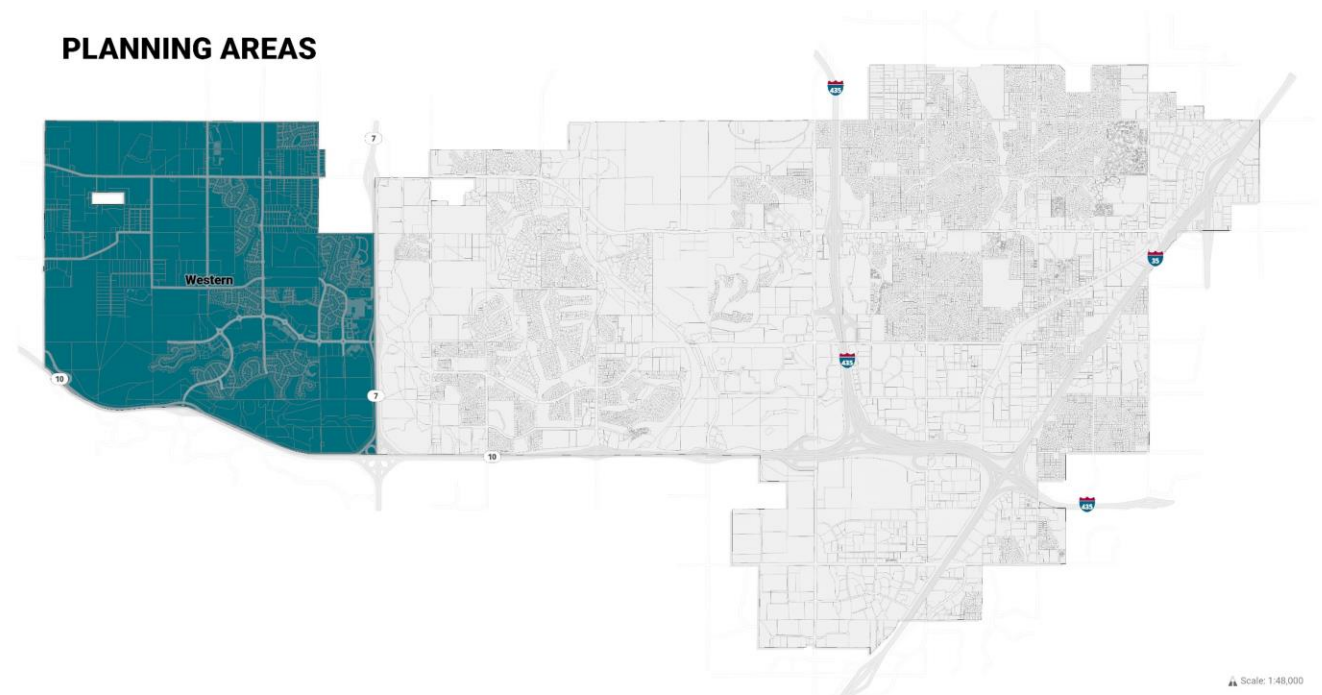


Planning Areas - WESTERN

Lenexa, west of K-7, has large areas of undeveloped land and presents Lenexa's greatest opportunity for future growth and development.

The residential development that has occurred in this portion of the community is suburban-density, single-family detached housing. Future development in the western most portion of the planning area is limited by lack of sewer service.

As a part of community outreach conducted at the beginning of the Comprehensive Plan process, residents expressed a desire for additional housing as well as commercial and service uses in this area.



Planning Areas - **WESTERN**

Scenario 1: Future Land Use Map - *Adopted*

The adopted Land Use Map envisions a substantial amount of office development near the interchange of K-7 and K-10, commercial development along Prairie Star Parkway, and a mix of primarily low density and suburban density residential development in the remaining area.

Scenario 2: Future Land Use Map - *Reimagined*

The Adopted Land Use Map has been reimagined to respond to the evolving office, retail and housing markets.

The area designated as office has been diversified with business park uses directly adjacent to the K-7 and K-10 interchange and a mix of medium-density and high-density residential uses along K-10.

Scenario 3: Future Land Use Map - *Reimagined with Increased Density*

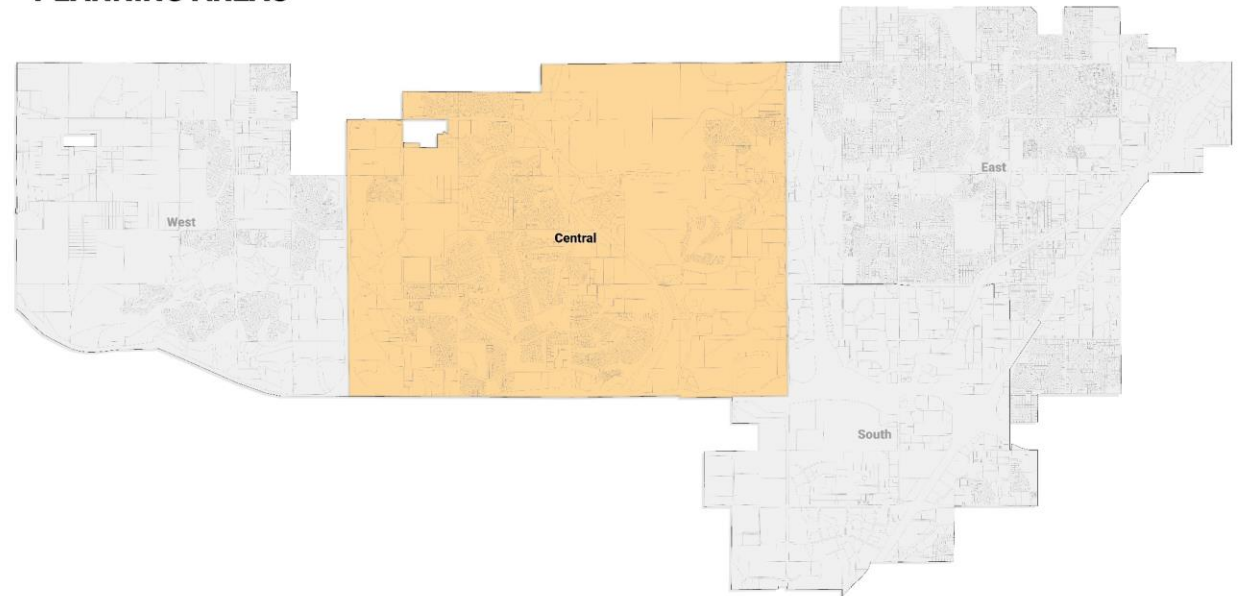
In this scenario, all residential uses are envisioned with increased density by integrating missing middle housing types and higher densities for multi-family developments. No changes to the map are proposed between Scenarios 2 and 3.

Planning Areas - **CENTRAL**

Lenexa, between K-7 and Renner Boulevard is a mix of residential densities, as well as office, business park, and mixed uses.

Notable development in this area includes Meritex Executive Park, City Center, Shawnee Mission Park, and new development along the recently constructed Ridgeview Road.

PLANNING AREAS



Planning Areas - **CENTRAL**

Scenario 1: Future Land Use Map - *Adopted*

The adopted Land Use Map envisions a substantial amount of commercial retail development along the K-7 and K-10 interchange along with additional high-density residential and office uses. Similarly, along K-10 additional business park development is envisioned.

A notable element of this area is the planned future interchange of Lone Elm Road and K-10 Hwy.

Scenario 2: Future Land Use Map - *Reimagined*

The Adopted Land Use Map has been reimagined to respond to the evolving retail market.

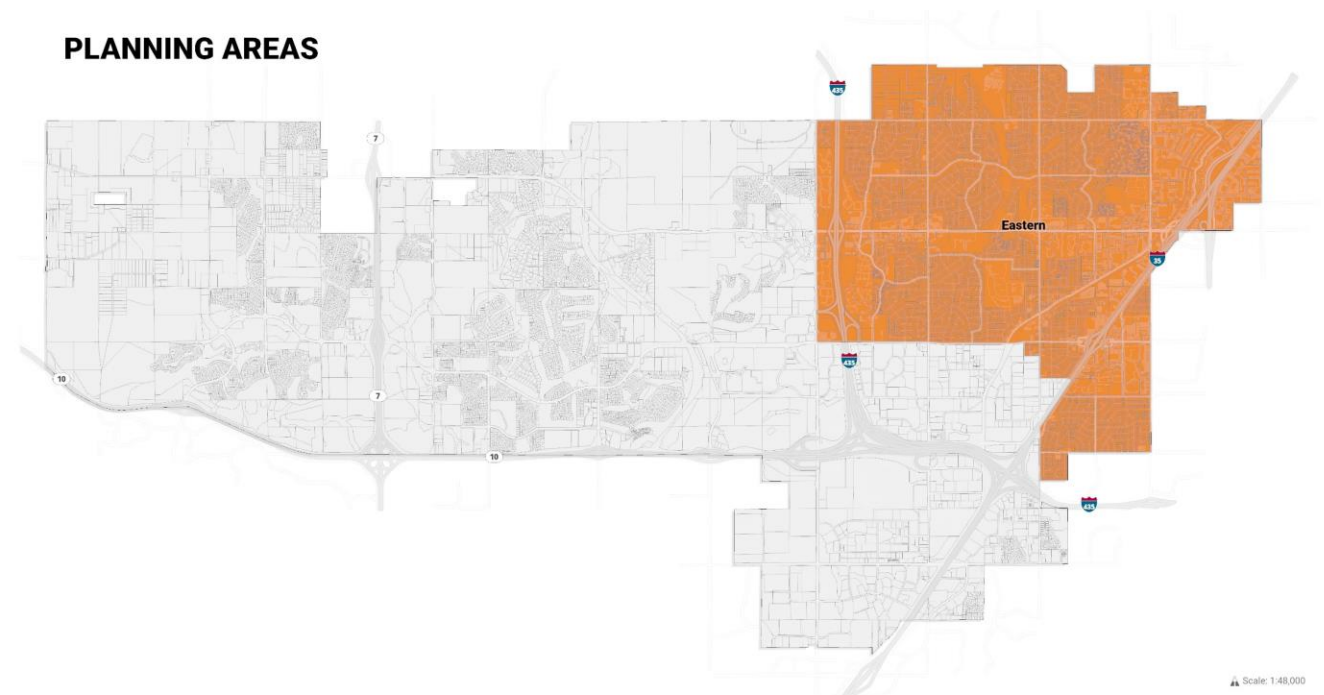
The commercial area in the Adopted Land Use Map has been diversified with business park uses adjacent the K-7 and K-10 interchange and a mix of medium-density and high-density residential uses along K-10. A smaller commercial node is envisioned at the K-7 and Prairie Star Parkway interchange.

Scenario 3: Future Land Use Map - *Reimagined with Increased Density*

In this scenario, all residential uses are envisioned with increased density by integrating missing middle housing types and higher densities for multi-family developments. No changes to the map are proposed between Scenarios 2 and 3.

Planning Areas - **EASTERN**

Lenexa, east of Renner Boulevard, is primarily built out with suburban-density residential neighborhoods flanked by mixed use, commercial, office, and business park uses along I-435 and I-35.



Planning Areas - **EASTERN**

Scenario 1: Future Land Use Map - *Adopted*

The Adopted Land Use Map envisions the continuation of the development pattern that exists in this portion of the community. Vacant parcels are identified for infill development, compatible with surrounding uses.

Scenario 2: Future Land Use Map - *Reimagined*

No land uses were revised from Scenario 1. A notable recent revision to the Land Use Map was redesignating the property at the northeast corner of Renner and 95th St. From Office to Mixed Use to accommodate the conversion of an office building to a mixed-use multi-family development.

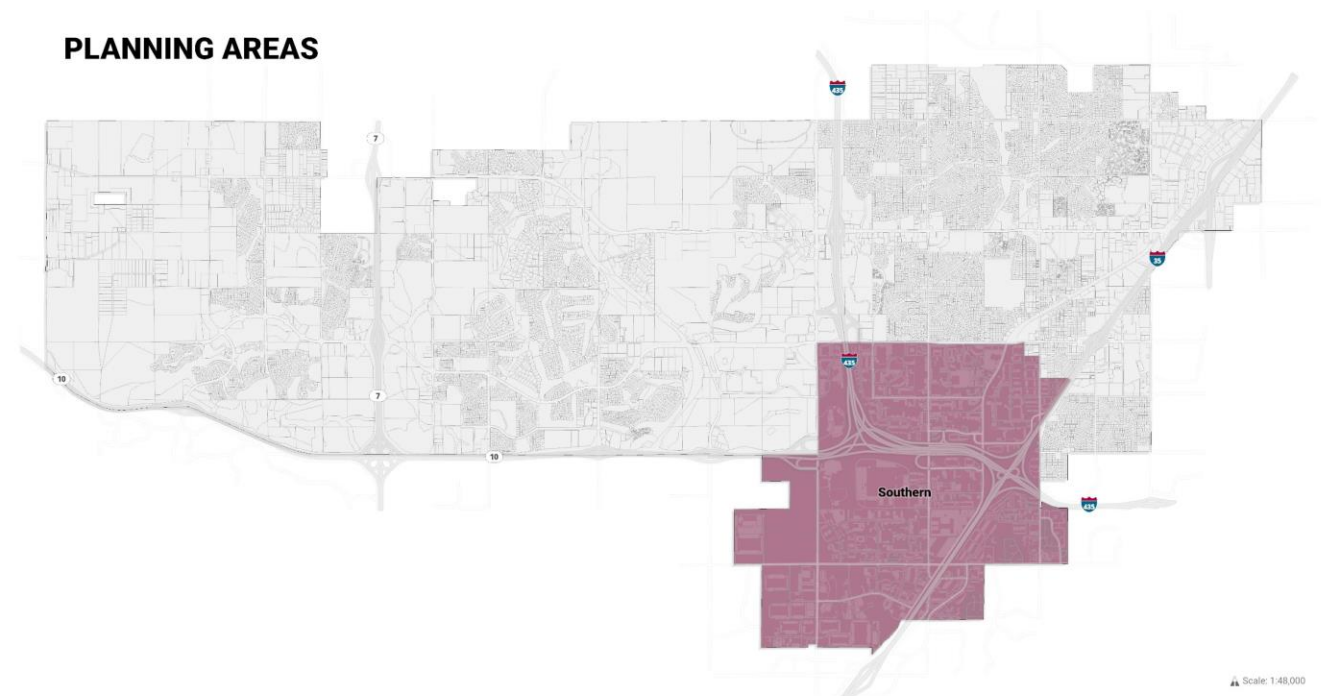
Scenario 3: Future Land Use Map - *Reimagined with Increased Density*

In this scenario, Lenexa's existing single-family detached neighborhoods are envisioned to be diversified with the limited introduction of accessory dwelling units.

Planning Areas - SOUTHERN

Lenexa, south of 95th Street, west of Pflumm, and east of Renner Boulevard is the City's business park and employment hub.

The concentration of business park and office uses in this area is advantageous to the community in that it minimizes external impacts such as noise and truck traffic in other parts of the community and creates opportunity for increased productivity through industry clustering.



Planning Areas - **SOUTHERN**

Scenario 1: Future Land Use Map - *Adopted*

The Adopted Land Use Map envisions the continuation of the development pattern that exists in this portion of the community. Vacant parcels are identified for infill development, compatible with surrounding uses.

Scenario 2: Future Land Use Map - *Reimagined*

No changes are proposed to the South planning area in Scenario 2.

Scenario 3: Future Land Use Map - *Reimagined with Increased Density*

In this scenario, the two existing single-family detached neighborhoods are envisioned to be diversified with the limited introduction of accessory dwelling units. Since this area has little residential, there is not a significant difference between scenarios.

Fiscal Impact Analysis

- Fiscal impact analysis (FIA) helps planners understand the net economic impact of future residential and non-residential development.
- Using Lenexa's current operating budget, we project annual revenue and expenditures from new development (assuming full build-out) based on the City's current per capita figures.
- For property taxes, however, we project revenue based on the type of new development contemplated.

	RESIDENTIAL			NON-RESIDENTIAL			Total
	Revenue	Expenditures	Subtotal	Revenue	Expenditures	Subtotal	
Scenario 1							
East	\$ 1,035,000	\$ (1,049,500)	\$ (14,500)	\$ 588,000	\$ (256,500)	\$ 331,500	\$ 317,000
Central	\$ 27,284,500	\$ (27,082,500)	\$ 202,000	\$ 9,805,500	\$ (4,255,000)	\$ 5,550,500	\$ 5,752,500
South	\$ 45,500	\$ (45,500)	\$ -	\$ 3,527,000	\$ (2,131,500)	\$ 1,395,500	\$ 1,395,500
West	\$ 15,509,500	\$ (17,016,500)	\$ (1,507,000)	\$ 4,482,000	\$ (2,377,000)	\$ 2,105,000	\$ 598,000
Subtotal	\$ 43,874,500	\$ (45,194,000)	\$ (1,319,500)	\$ 18,402,500	\$ (9,020,000)	\$ 9,382,500	\$ 8,063,000
Scenario 2							
East	\$ 1,271,500	\$ (1,277,500)	\$ (6,000)	\$ 796,500	\$ (339,500)	\$ 457,000	\$ 451,000
Central	\$ 34,588,500	\$ (34,695,500)	\$ (107,000)	\$ 10,863,000	\$ (4,797,000)	\$ 6,066,000	\$ 5,959,000
South	\$ 45,500	\$ (45,500)	\$ -	\$ 3,527,000	\$ (2,131,500)	\$ 1,395,500	\$ 1,395,500
West	\$ 26,060,000	\$ (27,090,500)	\$ (1,030,500)	\$ 7,650,000	\$ (4,261,000)	\$ 3,389,000	\$ 2,358,500
Subtotal	\$ 61,965,500	\$ (63,109,000)	\$ (1,143,500)	\$ 22,836,500	\$ (11,529,000)	\$ 11,307,500	\$ 10,164,000
Scenario 3							
West	\$ 1,638,500	\$ (1,650,500)	\$ (12,000)	\$ 796,500	\$ (339,500)	\$ 457,000	\$ 445,000
Central	\$ 43,797,500	\$ (44,119,500)	\$ (322,000)	\$ 10,863,000	\$ (4,797,000)	\$ 6,066,000	\$ 5,744,000
South	\$ 52,000	\$ (52,500)	\$ (500)	\$ 3,527,000	\$ (2,131,500)	\$ 1,395,500	\$ 1,395,000
West	\$ 33,461,000	\$ (35,057,500)	\$ (1,596,500)	\$ 7,650,000	\$ (4,261,000)	\$ 3,389,000	\$ 1,792,500
Subtotal	\$ 78,949,000	\$ (80,880,000)	\$ (1,931,000)	\$ 22,836,500	\$ (11,529,000)	\$ 11,307,500	\$ 9,376,500

Fiscal Impact Analysis

- We project all growth scenarios to result in a positive fiscal impact.
- Commercial and industrial development can offset any deficits caused by residential development.
- Denser residential development can help reduce capital costs associated with new development.

	RESIDENTIAL			NON-RESIDENTIAL			Total
	Revenue	Expenditures	Subtotal	Revenue	Expenditures	Subtotal	
Scenario 1							
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South	\$ 52,000	\$ (52,500)	\$ (500)	\$ 3,527,000	\$ (2,131,500)	\$ 1,395,500	\$ 1,395,000
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Subtotal	\$ 78,949,000	\$ (80,880,000)	\$ (1,931,000)	\$ 22,836,500	\$ (11,529,000)	\$ 11,307,500	\$ 9,376,500

Testing Factors Summary

Factor	Scenario 1	Scenario 2	Scenario 3
Dwelling Units	11,300 - 15,500	14,000 - 19,000	18,500 - 25,500
Commercial and Industrial Sq. Footage	13.5 - 15.5 million sq.ft	15.0 - 16.7 million sq.ft	15.0 - 16.7 million sq.ft
Build Out Population	26,500 - 37,200	31,500 - 43,900	43,200 - 60,600
Total Population	84,900 - 95,600	89,900 - 102,300	101,600 - 119,000
Job Creation	13,500 - 15,500	15,000 - 17,000	15,000 - 17,000
Trips / Traffic Impacts	10 - 13 Trips per Person	9 - 11 Trips per Person	7 - 9 Trips per Person
Fiscal Impact	Postive - \$8,050,000	Postive - \$10,150,000	Positive - \$9,400,000
Parkland Provision	17 - 19 acres per 1,000 people	16 - 17 acres per 1,000 people	14 - 16 acres per 1,000 people
Government Employee Growth	130 - 190	160 - 220	220 - 300

Considerations for the Steering Committee

- Are the land use relationships appropriate?
- To what degree, if any, should future land uses be intensified?
- Which outcomes align with Vision 2040 to create the best version of Lenexa in the future?