



Jail Needs Assessment

FINAL REPORT

**Lincoln County, Kansas
January 29, 2024**





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Jail Needs Assessment

Executive Summary





Executive Summary

The Lincoln County Board of Commissioners and the County Sheriff engaged JSS consultants to conduct a needs assessment of the county jail to determine the viability of the existing facility and to determine the current and future needs of the county detention services. As part of the Needs Assessment, the Lincoln County Sheriff's Department requested that the project team "provide the County with the information necessary to make effective decisions concerning the scope of a possible expansion or new construction project, to include:

- a. Existing detention facility assessment.
- b. A current, independent, Jail Population Study with 20-year projections of bed space needs.
- c. Assessment of potential sites for new construction if warranted.

JSS Consultants outlined a work plan organized into five major tasks.

- | | |
|--------|---|
| Task 1 | Review of trends in Lincoln County's criminal justice system. |
| Task 2 | Analysis of the County's inmate population trends and profile. |
| Task 3 | Develop inmate population projections and jail capacity requirements. |
| Task 4 | Conduct preliminary site assessments. |
| Task 5 | Develop a Final Report. |

The Consultant — Ben Crooks is an internationally-recognized consultant specializing in the planning, design, and operation of corrections facilities. He has directed or assisted jail planning projects for more than 150 counties, cities, states, and countries. Mr. Crooks specializes in the development of jail needs assessment studies, inmate population trends and projections, operations evaluations, jail staffing analysis, and the activation of new jail facilities.

ES-1 FACILITY ASSESSMENT

This section provides a review of the existing Sheriff's Office and Jail facility located on the northeast side of the Lincoln County Courthouse. This facility was built in 1936 and has served as the Sheriff's office and jail since that time. The current use of the facility is by the Sheriff's Law Enforcement staff, Dispatch, and Jail Operations. While the Sheriff's staff seems to make do with the facility, overall, it is not an acceptable space to accommodate all three functions in the Consultants opinion.

Description of Facility – The Jail is a two-story residential style structure with a basement. Approximately 2500 square feet of total space. Brick veneer exterior, and a combination of plaster, concrete block, and steel walls. The first level of the facility was intended and utilized for work and support spaces for the Sheriff's residence and jail services upon opening in 1936.

Cell space is provided with dividing bar walls and detention grade materials, from likely before the 1970's. Two logical holding areas exist, none of which is modern or compliant with basic detention standards. No external recreation areas exist, and basic space standards would not exist with a population of four inmates or more.

Conditions of the Facility -

Walls and Ceilings – Many leaks and water stains exist. Evidence of water damage and efforts to mitigate. Unknown internal damage to the interior of the walls.

Floors – Surfaces appeared worn but serviceable. Concrete floors in the basement area have been painted over the years and show signs of wear and tear.

Electrical – Externally affixed wiring existed throughout the building for what appeared to be electrical, internet, and security electronics. While this was not a technical inspection of the facility, many assumed violations of code existed in terms of wiring. From an operational perspective, the wiring did not appear functional, and potentially a hazard with water intrusions.

Plumbing – Fixtures appeared mostly updated and serviceable. Plumbing lines existed throughout the facility that were exposed and potentially present safety concerns and potentially suicide hazards. Various repairs were evident throughout the facility.

Storage Space – Space for proper supplies and equipment storage was not adequate. Storage was created in any available space and clearly presented obstacles that would not be approved by fire hazard standards.

Workspace – The Workspace was extremely cramped and makeshift for all functions within the facility. The Sheriff's deputies, dispatch/detention officers appeared to have no reasonable privacy or workspace to complete reports, etc. Serious challenges exist with space and safety risks exist.

ES-2 CRIMINAL JUSTICE STATISTICAL INDICATORS AND TRENDS

This section provides a review of statistical data on crime and arrest trends in Lincoln County and criminal case trends over the past eight years of data gathered and provided. Minimal data was directly available for historical indicators through local sources. However, national organizations such as the Bureau of Justice Statistics, Kansas Bureau of Investigations, and the U.S. Census Bureau provide some information to develop the basis for projections of needs.

The following table depicts a eight year summary of data that indicates trends in the criminal justice system and provides the basis for the projections models that will be described later in the report.

Criminal Justice Statistical Indicators – Executive Summary

Year	2015	2016	2017	2018	2019	2020	2021	2022	Change	% Change	Annual % Change	CAGR	Average
Lincoln County Population	3,141	3,075	3,044	2,994	2,964	2,966	2,903	2,837	-238	-7.6%	-0.9%	-1.3%	2,993
Kansas Population	2,866,541	2,913,478	2,911,264	2,913,548	2,913,012	2,914,567	2,935,891	2,937,150	70,609	2.5%	0.3%	0.30%	2,913,181
Lincoln County Avg. Admissions Per Month	8	8	7	9	8	9	10	10	2.0	25.0%	3.1%	2.83%	8.6
Lincoln County Annual Admissions	96	96	84	108	96	108	120	120	24	25.0%	3.1%	2.83%	104
IR per 100,000 Lincoln County	127.35	130.08	164.26	200.40	168.69	167.45	172.24	176.24	48.89	38.4%	4.8%	4.15%	163.3
Kansas County Jail Population	6,860	6,958	7,025	7,568	8,090	8,614	8,742	9,029	2,169	31.6%	4.0%	3.49%	7,861
IR per 100,000 Kansas	239.3	238.8	241.3	259.8	277.7	295.5	297.8	307.4	68.09	28.5%	3.6%	3.18%	269.7
Lincoln County Average Length of Stay	15.2	15.2	21.7	20.3	19.0	16.9	15.2	15.2	0.0	0.0%	0.0%	0.00%	17.3
Kansas Crime Rate per 1,000	30.4	30.6	31.5	31.4	29.3	29.7	27.6	25.2	-5.2	-17.1%	-2.1%	-2.32%	29.5
Lincoln County Crime Rate 1,000	4.1	4.2	4.6	4.3	3.9	4.1	4.2	4.2	0.1	2.4%	0.3%	0.30%	4.2

Source: Bureau of Justice Statistics, Lincoln County Jail, Kansas Bureau of Investigations Reports, Vera Institute, US Census Bureau, various other websites (2015-2022)

ES-3 LINCOLN COUNTY INMATE POPULATION TRENDS

This section examines the inmate population trends at the Lincoln County Jail over the past eight years. Considered are the number of jail bookings, the average daily population (ADP), and the high and low inmate population range for each year during this period. Separate breakdowns are provided of the inmate population by gender (male or female).

Lincoln County Jail Population Trends – Executive Summary

Year	2015	2016	2017	2018	2019	2020	2021	2022	Change	% Change	Annual % Change	CAGR	Average
Inmate Avg. Daily Population	4.0	4.0	5.0	6.0	5.0	5.0	5.0	5.0	1.0	25.0%	3.1%	2.83%	4.9
Lincoln % Male	89%	97%	82%	78%	84%	86%	88%	97%	7.6%	8.5%	1.1%	1.02%	87.6%
AVG # of Male Inmates	3.6	3.9	4.1	4.7	4.2	4.3	4.4	4.8	1.3	35.6%	4.4%	3.88%	4.2
Lincoln County % Female	11%	3%	18%	22%	16%	14%	12%	3%	-7.6%	-70.2%	-8.8%	-14.06%	12.4%
AVG # of Female Inmates	0.8	0.8	0.2	0.4	0.6	0.5	0.8	0.3	-0.6	-65.5%	-8.2%	-12.45%	0.6
Lincoln County Avg. Admissions Per Month	8	8	7	9	8	9	10	10	2.0	25.0%	3.1%	2.83%	8.6
Lincoln County Annual Admissions	96	96	84	108	96	108	120	120	24	25.0%	3.1%	2.83%	104
# of Male Admissions	86	93	69	84	81	93	105	116	30	35.6%	4.4%	3.88%	91
# of Female Admissions	10	3	15	24	15	15	15	4	-6	-62.8%	-7.8%	-11.62%	13
% of Male Admissions	89%	97%	82%	78%	84%	86%	88%	97%	8%	8.5%	1.1%	1.02%	87.6%
% of Female Admissions	11%	3%	18%	22%	16%	14%	12%	3%	-8%	-70.2%	-8.8%	-14.06%	12.4%
IR per 100,000 Lincoln County	127.35	130.08	164.26	200.40	168.69	167.45	172.24	176.24	48.89	38.4%	4.8%	4.15%	163.3
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Lincoln County Average Length of Stay	15.2	15.2	21.7	20.3	19.0	16.9	15.2	15.2	0.0	0.0%	0.0%	0.00%	17.3

Source: Bureau of Justice Statistics, Lincoln County Jail, Kansas Bureau of Investigations Reports, Vera Institute, US Census Bureau, (2015-2022)

ES-4 LINCOLN COUNTY INMATE POPULATION PROJECTIONS

This section applies the trends to the projection models for Lincoln County and develops the inmate population projections for facility planning purposes and provides a forecast of Lincoln County's future jail capacity requirements through the year 2040.

Lincoln County, Kansas Inmate Population Projections (2025-2040)

PROJECTION MODEL	2025	2030	2035	2040
<i>Lincoln County Population</i>	2,756	2,730	2,603	2,482
<i>Kansas Population</i>	2,937,150	2,982,368	3,028,565	3,075,478
<i>Lincoln County Admissions</i>	123	127	148	173
1) Historical Trend % Increase				
= / year from b 0.70%	5	5	5	5
2) Historical Compound Annual Growth Rate (CAGR)				
/ year from b -1.26%	5	5	5	4
3) Ratio to Lincoln Population % Increase	5	5	4	4
4) Ratio to Kansas Population % Increase	5	5	5	5
5) Ratio to Lincoln Intake % Increase	6	6	19	57
6) IR to Lincoln Population	5	5	4	4
a. Existing = 176.24	5	5	5	4
b. High = 200.40	6	5	5	5
c. Average = 163.30	5	4	4	4
e. Low = 127.35	4	3	3	3
8) IR to Lincoln County Population	4	4	4	4
a. Existing = 176.24	5	5	5	4
b. High = 172.24	5	5	4	4
c. Average = 163.34	5	4	4	4
e. Low = 127.35	4	3	3	3
7) Intake to ALOS	7	7	9	10
a. Existing = 23.54	8	8	10	11
b. High = 26.32	9	9	11	12
c. Average = 19.54	7	7	8	9
e. Low = 15.21	5	5	6	7
8) % of State Population	6	5	6	7
a. Existing = 0.3%	5	5	5	5
9) ARIMA Box Jenkins R2 = 0.83	6	6	7	8
10) ARIMA Exponential Smoothing R2 = 0.82	6	5	6	7
AVERAGE OF ALL MODELS	5	5	6	10
<i>Peaking Factor 9%</i>	0.5	0.4	0.6	0.9
<i>Classification Factor 11%</i>	0.6	0.6	0.7	1.2
Total Peaking & Classification	1	1	1	2
Lincoln County Bed Forecast Requirement	6	6	7	12

Utilizing 10 projection models and all data provided and collected by the consultant, Lincoln County has a bed space need of approximately 12 beds to meet the needs through the year 2040. All peaking and classification factors are included in this projection. The current need based on the data is 6 beds and a subsequent need for an additional 6 beds over the next 20 years.

ES-5 PRELIMINARY SITE ASSESSMENTS

As part of this overall assessment Lincoln County Commissioners requested that we evaluate four (4) sites for possible construction of a new jail if this becomes the desired course of action. These properties are described as follows:

1. Site #1 is located on E. Elm Street between N. 3rd street and N. 2nd Street and behind the courthouse in the current parking area. This space is adjacent to the current jail and Sheriff's Office as well. This site is located closer to the Courthouse than the current jail.
2. Site #2 is located across N. 3rd Street at E. Elm Street. The space is currently occupied by the Radish Patch Community Garden. The site is approximately .1 mile from the Courthouse.
3. Site #3 is located at the intersection of W. Yauger Street and S. 4th Street, at the northeast side of the property and is currently part of the Lincoln Elementary School building. The space suggested for renovation for a Sheriff's Office and Jail Facility is approximately 10,000 square feet of built space. The location is approximately .5 miles from the Courthouse.
4. Site #4 is located at the intersection of Highway 18 and Highway 14 behind the Dollar General Store. The land is vacant and currently owned by the County. The site is approximately 1.2 miles from the Courthouse.

SITE ASSESSMENT CRITERIA

When evaluating sites for potential construction or renovation for a jail the normal site considerations must be considered by the architects during the design phase and again by the contractor that will build the facility. However, before that process begins it is important to also consider the factors contributable to a secure facility and law enforcement facility. The section below will discuss both considerations briefly.

Architects and Contractor Considerations

Property Size

Will a structure physically fit on the site where you want to build? It's not always as straightforward as ensuring that the real estate accommodates the footprint of your building plan.

Environmental Considerations

Environmental conditions on a site can vary widely and impact whether it's suitable for your project, or whether it may add sizable costs and delays. Conducting a comprehensive environmental assessment of your proposed building site will help you avoid major issues and remain in compliance with EPA standards and other regulations.

Utility Considerations

If your building site is in the middle of an old farm field such as Site #4 the County will likely pay for installing many of these necessities. Even if you plan to build in an area that is already developed such as Sites 1, 2, & 3, utilities may be easily accessible but may require upgrades to accommodate increased use.

Road & Transportation Access Considerations

Depending on the size of your workforce and visitors, accessibility from roadways may be a major sticking point.

Zoning & Regulations Considerations

The State, County, and local agencies determine the zoning requirements for land use, but they can dictate much more than whether a property is suitable for governmental use.

Demographic Considerations

If the County wants to expand into a new area or needs community "buy-in", it is vital to consider whether the employment rate is conducive to obtaining the number of workers needed to operate?

Support Services Access Considerations

The County must consider the delivery of supplies and equipment to the facility as well emergency response vehicles.

Law Enforcement and Detention Considerations

Safety and Security Considerations

A detention facility requires a secure built facility or physical plant but must also consider the surroundings beyond the actual jail or law enforcement facility.

SITE ASSESSMENTS

Site #1: Courthouse Parking Area

The Courthouse Parking Area site has approximately 12,750 square feet of land for construction and would likely be adequate to accommodate both the Sheriff's Offices and the Jail.

Pros:

- Proximity to the Courthouse.
- No vehicle transport required.
- The possibility exists for a direct, secure corridor attached to the Courthouse.

- Transport time and procedures would be significantly reduced at this site.
- Less video courts technology would be necessary due to the proximity.
- Land is already owned by the County.
- Overall, the convenience factor is significant.

Cons:

- Would consume parking space that currently exists at the north side of the Courthouse.
- Historical limitations may present significant challenges in placing the new building close to the historical Courthouse, and a direct connection may be impossible.
- Codes may require updating of utility feeds to the new building and the existing buildings at this location.
- Limitations for expansion.
- Perimeter security considerations may be difficult considering access by the public.

Site #2: Radish Patch Community Gardens

The Radish Patch Community Garden site has approximately 12,000 square feet of land for construction and would likely be adequate to accommodate both the Sheriff's Offices and the Jail.

Pros:

- Proximity to the Courthouse.
- Adequate space to accommodate both the Sheriff's Office and the Jail Services.
- Located within the County Services area.
- A secure perimeter could be accommodated appropriately.

Cons:

- May still require vehicle transport.
- Residences nearby.
- Displacement of existing community area.
- May be limited for expansion space.

Site #3: Lincoln Elementary School

The Lincoln Elementary School space is approximately 10,000 square feet of space and would easily accommodate both the Sheriff's Offices and the Jail.

Pros:

- Adequate space is available to accommodate the Sheriff Administration, Patrol and Jail services.
- Renovation may be less costly than new construction.
- Possibility for expansion.

Cons:

- Located within a residential area on all sides.
- Requires vehicle transport to the Courthouse.
- Challenge to secure building to optimal specifications.

Site #4: Vacant Lot at Hwy 18 & Hwy 14

The amount of land available at this location was not readily available but is assumed to be large enough to accommodate both the Sheriff's Office and the Jail facility.

Pros:

- Large area of undeveloped land.
- Plenty of space for expansion and/or other services to be developed.
- Direct access to two highways.
- Reasonable proximity to the Courthouse.
- Flexibility in design.

Cons:

- Service road/permit would be required for access.
- Requires vehicle transport to Courthouse.
- May be limited on services available. Higher installation fees.
- May require state approvals.

ES-6 CONCLUSIONS AND RECOMMENDATIONS

This section summarizes the study's overall findings, conclusions, and recommendations to support Lincoln County's current jail planning process and decision-making.

The population of Lincoln County is projected to decrease over the next 20 years at a slow rate, based on historical growth rates. Over the approximate 17 years from 2023 to the year 2040 the County population is expected to decrease by approximately 238 or about -7.6%. The Lincoln County Jail currently has 5 beds available (design capacity) with an average daily population as high as 6 inmates during the last 8 years. Based on the data provided by the county, gathered by the consultant, and analyzed by the consultant, it is evident that the County is operating at design capacity. While many jails in the country operate at or over capacity, the risks are drastically elevated when it comes to litigation against the County, and the risk to staff and inmates is at an intolerable level. While an investment in detention infrastructure is never popular to constituents, the impacts of possible litigation could be much worse. Lincoln County is also operating a facility that is well beyond its useful life, adding to the potential for litigation risks.

It is the recommendation of the consultant that Lincoln County assess options for upgrading and expansion of the current jail facility or begin the process for constructing a new, larger facility. In some instances, overcrowding can be managed for the short term through adjustments to court holding and processing practices and using alternatives to incarceration whenever possible. In the case of Lincoln County, the average daily population is very small and can be managed from the perspective of short term holds, however not recommended for the long term. The jails ADP has remained steady throughout the period, but is likely managed more by the ability, or inability, to hold versus the need to hold. The Lincoln County Courts, Judges, and administrative staff support the need for more beds and specifically a modern facility.

The Lincoln County jail bed space needs are not significant in comparison to many counties, but the need is very much relative to the community norms and philosophies towards law enforcement. The size of a jail should never dictate the activity of the law enforcement agencies. While small, as stated previously, the useful life of the current facility has been far exceeded, and based on population, crime, and arrests rates depicted in the historical data, Lincoln County should look to expand or build new to a capacity of 10-12 beds to meet the needs to the year 2040.

The table below provides a summary of the needs to include Peaking and Classification factors. For the years 2025, 2030, 2035 & 2040.

Summary of Bed Space Needs

PROJECTION MODEL	2025	2030	2035	2040
<i>Lincoln County Population</i>	2,756	2,730	2,603	2,482
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<i>Lincoln County Admissions</i>	123	127	148	173
Peaking Factor 9%	0.5	0.4	0.6	0.9
Classification Factor 11%	0.6	0.6	0.7	1.2
Total Peaking & Classification	1	1	1	2
Lincoln County Bed Forecast Requirement	6	6	7	12

Source: Bureau of Justice Statistics, Lincoln County Jail, Kansas Bureau of Investigations Reports, Vera Institute, US Census Bureau, various other websites (2015-2022)

Finally, it is important for the County to always monitor the Average Length of Stay (ALOS) closely as this will impact a jails population significantly. The Lincoln County Courts appears fully aware of the jails predicament and works well with the Sheriff to control the population whenever possible.

Based on the shortcomings of the current jail, and risks associated with the shortcomings, it is recommended that Lincoln County consider extensive renovations to the current facility or the construction of a new facility that will protect the County from possible litigation.

Jail Needs Assessment

I. Introduction & Overview of Needs Assessment



I. Introduction and Overview of the Needs Assessment

The Lincoln County Board of Commissioners and the County Sheriff engaged JSS consultants to conduct a needs assessment of the county jail to determine the viability of the existing facility and to determine the current and future needs of the county detention services. As part of the Needs Assessment, the Lincoln County Sheriff's Department requested that the project team "provide the County with the information necessary to make effective decisions concerning the scope of a possible expansion or new construction project, to include:

- a. Existing detention facility assessment.
- b. A current, independent, Jail Population Study with 20-year projections of bed space needs.
- c. Assessment of potential sites for new construction if warranted.

JSS Consultants conducted independent assessments and outlined a work plan organized into five major tasks.

- Task 1 Review of trends in Lincoln County's criminal justice system.
- Task 2 Analysis of the County's inmate population trends and profile.
- Task 3 Inmate population projections and jail capacity requirements.
- Task 4 Site assessment.
- Task 5 Final Report.

The Consultant — Ben Crooks is an internationally-recognized consultant specializing in the planning, design, and operation of jail facilities. He has directed or materially participated in jail planning projects for more than 150 counties, cities, states, and countries. Mr. Crooks specializes in the development of jail needs assessment studies, jail feasibility studies, inmate population trends and projections, facility evaluations, alternatives to incarceration, operational cost studies, space programming, jail staffing plans, standards compliance, and the activation of new jail facilities, operations, and offender programs.

REPORT ORGANIZATION

Executive Summary — The Executive Summary provides a brief description of the project tasks, an overview of how the report is organized, and an outline of the report's conclusions.

- I. Introduction and Overview of the Needs Assessment*** – This section provides the basis for the completion of the Needs Assessment.
- II. Criminal Justice Statistical Indicators*** — This section provides a review of statistical data on crime and arrest trends in Lincoln County and criminal case trends over the past eight years of data provided.

- III. Lincoln County Inmate Population Trends** — This section examines the inmate population trends at the Lincoln County Jail over the past eight years. Considered are the number of bookings, the average daily population (ADP), and the high and low inmate population range for each year during this period. Separate breakdowns are provided of the inmate population by gender (male or female).
- IV. Lincoln County Inmate Population Projections** — This section looks at the historical and projected population of Lincoln County, develops inmate population projections for facility planning purposes, and provides a forecast of Lincoln County's future jail capacity requirements.
- V. Preliminary Potential Site Assessments** – This section provides a preliminary site assessment of four suggested locations if a new facility were to be constructed.
- VI. Conclusion and Recommendations** — This section summarizes the study's overall findings, conclusions, and recommendations to support Lincoln County's current jail planning process and decision-making.

Jail Needs Assessment

II. Criminal Justice Statistical Indicators



II. Criminal Justice Statistical Indicators

There are numerous trends and factors that, to some extent, all have an impact on Lincoln County's criminal justice system, and the County's need for detention beds. These trends can be tangible and quantifiable, such as the County's population, or they can be intangible and difficult to quantify, such as public attitudes toward crime and offenders. The analysis is complicated further by the fact that there is no general agreement as to which factors have the most impact, or the most *direct* impact, on the size of the County's jail population.

Generally, as a county's population grows, the demands on its criminal justice system also grow. More crime, more arrests, more criminal case filings, and an increasing jail population can often be attributed, at least in part, to a county's growing population. It is not unusual, however, to find jurisdictions where the jail population is increasing, while the county's population, crime rate, or number of arrests are declining. While there may or may not be a direct statistical correlation, it is still important in a planning effort such as this to examine the trends in those areas that are both quantifiable and generally believed to have some impact on the County's need for jail services.

Additionally, in a state such as Kansas with a relatively small population, and largely rural in many counties, it is common that counties look to one another for assistance regarding jail bed needs. Duplication of services by counties for jail bed services is much too costly to justify the establishment of a jail in each county. Consideration should always be given to potential partnerships where feasible.

Criminal justice statistical projections are based largely on historical trends experienced by the entity(s) over a long-term period. These trends provide logic to a projected growth rate by considering current crime and arrest trends, and criminal case filing trends in circuit court, changes in laws, population changes, cultural practices, law enforcement and courts applications of the laws, as well as other factors. Considering the year 2020 and 2021 presented challenges within the criminal justice system and a precautionary reduction of jail bed occupation in many cases, these years are considered but with a lessor impact on the trend determinations.

CRIME, ARRESTS, & INCARCERATION RATES

To measure the trend and distribution of crime on the county and state level, Kansas delineates crimes into Violent Crimes or Property Crimes. Standard definitions are used in the state programs to maintain uniform and consistent data.

The Kansas Crime Index consists of the following offenses:

Kansas Crime Index	
Violent Crime	Property Crime
Murder	Burglary
Rape	Theft
Robbery	Motor Vehicle Theft
Aggravated Assault/Battery	Arson

Lincoln County Arrest Data Summary 2015-2022

	GENERAL COUNTY DATA				VIOLENT CRIMES							PROPERTY CRIMES					
	Estimated Population	Months Report	Total Crimes	Crime Index Rate/1000	Total Violent	% of Crime	Offenses Rate/1000	Murder	Rape	Robbery	Agg. Assault/Battery	Total Property	Offenses Rate/1000	Burglary	Theft	Motor Vehicle Theft	Arson
2015	3,147	12	92	29.2	4	4.3%	1.3	0	0	0	4	88	28.0	40	47	1	0
2016	3,064	9	14	4.6	1	7.1%	0.3	0	0	0	1	13	4.2	7	6	0	0
2017	3,044	10	24	7.9	1	4.2%	0.3	0	0	0	1	23	7.6	7	15	1	0
2018	3,055	10	17	5.7	3	17.6%	1.0	0	1	1	1	14	4.7	5	9	0	0
2019	2,991	8	10	3.3	1	10.0%	0.3	0	0	0	1	9	3.0	1	7	1	0
2020	2,926	8	8	2.7	1	12.5%	0.3	0	1	0	0	7	2.4	5	2	0	0
2021	2,977	11	26	8.7	4	15.4%	1.3	1	1	0	2	22	7.4	6	14	2	0
2022	Agency did not report data in 2022																
AVG.	3,029	10	27	8.9	2	10.2%	0.7	0	0	0	1	25	8.2	10	14	1	0

Source: Kansas Crime Index Report, Kansas Bureau of Investigations

Each year the Kansas Bureau of Investigations Incident Based Reporting Unit issues the Kansas Crime Index Report. This information is dependent on the local jurisdictions, or Sheriff’s Office, providing accurate and complete information monthly.

Based on these reports, Lincoln County experiences far more property related crimes than violent crimes. This has been the trend over the 8-year period. This becomes significant in relation to jail bed requirements due to the need to hold violent offenders pending trial in most cases, versus an ability to conditionally release offenders with non-violent crime charges pending trial. A court can more easily assist a jail in managing inmate populations when necessary if violence is not a significant part of the equation for consideration. With Lincoln County offenders typically non-violent, a jail can be utilized as a deterrent to crime but remain flexible enough to avoid overcrowding issues through conditional releases when or if necessary.

As part of this study, an examination was made of the number and type of offenses reported in Lincoln County over the past eight years of available data (2015 – 2022).

Total Crime Rate — Over the past eight years, the total crime rate for Lincoln County has realized minor increases in 2017 and 2018 but has generally remained consistent over the period. In 2015 the crime rate was 4.1 per 1,000 and was 4.2 per 1,000 in 2022. This represents a .3% annual increase over the period. The State’s Crime Rate has decreased over the same period. In 2015 Kansas’ crime rate was 30.4 per 100,000 and has decreased to 25.2 per 100,000 by 2022.

Note: It should be noted that crime statistics can be easily misinterpreted. Caution must be used when examining and interpreting crime statistics, particularly when done as part of an analysis of the County's jail capacity needs. In many counties, the amount of reported crime is declining, while the County's jail population is increasing. Although this may seem contradictory, it must be kept in mind that crime statistics only include the eight "most serious" offenses, and only include reported offenses. Most of the criminal offenses that are routinely committed, and serious offenses that go unreported, are not included in the UCR system's crime index.

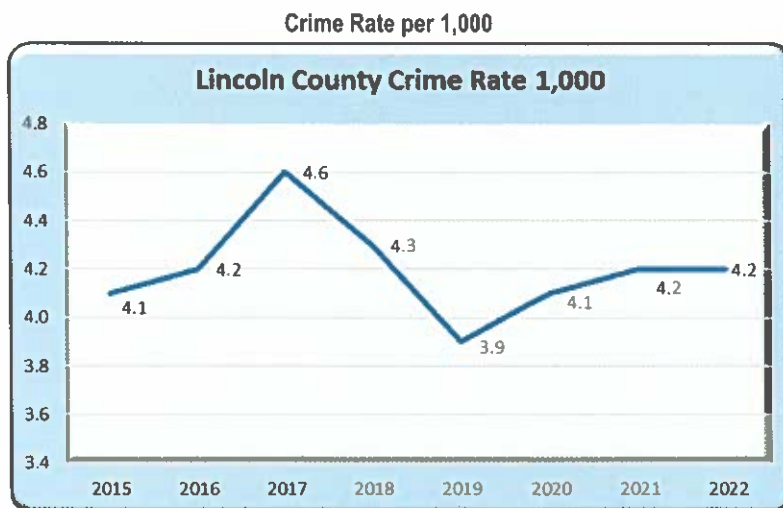
The following table and graph depict the crime rate for the State of Kansas and Lincoln County from 2015-2022.

Kansas & Lincoln County Crime Rate Table 2015-2022

Year	2015	2016	2017	2018	2019	2020	2021	2022	Change	% Change	Annual % Change	CAGR	Average
Kansas Crime Rate per 1,000	30.4	30.6	31.5	31.4	29.3	29.7	27.6	25.2	-5.2	-17.1%	-2.1%	-2.32%	29.5
Lincoln County Crime Rate 1,000	4.1	4.2	4.6	4.3	3.9	4.1	4.2	4.2	0.1	2.4%	0.3%	0.30%	4.2

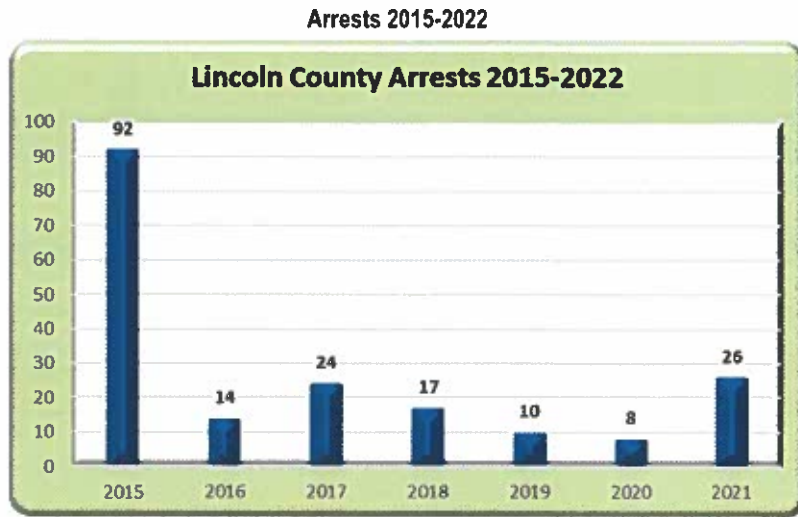
Source: Bureau of Justice Statistics, Lincoln County Jail, Kansas Bureau of Investigations Reports, Vera Institute, US Census Bureau, (2015-2022)

Lincoln County has remained relatively consistent in its crime rate over the data period, with an expected decrease during the pandemic (2019-2020) like nearly every county in the United States. The crime rate itself within Lincoln County is historically low in comparison to other counties and states. Over the 8-year period from 2015-2022, there was a .1-point increase.



ARRESTS & ADMISSIONS

Arrest trends are another important statistical indicator in the criminal justice system. As part of this study, an examination was made of the number of total arrests in Lincoln County over the past 8 years of available data (2015 – 2022).



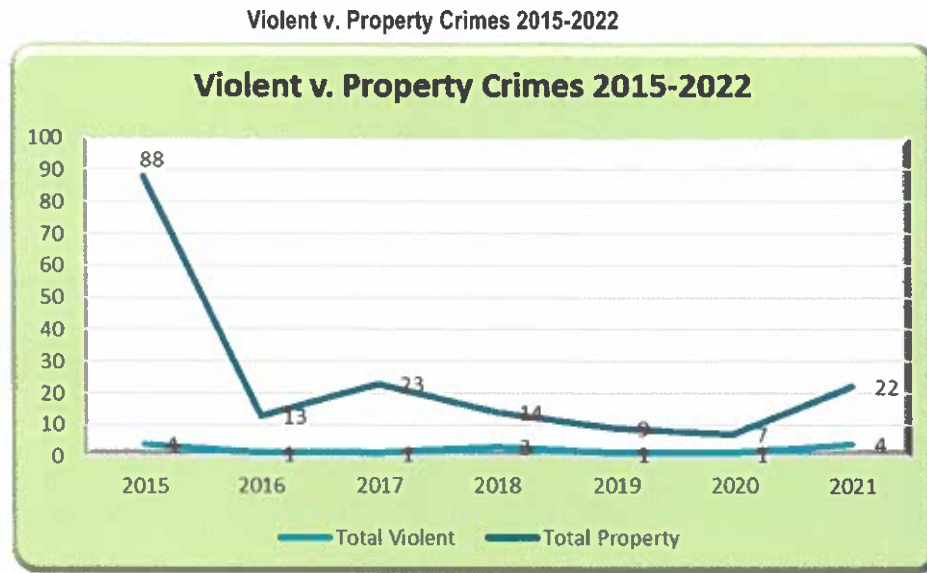
Total Arrests — Over the past eight years, the total number of arrests in Lincoln County was highest in 2015, with a total of 92 arrests. Arrests then decreased significantly in 2016 to a total of 14 arrests and remained low with slight increases in 2017 and again in 2021 to 24 and 26 respectively. The overall average for the period 2015-2021 (no data reported in 2022) was 27 arrests annually.

Summary of Crimes by Type

	GENERAL COUNTY DATA		VIOLENT CRIMES		PROPERTY CRIMES	
	Total	Total Violent	% of Crime	Total Property	% of Crime	
2015	92	4	4.3%	88	95.7%	
2016	14	1	7.1%	13	92.9%	
2017	24	1	4.2%	23	95.8%	
2018	17	3	17.6%	14	82.4%	
2019	10	1	10.0%	9	90.0%	
2020	8	1	12.5%	7	87.5%	
2021	26	4	15.4%	22	84.6%	
2022	Agency did not report data in 2022					
AVG.	27	2	10.2%	25	89.8%	

Source: Kansas Crime Index Report, Kansas Bureau of Investigations

Most arrests annually are overwhelmingly related to property crimes. In 2015, of the 92 total arrests, 88 were related to property crimes with only 4 related to violent offenses. Two anomalies during this period occurred in 2015 & 2021 when violent crime arrests accounted for over 15.4% of total arrests. The overall average of violent offenses versus property offenses was 10.2% for the period.



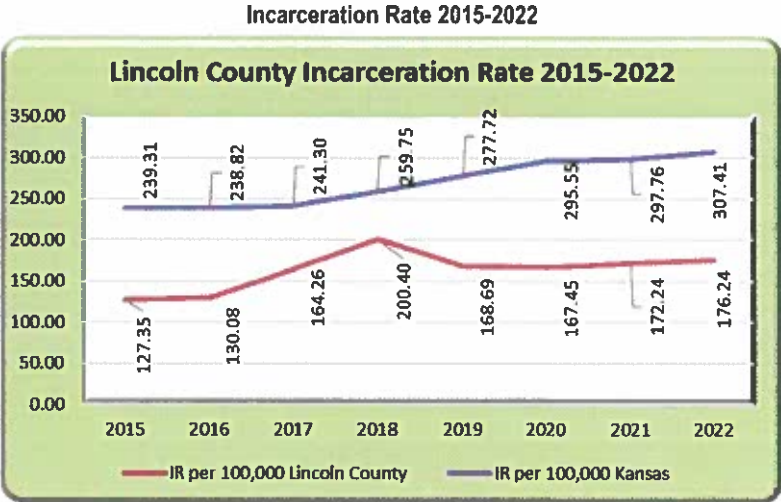
INCARCERATION RATE

The incarceration rate indicates the trends or sentiment within a defined jurisdiction regarding the criminal justice system. The incarceration rate of the U.S. is one of the highest in the world overall, with some states far exceeding others at times. Generally, Kansas maintains an average in the mid-range of states, although in recent years shows an increased rate. Lincoln County incarceration rate has increased since 2015 to a high in 2018 of over 200 per 100,000. By the end of 2022, the incarceration rate saw an increase of 38.4% since 2015 with a rate of 176.4 per 100,000.

Historical Incarceration Rates (Lincoln County & Kansas)

Year	2015	2016	2017	2018	2019	2020	2021	2022	Change	% Change
IR per 100,000 Lincoln County	127.35	130.08	164.26	200.40	168.69	167.45	172.24	176.24	48.89	38.4%
IR per 100,000 Kansas	239.31	238.82	241.30	259.75	277.72	295.55	297.76	307.41	68.09	28.5%

Source: Bureau of Justice Statistics, Lincoln County Jail, Kansas Bureau of Investigations Reports, Vera Institute, US Census Bureau, (2015-2022)



Jail Needs Assessment

III. Lincoln County Inmate Population Trends





III. Lincoln County Inmate Population Trends

Of all statistical indicators, historical and projected population of the State, County, and the County's inmate population trends provide the best indicators of the County's future growth as a whole and the jail bed space needs. While crime the number of bookings and the jail's historical average daily population (ADP) of inmates provide the most direct information regarding trends in the County's actual jail bed needs.

STATE AND COUNTY POPULATION

Kansas population over the past 8 years (through 2022) has increased by approximately 2.5% overall from 2,866,541 in 2015 to 2,937,150 in 2022, and an estimate growth of approximately .3% annually, and a compound annual growth rate (CAGR) of .3%. Lincoln County population over the same period has decreased but by a much lower percentage and obviously lower number. The annual percentage change of the period from 2015-2022 was -.09% overall, with an overall percentage change of -1.3%. Lincoln County population decreased consistently from 2015 through 2012 from 3,141 in 2015 to 2,837 in 2022.

The table below illustrates both the state and county population from 2015-2022.

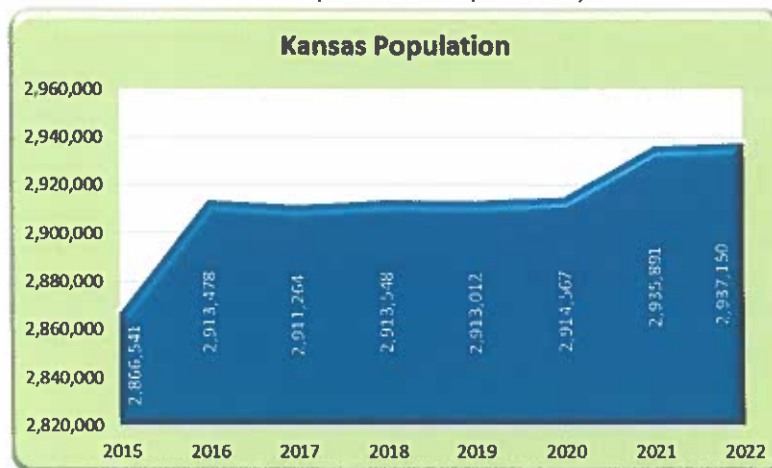
Kansas and Lincoln County Population (2015-2022)

Year	2015	2016	2017	2018	2019	2020	2021	2022	Change	% Change	Annual % Change	CAGR	Average
Lincoln County Population	3,141	3,075	3,044	2,994	2,964	2,986	2,903	2,837	-238	-7.6%	-0.9%	-1.3%	2,993
Kansas Population	2,866,541	2,913,478	2,911,264	2,913,548	2,913,012	2,914,567	2,935,891	2,937,150	70,609	2.5%	0.3%	0.30%	2,913,181

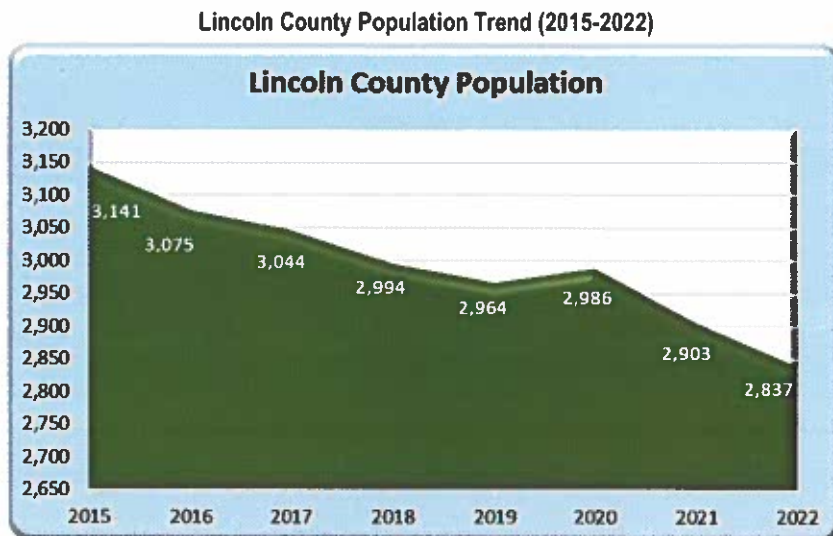
Source: Bureau of Justice Statistics, Lincoln County Jail, Kansas Bureau of Investigations Reports, Vera Institute, US Census Bureau, (2015-2022)

The overall state population has steadily increased over the 8-year period by approximately 70,000.

Kansas Population Trend (2015-2022)



While the Lincoln County population has steadily decreased between 2015-2022.



INTAKES/ADMISSIONS/BOOKINGS

The number of admissions is an important indicator of the quantity and frequency of people being processed into (and subsequently out of) the jail system. Admissions and releases also have an impact on the size of the overall jail population and provide an insight into the demands placed on the facility's intake and release area, and the staff involved with the processing of inmates into (and out of) the facility.

Total Annual Admissions — Over the past eight years, the total number of jail admissions, or intakes, at the Lincoln County Jail have increased despite the population decrease over the same period. The overall county population showed a decrease of 7.6% over the period, while conversely, the jail admissions increased by approximately 25% over the period, with a 3.1% average increase annually. The overall change in the average number of admissions from 2015 to 2022 was 24. Interestingly, most jurisdictions in the U.S. experienced a decrease of admissions during the pandemic period of 2019-2020, yet Lincoln County increased admissions slightly during this period.

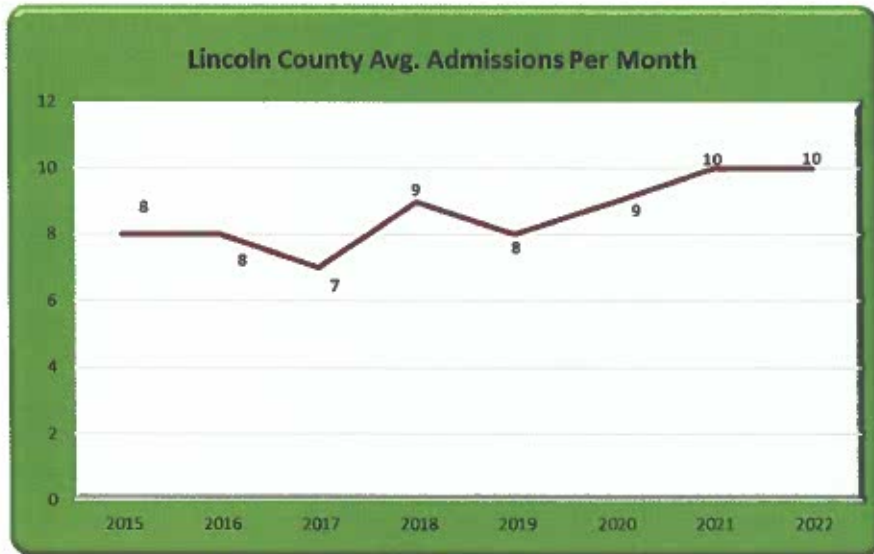
Monthly Admissions — Over the past eight years admissions at the Lincoln County Jail have averaged 8.6 monthly. The highest monthly average was in 2020 and 2021 at 10 and the lowest in 2017 at seven (7) per month. The overall change by percentage is consistent with annual differences at 3.1%. Since 2017 there has been a steady increase in the overall monthly admissions.

The table and chart below provide the annual and monthly admissions data.

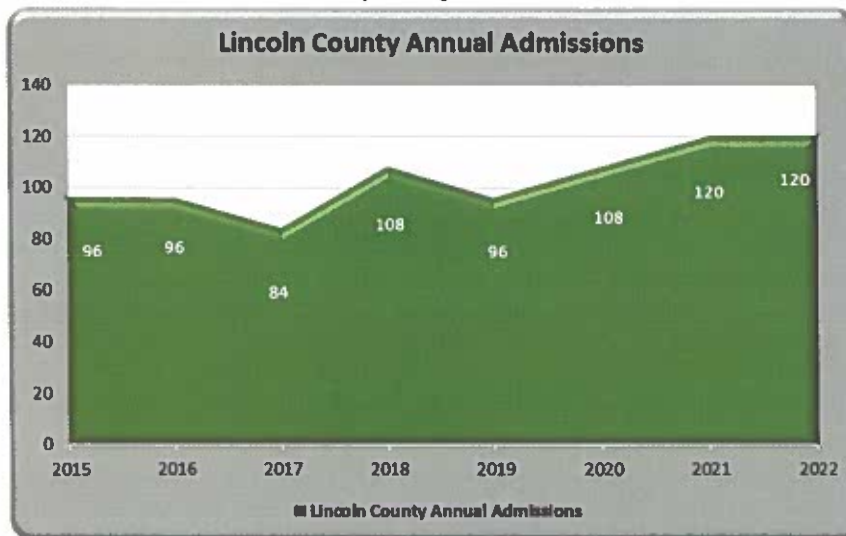
Lincoln County Admissions Per Month/Annual (2015-2022)

Year	2015	2016	2017	2018	2019	2020	2021	2022	Change	% Change
Lincoln County Population	3,141	3,075	3,044	2,994	2,964	2,986	2,903	2,837	-238	-7.6%
Lincoln County Avg. Admissions Per Month	8	8	7	9	8	9	10	10	2.0	25.0%
Lincoln County Annual Admissions	96	96	84	108	96	108	120	120	24	25.0%

Lincoln County Average Monthly Admissions



Lincoln County Average Annual Admissions



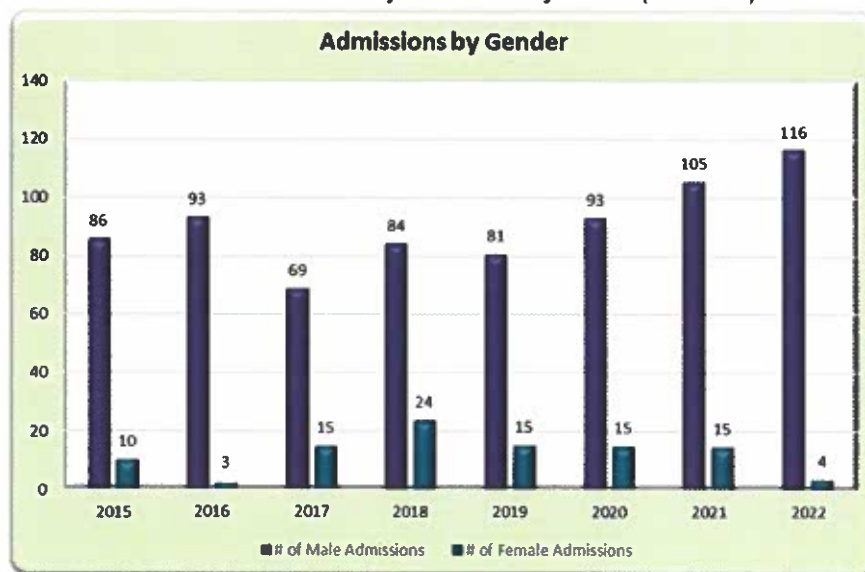
As illustrated in the previous section, the overall admissions have increased for males and decreased for females from 2015 to 2022. However, the total admissions have increased. Male admissions decreased slightly in 2017 from 2015 & 2016 but have increased significantly since 2019 with an approximate 36% increase over the 8-year period. Female admissions show a decrease by 70% since 2015. Combined, the total admissions increased by approximately 25% over the period.

Historical Lincoln County Admissions (2015-2022)

Year	2015	2016	2017	2018	2019	2020	2021	2022	Change	% Change	Annual % Change	CAGR	Average
# of Male Admissions	86	93	69	84	81	93	105	116	30	35.6%	4.4%	3.88%	91
# of Female Admissions	10	3	15	24	15	15	15	4	-6	-62.8%	-7.8%	-11.62%	13
% of Male Admissions	89%	97%	82%	78%	84%	86%	88%	97%	8%	8.5%	1.1%	1.02%	87.6%
% of Female Admissions	11%	3%	18%	22%	16%	14%	12%	3%	-8%	-70.2%	-8.8%	-14.06%	12.4%

Source: Bureau of Justice Statistics, Lincoln County Jail, Kansas BOJ Reports, Vera Institute, US Census Bureau, various other websites (2015-2022)

Lincoln County Admissions by Gender (2015-2022)



AVERAGE DAILY POPULATION (ADP)

The Average Daily Population (ADP) is an important statistical indicator in assessing the need for jail beds. Although summary reports may be generated by the jail each month, they do not track inmate population data consistently, and most jails do not analyze the data. The Lincoln County Sheriff’s Office provided data and extensive effort was made to research data provided by the State Attorney Generals reports, Bureau of Justice Statistics, and the FBI crime reports to gather enough base data to create valid projection models for Lincoln County. This analysis of ADP data was based on the years 2015-2022 as this was the information available and most complete for Lincoln County.

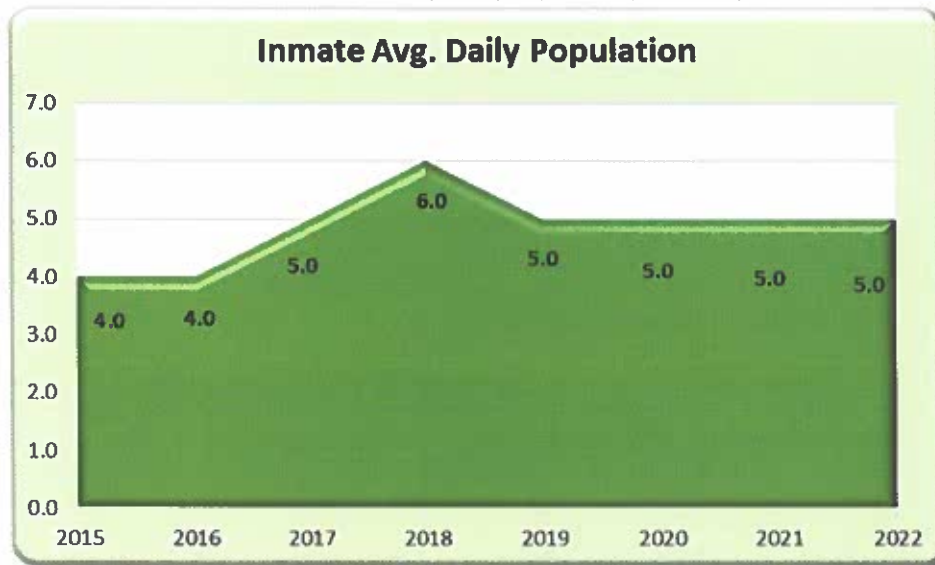
As illustrated below, the average daily population (ADP) for Lincoln County over the period of 2015-2022 has increased from 4 to 6 between 2015-2018, and then decreased to approximately 5 in 2020. The increase in the ADP between 2015 and 2018 can be attributed primarily to the increase in arrests during the period, as well as the increase in the Average Length of Stay (ALOS) that will be discussed in the following section. The percentage change of the 8-year period is 25% overall. The ADP for the period 2015-2022 was 5 inmates.

Lincoln County Average Daily Population

Year	2015	2016	2017	2018	2019	2020	2021	2022	Change	% Change
Inmate Avg. Daily Population	4.0	4.0	5.0	6.0	5.0	5.0	5.0	5.0	1.0	25.0%

Source: Bureau of Justice Statistics, Lincoln County Jail, Kansas Bureau of Investigations Reports, Vera Institute, US Census Bureau, (2015-2022)

Lincoln County Average Daily Population (2013-2020)



INMATE POPULATION BY GENDER

MALE INMATES

Since 2015, the ADP of male inmates each year ranged from a low of 3.6 male inmates in 2015, to a high of 4.8 male inmates in 2022. Over the past 8-years, males have comprised an average of 88% percent of the County's inmate population. The percentage of male inmates on average has increased over the period by 7.6% overall, or a 1.1% annual increase of males.

FEMALE INMATES

Since 2015, the ADP of female inmates each year ranged from a low of .2 female inmates in 2017, to a high of .8 in 2015, 2019, & 2021. Over the past 8-years, females have comprised an average of 12% percent of the County's inmate population. This represents a decrease of 70% over the period, or an 8.8% decrease annually.

The graph and table below show the ADP of Lincoln County's male and female inmate population for each year from 2015 through 2022.

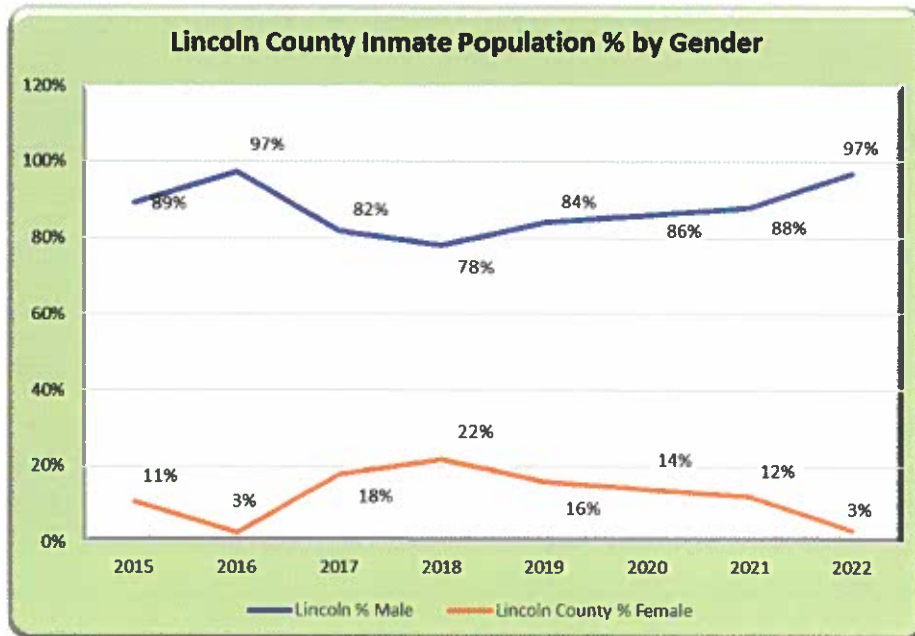
Lincoln County ADP (Male & Female)

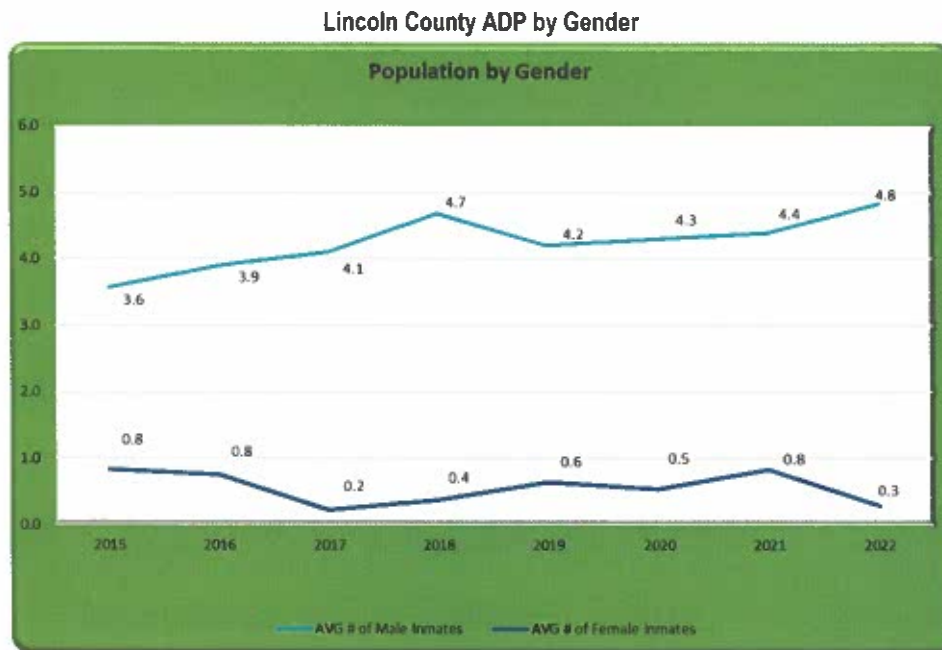
Year	2015	2016	2017	2018	2019	2020	2021	2022	Change	% Change	Annual % Change	CAGR	Average
Lincoln % Male	89%	97%	82%	78%	84%	86%	88%	97%	7.6%	8.5%	1.1%	1.02%	87.6%
AVG # of Male Inmates	3.6	3.9	4.1	4.7	4.2	4.3	4.4	4.8	1.3	35.6%	4.4%	3.88%	4.2
Lincoln County % Female	11%	3%	18%	22%	16%	14%	12%	3%	-7.6%	-70.2%	-8.8%	-14.06%	12.4%
AVG # of Female Inmates	0.8	0.8	0.2	0.4	0.6	0.5	0.8	0.3	-0.6	-65.5%	-8.2%	-12.45%	0.6

Source: Bureau of Justice Statistics, Lincoln County Jail, Kansas Bureau of Investigations Reports, Vera Institute, US Census Bureau, (2015-2022)

The chart below illustrates a downward trend since 2015 in female bed needs and an upward trend in male beds.

Lincoln County Inmate Population % by Gender

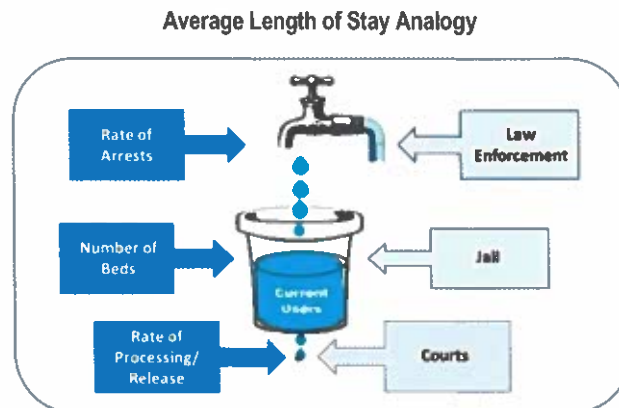




AVERAGE LENGTH OF STAY

The *average length of stay* (ALOS) is the most critical piece of information that a jail should monitor on a regular basis. The ALOS is a key indicator of population trends and serves as a warning of an increasing or decreasing population. Although the jail has no control of the ALOS, monitoring can provide information to communicate to the courts to manage the population more efficiently. A slight change in the ALOS affects the number of beds required to house inmates and remain within the operational capacity. The peaking and classification factors allow for the fluctuations of the ALOS in the short term, special circumstances, however an increase of the ALOS over time will cause overcrowding in a jail very quickly.

One analogy of the affect the ALOS can have on a jail population is depicted in the diagram below:



In the above diagram, as the rate of arrests or admissions changes the jail population increases or decreases depending on the courts ability to process cases accordingly. As the courts slow (higher ALOS) or admissions increase, or both, the jail population will increase drastically. If the courts processing time decreases (lower ALOS) the jail population will decrease accordingly assuming arrests remain steady or decrease.

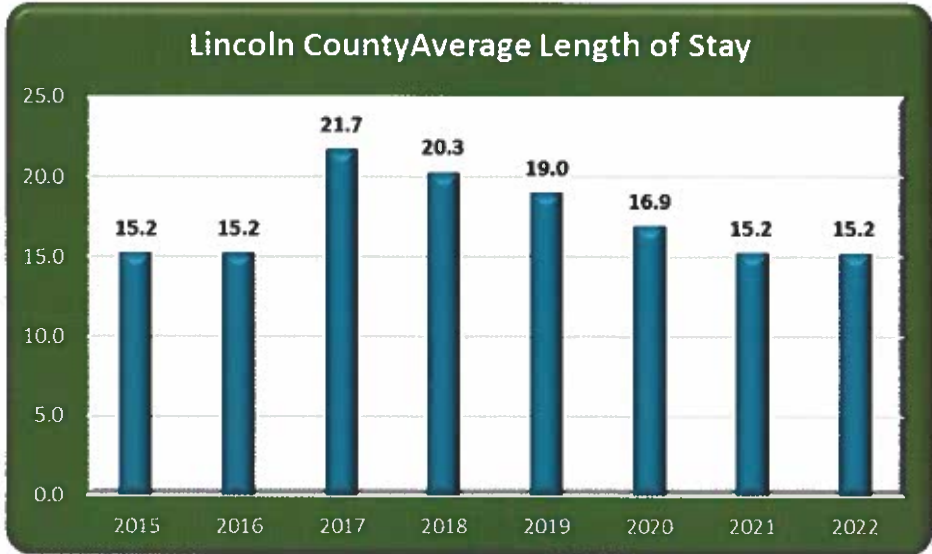
Lincoln County's ALOS increased in 2017 through 2019 to as high as 21.7 days, and then returned to the 2015 ALOS of 15.2 by 2021 & 2022. While admissions increased over the period from 2018 to 2022, the ALOS decreased and kept the ADP steady. The average ALOS over the 8-year period was 17.3 days. The target goal from the National Center for State Courts is approximately 15-17 days. Most counties in the U.S. are well exceeding the target goal. Lincoln County seems to be a positive exception in case processing times.

Lincoln County Average Length of Stay (ALOS) (2015-2022)

Year	2015	2016	2017	2018	2019	2020	2021	2022	Change	% Change	Annual % Change	CAGR	Average
Lincoln County Average Length of Stay	15.2	15.2	21.7	20.3	19.0	16.9	15.2	15.2	0.0	0.0%	0.0%	0.00%	17.3

Source: Bureau of Justice Statistics, Lincoln County Jail, Kansas BOI Reports, Vera Institute, US Census Bureau, various other websites (2015-2022)

Lincoln County ALOS Diagram (2015-2022)



Lincoln County ALOS Historical & Projected to 2030

		ADMISSIONS									
										2025	2030
										Projected	Projected
		96	96	84	108	96	108	120	120	128	141
Average Length of Stay	24.0	6	6	6	7	6	7	8	8	8	9
	23.0	6	6	5	7	6	7	8	8	8	9
	21.7	6	6	5	6	6	6	7	7	8	8
	20.3	5	5	5	6	5	6	7	7	7	8
	20.0	5	5	5	6	5	6	7	7	7	8
	19.0	5	5	4	6	5	6	6	6	7	7
	18.3	5	5	4	5	5	5	6	6	6	7
	18.0	5	5	4	5	5	5	6	6	6	7
	17.3	5	5	4	5	5	5	6	6	6	7
	16.9	4	4	4	5	4	5	6	6	6	7
	16.0	4	4	4	5	4	5	5	5	6	6
	15.2	4	4	3	4	4	4	5	5	5	6
	14.9	4	4	3	4	4	4	5	5	5	6
	14.8	4	4	3	4	4	4	5	5	5	6
	14.5	4	4	3	4	4	4	5	5	5	6
	14.4	4	4	3	4	4	4	5	5	5	6
14.1	4	4	3	4	4	4	5	5	5	5	
		2015	2016	2017	2018	2019	2020	2021	2022	2025	2030



Jail Needs Assessment

IV. Lincoln County Inmate Population Projections





IV. Lincoln County Inmate Population Projections

This section provides inmate population projections for facility planning purposes, and a forecast of Lincoln County's future jail capacity requirements. These projections include:

- ✓ The historical and projected population of Lincoln County.
- ✓ Inmate population projections for the next 20 years for Lincoln County, based on current trends; and
- ✓ A forecast of jail capacity requirements (i.e., total jail beds needed), based on the inmate population projections.

There is no commonly accepted methodology for making inmate population projections. The National Institute of Corrections (NIC), the National Sheriffs' Association (NSA), the American Correctional Association (ACA), and the American Jail Association (AJA) do not recommend or endorse a particular forecasting methodology. Models that work well in one jurisdiction may or may not produce a reliable forecast in another jurisdiction. Counties that are designing new or expanded jails must determine for themselves which trends and which mathematical models will provide them with reasonable growth estimates for facility planning purposes.

There are numerous different forecasting models. Some can be very complex, and some are simple. As a consultant, we have prepared inmate population projections for cities and counties — and reviewed the projections of other consultants for more than 25 years. In my experience, statistically complex models do not necessarily produce more accurate projections, and the methodology is often difficult for constituents and elected officials to quickly grasp.

Inmate population projections should meet two tests — (1) they should be reasonable, and (2) they should be rationally derived. In other words, the projections should be reasonable, given the County's recent history and current trends, and they should be developed using some mathematical model that yields logical, evidence-based results that are replicable. Counties must consider the cost of expansion and the liability or risk of not having enough beds when required. While it is best to have more beds than necessary at any given time, it is not fiscally responsible to over build without purpose.

It should also be noted that projections degrade over time — meaning, the further out the projections are made, the less reliable the estimates become. Projections for the next ten years should be used to help facilitate decision-making about the County's current jail capacity requirements. Long-range inmate population projections (for 10 to 20 years into the future) should only be used for long-term master planning and site planning purposes. It should also be kept in mind that facility planning decisions, including jail capacity, can be driven as much or more by other factors — such as building geometry, site restrictions, or what the County can, or is willing to afford.

Changes in the County as a population, business and industry, laws, and law enforcement practices can drastically affect the need or lack of need of jail beds. All the listed factors should be considered for the future when planning to expand or assess the County's jail bed needs. When major impact events occur within the County Criminal Justice system, projections should be revisited and revised.

INMATE POPULATION PROJECTIONS

As part of this study, 10 different, but commonly used, forecasting methodologies were applied to Lincoln County's inmate population trends to estimate the County's future inmate population for facility planning purposes. A total of 14 models were tested originally with ten providing valid projections. It should be noted that some models project lower based on data, while others project higher. To obtain a logical result of factors considered, the average of the valid models is utilized for final projections.

Overview of the Inmate Population Projection Models and Results

The following is a list and general description of the inmate population projection models that were tested and applied to Lincoln County's inmate population trends to estimate the County's future inmate population.

MODEL 1 — Historical Trend % Increase - *Based on Lincoln County's Average % increase in county population trend over the past 96 months (2015 – 2022).*

MODEL 2 — Historical Compound Annual Growth Rate - *Based on the average growth rate of the County population over the past 8 years.*

MODEL 3 — Ratio to Lincoln County Population % Increase - *Based on Lincoln County's population percentage annual increase over the past 8 years.*

MODEL 4 — Ratio to Kansas Population % Increase - *Based on Kansas population percentage annual increase over the past 8 years.*

MODEL 5 – Ratio to Lincoln Intake % Increase – *Based on the historical rate of intakes over the historical period and projected rate of increase through the projection period.*

MODEL 6 – Incarceration Rate to Kansas Population – *Based on the Kansas projected rate of incarceration and historical data for incarceration rates.*

MODEL 7 – Intake to ALOS – *Based on the historical average length of stay for the historical data points.*

MODEL 8 – Percentage of State Population – *Based on the percentage of state population change of the historical period.*

MODEL 9 — ARIMA Box Jenkins Projections Model - *The Box-Jenkins Model is a mathematical model designed to forecast data ranges based on inputs from a specified time series. The Box-Jenkins Model analyzes time series data based on such data as daily, monthly, or annual inmate counts, intakes, arrests, and extracts trends over longer periods of time.*

MODEL 10 — ARIMA Exponential Smoothing - *Exponential smoothing is a rule of thumb technique for smoothing time series data (intakes, counts, arrests, etc.) using the exponential window function. Whereas in the simple moving average the past observations are weighted equally, exponential functions are used to assign exponentially decreasing weights over time.*

The results of the four other models were rejected as being invalid.

The valid projection model results reduced to five-year increments are as follows resulting in a projected bed space need for Lincoln County of 10 total beds by the year 2040.

Lincoln County Bed Need Projection Models (5-Year Increments)

PROJECTION MODEL	2025	2030	2035	2040
<i>Lincoln County Population</i>	2,756	2,730	2,603	2,482
<i>Kansas Population</i>	2,937,150	2,982,368	3,028,565	3,075,478
<i>Lincoln County Admissions</i>	123	127	148	173
1) Historical Trend % Increase				
= / year from b 0.70%	5	5	5	5
2) Historical Compund Annual Growth Rate (CAGR)				
/ year from b -1.26%	5	5	5	4
3) Ratio to Lincoln Population % Increase	5	5	4	4
4) Ratio to Kansas Population % Increase	5	5	5	5
5) Ratio to Lincoln Intake % Increase	6	6	19	57
6) IR to Lincoln Population	5	5	4	4
a. Existing = 176.24	5	5	5	4
b. High = 200.40	6	5	5	5
c. Average = 163.30	5	4	4	4
e. Low = 127.35	4	3	3	3
8) IR to Lincoln County Population	4	4	4	4
a. Existing = 176.24	5	5	5	4
b. High = 172.24	5	5	4	4
c. Average= 163.34	5	4	4	4
e. Low = 127.35	4	3	3	3
7) Intake to ALOS	7	7	9	10
a. Existing = 23.54	8	8	10	11
b. High = 26.32	9	9	11	12
c. Average= 19.54	7	7	8	9
e. Low = 15.21	5	5	6	7
8) % of State Population	6	5	6	7
a. Existing = 0.3%	5	5	5	5
9) ARIMA Box Jenkins R2 = 0.83	6	6	7	8
10) ARIMA Exponential Smoothing R2= 0.82	6	5	6	7
AVERAGE OF ALL MODELS	5	5	6	10

JAIL CAPACITY REQUIREMENTS

Inmate population projections are not the same as jail capacity requirements. As discussed in the following section, the facility needs more jail beds than the average projected inmate population to accommodate routine fluctuations (peaks) in the facility's population, and for inmate classification and management purposes (to separate and segregate different types of inmates appropriately).

The facility's actual inmate population fluctuates above and below the trend line due to the reasons stated above. Therefore, for facility planning purposes, we should look at where the current trends are leading in five to ten years. As new and additional jail beds become available, if expansion occurs, policies and practices can change, resulting in even greater demands for jail capacity. The judicial branch often seizes the opportunity to be more liberal in sentencing if beds are available, or law enforcement increases patrols, arrests, etc. This is why many new jail facilities are either full when they open or fill up much quicker than had been predicted. There are many counties that have built or expanded their jail facility to meet their ten-year projections, only to find their new facility at (or beyond) its capacity within three to five years.

While this "systemic accommodation" frequently occurs, it is difficult to quantify the impact this has had on a county's historical inmate population trend data, and the extent to which the county's inmate population projections may be adjusted (increased) to account for this factor. The ideal situation remains that a criminal justice system would not view availability as an opportunity to drastically change systemic practices.

Finally, it is important to view inmate population projections within appropriate context. The projections are largely based on the County's actual inmate historical population trends. At any given time during this period, Lincoln County's actual inmate population has been the result of a unique combination of factors within the criminal justice system that affect (1) jail admissions, (2) jail releases, and (3) the length of stay in jail. All of which have been impacted, to some extent, by the combined efforts of law enforcement, prosecution, and the courts.

The inmate population projection trendlines should not be viewed as hard, straight, and unwavering lines. They are simply a graphic illustration of where the inmate population is heading, given the County's current trends, for facility planning purposes. There are a variety of forces that are pushing the line down (and at the same time, there can be factors that force the trends upward). Any significant change in this balance will have an impact on the County's future jail bed needs.

FORECAST OF JAIL CAPACITY REQUIREMENTS

The next step in the facility planning process involves estimating the total number of jail beds (jail capacity) needed to support the projected inmate population. The average daily population (ADP) is just that — an average. The jail's actual inmate population fluctuates above and below that average. Therefore, to estimate the total number of jail beds needed, a peaking and classification factor must be considered.

Peaking Factor — All jail populations fluctuate to a certain extent. Inmate populations go up and down every day, based on the number of inmate admissions and releases. Many jail facilities fill up over the weekend (due to weekend arrests, etc.), but will see their inmate numbers decline somewhat by mid-week, as inmates are released, bonded out, plead, etc. Many jail populations also fluctuate during certain times of the year such as holiday periods, major events within the County, etc.

Classification Factor — There must be sufficient jail capacity for inmate classification and management purposes to separate and segregate different types of inmates. Additional capacity is needed to provide enough jail beds to allow for the separation of males and females, to separate inmates by custody classification (minimum, medium, or maximum security), and to allow further segregation for administrative and disciplinary purposes.

While a jail needs more beds than its ADP (to accommodate routine peaks and to allow for inmate classification and separation), there is no definitive methodology for estimating the total amount of capacity (jail beds) that will be needed to support the County's inmate population projections. The peaking and classification are best calculated utilizing the county's historical trends.

For facility planning purposes, many consultants and Departments of Corrections across the country use the "80% rule" — that is, a jail should be considered "full" when 80% of its beds are occupied. This formula typically allows for sufficient additional capacity to accommodate routine peaks in the inmate population, and to provide for the separation of males and females, and to further separate inmates with different security requirements. When the occupancy level exceeds more than 80 percent of capacity, it becomes progressively more difficult to accommodate the routine peaks in the inmate population, and to properly place inmates into an appropriate housing area based on their classification.

For Lincoln County, a minimum amount of data was available to provide for an average peaking above the ADP over any extended period. Therefore, to estimate the peaking factor, the consultant utilized a percentage of 9% for peaking, or the national average. A peaking factor of 9% was added to the projected baseline ADP forecast to accommodate routine fluctuations in the County's inmate population. A classification factor of 11% was added to allow for the proper separation and segregation of different types of inmates. Based on the application of these calculations to the baseline ADP projections, it is estimated that Lincoln County will need a total of 6 county inmate beds by the year 2025 and 12 beds by the year 2040.

The table below depicts the projected peaking and classification for Lincoln County and the total bed requirement.

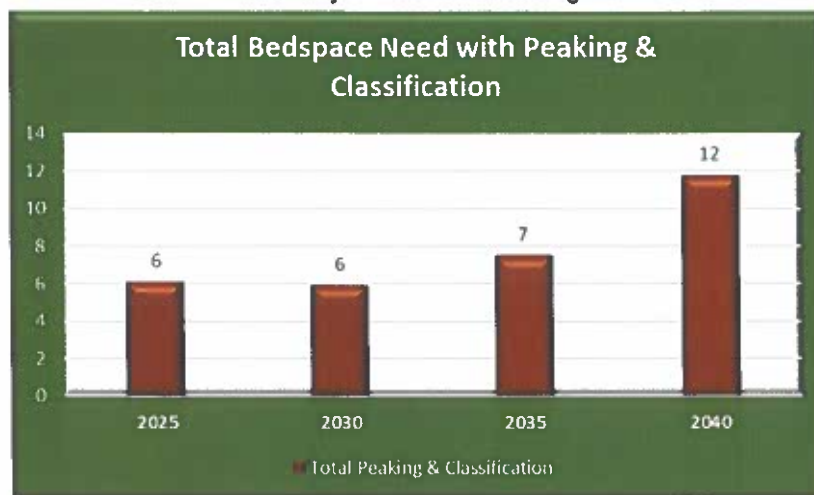
Summary of Projections and Peaking and Classification Factors

PROJECTION MODEL	2025	2030	2035	2040
AVERAGE OF ALL MODELS	5	5	6	10
<i>Peaking Factor 9%</i>	0.5	0.4	0.6	0.9
<i>Classification Factor 11%</i>	0.6	0.6	0.7	1.2
Total Peaking & Classification	1	1	1	2
Lincoln County Bed Forecast Requirement	6	6	7	12

The classification of beds is typically determined based on the average percentage of males and females over the historical period, and by the classification averages for high, medium, and low custody. In the case of Lincoln County, being a very small inmate population with minimal intakes, versatility will be important when creating separations between cells and beds to maximize the usage as necessary.

For instance, most intakes in Lincoln County are for non-violent male offenders. Few violent offenders have been held historically and few females. Consideration should be given to providing one general population male area for six (6) inmates, one separation area for two (2) male or female inmates (high custody males or any custody females), and an additional 2-4 all custody area. The necessary separation of sight and sound must be considered for each area so each can be utilized effectively, or when not needed, do not have to be staffed. This would include separate sanitation and recreation areas.

Lincoln County Total Bed Need Through 2040



The total bed needs through 2040 is approximately 12 beds. While there is no set standard for total square footage per bed, and the square footage per bed could be adjusted depending on many factors, for planning purposes 250 square feet will be used. This space would include all areas required for jail operations to include, but not limited to Intake/Release area, medical screening area, inmate housing or cell space, recreation space, food services, mechanical and maintenance, administration space, circulation, and other support areas. This is typically referred to as the Building Gross Square Footage. This space does not consider the needs of the Sheriffs Administration and Patrol, but many services and spaces could be collaborative.

Estimate of Space Need for Projected Beds

Total Beds	SF Per Bed	Total Square Feet
12	250-300	3,000-3,600

The total space estimated for a 12 bed, full-service jail project is approximately 3,000-3,600 building gross square feet. A more specific determination of space requirements would require an architectural space program to be developed through the planning process. This program would help identify the intent of operations and specify spaces in detail to provide the architects with a basis for design.

Jail Needs Assessment

V. Preliminary Site Assessments





V. Preliminary Site Assessments

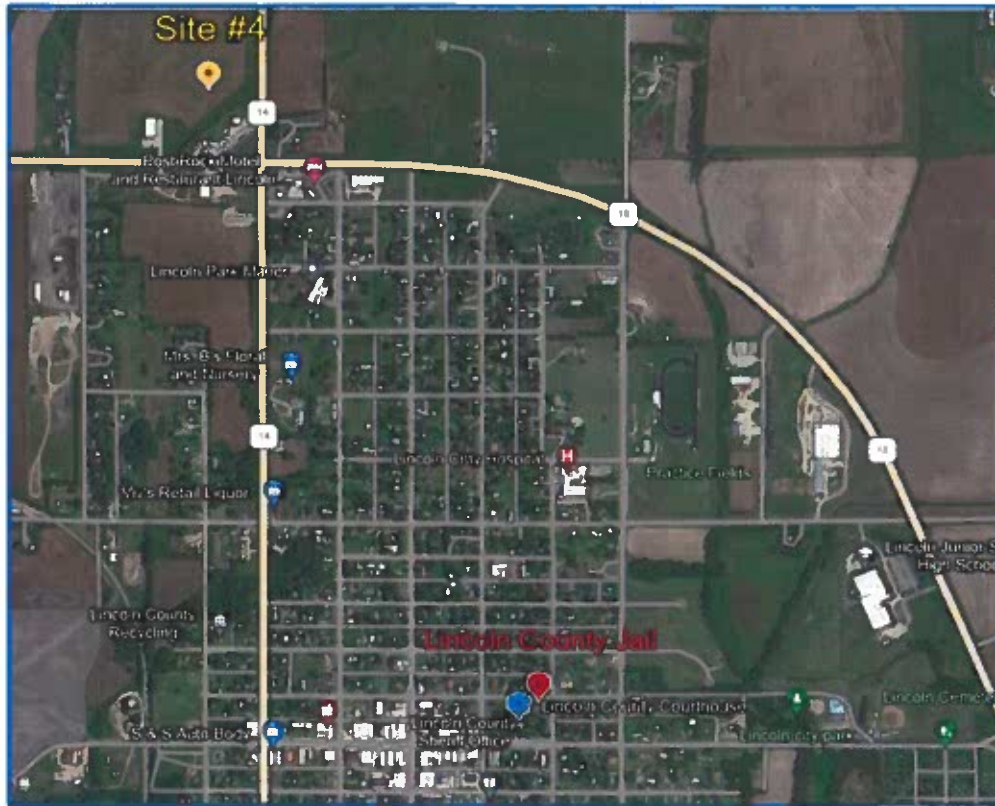
As part of this overall assessment Lincoln County Commissioners requested that we evaluate four (4) sites for possible construction of a new jail if this becomes the desired course of action. These properties are described as follows:

- a) Site #1 is located on E. Elm Street between N. 3rd street and N. 2nd Street and behind the courthouse in the current parking area. This space is adjacent to the current jail and Sheriff's Office as well. This site is located closer to the Courthouse than the current jail.
- b) Site #2 is located across N. 3rd Street at E. Elm Street. The space is currently occupied by the Radish Patch Community Garden. The site is approximately .1 mile from the Courthouse.
- c) Site #3 is located at the intersection of W. Yauger Street and S. 4th Street, at the northeast side of the property and is currently part of the Lincoln Elementary School building. The space suggested for renovation for a Sheriff's Office and Jail Facility is approximately 10,000 square feet of built space. The location is approximately .5 miles from the Courthouse.
- d) Site #4 is located at the intersection of Highway 18 and Highway 14 behind the Dollar General Store. The land is vacant and currently owned by the County. The site is approximately 1.2 miles from the Courthouse.

Location of Sites 1, 2 & 3 Relative to the Courthouse



Location of Site #4 Relative to the Courthouse



SITE ASSESSMENT CRITERIA

When evaluating sites for potential construction or renovation for a jail the normal site considerations must be considered by the architects during the design phase and again by the contractor that will build the facility. However, before that process begins it is important to also consider the factors contributable to a secure operation and law enforcement operations. The section below will discuss both considerations briefly.

ARCHITECTS AND CONTRACTOR CONSIDERATIONS

When planning any commercial construction project, it's easy to get caught up in design, features, floor plans, finishes and other elements that make for a stand-out structure on the property. But long before these details are planned, it is critical to ensure that the site is a suitable location operationally. The following are the major considerations in terms of a suitable location:

Property Size

Will a structure physically fit on the site where you want to build? It's not always as straightforward as ensuring that the real estate accommodates the footprint of your building plan. You also need to consider:

- How much parking space will you need for employees and visitors, now and in the future?
- Will retention ponds be needed?
- Is additional space needed for loading docks, turnarounds, freight vehicles, multiple entry points, trash enclosures, snow removal/piles, etc.?
- Can the site accommodate a building expansion for future growth?

A common mistake in initial planning efforts is to underestimate the total space needed to service the building.

Environmental Considerations

Environmental conditions on a site can vary widely and impact whether it's suitable for your project, or whether it may add sizable costs and delays. Beyond ensuring there's adequate acreage, the County needs to find answers to the following questions:

- Is the soil composition soft and loamy, or is there a shallow layer of bedrock that may require geological experts and explosives during excavation?
- Is the site in a flood zone?
- Are there protected wetlands, streams, vernal ponds or other waterways on site or nearby?
- Are there protected animal species in the area?
- Will steep terrain result in excessive erosion and stormwater runoff?
- Is there historical significance associated with the site?
- Are there contaminants that will need remediation?

Conducting a comprehensive environmental assessment of your proposed building site will help you avoid major issues and remain in compliance with EPA standards and other regulations.

Utility Considerations

If your building site is in the middle of an old farm field such as Site #4 the County will likely pay for installing many of these necessities. Even if you plan to build in an area that is already developed such as Sites 1,2, & 3, utilities may be easily accessible but may require upgrades to accommodate increased use. Evaluate the feasibility of the following:

- Will municipal water and sewer be available?
- How far is the nearest substation, and what are the costs of running electrical power to the facility?
- Is supplemental solar or wind power a consideration?
- Are natural gas lines needed for heating and cooling?
- Who are the telecom providers in the area and what will it take to get phone lines installed?
- Are there ways to access high-speed internet?

Road & Transportation Access Considerations

Depending on the size of your workforce and visitors, accessibility from roadways may be a major sticking point.

- How much more traffic volume will be added?
- Does it need to be easily accessible from major highways?
- Will traffic lights, speed bumps, turning lanes, service road (Site #4) or other transportation safety features need to be installed?
- Is the site located on a state highway, etc. (denoting which governing authorities need to be consulted)?
- What will plowing arrangements be?
- Are there any limits to roads, bridges, and truck routes that could be problematic for services?

Zoning & Regulations Considerations

The State, County, and local agencies determine the zoning requirements for land use, but they can dictate much more than whether a property is suitable for governmental use.

- Are there zoning requirements or building codes regarding aesthetics, building materials, height limitations, setbacks, green space, etc.?
- Are there noise ordinances that may interfere with your desired operations?
- What commercial activities are allowed or limited?

Demographic Considerations

If the County wants to expand into a new area or needs community buy-in, it is vital to consider whether the employment rate is conducive to obtaining the number of workers needed to operate?

LAW ENFORCEMENT AND DETENTION CONSIDERATIONS

Safety and Security Considerations

A detention facility requires a secure built facility or physical plant but must also consider the surroundings beyond the actual jail or law enforcement facility. Some of these considerations include:

- Access by the public to all sides of the building.
- View of the surrounding areas to maintain proper surveillance of the perimeter without intruding on public areas.
- Consequences of escape attempts.
- Noise associated with jail housing units and recreation yards.
- Perception of the public.

Support Services Access Considerations

- Ingress and egress of Law Enforcement and Transport Vehicles.
- Access to the delivery point for supplies and equipment.
- Emergency response access during incidents (riot, medical, fire, etc.)
- Movement of inmates to and from courts, medical, or outside support services.
- Evacuation requirements for emergencies.
- Public and professional visitation access and parking.

SITE ASSESSMENTS*Site #1: Courthouse Parking Area*

The Courthouse Parking Area site has approximately 12,750 square feet of land for construction and would likely be adequate to accommodate both the Sheriff's Offices and the Jail.

**Pros:**

- Proximity to the Courthouse.
- No vehicle transport required.
- The possibility exists for a direct, secure corridor attached to the Courthouse.
- Transport time and procedures would be significantly reduced at this site.
- Less video courts technology would be necessary due to the proximity.
- Land is already owned by the County.
- Overall, the convenience factor is significant.

Cons:

- Would consume parking space that currently exists at the north side of the Courthouse.
- Historical limitations may present significant challenges in placing the new building close to the historical Courthouse, and a direct connection may be impossible.
- Codes may require updating of utility feeds to the new building and the existing buildings at this location.
- Limitations for expansion.
- Perimeter security considerations may be difficult considering access by the public.

Site #2: Radish Patch Community Gardens

The Radish Patch Community Garden site has approximately 12,000 square feet of land for construction and would likely be adequate to accommodate both the Sheriff's Offices and the Jail.

Site #2 Radish Patch Community Garden

**Pros:**

- Proximity to the Courthouse.
- Adequate space to accommodate both the Sheriff's Office and the Jail Services.
- Located within the County Services area.
- A secure perimeter could be accommodated appropriately.

Cons:

- May still require vehicle transport.
- Residences nearby.
- Displacement of existing community area.
- May be limited for expansion space.

Site #3: Lincoln Elementary School

The Lincoln Elementary School space is approximately 10,000 square feet of space and would easily accommodate both the Sheriff's Offices and the Jail.

Site #3 Lincoln Elementary School



Pros:

- Adequate space is available to accommodate the Sheriff Administration, Patrol and Jail services.
- Renovation may be less costly than new construction.
- Possibility for expansion.

Cons:

- Located within a residential area on all sides.
- Requires vehicle transport to the Courthouse.
- Challenge to secure building to optimal specifications.

Site #4: Vacant Lot at Hwy 18 & Hwy 14

The amount of land available at this location was not readily available but is assumed to be large enough to accommodate both the Sheriff's Office and the Jail facility.

Site #4 Intersection of Hwy 18 & Hwy 14 (Behind Dollar General)

**Pros:**

- Large area of undeveloped land.
- Plenty of space for expansion and/or other services to be developed.
- Direct access to two highways.
- Reasonable proximity to the Courthouse.
- Flexibility in design.

Cons:

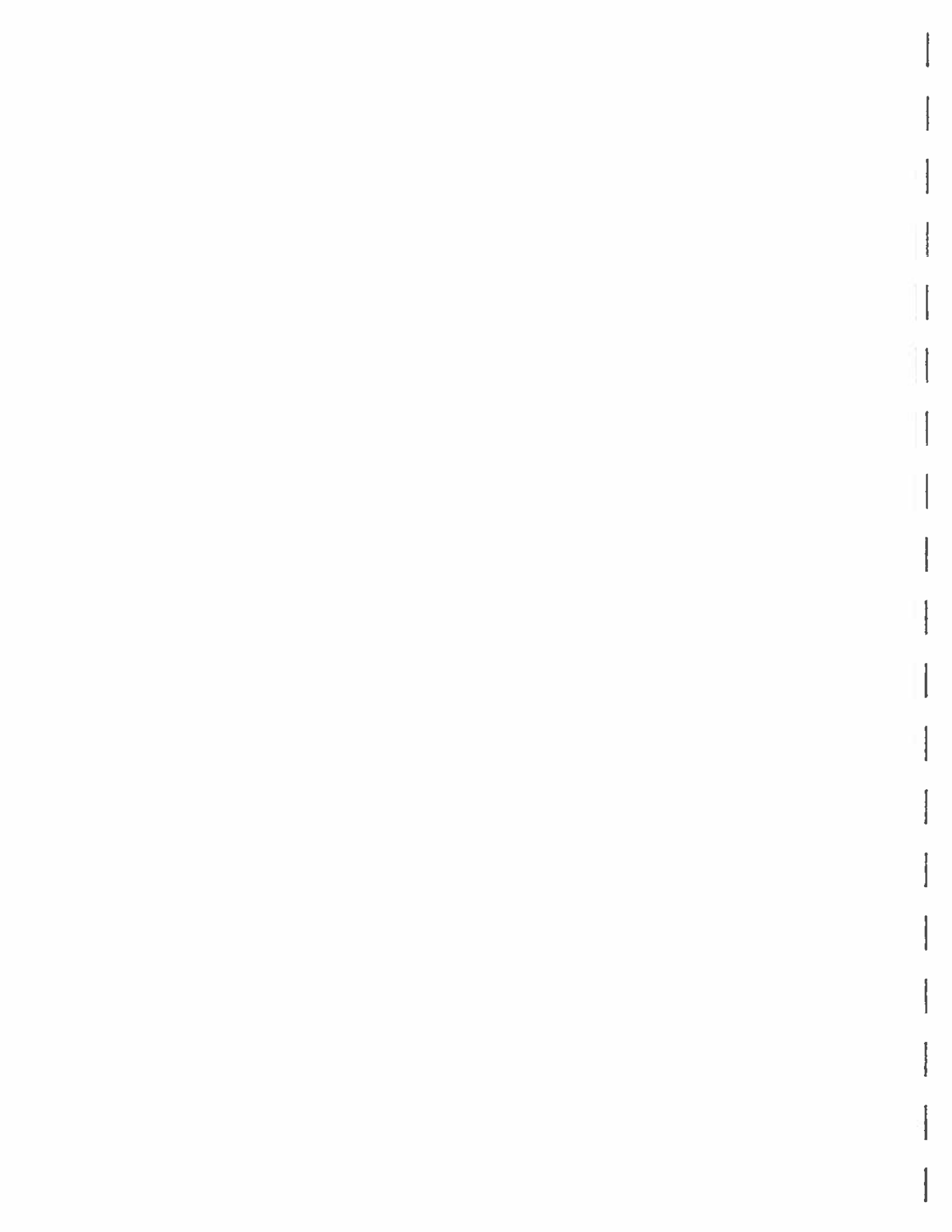
- Service road/permit would be required for access.
- Requires vehicle transport to Courthouse.
- May be limited on services available. Higher installation fees.
- May require state approvals.



Jail Needs Assessment

VI. Conclusion and Recommendations





VI. Conclusion and Recommendations

The overall purpose of this study was to conduct:

- ✓ **Current Facility Evaluation**
- ✓ **A current, independent, Jail Population Study with 20-year projections of bed space needs.**
- ✓ **Site Assessments**

CURRENT FACILITY EVALUATION

The current facility conditions do not meet standards set by the state or federal guidelines for detention space, services, and few best practices for operations. Minimum standards for detention services established by federal laws and the American Correctional Association require specific space per bed/inmate in living areas, recreation spaces, lighting and noise requirements, medical services, and food services to name a few. Smaller facilities do receive exceptions and Lincoln County falls within these considerations. However, life safety issues could exist that would not be protected by exceptions and should be considered.

Based on the shortcomings of the current jail, and risks associated with the shortcomings, it is recommended that Lincoln County consider extensive renovations to the current facility or the construction of a new facility that will protect the County from possible litigation.

Recommendation: Consider minimal upgrades to address shortcomings regarding life safety issues (exposed wiring, major leaks, and clutter hazards) until a new facility can be constructed. The demonstration of efforts to improve conditions provides some level of mitigation.

JAIL POPULATION TRENDS AND NEEDS ASSESSMENT

The population of Lincoln County is projected to decrease over the next 20 years at a slow pace. Over the period from current to the year 2040 Lincoln County population is expected to decrease by approximately 350 in total population or about 22%. This expected decrease is a major factor for jail bed projected needs.

The Lincoln County Jail currently has 5 beds available (design capacity) with an average daily population of approximately 5 inmates. Based on the data provided by the county and analyzed by the consultant the County is operating at 100% design capacity. While many jails in the country operate at or over capacity, the risk is drastically elevated when it comes to litigation against the County, and the risk to staff and inmates exceeds expectations. While an investment in detention infrastructure is never popular to constituents, the impacts of possible litigation could be much worse.

Recommendation: It is the recommendation of the consultant that Lincoln County assess options for expansion of the current jail facility or begin the process for constructing a new, larger facility that meets modern standards and requirements.

The overcrowding can and has been managed for the short term through adjustments to court holding and processing practices, and the use of alternatives to incarceration whenever possible. Lincoln County has not regularly exceeded capacity in the past 8-years; however, the Sheriff's law enforcement practices may be dictated by the lack of jail bed space and/or the inability to hold certain offenders. Projections through 2040 indicate that the need for jail beds will exceed, and possibly double based on historical data and trends in the criminal justice system.

It is important for a jail operation to not only possess the proper number of beds to accommodate the intake trends, but also to accommodate the short periods of time when the needs exceed the average daily population, such as atypical police actions (DUI checkpoints, large events within county jurisdiction, etc.). This is known as a peaking factor. Additionally, proper separation of inmates by classification (violent vs. non-violent; male vs. female, etc.) This is known as the classification factor. These factors must be considered when a final bed-space determination is made for design purposes.

Considering these factors as demonstrated throughout the report, ***it is recommended that Lincoln County plan to increase the jail bed availability to approximately 12 beds*** (including peaking and classification). This capacity is projected to address the jail bed needs through the year 2040 but does not include contract beds for other jurisdictions. ***If the County chooses to provide bed space for other entities, the County must consider those additional needs.*** It should be noted that total projected bed needs do not consider the distinct design of the housing units and the segregation of genders and classifications. Lincoln County is currently holding an average of 97% male and 3% female inmates. Utilizing these percentages can assist with the determination of housing unit capacities and breakdowns during the design phase.

Finally, it is important for the County to monitor the Average Length of Stay (ALOS) closely in coming months to ensure that the number maintains or even decreases. An increase in the ALOS can significantly increase the average daily population.

As other factors and possibilities are discussed and considered for planning purposes it is recommended that a consistent record of data is kept to better project the needs as time progresses, and periodic updates to the projections be conducted. These data requirements are as follows:

1. Daily, monthly, and annual jail population numbers.
2. Daily, monthly, and annual jail admissions.
3. Criminal court filings, or types of offenses, at least monthly.
4. ***Average Length of Stay monthly and annually.***

PRELIMINARY SITE ASSESSMENTS

Site Assessments done in this study represent the detention operations perspective only. Based on this perspective, the operational preference is to limit the vehicular or external transport of inmates as much as possible. This is typically achieved through proximity of the jail to the courthouse or using technology to minimize movement of inmates outside the facility. The Courts preference varies by jurisdiction, but mostly a preference for in person proceedings is the norm. Therefore, an assumption is made that the norm will be in person appearances for most hearings, as is the requirement for certain appearances.

Only one site provides minimal, or possibly no requirement for movement of inmates by vehicle, and one provides a very short distance for movement of inmates to the Courts. However, any departure from a secure facility, no matter the distance, requires virtually the same manpower and offers the same security risks.

Site #1 provides the opportunity for a secure connection directly to the Courthouse, and by virtue of that may be the most desirable location from a security and convenience perspective. The site does require consideration of other factors such as historical building limitations, parking displacement, expansion limitations, and utility challenges that will need to be examined by designers and contractors.

Site #2 provides proximity to the courthouse, but still requires transport of inmates to the Courts. Building space appears available for current needs and expansion.

Site #3 provides adequate space for current and expansion possibilities, but the existing building renovations required may be as costly as new construction. Furthermore, the location is within a residential area and may be less desirable for residents. Transport by vehicle would be required at this location and dual use of staff (Deputies and Detention) would be minimal.

Site #4 provides a clean building environment but may require more development of services and preparation for construction. Transport by vehicle would be required at this location and dual use of staff (Deputies and Detention) would be minimal.

Recommendation: It is the recommendation by the consultants that Site #1 be considered first as a possible site for new jail construction.



Jail Needs Assessment

Appendix





APPENDIX A

Master Data Table

Year	2015	2016	2017	2018	2019	2020	2021	2022	Change	% Change	Annual % Change	CAGR	Average
Lincoln County Population	3,141	3,075	3,044	2,994	2,964	2,986	2,903	2,837	-238	-7.6%	-0.9%	-1.3%	2,993
Kansas Population	2,866,541	2,913,478	2,911,264	2,913,548	2,913,012	2,914,567	2,935,891	2,937,150	70,609	2.5%	0.3%	0.30%	2,913,181
Inmate Avg. Daily Population	4.0	4.0	5.0	6.0	5.0	5.0	5.0	5.0	1.0	25.0%	3.1%	2.83%	4.9
Lincoln % Male	89%	97%	82%	78%	84%	86%	88%	97%	7.6%	8.5%	1.1%	1.02%	87.6%
AVG # of Male Inmates	3.6	3.9	4.1	4.7	4.2	4.3	4.4	4.8	1.3	35.6%	4.4%	3.88%	4.2
Lincoln County % Female	11%	3%	18%	22%	16%	14%	12%	3%	-7.6%	-70.2%	-8.8%	-14.06%	12.4%
AVG # of Female Inmates	0.8	0.8	0.2	0.4	0.6	0.5	0.8	0.3	-0.6	-65.5%	-8.2%	-12.45%	0.6
Lincoln County Avg. Admissions Per Month	8	8	7	9	8	9	10	10	2.0	25.0%	3.1%	2.83%	8.6
Lincoln County Annual Admissions	96	96	84	108	96	108	120	120	24	25.0%	3.1%	2.83%	104
# of Male Admissions	86	93	69	84	81	93	105	116	30	35.6%	4.4%	3.88%	91
# of Female Admissions	10	3	15	24	15	15	15	4	-6	-62.8%	-7.8%	-11.62%	13
% of Male Admissions	89%	97%	82%	78%	84%	86%	88%	97%	8%	8.5%	1.1%	1.02%	87.6%
% of Female Admissions	11%	3%	18%	22%	16%	14%	12%	3%	-8%	-70.2%	-8.8%	-14.06%	12.4%
IR per 100,000 Lincoln County	127.35	130.08	164.26	200.40	168.69	167.45	172.24	176.24	48.89	38.4%	4.8%	4.15%	163.3
Kansas County Jail Population	6,860	6,958	7,025	7,568	8,090	8,614	8,742	9,029	2,169	31.6%	4.0%	3.49%	7,861
IR per 100,000 Kansas	239.31	238.82	241.30	259.75	277.72	295.55	297.76	307.41	68.09	28.5%	3.6%	3.18%	269.7
Lincoln County Average Length of Stay	15.2	15.2	21.7	20.3	19.0	16.9	15.2	15.2	0.0	0.0%	0.0%	0.00%	17.3
Kansas Crime Rate per 1,000	30.4	30.6	31.5	31.4	29.3	29.7	27.6	25.2	-5.2	-17.1%	-2.1%	-2.32%	29.5
Lincoln County Crime Rate 1,000	4.1	4.2	4.6	4.3	3.9	4.1	4.2	4.2	0.1	2.4%	0.3%	0.30%	4.2

Source: Bureau of Justice Statistics, Lincoln County Jail, Kansas Bureau of Investigations Reports, Vera Institute, US Census Bureau, (2015-2022)

APPENDIX B

Master Projections Table

PROJECTION MODEL	2025	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040
Lincoln County Population	2,756	2,730	2,704	2,679	2,653	2,628	2,603	2,579	2,554	2,530	2,506	2,482
Kansas Population	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	#####	3,075,478
Lincoln County Admissions	123	127	131	135	140	144	148	153	158	163	168	173
1) Historical Trend % Increase												
= / year from 0.70%	5	5	5	5	5	5	5	5	5	5	5	5
2) Historical Compund Annual Growth Rate (CAGR)												
/ year from -1.26%	5	5	5	5	5	5	5	5	5	4	4	4
3) Ratio to Lincoln Population % Increase	5	5	5	5	4	4	4	4	4	4	4	4
4) Ratio to Kansas Population % Increase	5	5	5	5	5	5	5	5	5	5	5	5
5) Ratio to Lincoln Intake % Increase	6	6	8	10	12	15	19	24	29	37	46	57
6) IR to Lincoln Population	5	5	5	4	4	4	4	4	4	4	4	4
a. Existing = 176.24	5	5	5	5	5	5	5	5	5	4	4	4
b. High = 200.40	6	5	5	5	5	5	5	5	5	5	5	5
c. Average = 163.30	5	4	4	4	4	4	4	4	4	4	4	4
e. Low = 127.35	4	3	3	3	3	3	3	3	3	3	3	3
8) IR to Lincoln County Population	4	4	4	4	4	4	4	4	4	4	4	4
a. Existing = 176.24	5	5	5	5	5	5	5	5	5	4	4	4
b. High = 172.24	5	5	5	5	5	5	4	4	4	4	4	4
c. Average = 163.34	5	4	4	4	4	4	4	4	4	4	4	4
e. Low = 127.35	4	3	3	3	3	3	3	3	3	3	3	3
7) Intake to ALOS	7	7	8	8	8	8	9	9	9	9	10	10
a. Existing = 23.54	8	8	8	9	9	9	10	10	10	10	11	11
b. High = 26.32	9	9	9	10	10	10	11	11	11	12	12	12
c. Average = 19.54	7	7	7	7	7	8	8	8	8	9	9	9
e. Low = 15.21	5	5	5	6	6	6	6	6	7	7	7	7
8) % of State Population	6	5	5	5	6	6	6	6	6	7	7	7
a. Existing = 0.3%	5	5	5	5	5	5	5	5	5	5	5	5
9) ARIMA Box Jenkins R2 = 0.83	6	6	6	6	6	6	7	7	8	8	8	8
10) ARIMA Exponential Smoot R2 = 0.82	6	5	5	5	6	6	6	6	6	7	7	7
AVERAGE OF ALL MODELS	5	5	5	5	5	6	6	6	7	7	8	9
Peaking Factor 9%	0.5	0.4	0.5	0.5	0.5	0.5	0.6	0.6	0.6	0.7	0.8	0.9
Classification Factor 11%	0.6	0.6	0.6	0.6	0.7	0.7	0.7	0.8	0.9	1.0	1.0	1.2
Total Peaking & Classification	1	1	1	1	1	1	1	1	2	2	2	2
Lincoln County Bed Forecast Requirement	6	6	6	6	7	7	7	8	9	10	11	12