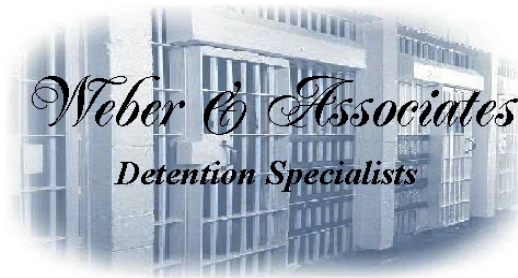


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4839 E Hwy 32

Salem, Missouri 65560

June 22, 2016

Lawrence Goldberg
Goldberg Group Architects
805 North 36th Street
St. Joseph, Missouri 64506

Re: Dickenson County Jail Project

Mr. Goldberg,

Please find enclosed, my first draft analysis and recommendations for space requirements for the above referenced project. Should you wish to include additional data, please let me know.

If you have any questions, please feel free to call me.

Thanks,

A handwritten signature in black ink that reads 'Joseph M. Weber'. The signature is written in a cursive style with a large, looping initial 'J'.

Joseph M. Weber

Analysis of Jail Average Daily Population History

To accurately predict the future needs for the Dickenson County Jail the prisoner admissions and housing history was examined to determine trends and patterns that would indicate a growth curve in the jail’s history of incarcerations.

An analysis of the jail’s average daily population shows a fluctuation that indicates that there is no pattern of aggressive growth but rather alternates from a low count of 25 to a high count of 47 as illustrated in the following table.

Average Daily Population		
Year	ADP	Growth
2004	29	
2005	27	-7%
2006	25	-7%
2007	35	40%
2008	36	3%
2009	40	11%
2010	47	18%
2011	40	-15%
2012	34	-15%
2013	30	-12%
2014	26	-13%

Examining the Peaking Factor

An important factor that should be considered during the needs assessment phase is the degree of variation in counts, often called a “peaking factor.” A peaking factor is the ratio or percent of difference between the average daily population and the peak or highest count during the period. When this data is not available an industry standard of 15% is often used to accommodate those times of peak activity. That industry standard has been applied to this project rather than factoring in the 66% fluctuation. However, the jail design should consider the historical maximum ADP of 47 experienced in 2010.

Ave ADP	34	
Growth Factor	2%	
High Count	47	
Low Count	25	
Fluctuation	22	66%

Future Growth Patterns

Because of the 66% fluctuation the growth pattern has been calculated based on a 2% growth factor determined by the total mean growth for the reported period. The following table indicates a growth pattern based on the reported data. An analysis of the data indicates that the facility would likely reach an average daily population of 42 by 2036. This is a likely scenario as the facility experienced a spike in the ADP of 47 in 2010. That pattern is illustrated in the following table.

Projected ADP	ADP
2015	27
2016	27
2017	28
2018	28
2019	29
2020	30
2021	30
2022	31
2023	32
2024	32
2025	33
2026	34
2027	34
2028	35
2029	36
2030	37
2031	37
2032	38
2033	39
2034	40
2035	41
2036	42

Classification

A well-designed jail provides for separation of the various classification and custody levels of inmates. The following table illustrates the reported data broken down by gender.

Breakdown by Gender

Year	Male	% of Total	Females	% of Total
2004	25	86%	4	14%
2005	24	89%	3	11%
2006	22	88%	3	12%
2007	32	91%	3	9%
2008	32	89%	4	11%
2009	36	90%	4	10%
2010	41	87%	6	13%
2011	32	80%	8	20%
2012	30	88%	4	12%
2013	26	87%	4	13%
2014	20	77%	6	23%

Because each classification is subject to peak activity the peaking factor must be applied to each inmate class to avoid the overcrowding in each individual class. Mixing overflow of these classes is prohibited by law.

It is noted that the only classifications used in this analysis is classification by gender.

Housing by Gender

To determine the needs for housing by gender the historical pattern has been applied and repeated to project the needs through 2036. That data is represented in the following table.

Year	ADP with Peaking Factor		Total Space Needed
	Males	Females	
2015	26	4	31
2016	28	3	31
2017	28	4	32
2018	30	3	33
2019	30	4	33
2020	31	3	34
2021	30	4	35
2022	28	7	36
2023	32	4	36
2024	32	5	37
2025	29	9	38
2026	33	5	39
2027	35	4	40
2028	36	5	40
2029	38	4	41
2030	37	5	42
2031	37	6	43
2032	39	5	44
2033	40	5	45
2034	42	4	46
2035	42	5	47
2036	43	5	48

Recommendations

A review of the data would indicate the need of a 50 bed jail to accommodate the county's law enforcement activities for the next 20 years. However, considering the activity from 2007 – 2012 an additional 20% of planned space (10 beds) would ensure that the county would be prepared for future spikes in activity.