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# **NAPA COUNTY JAIL EXPANSION DESIGN CONCEPTS AND SPLIT OPERATIONS ANALYSES**

Prepared for  
Napa County Executive's Office

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# **Napa County Jail Expansion Design Concepts and Split Operations Analyses**

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## **INTRODUCTION AND PURPOSE**

In February 2011 CGL was authorized by Napa County to update the 2008 County Corrections Master Plan, which originally included the estimated construction, staffing and operating costs of a new 366-bed Jail in downtown Napa. The County requested that a new option be analyzed for a larger capacity Jail and for a 2-Jail split operation with one facility at the existing Jail site, and the 2<sup>nd</sup> one outside of Napa, plus the option for just one new Jail located outside of Napa. This report summarizes the results the analyses of those options that could be considered for expanding the County's Jail capacity to 526 beds. The analyses consider the possible physical appearance, construction cost and staffing cost of three options including:

- (1) a 526-bed jail on the existing jail site in downtown Napa;
- (2) a 526-bed 2-jail split operation with a 358-bed jail on the existing Jail site and a 168-bed Jail on a new site outside of Napa; and
- (3) a 526-bed jail on a new site outside of Napa.

The first part of the Master Plan update involved the preparation of conceptual architectural studies to examine how an expanded jail would visually appear on the existing Jail site in the downtown. In doing so the architectural program from the 2008 Correctional Master Plan for a 366-bed Jail was followed, but expanded to allow for a 526-bed capacity. All the preliminary cost estimates herein are expressed in 2011 dollars.

## **FACILITY DEVELOPMENT CONCEPTS**

A building concept model was developed that would accommodate and support the 2008 architectural program for a single 358-bed jail on the existing site in downtown Napa that would require a 2-jail split operation for a 526-bed total system capacity. The model was modified to accommodate an expanded 526-bed capacity on the downtown Napa site as noted above and in a logical manner that could be phased in as called for in the 2008 Master Plan. Both options were developed in concept so that the existing "Annex" or newest section of the existing Jail could be kept open during initial construction to avoid having to relocate inmates to a temporary location.

The concept drawings were graphically integrated with photographs of the existing facility and its surrounding structures and streets on all four sides. The model was detailed in a photo-realistic rendering to relate to the existing downtown vernacular and character of nearby historic properties and new multilevel downtown buildings such as the Riverfront development on Main Street. Updated and revised construction cost estimates were also made. The primary facility rendering depicts the views of a 526-bed Jail concept. For the 2-jail split operation an alternative view shows the same concept rendered, but with the height reduced if the jail capacity was to be limited to 358 beds, which removes one full story.

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### **Conceptual Design and Appearance**

The consultant team used the nearby historic Courthouse building that enters from Brown Street and corners on Third Street as a basis for the exterior appearance of the new Jail. The County Executive's and thus CGL's goal was to create a successful solution which maintains the downtown's historic proportions, building elements and design character, rather than standard exterior conventions of contemporary jail design.

For example, building types of the period selected for the proposed new jail were constructed with floor-to-floor elevations of 15' 0" – 18' 0" while for cost efficiency, new jails typically construct floor to floor at approximately 9' 0". Fenestrations are typically designed as small slit openings too preclude potentials for escape. They are usually placed in the exterior elevation either vertically or horizontally. The normal resulting repeat of such small odd shaped windows has minimal architectural appeal compared to the historic and commercial buildings in downtown Napa. With new innovations in glazing, larger secure openings offering increased natural light can be constructed. Therefore, the proposed design uses detailed larger windows shared by 4 joined housing units. Interior secure demising walls and floor slabs will serve as areas of division on the window profile. Tinted glass and spandrels panels will be used to obscure views into the Jail. Comparatively, as a result of lower floor to floor heights, a 526-bed five level jail will be similar to a 4 story commercial building. The finished end wall elevation of the planned facility will be approximately 64-68 feet tall. While a commercial building of four stories, requiring greater interstitial space between floors would be approximately 63-67 feet tall.

**New Commercial Structure** – The expansion project could also provide for a new commercial development opportunity on the Main Street side of the new Jail structure. As shown in plan and in the rendering views on the Main Street side there is sufficient available ground space for a new multilevel building. That ground area is currently used primarily for law enforcement and County staff parking and in the drawings a concept for a new commercial building is shown. The building could provide for a combination of retail, office and/or residential uses as permitted. The concept shown could add a building footprint of approximately 47'x200' with up to approximately 36,200 square feet of leasable area.

### **Floor Stacking by Space Program**

The 2008 architectural program separates the building into nine divisions grouped by functional relationship. The building model has been divided into a basement and six levels. The upper two floors would be lower in elevation and stacked to appear as one floor change from the exterior. Support services, facility administration and staff areas are located in the lower floors for ease of building access. The upper floors are dedicated to security administration, inmate services, programs and housing units.

Table 1 below summarizes the various Jail components and their square footages as they would be organized in the proposed 526-bed Jail structure. For a split operations approach, the fifth level could be removed and the 9,800 dormitory omitted or cored on the fourth level. Several drawings follow the table to depict different exterior views of the Jail concept and its adjacent buildings.

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Table 1  
**Stacking Model by Program Division**

<b>Level</b>	<b>Program Division</b>	<b>Description</b>	<b>Beds</b>	<b>Assign Area</b>
<b>Basement</b>	2.100	Intake and Release		20,736
	7.000	Medical	14	13,287
	8.200	Energy Plant		4,873
	8.300	Laundry		3,250
				<b>42,146</b>
<b>Level 1</b>	1.100	Public Lobby		3,232
	1.200	Facility Admin		5,947
	4.100	Lockers & Fitness		7,624
	6.000	Food Services		14,600
	8.100	Maintenance Shops		4,235
	5.100	Visitation		6,355
	8.400	Warehouse		9,252
				<b>51,245</b>
<b>Level 2</b>	3.100	Security Admin		2,853
	4.200	Muster & Training		4,602
	5.200	Education and Programs		6,968
	5.300	Other Services		2,560
	9.600	Mental Health	32	10,541
	9.500	Womens All	64	13,997
				<b>41,521</b>
<b>Level 3</b>	9.200	Male Low-Medium	64	11,808
	9.700	Special Management	32	9,869
	9.100	Male Minimum	64	12,420
				<b>34,097</b>
<b>Level 4</b>	9.300	Male Medium	64	12,595
	9.400	Male Maximum	32	10,579
	9.800	Male Mixed Custody Dorm	32	9,869
				<b>33,043</b>
<b>Level 5</b>	9.900	Male Minimum Custody Dorm	64	11,808
	9.950	Male Minimum Custody Dorm	64	11,808
				<b>23,616</b>
<b>TOTAL</b>	<b>526 BED MODEL</b>		<b>526</b>	<b>225,668</b>

Napa County Jail Expansion Design Concepts and  
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Proposed New Layout On Existing Jail Site  
(526 beds or 358 beds)



# Napa County Jail Expansion Design Concepts and Split Operations Analyses

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## 526-Bed Jail North-West Elevated Perspective



# Napa County Jail Expansion Design Concepts and Split Operations Analyses

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## 526-Bed Jail Main-Entry Perspective



**Napa County Jail Expansion Design Concepts and  
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**526-Bed Jail  
3<sup>rd</sup> Street Entry Perspective**



**Napa County Jail Expansion Design Concepts and  
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**526-Bed Jail  
North-East Elevated Perspective**



**Napa County Jail Expansion Design Concepts and  
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**526-Bed Jail  
Vehicular Sally-port Entry**



**Napa County Jail Expansion Design Concepts and  
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**526-Bed Jail  
Perspective from Coombs Street**



Perspective- Looking Eastward from Coombs Street.

## Napa County Jail Expansion Design Concepts and Split Operations Analyses

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### 2-Jail Split Operation 358-Bed Jail North-West Elevated Perspective



Note: For this option the balance of the system's 526-bed capacity would be located outside of Napa in a separate 168-bed jail.

## Napa County Jail Expansion Design Concepts and Split Operations Analyses

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### 2-Jail Split Operation 358-Bed Jail North-West Elevated Perspective



Note: For this option the balance of the system's 526-bed capacity would be located outside of Napa in a separate 168-bed jail.

## Napa County Jail Expansion Design Concepts and Split Operations Analyses

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### SPLIT OPERATIONS ANALYSIS

In addition to housing all inmates in a single jail at one location the question was also asked regarding what the cost difference would be to staff two jails in order to limit the size of the Jail in downtown Napa. The jail's major annual cost to the County is of course in the recurring annual labor cost for salaries and fringe benefits. Preliminary estimates were made of the annual staffing costs in 2011 dollars to operate an expanded County Jail in comparison to its existing Jail staffing cost for managing a 276-inmate average daily population (ADP) in 2011. Several expansion options are considered that of course have not yet been designed, but could all be derived from a modification of the 2008 Master Plan and architectural space program. Sufficient pre-design needs assessment, master planning, architectural space programming and design concept studies have been done since 2007 to enable staffing estimates to be made as they would be deployed in 2011 for several different size and location options.

Three different jail capacity expansion scenarios were used to develop the optional staffing cost estimates as follows.

1. 526-bed jail at the existing Jail site in downtown Napa
2. 526-bed 2-Jail split operation with a 358-bed Jail on the existing jail site in downtown Napa and a 168-bed jail elsewhere in the County
3. 526-bed jail at a new site elsewhere in the County

It is important to note that the staffing cost analysis herein uses the current average 2011 salary and fringe benefit amounts applicable to each employee category. Also, since healthcare staff and services are provided by a contracted company the current healthcare contract amount for a 276 ADP in 2011 is used to estimate the cost of the contract provider's staff. For Options 2 and 3 that locate a jail outside of Napa away from the County Courthouse additional annual operating expenses will be incurred for prisoner transport to and from the Court for various inmate proceedings including trials.

These estimates will reflect the vast majority of the total probable annual operating cost since jail staffing throughout the USA typically accounts for 75% to 85%+ of the total for all labor and non-labor expenses of a jail's annual operational cost. For FY 2010/11 the Napa County Jail's staffing costs account for 83.5% of all operating expenses, excluding the labor cost for the Jail's healthcare staff provided by a contracted vendor. To estimate a total staffing requirement for the Jail irrespective of fund categories, the cost of the healthcare staff is estimated at 75% of the total healthcare service contract, which is similar to national benchmarks for the ratio of jail healthcare labor to total jail healthcare cost.

Table 2 below provides the 2011 current staffing allocations by shift along with the salary and fringe benefit cost for each position and the total cost for all staff in each position. A relief factor is not shown, but instead a category called ""Extra Hire/Overtime"" is used and all other full-time staff needed for total 24/7 coverage are assigned by team. In the 6 proposed expansion options a relief factor of .214 was used as found in the 2008 program for 5-day '8 to 5' positions and applied to the "Court Transport Sheriff's Deputies" position to provide for coverage on all

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Criminal Court days. For the 5-day '8 to 5' civilian "Support Service" positions of nurses and cooks that are also needed on weekends a full-time position was assigned in the '8 to 5' Relief section to cover all 7 days.

Table 2  
**Existing 2011 Jail Staffing Allocations and Costs**  
(276 Average Daily Population)

2011 Napa County Jail Staffing (for current 276 ADP)	Total FTE	Position Cost	Total Cost	8 -5 Shift Mon-Fri	8 -5 Shift Relief	A Team Days 6AM-6PM	A Shift Nights	B Shift Days 6AM-6PM	B Shift Nights
<b>Administration</b>									
Director of Corrections	1	\$ 206,046	\$ 206,046	1					
Assistant Director	1	\$ 166,475	\$ 166,475	1					
Lieutenant	1	\$ 142,499	\$ 142,499	1					
Staff Service Manager	1	\$ 120,996	\$ 120,996	1					
Sheriff's Lieutenant 1	1	\$ 184,877	\$ 184,877	1					
Clerical Staff 2	5.8	\$ 63,100	\$ 362,825	5.75					
<b>Subtotal</b>	<b>10.8</b>		<b>\$ 1,183,718</b>	<b>10.8</b>					
<b>Support Services</b>									
Food and Laundry Supervisor	1	\$ 66,643	\$ 66,643	1					
Cook (1 also laundry supervisor) 2	4	\$ 64,400	\$ 257,600	3	1				
Medical Program Manager RN	1	n.a.	n.a.	1					
Duty Nurse RN	3	n.a.	n.a.	3					
Duty Nurse LPN	4	n.a.	n.a.	3	1				
Medical Provider Contract Labor Portion 3		n.a.	\$ 1,346,098						
Supervising Building Maintenance Worker	1	\$ 100,956	\$ 100,956	1					
Maintenance Worker	3	\$ 83,638	\$ 250,914	3					
<b>Subtotal</b>	<b>17</b>		<b>\$ 2,022,211</b>	<b>15</b>	<b>2</b>				
<b>Custody Operations</b>									
Sergeant	4	\$ 110,631	\$ 442,524			1	1	1	1
Corporal	4	\$ 101,987	\$ 407,948			1	1	1	1
Classification Supervisor	1	\$ 107,772	\$ 107,772	1					
Classification Specialist	2	\$ 95,504	\$ 191,008			1		1	
Correctional Officers Housing	26	\$ 93,459	\$ 2,429,934			9	4	9	4
Correctional Officers Security/Operations	14	\$ 93,459	\$ 1,308,426			4	3	4	3
Extra Hire/Overtime	4	\$ 62,500	\$ 250,000			1	1	1	1
Correctional Technician	12	\$ 61,927	\$ 743,124			3	3	3	3
Court Technician	1	\$ 61,927	\$ 61,927	1					
<b>Subtotal</b>	<b>68</b>		<b>\$ 5,942,663</b>	<b>2</b>		<b>20</b>	<b>13</b>	<b>20</b>	<b>13</b>
<b>TOTALS</b>	<b>95.8</b>		<b>\$ 9,148,592</b>	<b>27.8</b>	<b>2</b>	<b>20</b>	<b>13</b>	<b>20</b>	<b>13</b>

1 Paid by Sheriff ; 2 Average cost used; 3 Current contracted cost at 75% labor

Table 3 on the following page summarizes the results from the cost analyses of the 3 expansion options, plus at the bottom shows the previous staffing cost estimate table for the 366-bed Jail recommended in the 2008 Correctional Master Plan. The staffing allocations and cost estimate for each of the 3 expansion options are shown in detail in Tables 4 through 6. Table 7 at the end provides estimates for the annual non-labor costs associated with weekday prisoner Court transport that are in addition to the transport staffing costs included in those four Staffing Cost Options where an out of town Jail location would be used.

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Table 3  
**Three Expansion Options Summary Staffing Cost Estimate Comparisons**  
(With 2008 Master Plan comparative data)

Components of Staffing Cost and Custody Allocations	Option 1 526-Bed Downtown Jail		Option 2 526-Bed 2-Jail Split System		Option 3 526-Bed Out of Town	
	Staff	Cost	Staff	Cost	Staff	Cost
1. Downtown Jail	161.6	\$ 15,787,338	122.0	\$ 11,629,211	n.a.	n.a.
2. Out-of-Town Jail	n.a.	n.a.	68.0	\$ 6,255,528	161.6	\$ 16,127,715
<b>Subtotal Jail Staff</b>	<b>161.6</b>	<b>\$ 15,787,338</b>	<b>190.0</b>	<b>\$ 17,884,739</b>	<b>161.6</b>	<b>\$ 16,127,715</b>
3. Court-Jail Transport	n.a.	n.a.	2.4	\$ 235,614	7.3	\$ 706,843
<b>Total System Staff</b>	<b>161.6</b>	<b>\$ 15,787,338</b>	<b>192.4</b>	<b>\$ 18,120,353</b>	<b>168.8</b>	<b>\$ 16,494,181</b>
<b>Custody Allocations</b>	<b>Downtown</b>		<b>Downtown</b>	<b>Rural</b>	<b>Out of Town</b>	
1. Male Minimum Custody Dorm	64		32	32	64	
2. Low-Medium Custody Dorm	n.a.		n.a.	n.a.	n.a.	
3. Male Medium Custody Double Bunk Cells	192		128	64	192	
4. Male Maximum Custody Single Bed Cells	96		64	32	96	
5. Womens All-Custody Unit	96		96	0	96	
6. Mental Health Unit	32		0	32	32	
7. Special Management Unit	32		32	0	32	
8. Medical Infirmary	14		6	8	14	
<b>TOTALS</b>	<b>526</b>		<b>358</b>	<b>168</b>	<b>526</b>	

2008 Master Plan Staffing Cost Estimate and Custody Allocations	2008 Plan 366-Bed Downtown Jail	
	Staff	Cost
<b>Downtown Jail</b>	124.0	\$ 11,086,940
<b>Custody Allocations</b>	<b>Beds</b>	
1. Male Minimum Custody Dorm	64	
2. Low-Medium Custody Dorm	64	
3. Male Medium Custody Double Bunk Cells	64	
4. Male Maximum Custody Single Bed Cells	32	
5. Womens All-Custody Unit	64	
6. Mental Health Unit	32	
7. Special Management Unit	32	
8. Medical Infirmary	14	
<b>TOTALS</b>	<b>366</b>	

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Table 4  
Option 1 – 526-Bed Downtown Jail

2011 Napa County Corrections Staffing 526-Bed Jail Downtown	Total FTE	Position Cost	Total Cost	8-5 Shift Mon-Fri	8-5 Shift Relief	A Team Days 6AM-6PM	A Shift Nights	B Shift Days 6AM-6PM	B Shift Nights
<b>Administration</b>									
Director of Corrections	1	\$ 206,046	\$ 206,046	1					
Deputy Director	1	\$ 166,475	\$ 166,475	2					
Lieutenants/Custody & Support Services	2	\$ 142,499	\$ 284,998	1					
Staff Service Manager	1	\$ 120,996	\$ 120,996	1					
Sheriff's Lieutenant 1	2	\$ 184,877	\$ 369,754			1	1		
Clerical Staff 2	7.75	\$ 63,100	\$ 489,025	7.75					
<b>Subtotal</b>	<b>14.8</b>		<b>\$ 1,637,294</b>	<b>12.8</b>					
<b>Support Services</b>									
Food and Laundry Supervisor	2	\$ 66,643	\$ 133,286	2					
COOK (1 also laundry supervisor) 2	6	\$ 64,400	\$ 386,400	5	1				
Medical Program Manager RN	1	n.a.	n.a.	1					
Duty Nurse RN	6	n.a.	n.a.	5	1				
Duty Nurse LPN	6	n.a.	n.a.	5	1				
Medical Provider Contract Labor Portion 3		n.a.	\$ 2,565,390						
Supervising Building Maintenance Worker	2	\$ 100,956	\$ 201,912	2					
Maintenance Worker	5	\$ 83,638	\$ 418,190	5					
<b>Subtotal</b>	<b>28</b>		<b>\$ 3,705,178</b>	<b>25</b>	<b>3</b>				
<b>Custody Operations</b>									
Sergeant	5	\$ 110,631	\$ 553,155	1		1	1	1	1
Corporal	5	\$ 101,987	\$ 509,935	1		1	1	1	1
Classification Supervisor	1	\$ 107,772	\$ 107,772	1					
Classification Specialist	4	\$ 95,504	\$ 382,016			2		2	
Correctional Officers Housing	50	\$ 93,459	\$ 4,672,950			16	9	16	9
Correctional Officers Security/Operations	28	\$ 93,459	\$ 2,616,852			8	6	8	6
Extra Hire	7.8	\$ 62,500	\$ 487,500			2.0	2.0	2.0	2.0
Correctional Technician	16	\$ 61,927	\$ 990,832			4	4	4	4
Court Technician	2	\$ 61,927	\$ 123,854	2					
<b>Subtotal</b>	<b>118.8</b>		<b>\$ 10,444,866</b>	<b>5</b>		<b>34.0</b>	<b>23.0</b>	<b>34.0</b>	<b>23.0</b>
<b>TOTALS</b>	<b>161.6</b>		<b>\$ 15,787,338</b>	<b>42.8</b>	<b>3</b>	<b>34.0</b>	<b>23.0</b>	<b>34.0</b>	<b>23.0</b>

1 Paid by Sheriff ; 2 Average cost used; 3 Current contracted cost at 75% labor per inmate for 276 ADP x 526

Bed Allocations	Downtown
1. Male Minimum Custody Dorm	64
2. Low-Medium Custody Dorm	n.a.
3. Male Medium Custody Double Bunk Cells	192
4. Male Maximum Custody Single Bed Cells	96
5. Womens All-Custody Unit	96
6. Mental Health Unit	32
7. Special Management Unit	32
8. Medical Infirmary	14
<b>TOTALS</b>	<b>526</b>

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### Table 5 Option 2 – 526-Bed 2-Jail Split Operations

2011 Napa County Corrections Staffing 358-Bed Jail Downtown	Total FTE	Position Cost	Total Cost	8-5 Shift Mon-Fri	8-5 Shift Relief	A Team Days 6AM-6PM	A Shift Nights	B Shift Days 6AM-6PM	B Shift Nights
<b>Administration</b>									
Director of Corrections	1	\$ 206,046	\$ 206,046	1					
Deputy Director	1	\$ 166,475	\$ 166,475	1					
Lieutenant	1	\$ 142,499	\$ 142,499	1					
Staff Service Manager	1	\$ 120,996	\$ 120,996	1					
Sheriff's Lieutenant 1	1	\$ 184,877	\$ 184,877	1					
Clerical Staff 2	6.75	\$ 63,100	\$ 425,925	6.75					
<b>Subtotal</b>	<b>11.8</b>		<b>\$ 1,246,818</b>	<b>11.8</b>					
<b>Support Services</b>									
Food and Laundry Supervisor	1	\$ 66,643	\$ 66,643	1					
Cook (2 also laundry supervisor) 2	5	\$ 64,400	\$ 322,000	4	1				
Medical Program Manager RN	1	n.a.	n.a.	1					
Duty Nurse RN	4	n.a.	n.a.	4					
Duty Nurse LPN	5	n.a.	n.a.	4	1				
Medical Provider Contract Labor Portion 3		n.a.	\$ 1,746,026						
Supervising Building Maintenance Worker	1	\$ 100,956	\$ 100,956	1					
Maintenance Worker	5	\$ 83,638	\$ 418,190	5					
<b>Subtotal</b>	<b>22</b>		<b>\$ 2,653,815</b>	<b>20</b>	<b>2</b>				
<b>Custody Operations</b>									
Sergeant	5	\$ 110,631	\$ 553,155	1		1	1	1	1
Corporal	5	\$ 101,987	\$ 509,935	1		1	1	1	1
Classification Supervisor	1	\$ 107,772	\$ 107,772	1					
Classification Specialist	4	\$ 95,504	\$ 382,016			2		2	
Correctional Officers Housing Units	36	\$ 93,459	\$ 3,364,524			11	7	11	7
Correctional Officers Security/Operations	16	\$ 93,459	\$ 1,495,344			5	3	5	3
Extra Hire	5.2	\$ 62,500	\$ 325,000			1.3	1.3	1.3	1.3
Correctional Technician	14	\$ 61,927	\$ 866,978			3.5	3.5	3.5	3.5
Court Technician	2	\$ 61,927	\$ 123,854	2					
<b>Subtotal</b>	<b>88.2</b>		<b>\$ 7,728,578</b>	<b>5</b>		<b>24.8</b>	<b>16.8</b>	<b>24.8</b>	<b>16.8</b>
<b>TOTALS</b>	<b>122.0</b>		<b>\$ 11,629,211</b>	<b>36.8</b>	<b>2</b>	<b>24.8</b>	<b>16.8</b>	<b>24.8</b>	<b>16.8</b>

1 Paid by Sheriff; 2 Average cost used; 3 Current contracted cost at 75% labor per inmate for 276 ADP x 358

2011 Napa County Corrections Staffing 168-Bed Out-of-Town Jail	Total FTE	Position Cost	Total Cost	8-5 Shift Mon-Fri	8-5 Shift Relief	A Team Days 6AM-6PM	A Shift Nights	B Shift Days 6AM-6PM	B Shift Nights
<b>Administration</b>									
Lieutenant/Unit Manager	1	\$ 142,499	\$ 142,499	1					
Sheriff's Lieutenant 1	1	\$ 184,877	\$ 184,877	1					
Clerical Staff 2	2.5	\$ 61,300	\$ 153,250	2.5					
<b>Subtotal</b>	<b>4.5</b>		<b>\$ 480,626</b>	<b>4.5</b>					
<b>Support Services</b>									
Food and Laundry Supervisor	1	\$ 66,643	\$ 66,643	1					
Cook (2 also laundry supervisor) 2	2.5	\$ 69,454	\$ 173,635	2.5					
Medical Program Manager RN	1	n.a.	n.a.	1					
Duty Nurse RN	2	n.a.	n.a.	2					
Duty Nurse LPN	2.5	n.a.	n.a.	2.5					
Medical Provider Contract Labor Portion 3	0	n.a.	\$ 819,364						
Supervising Building Maintenance Worker	1	\$ 100,956	\$ 100,956	1					
Maintenance Worker	2	\$ 83,638	\$ 167,276	2					
<b>Subtotal</b>	<b>12</b>		<b>\$ 1,327,874</b>	<b>12</b>					
<b>Custody Operations</b>									
Sergeant	4	\$ 110,631	\$ 442,524			1	1	1	1
Corporal	4	\$ 101,987	\$ 407,948			1	1	1	1
Classification Supervisor	1	\$ 107,772	\$ 107,772	1					
Classification Specialist	2	\$ 95,504	\$ 191,008			1		1	
Correctional Officers Housing	15	\$ 93,459	\$ 1,401,885			5	2.5	5	2.5
Correctional Officers Security/Operations	10	\$ 93,459	\$ 934,590			3	2	3	2
Extra Hire	2.5	\$ 62,500	\$ 156,250			0.6	0.6	0.6	0.6
Correctional Technician	12	\$ 61,927	\$ 743,124			3	3	3	3
Court Technician	1	\$ 61,927	\$ 61,927	1					
Court Transport Correctional Officer	1.2	\$ 93,459	\$ 113,459	1	0.2				
Court Transport Sheriff's Deputies	1.2	\$ 100,622	\$ 122,155	1	0.2				
<b>Subtotal</b>	<b>53.9</b>		<b>\$ 4,682,642</b>	<b>4.0</b>	<b>0.4</b>	<b>14.6</b>	<b>10.1</b>	<b>14.6</b>	<b>10.1</b>
<b>TOTALS</b>	<b>70.4</b>		<b>\$ 6,491,142</b>	<b>20.5</b>	<b>0.4</b>	<b>14.6</b>	<b>10.1</b>	<b>14.6</b>	<b>10.1</b>
<b>GRAND TOTALS</b>	<b>192.4</b>		<b>\$ 18,120,353</b>	<b>57.3</b>	<b>2.4</b>	<b>39.4</b>	<b>26.9</b>	<b>39.4</b>	<b>26.9</b>

1 Paid by Sheriff; 2 Average cost used; 3 Current contracted cost at 75% labor per inmate for 276 ADP x 168

Custody Allocations	Downtown	Rural
1. Male Minimum Custody Dorm	32	32
2. Low-Medium Custody Dorm	n.a.	n.a.
3. Male Medium Custody Double Bunk Cells	128	64
4. Male Maximum Custody Single Bed Cells	64	32
5. Womens All-Custody Unit	96	0
6. Mental Health Unit	0	32
7. Special Management Unit	32	0
8. Medical Infirmary	6	8
<b>TOTALS</b>	<b>358</b>	<b>168</b>

## Napa County Jail Expansion Design Concepts and Split Operations Analyses

Table 6  
Option 3 – 526-Bed Out of Town Jail

2011 Napa County Corrections Staffing 526-Bed Jail Out of Town	Total FTE	Position Cost	Total Cost	8-5 Shift Mon-Fri	8-5 Shift Relief	A Team Days 6AM-6PM	A Shift Nights	B Shift Days 6AM-6PM	B Shift Nights
<b>Administration</b>									
Director of Corrections	1	\$ 206,046	\$ 206,046	1					
Deputy Director	1	\$ 166,475	\$ 166,475	2					
Lieutenants/Custody & Support Services	2	\$ 142,499	\$ 284,998	1					
Staff Service Manager	1	\$ 120,996	\$ 120,996	1					
Sheriff's Lieutenant 1	2	\$ 184,877	\$ 369,754			1	1		
Clerical Staff 2	7.75	\$ 63,100	\$ 489,025	7.75					
<b>Subtotal</b>	<b>14.8</b>		<b>\$ 1,637,294</b>	<b>12.8</b>					
<b>Support Services</b>									
Food and Laundry Supervisor	2	\$ 66,643	\$ 133,286	2					
COOK (1 also laundry supervisor) 2	6	\$ 64,400	\$ 386,400	5	1				
Medical Program Manager RN	1	n.a.	n.a.	1					
Duty Nurse RN	6	n.a.	n.a.	5	1				
Duty Nurse LPN	6	n.a.	n.a.	5	1				
Medical Provider Contract Labor Portion 3		n.a.	\$ 2,565,390						
Supervising Building Maintenance Worker	2	\$ 100,956	\$ 201,912	2					
Maintenance Worker	5	\$ 83,638	\$ 418,190	5					
<b>Subtotal</b>	<b>28</b>		<b>\$ 3,705,178</b>	<b>25</b>	<b>3</b>				
<b>Custody Operations</b>									
Sergeant	5	\$ 110,631	\$ 553,155	1		1	1	1	1
Corporal	5	\$ 101,987	\$ 509,935	1		1	1	1	1
Classification Supervisor	1	\$ 107,772	\$ 107,772	1					
Classification Specialist	4	\$ 95,504	\$ 382,016			2		2	
Correctional Officers Housing	50	\$ 93,459	\$ 4,672,950			16	9	16	9
Correctional Officers Security/Operations	28	\$ 93,459	\$ 2,616,852			8	6	8	6
Extra Hire	7.8	\$ 62,500	\$ 487,500			2.0	2.0	2.0	2.0
Correctional Technician	16	\$ 61,927	\$ 990,832			4	4	4	4
Court Technician	2	\$ 61,927	\$ 123,854	2					
Court Transport Correctional Officers	3.6	\$ 93,459	\$ 340,378	3	0.6				
Court Transport Sheriff's Deputies	3.6	\$ 100,622	\$ 366,465	3	0.6				
<b>Subtotal</b>	<b>126.1</b>		<b>\$ 11,151,709</b>	<b>11</b>	<b>1.3</b>	<b>34.0</b>	<b>23.0</b>	<b>34.0</b>	<b>23.0</b>
<b>TOTALS</b>	<b>168.8</b>		<b>\$ 16,494,181</b>	<b>48.8</b>	<b>4.3</b>	<b>34.0</b>	<b>23.0</b>	<b>34.0</b>	<b>23.0</b>

1 Paid by Sheriff ; 2 Average cost used; 3 Current contracted cost at 75% labor per inmate for 276 ADP x 526

Bed Allocations	Downtown
1. Male Minimum Custody Dorm	64
2. Low-Medium Custody Dorm	n.a.
3. Male Medium Custody Double Bunk Cells	192
4. Male Maximum Custody Single Bed Cells	96
5. Womens All-Custody Unit	96
6. Mental Health Unit	32
7. Special Management Unit	32
8. Medical Infirmary	14
<b>TOTALS</b>	<b>526</b>

**Napa County Jail Expansion Design Concepts and  
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**Prisoner Court Transport Non-Labor Costs** – In addition to the staff labor costs for drivers and security escorts the County would also incur additional non-labor recurring annual vehicle operating expense for scenarios 2 and 3 with a jail located away from the Courthouse outside of Napa. Table 7 summarizes the comparative cost for Options 2 and 3.

The Superior Court in Napa operates 247 days a year, which includes all weekdays except for 13 official holidays. For estimating the number of prisoners needing daily court transport the current ratio of 8.8 daily prisoner court appearances per jail ADP was used. A modified 15-seat cutaway or paratransit type vehicle (1 seat for security escort) with security inserts and fixtures is assumed as the standard prisoner transport vehicle. Also, it was assumed that the site for an “out of town” jail for either a 1-jail operation or a 2-jail split operation would be located within an approximate 12-mile radius from the County Courthouse. The non-labor operating cost for 2011 is estimated to be approximately \$2.11 per vehicle mile to include the cost of: gas and oil, maintenance, tires, insurance, license/registration, and depreciation (8 years) for the specialty type vehicle needed.<sup>1</sup>

Table 7  
**Prisoner Court Transport Non-labor Cost Estimates**

Non-Labor Cost Components	Out of Town Jail Options	
	2 - 168 Bed Jail	5 - 526-Bed Jail
1. Inmates to Court Daily (1/2 in AM, 1/2 in PM)	20	60
2. Court Days Per Year	247	247
3. No of Vans Operated	1	3
4. Daily Vehicle Miles @ 24 mi./Rnd. Trip - 1 in AM & 1 in PM	48	144
5. Annual Vehicle Miles	11,856	35,568
6. Annual Cost @ \$2.11/mile	<b>\$ 25,016</b>	<b>\$ 75,048</b>

Source: Estimates by CGL, May 2011.

While other non-labor costs will probably represent only approximately 16% of the jail’s total annual operating expense (since Napa jail cost are historically about 84% labor) the added non-labor cost of any option that requires daily vehicle transport for prisoners’ court appearances will grow annually as fuel cost continues to grow. The County may also wish to consider other benefit/cost factors and intangibles in addition to labor costs. *One such potential for annual operating cost savings at a remote site would be the use of video technology for arrestee arraignments and any non-trial court proceedings or appearances by inmates to reduce court transport. Another savings could result from the inclusion of a hearing room in any remotely located jail that would further reduce the need for Court transport other than for trials. Finally, if the entire Jail system was located in a single facility out of town there would be a need to construct a secure court holding space at the County Courthouse.*

<sup>1</sup> Based on research by the AAA and University of South Florida van operating costs for 2005 and 2009 inflated and a 2011 vehicle purchase price for a security modified 15-seat vehicle.

## **Napa County Jail Expansion Design Concepts and Split Operations Analyses**

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### **PRELIMINARY CONSTRUCTION COST ESTIMATES**

Cost for new construction in 2011 dollars includes demolition of the existing Hall of Justice. The same three options were analyzed for construction cost as were for annual staffing costs. The unit costs for construction on the existing downtown site are higher as a result of phasing just part of the new structure to allow the newest portion of the existing jail to remain operational, thus avoiding extra cost to relocate inmates temporarily during construction. However, as shown in Table 8 below the total project costs are lower overall and per bed due to the added cost of land acquisition and related site improvements not needed for any of the downtown options. Overall, construction and operating efficiencies are realized from the reuse of the existing downtown jail site.

Demolition costs for the existing Hall of Justice would be required for all proposed scenarios. However, for any option completed in just one construction phase on a site outside of Napa the cost for demolition could be deferred. In all options, however, the estimated \$8.7 million demolition cost should be acknowledged. As a proposed use, the building could be remodeled to serve Court and/or County Government needs, only if the site was not used for a jail. It should be noted that in addition to inflation and remodeling costs that the County would need to allocate budget for deferred maintenance and utilities if the Hall of Justice was not demolished.

For any option located away from Napa the land cost is estimated for a 15-acre site to accommodate complete construction of a low-rise 526-bed jail. For a 526-bed facility built on the existing site an alternate approach would be to construct all floors of the entire structure, but the top level and a portion of the fourth level would not be finished on the interior and reserved for future growth of approximately 160 beds. Accordingly, approximately 33,485 square feet would be cored and readied to be finished at a later date. The savings for deferring the completion would be approximately \$3,181,075 in 2011 dollars. Thus, the lower project cost in this case for a building constructed to house 526 beds, but with the top level unfinished for 160 beds would cost approximately \$87,628,988 in 2011 dollars.

**Napa County Jail Expansion Design Concepts and  
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**Table 8  
Construction Project Cost Estimates**

Description	New or Renovated SF or Units	Average Cost per SF or Unit Cost	Estimated Construction Cost
<b>Option 1 - New 526 Bed Jail on the Existing Jail Site</b>			
Phased Demolition - Hall of Justice	121,694	\$ 72	\$ 8,761,968
New 526 Bed Housing	115,294	\$ 297	\$ 34,242,318
New Support	110,374	\$ 255	\$ 28,145,370
Subtotal Construction Costs			\$ 71,149,656
Estimated Soft Costs - 27%			\$ 19,210,407
Estimated Temporary Support Relocation Costs			\$ 450,000
<b>Estimated Project Costs</b>			<b>\$ 90,810,063</b>
Cost per Bed			<b>\$ 172,643</b>
<b>Alternate Approach: Core Top Floor for Future Build-out for 160 Beds</b>			
<b>Estimated Project Costs</b>			<b>\$ (3,181,075)</b>
<b>Estimated Project Costs</b>			<b>\$ 87,628,988</b>
<b>Option 2 - 526 Beds Split operation (358 Downtown &amp; 168 elsewhere)</b>			
Phased Demolition - Hall of Justice	121,694	\$ 72	\$ 8,761,968
New 358 Bed Housing (Downtown)	81,809	\$ 297	\$ 24,297,273
New Support for Downtown	91,227	\$ 255	\$ 23,262,885
New 168 Beds (Elsewhere)	33,485	\$ 290	\$ 9,710,650
New Support for Alternate Location	28,190	\$ 252	\$ 7,103,830
Parking & Drives (120 Vehicles/ 1.3 Acres )	120	\$ 12,000	\$ 1,440,000
Subtotal Construction Costs			\$ 74,576,606
Estimated Soft Costs - 27%			\$ 20,135,684
Estimated Temporary Support Relocation Costs			\$ 450,000
Estimated Site Improvements 10.4% of Job Cost of New Location			\$ 1,748,706
<b>Estimated Project Costs</b>			<b>\$ 96,910,995</b>
Land Costs (7 Acres) - Required		\$ 450,000.00	\$ 3,150,000
Land Cost - Recommended Additions		\$ 450,000.00	\$ 3,600,000
<b>Completed Project Estimate</b>			<b>\$ 103,660,995</b>
Cost per Bed			<b>\$ 197,074</b>
<b>Option 3 - New 526 Bed Jail on New Site Elsewhere</b>			
Phased Demolition - Hall of Justice	121,694	\$ 72	Differed to Future Date (refer to text)
New 526 Bed Housing	115,294	\$ 290	\$ 33,435,260
New Support	110,374	\$ 252	\$ 27,814,248
Parking & Drives (348 Vehicles/3.6 Acres)	348	\$ 12,000	\$ 4,176,000
Subtotal Construction Costs			\$ 65,425,508
Estimated Soft Costs - 27%			\$ 17,664,887
Estimated Temporary Support Relocation Costs			\$ 450,000
Estimated Site Improvements 10.4% of Job Cost of New Location			\$ 6,369,949
<b>Estimated Project Costs</b>			<b>\$ 89,910,344</b>
Land Costs (15 Acres)		\$ 450,000.00	\$ 6,750,000
<b>Completed Project Estimate</b>			<b>\$ 96,660,344</b>
Cost per Bed			<b>\$ 183,765</b>
Source: Carter Goble Lee; September 2011			
<sup>1</sup> All cost figures in 2011 dollars.			

## Napa County Jail Expansion Design Concepts and Split Operations Analyses

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### ONCLUSIONS

As summarized in Tables 3 and 8 the total annual construction project costs and annual staffing costs for the 3 Options vary from a low of:

1. \$90.8 million to build and \$15.8 million to staff Option 1 a 526-bed Downtown Napa jail to the highest of
2. \$103.7 to build and \$18.1 million to staff Option 2 a 526-bed 2-jail Split Operation and a mid-range of
3. \$96.7 million to build and \$16.5 million to staff an out-of-town 526-bed jail in Option 3.

Notably for Option 1 it is also possible to defer approximately \$3.2 million in construction cost by 'shelling' the top floor and not finishing it until the 160 beds on that floor were needed. In that case the initial construction would then be approximately \$87.6 million with 366 beds ready to occupy. The finishing of a 'shelled' floor would take less than 12 months to complete.

When controlling for size to measure cost-efficiency for the annual staffing cost per bed, Option 1 a 526-bed Downtown Napa Jail yields the lowest cost at \$30,014 per bed; and Option 2 a 2-Jail Split Operation yields the highest cost at \$34,450 per bed.

The additional non-labor annual operating cost for prisoner court transport as shown in Table 7 makes either Option 2 or 3 with a jail located away from the existing jail site in Napa even more expensive and less cost efficient to operate than Option 1. The Option 1 526-bed Downtown Napa Jail is \$2.3 million less per year to operate than Option 2 for a 526-bed 2-Jail Split Operation and about \$700,000 less per year than Option 3.

Although the County may not need all the beds in a 526-bed jail in the next few years it will ultimately need that capacity in the long-range. The implementation of the new Prisoner Realignment Act or any other State action causing certain offenders heretofore sentenced to a State prison term to instead serve their sentence in county jails would speed up the need for more beds. Until the full 526-bed capacity is needed any extra beds available could be rented to other jurisdictions. Alternately, the top floor of the structure could be 'shelled' as already noted for Option 1 instead of being 'finished' to start with a 'phase 1' 366-bed capacity on the 4 lower levels. This would leave the 5<sup>th</sup> floor area available to add up to 160 more beds when needed to expand capacity up to approximately 526 beds.

Finally, it should be remembered that the cost of jail construction in the future will be more expensive than in the present. *Consequently, if the County anticipates the need to expand capacity in the not too distant future, construction of a single 526-bed Jail in downtown Napa has been found in this analysis to be the County's most economical option for both construction cost and recurring annual staffing costs.*