

# JACKSON COUNTY

### **NEW JAIL FACILITY**

NEEDS & CONCEPTUAL DESIGNANALYSIS | March 1, 2019



### **Historical information**

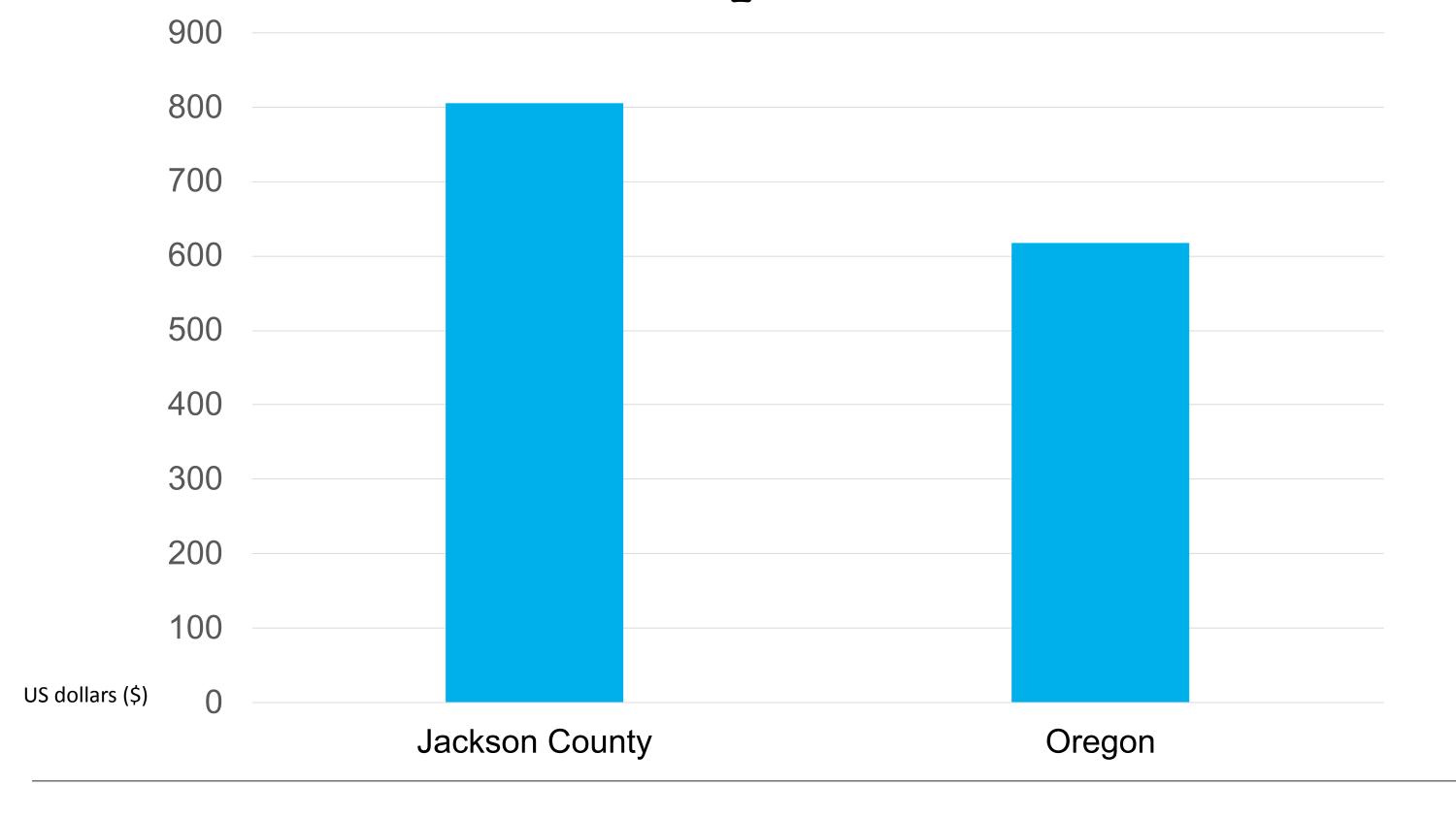
- Overcrowding
  - Issue since 1985
- National Institute of Corrections
  - Two prior visits, 2006 and 2017
- Grand Jury Reports
  - Past several years need a new facility is common theme
- Population Growth
  - Jail was opened in 1981
- Antiquated Design
  - Linear is labor intensive and inefficient to operate

### **Cost of Crime**

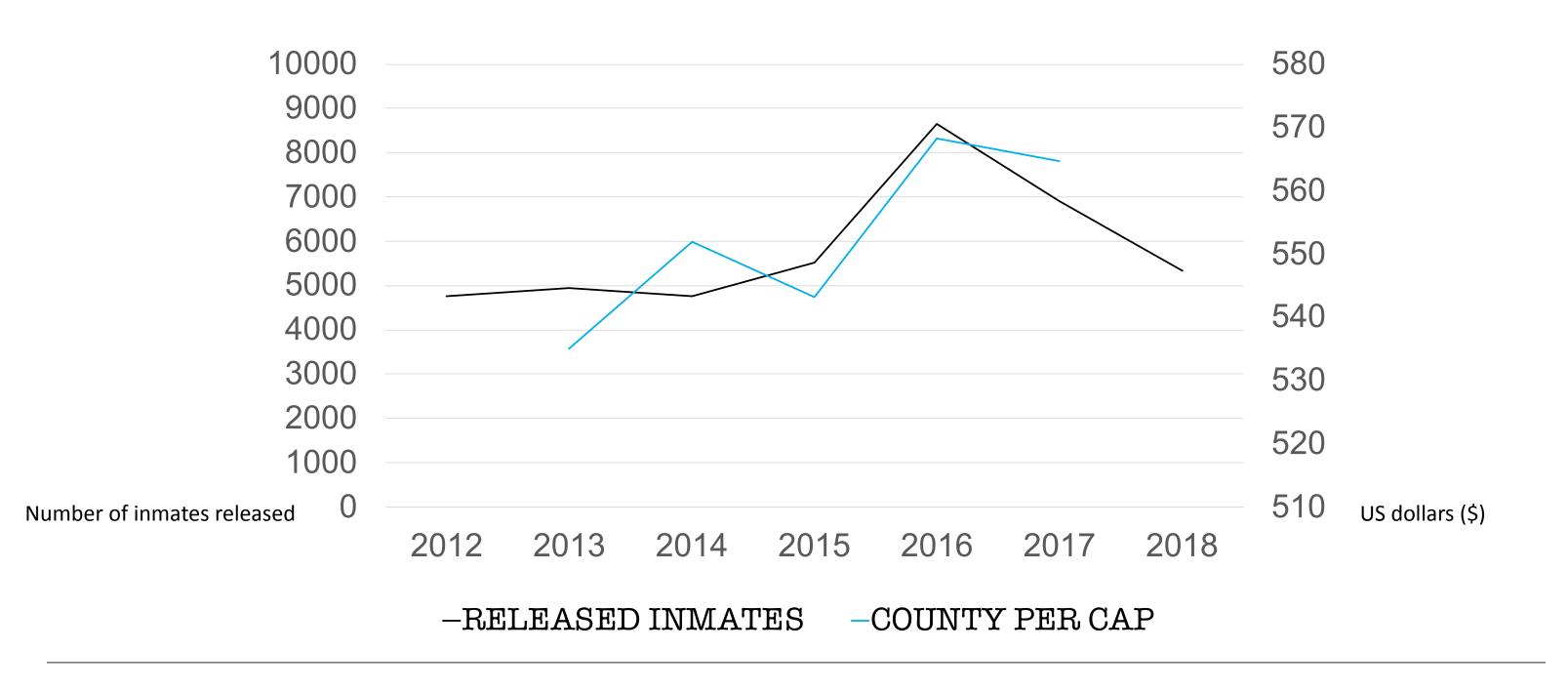
- Average Annual Cost of Crime (2013-2017):
  - Oregon: \$1.37 billion
  - Jackson County: \$171.2 million
- Average Annual Per Capita Cost of Crime (2013-2017):
  - Oregon: \$618
  - Jackson County: \$806

These figures account for costs associated only with the crimes of murder, rape, robbery, serious assault, burglary, larceny, and motor vehicle theft.

### Per Capita Costs



# County Per Capita Costs & Released Inmates (W/O Murder)



# **Property Analysis**

**DLR** did an analysis of the property including the following aspects:

- Zoning Heavy Industrial
- Access Multiple Ingress and Egress
- Grading and Drainage
- Water
- Sanitary Sewer
- Natural Gas
- Power
- Data / Communications
- Local climate

All aspects were positive.

### Further Property Analysis By Jackson County

### **Environmental Phase 1 Site assessment:**

- Focus is soil and groundwater contamination from neighbors or previous use.
- This assessment revealed no evidence of EPA or environmental concerns.

### Civil Engineer assessment:

- Reviewed the civil planning options and found significant utilities available close or at the site.
- They didn't see any challenges utilizing the existing three access points to enter the property.

### Soil Analysis:

 They looked at soil composition and the feasibility to develop this property. The site soil development is feasible according to the report.

### **Further Property Analysis By Jackson County**

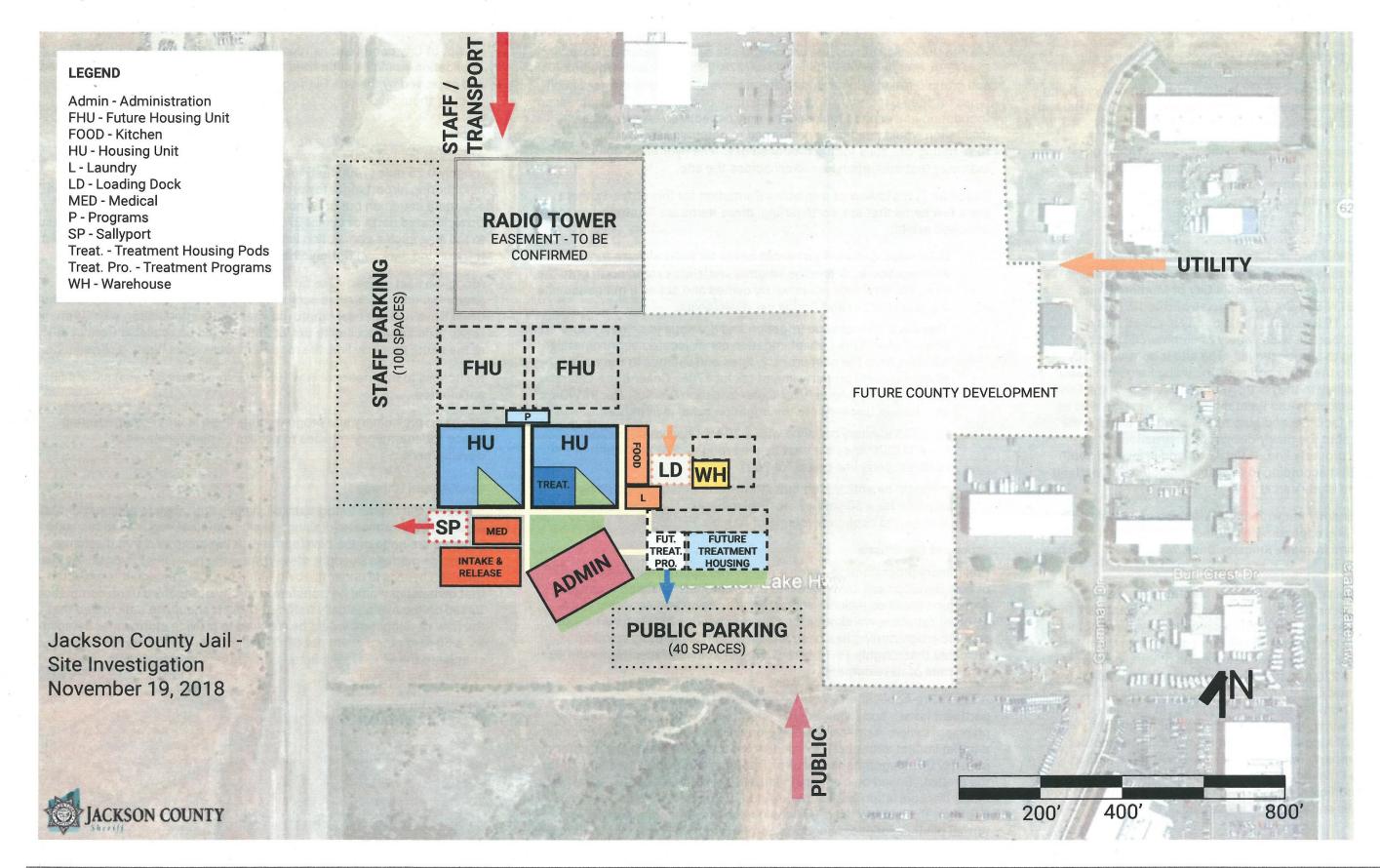
### **Environmental Consultant:**

- Primary focus was to review possible wetlands or other protected waterways.
- Report indicates some areas of possible wetlands but with the size of the property should be easily mitigated and managed. During site development these areas will be addressed.



### Design work conducted by DLR

- Conducted Meetings with County and Jail Staff for needs at county level and current issues
- Conducted meeting with PSCC for needs within new facility
- Conducted smaller more focused meetings with law enforcement, social services, and criminal justice partners
- Jail Staff, Mental Health and Addiction Services toured two other jails designed by DLR
- Reviewed initial plan with DLR they proposed after receiving input
  - Initial figures were approximate 200 million dollars (estimated complete project costs)
  - Second version costs are about 166 million dollars (estimated complete project costs)
  - Property and design will allow for future expansion





**JACKSON COUNTY** 

#### **JAIL SPACE SUMMARY**

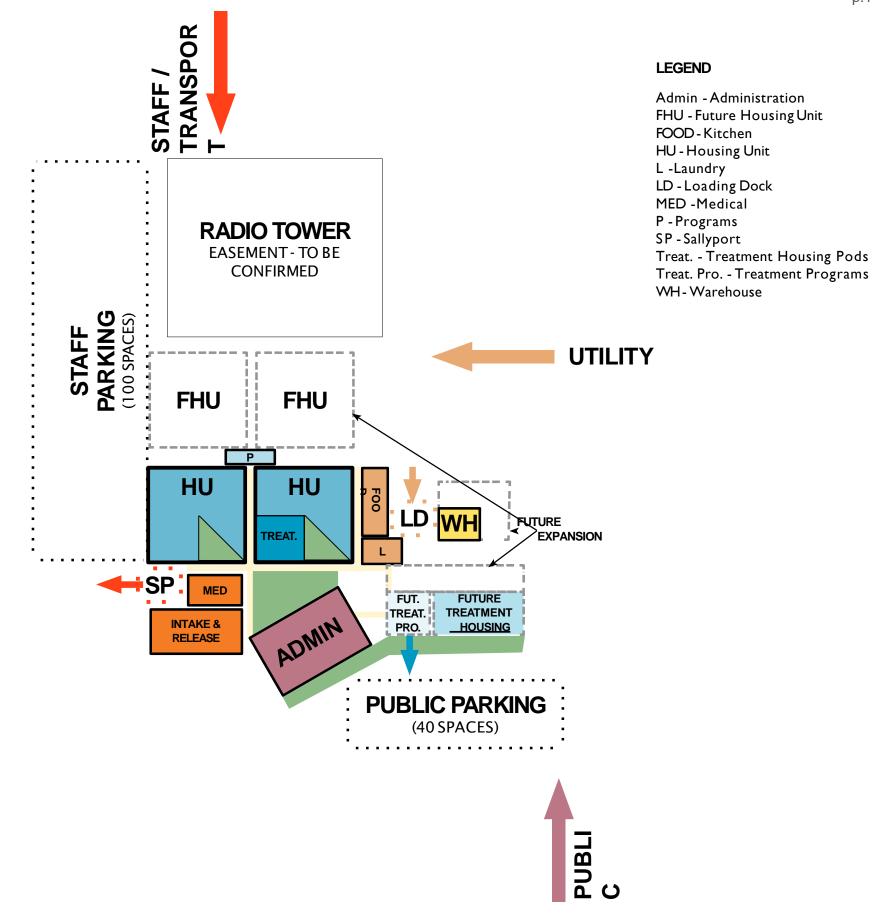
The jail space needs were derived through interviews with command staff and users from each component. Once interviews were completed, a space list was created and reviewed with the County. Clarifications and adjustments were implemented.

Housing and programing components account for approximately 67% of the overall square footage, with 340 square feet per inmate. As an indicator of efficiency, square footage per inmate ranges from about 215 to over 600. Built at 215 SF/inmate, a jail can house inmates but offers minimal programming for inmates or support spaces for staff. As a jail approaches the 600 SF/inmate range, it is a more specialized facility with intensive programming and a high number of staff.

At 340 SF/inmate, Jackson County's proposed new jail would be appropriate for a jail that safely houses inmates while supplying inmate program areas and staff areas that support the County's mission of reducing recidivism.

### **Space Summary**

	Square F	ootage
JAIL	DGSF	GSF
LOBBY	2,201	2,465
JAIL ADMINISTRATION	9,283	10,397
RECORDS	3,780	4,234
JAIL OPERATIONS	9,016	10,097
MEDICAL	8,883	9,949
INTAKE & RELEASE	16,058	17,985
HOUSING	111,796	125,212
INMATE PROGRAMS	13,393	15,000
FOODSERVICE	6,916	7,746
LAUNDRY	4,173	4,674
FACILITIES/WAREHOUSE	6,326	7,085
JAIL TOTAL		214,842
	)	201
PHASE 2 CONSTRUCTION - TREATMENT	;' <u> </u>	



#### **BED NEED**

#### **County Population**

Population analysis illustrates the potential need for future facilities growth – especially useful when space planning. The Jackson County Jail has provided a necessary public service function to the community for years, but its growth hasn't kept pace with that of the general Jackson County population. As population increases, so too do demands on the justice system.

Jackson County is made up of 11 cities and 34 unincorporated communities, with the county seat being Medford.

This report relies on historical data set created by the U.S. Census Bureau and the Coordinated Population Forecast Report created by Portland State, Population Research Center.

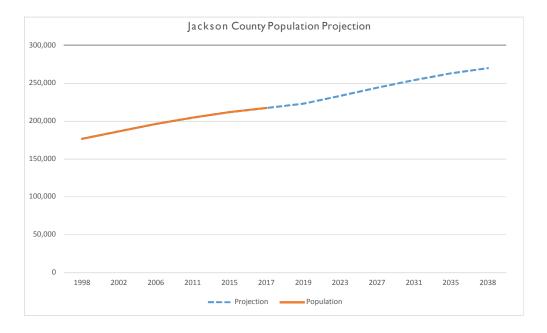
Our expectation is that steady population growth would continue based off the data provided by the Census Bureau. The Coordinated Population Forecast Report identifies similarly a steady increase in population by 1%, but indicates a slow in growth of 0.6% in the beginning from starting in 2010. While the projection model is based on data prior to 2015, the average increase per year returns to 1.3% increase for 2015 through 2017. To account for the slower growth, our model uses 0.87% increase beginning in 2030, averaging the 0.6% and 1.3% typical increase that has been identified.

Year	Population	Pr	ojection
1998	176,645	2018	220,656
1999	179,264	2019	223,162
2000	181,269	2020	225,697
2001	183,797	2021	228,261
2002	186,567	2022	230,854
2003	189,469	2023	233,476
2004	191,697	2024	236,128
2005	194,087	2025	238,811
2006	196,165	2026	241,523
2007	198,346	2027	244,267
2008	200,298	2028	247,041
2009	201,286	2029	249,848
2010	203,206	2030	252,021
2011	204,607	2031	254,214
2012	205,768	2032	256,426
2013	207,155	2033	258,657
2014	209,140	2034	260,907
2015	211,868	2035	263,177
2016	214,706	2036	265,466
2017	217,479	2037	267,776
		2038	270,106

Census	data	in	hold
Celisus	uata		DOIG.

Total #Increase	40,834
Avg#/yr	9,882
Total % Increase	24.2%
Avg % Increase/yr	1.2%

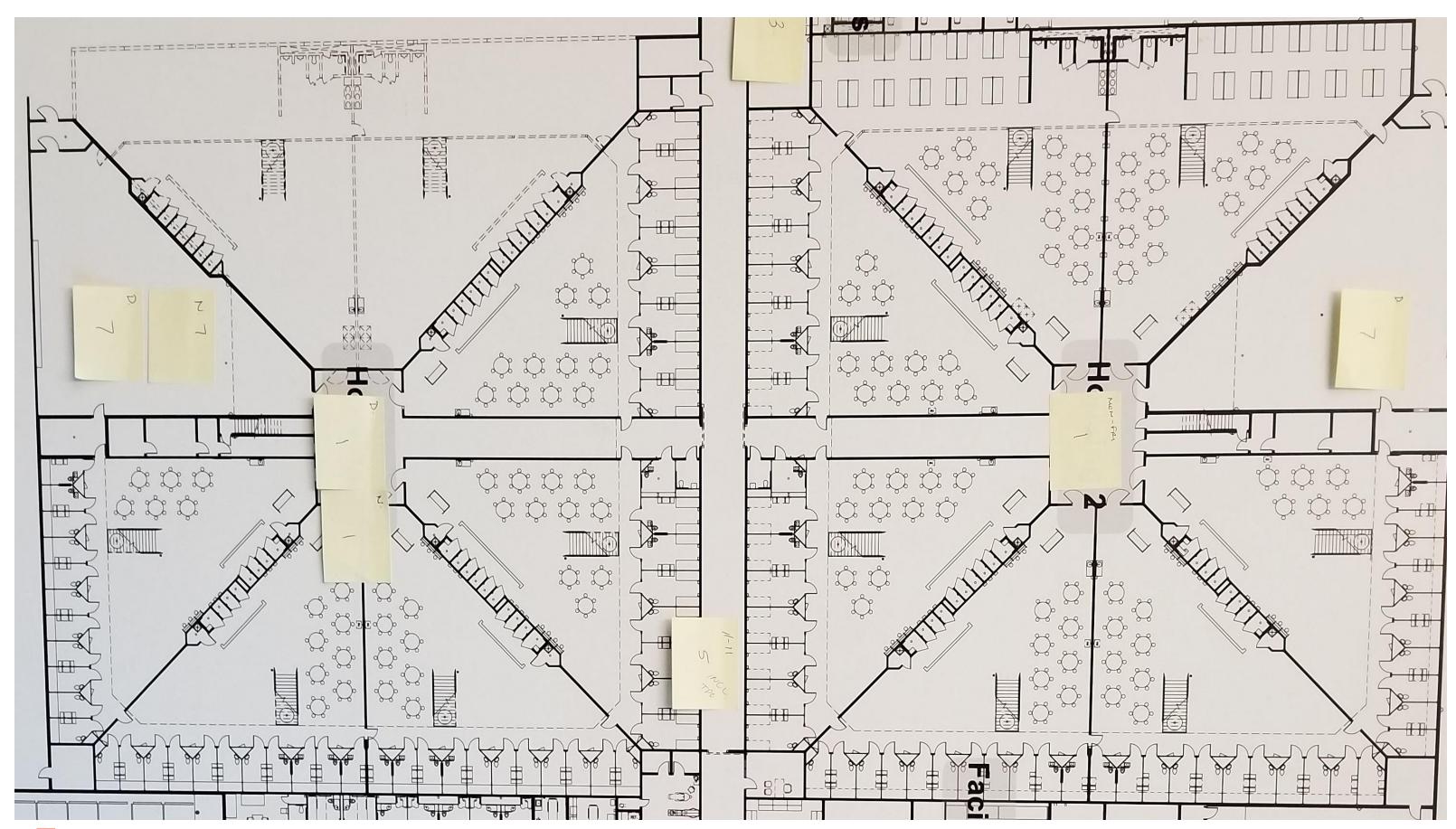






### **Inmate Housing**

- Current POD (Wheel) design will accommodate 154 to 448 beds depending on configuration
- Goal will be to strive for 400 beds per wheel (800 total beds)
- Best practice is to strive for 15 to 20 percent under max capacity due to classification, reduction of conflict and better supervision
- This model will allow us to conduct treatment for addiction and mental health issues within the current design



DLR Group

# **Staffing Model**

- Current FTE allocation in jail is 79.5
- Proposed Staffing Model is 105 FTE's
  - This should allow for efficient operations due to facility design and supervision model
  - Will have allowances for better classification and more resources for transport, which will be needed with the population being housed.
- Hiring will take place strategically over the first 4 years of the district, allowing to increase inmate population once the jail opens.

#### **STAFFING MODEL**

The conceptual model for the new jail housing is modeled after a radial plan with seven pods and a recreation yard around a central control station. This would allow for a blended supervision mode of both direct supervision (a correctional officer in the housing pod 24/7) and indirect supervision (a correctional officer in the housing pods occasionally with the control post supervising the pod). This would allow the jail to operate based on the needs of any individual pod and would take into consideration funding available for staffing.

A housing unit could have from 154 beds if all singles and up to 448 beds if all quads. Generally, the number of beds is usually in the 300- to 350-bed range. With this population, operating on more of an indirect model, staffing is projected at usually one person in the control room and three rovers/line staff for a total of four posts at each housing unit.

Some housing pods will be assigned as treatment housing until Phase 2 is complete. A treatment housing unit is planned for this facility and would be staffed with two posts during the day and one post at night. Other areas of the jail would also need posts including medical, inmate programs, food service, laundry, and intake/release/transport.

The staffing model shown is for the initial construction of two housing units and one treatment housing unit. It accounts for County staff only and does not include those staff associated with contracts the county has for service (eg kitchen, medical).

Staffing is calculated by full time equivalent (FTE) based on the number of hours needed for a post, how many hours per day, and how many days per week. A typical 24/7 post requires five to six officers to fill adequately.

Staffing models for the potential future phases can be found in the appendix.

#### Staffing Model for 2 Housing Units and 1 Treatment Housing Unit

A	D	Е	F	G	Н	L	J	K	L	M	N	0	Р	Q
	Total	Total	Total					No. of	No. of	No. of Hours	Is Relief	Net Annual	Total	
	Hrs. on	Hrs. on	Hrs. on	12-Hour		Other	Other	Days per		of Coverage	Needed for	Work	No. of FTEs	Rounded
Post/Position	Days	Swing	Graves	Day	Night	Hours	Hours	Week	Week	per Year	This Post?	Hours	Needed	No. of FTEs
Jail Commander/Captain	8	0	0	0	0	0	0	5	40	2,086	N	1,800.00	1.16	1
Lieutenant	8	0	0	0	0	0	0	5	40	2,086	N	1,800.00	1.16	1
Administrative Sergeant	8	0	0	0	0	0	0	5	40	2,086	N	1,800.00	1.16	1
Records Supervisor	8	0	0	0	0	0	0	5	40	2,086	N	1,800.00	1.16	1
Administrative Assistant	16	0	0	0	0	0	0	5	80	4,171	N	1,800.00	2.32	2
Total Admin/Supervisor	48	0	0	0	0	0	0	25	240	12,514			7	6
Shift Sergeant	0	0	0	12	12	0	0	7	168	8,760	Υ	1,600.00	5.47	5
Corporal	0	0	0	12	12	0	0	7	168	8,760	Y	1,600.00	5.47	5
Corrections Deputy	0	0	0	120	96	0	0	7	1,512	78,836	Y	1,600.00	49.27	49
Roving Deputy (medical/kitchen/laundry)	0	0	0	36	36	0	0	7	504	26,279	Y	1,600.00	16.42	16
Treatment Deputy	0	0	0	24	12	0	0	7	252	13,139	Y	1,600.00	8.21	8
Programs Deputy	0	0	0	24	0	0	0	7	168	8,760	Y	1,600.00	5.47	5
Transport/Court Deputy	48	0	0	0	0	0	0	5	240	12,514	N	1,600.00	7.82	8
Total Security	48	0	0	216	156	0	0	40	2,844	148,286			93	91
Corrections Records	32	24	16	0	0	0	0	5	360	18,770	N	1,600.00	11.73	11
Classification Clerk	16	0	0	0	0	0	0	5	80	4,171	N	1,600.00	2.61	2
Total Support	48	24	16	0	0	0	0	10	440	22,942			14	13
TOTAL JAIL STAFF	144	24	16	216	156	0	0	75	3,524	183,741			114	110
# staff on each shift	18	3	2	18	13	0	0							

T	Additonal County Staff														
r	Jail Maintenance	0	16	0	0	0	0	0	5	80	4,171	N	1,600.00	2.607	2
	Jail Custodial	0	8	0	0	0	0	0	5	40	2,086	N	1,600.00	1.304	1
	Total Additional County Staff	0	24	0	0	0	0	0	10	120	6,257			4	3.0
	TOTAL STAFF	144	48	16	216	156	0	0	85	3,644	189,998			118	113

# **Funding Mechanisms**

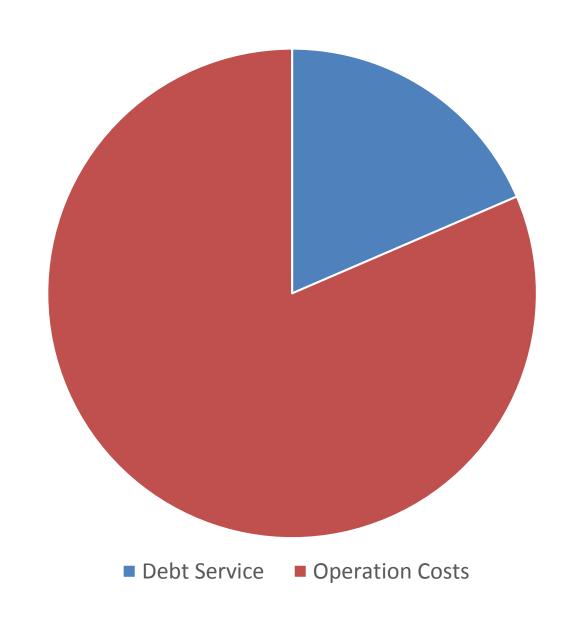
- Proposed district rate will be \$0.8353 per \$1000 of assessed value
- The county will contribute a total of \$66 million from reserve funds to fund the project (over \$6 million from reserves already spent on land)
- Will require a 20-year, \$100 million bond, backed by a service district, which will also support the operational costs
- The county will commit to continue contributing general funds in addition to the funds generated by the district

# Cost to the taxpayer

- Average Real Market Value for a home in Jackson County is \$270,765
- Average Taxable value of a home is \$187,910 (.694 of real market value)
- Annual Tax bill would be \$156.96 per year
  - \$3.02 per week
  - .43 cents per day

### Projected Jail Project Costs

First 20 years



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#### **COST ESTIMATE**

The information provided in the narratives was used to detail the anticipated systems and construction for the facility. The construction schedule has been factored into the cost to indicate the anticipated construction schedule of Fall 2021 through Summer 2023.

The estimate provides an estimated Maximum Allowable Construction Cost (MACC) of \$126,534,077.

This estimate factors strategies of using three separate building types throughout the facility as described in the narratives of this report. By separating the facility into these buildings, the less-secure departments that do not have direct contact with inmates could be constructed at lower costs.

Included in the estimate are assumptions of the soil conditions based on the preliminary geotechnical report provided by Jackson County of the site. Once a thorough study of the site is complete, this value would be more refined. Site soil conditions are the factor most likely to add cost to a project, and therefore should be considered a risk to the project until a full survey is complete.

Three additive alternates were identified in the cost estimate.

- CM/GC Alternative Delivery Method
- Photovoltaic Array (required by the State of Oregon)
- Geothermal ground source

#### **CM/GC Delivery**

The CM/GC delivery method is an approach to construction that is beneficial to the overall design and construction process. There are premium costs associated with the operations because the general contractor is brought onto the project earlier. However, the benefit of design coordination with the design team minimizes conflicts earlier in the project.

This delivery method has been selected by Jackson County as the preferred construction delivery. The estimate identifies an additional \$5,430,000 as costs for preconstruction and bidding contingencies that occur with a CM/GC method.

#### **Photovoltaic Array**

The State of Oregon requires 1.5% of total project cost to be provided for installation of photovoltaic power supplies on publicly funded projects. This value has been included in the MACC as \$2,400,000.

#### **Geothermal Ground Source Heat Pump**

The geothermal system is identified as an alternate, but a cost is not provided because there are many factors that determine the cost that cannot be assumed until the design has progressed. The climate and availability of land on site makes the payback of installing a geothermal field. The system is additive to the typical mechanical system, but over time, the reduction in electricity and natural gas utility costs can payback the up front expense.

#### **Project Soft Costs**

To comprise the Total Project Cost, the soft costs, or non-contractor related costs, need to be included. Typically, these costs range between 30% and 35%, and include site acquisition if required, design, surveying, permitting, furniture (FF&E), and other fees. A matrix of soft costs assumed to be included in the project is provided, and should be confirmed by Jackson County. This estimate does not include site acquisition costs, which are being completed at this time.

Based on this estimate, a total project cost would be approximately \$159,999,592.



Jackson CountyConcept Design Rough Order of MagnitudeAnticipated Soft Costs for New Jail3/1/2019

#### Project Cost Worksheet

Construction Cost		
New Construction	214,843 SF <b>577.79</b>	124,134,077
Photovoltaic Array	\$160M x 1.5%	2.400.000

**Enclosed Area** 

\$ / SF

\$x1

TOTAL Building & Sitework Construction			
- ConstructionCost	214.843 SF	588.96	126.534.077

#### **ACQUISITION COSTS**

Purchase/Lease Cost	Owner provided
Right-of-Way Costs	-
Offsite Mitigation	500,000
Other Acquisition Costs	_

#### **CONSULTANT SERVICES**

Pre-Schematic Design Services	Included in Basic Services	-
Programming/Site Analysis	Included in Basic Services	Owner provided
Environmental Analysis		50,000
Functional Programming	Included in Basic Services	-
Site Programming	Included in Basic Services	-
Technical Programming	Included in Basic Services	-
Analysis and Surveys	Not Applicable	-
Program Estimates	Included in Basic Services	-
Program Schedule		-

#### **CONSTRUCTION DOCUMENTS**

A/E Basic Design Services - through CA	12,020,737
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#### **EXTRA SERVICES**

EX	RA SERVICES		
	Acoustical Consultant	Included in Basic Services	-
	Bid Alternatives	Included in Basic Services	-
	Civil Design (Above Basic Services)	Included in Basic Services	TBD
	Communications Consultant	Included in Basic Services	-
	Constructability ReviewParticipation	Included in Basic Services	-
	Constructability Review/Plan Check	Included in Basic Services	-
	Consultant Selection Cost	Included in Basic Services	-
	Design - Code Plan Check	Included in Basic Services	-
	Design - Program Changes	Included in Basic Services	-
	Door Hardware Consultant	Included in Basic Services	
	Electronic/Audio Visual Consultant	Included in Basic Services	-
	Elevator Consultant	Included in Basic Services	-
	Energy Conservation Report/ LEED Review (LCC	CA Review)	TBD
	CM/GC Support/Selection Review	Included in Basic Services	-
	Geotechnical Investigation		40,000
	Graphics (signage design and furnish - OFCI)	Included in Basic Services	-
	Hazardous Materials Consultant		85,000
	Hospital/Laboratory Consultant	Included in Basic Services	-
	Indoor Air Quality Consultant	Included in Basic Services	-
	Interior Design/Furnishing Consultant		138,000
	Kitchen Consultant	Included in Basic Services	
	Landscape Consultant	Included in Basic Services	-
	Other		-
	Quality Control Consultant		-
	Reimbursables	2.50%	240,415
	Security Consultant		200,000

Concept Design Rough Order of Magnitude 3/1/2019

ject Cost Worksheet		
Cita Como	Enclosed Area \$ / SF	20
Site Survey		30,
Specialty Consultants		
Transportation Consultant		64,
Move Coordination		
Value Engineering Study	Included in Basic Services	
VE Participation and Implementation		
Voice and Data Consultant	Included in Basic Services	
Electrical/Lighting Design Consultant		
Mechanical Consultant	Included in Basic Services	
Structural Consultant	Included in Basic Services	
Construction Phasing/Early Bid Pack	ages	75,
Partnering		
Equipment Coordination & Design		
OTHER SERVICES		
Bid/Construction/Closeout -29% of l	basic services	Included ab
REIMBURSABLES		
As-Builts	Not Applicable	
Commissioning and Training		300,
Construction Support		
Cost/Scheduling Consultant		
Environmental Mitigation Services		
HVAC Balancing		100,
On-Site Representative		
Other		
Testing		250,
DESIGN SERVICES CONTINGENCY		
Change Order Design Allowance		
Design Fee Contingency		1,265,
<i>G G</i> ,		
OTHER CONTRACTS		
Telecommunications Cable Plant		
Other		
Hazardous Materials		400
Moving Costs - \$800/person	120 EA 800	96
Other		
CM/GC COSTS		
Preconstruction Services		5,430,
CONSTRUCTION CONTINGENCIES		
Management Reserve		
Allowance for Change Orders	5.00%	6,352,
Construction Retainage		
SubTotal: Construction Contingencies		
Sales Tax	0.00% Not Applicable inOR	
EQUIPMENT		
<b>EQUIPMENT</b> Fixtures, Furnishings & Equipment (bey	rond provisions of E10) 3%	3,724,022

	 Enci	losed Area	\$ / SF	
OTHER COSTS	Liloi	OSCU AICU	Ψ7 ΟΙ	
Advertising				
Utility Connection Fees				425,
Traffic or Environmental Mitigation Fe	es			
Financing Costs				
In-Plant Services				
Utilities/Temporary Facilities				
Security Services (Labor)				
Master Use Permits (Owner)				180,
Building Permit (Contractor)				1,000,
Other Permits, Plan Check, Inspection	Fees			500,
Performance and Payment Bond				Included in Construction Cost
Claims Review Board				
Builders Risk				Included in Construction Cost
Connectivity (C&C)				
Other				
Capitalized Operating Expenses				
PROJECT MANAGEMENT				
Project Management	Owner to confirm	representati	ion	None inclu
Pre-Active Project Management				
Contract Project Management				None inclu
Contract Construction Management				
_				
PM Other Costs				
PM Other Costs  TOTAL Soft Costs	21	14,843 SF	155.77	33,465,

#### New Jail Estimates for 700 Inmates Summary

						Оре	en														
Ž	Year	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038
Revenue Projections																					
Total Jail Revenues		\$ 4,259,648	\$ 4,308,128	\$ 4,358,062 \$	<u> 4,409,495</u> \$	4,462,470	\$ 4,517,035	\$ 4,573,237	\$ 4,631,124	\$ 4,690,748	\$ 4,752,161	\$ 4,815,417	\$ 4,880,570	\$ 4,947,678	\$ 5,016,798	\$ 5,087,993	\$ 5,161,323	\$ 5,236,854	\$ 5,314,650	\$ 5,394,780	\$ 5,477,314
<b>Expenditure Projections</b>	-	:	:	:	:	:	:	:		:	:	:	:	-	:	:	:	:	:	:	
Personal Services		\$ 11,499,991	\$ 12,336,236	\$ 13,199,773 \$	3 14,505,796	18,064,337	\$ 18,786,910	\$ 19,538,387	\$ 20,976,710	\$ 21,815,778	\$ 22,688,409	\$ 24,363,158	\$ 25,337,685	\$ 26,351,192	\$ 28,301,442	\$ 29,433,499	\$ 30,610,839	\$ 32,882,152	\$ 34,197,438	\$ 35,565,335	\$ 38,210,837
Total Materials & Services		\$ 3,448,823	\$ 3,552,288	\$ 4,510,723 \$	4,796,841	9,079,441	\$ 9,351,824	\$ 9,632,379	\$ 9,921,350	\$ 10,218,991	\$ 10,525,560	\$ 10,841,327	\$ 11,166,567	\$ 11,501,564	\$ 11,846,611	\$ 12,202,009	\$ 12,568,069	\$ 12,945,111	\$ 13,333,465	\$ 13,733,469	\$ 14,145,473
Capital Outlay		\$ -	\$ 140,000	\$ - \$	s - \$	190,000	\$ -	\$ -	\$ -	\$ -	\$ 218,500	\$ -	\$ -	\$ -	\$ -	\$ 251,275	\$ -	\$ -	\$ -	\$ -	\$ 288,966
Total Expenditures		\$ 14,948,814	\$ 16,028,524	\$ 17,710,496 \$	§ 19,302,637 \$	27,333,777	\$ 28,138,734	\$ 29,170,765	\$ 30,898,060	\$ 32,034,769	\$ 33,432,470	\$ 35,204,485	\$ 36,504,251	\$ 37,852,756	\$ 40,148,053	\$ 41,886,784	\$ 43,178,909	\$ 45,827,263	\$ 47,530,903	\$ 49,298,804	\$ 52,645,276
Total Operating Requiremen	nts	\$ 10,689,166	\$ 11,720,396	\$ 13,352,434 \$	§ 14,893,142       \$	\$ 22,871,307	\$ 23,621,699	\$ 24,597,529	\$ 26,266,936	\$ 27,344,020	\$ 28,680,308	\$ 30,389,068	\$ 31,623,681	\$ 32,905,078	\$ 35,131,254	\$ 36,798,791	\$ 38,017,585	\$ 40,590,410	\$ 42,216,253	\$ 43,904,024	\$ 47,167,963
General fund support Balance		\$ <b>8,998,721</b> \$ 1.690,445	\$ <b>9,268,682</b> \$ 2,451,714	<b>\$ 9,546,743 \$ 3.805.691 \$</b>			<b>\$ 10,431,984</b> \$ 13,189,716	<b>\$ 10,744,943</b> <b>\$ 13,852,586</b>		<b>\$ 11,399,310</b> <b>\$ 15,944,710</b>		<b>\$ 12,093,528</b> <b>\$ 18,295,540</b>	. , ,	\$ 12,830,024 \$ 20,075,054							<b>\$ 15,779,311</b> 5 \$ 31,388,652
<del>- 1111</del>		7 2,000,000	-,,	,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	=,,,	,,	,,	,,	+,,	+,,,,,	,,,	+ -2,-01,010			+ ==,==,,==		,,,	,,	,,	, ,,,,,,,,,
Bond payments \$100 Million		¢	\$ 6,625,668	ć (C25.000 č			¢ ((25,000	\$ 6.625.668	ć (C25.000	\$ 6.625.668	\$ 6.625.668	\$ 6.625.668	\$ 6.625.668	\$ 6,625,668	\$ 6.625.668	\$ 6.625.668	\$ 6.625.668	\$ 6.625.668	\$ 6.625.668	\$ 6.625.668	) ¢ (25,600
20 year or .3515/1000		\$ 6,625,668	\$ 6,625,668	\$ 6,625,668 \$	6,625,668 \$	6,625,668	\$ 6,625,668	\$ 0,025,008	\$ 6,625,668	\$ 0,025,008	\$ 0,025,008	5 0,025,008	\$ 0,023,008	\$ 6,625,668	\$ 0,023,008	\$ 0,025,008	\$ 0,025,008	\$ 0,025,008	\$ 0,023,008	) \$ 0,025,008	3 \$ 6,625,668
District support required																					
20 year projection		\$ 8,316,113	\$ 9,077,382	\$ 10,431,359 \$	5 11,685,665 \$	19,368,836	\$ 19,815,384	\$ 20,478,254	\$ 21,825,312	\$ 22,570,378	\$ 23,564,687	\$ 24,921,208	\$ 25,793,016	\$ 26,700,722	\$ 28,541,997	\$ 29,813,086	\$ 30,623,540	\$ 32,775,773	\$ 33,968,407	\$ 35,209,973	3 \$ 38,014,320
Rate projection 20 year bond																					
20 year intersection																					
Value to calc. tax rate (18-	1																				
20,603,677,825	17,210,000	0.8353	3.5%																		
Taxes collected @94%	16,177,400	16,743,609	17,329,635	17,936,172	18,563,938	19,213,676	19,886,155	20,582,170	21,302,546	22,048,135	22,819,820	23,618,514	24,445,162	25,300,743	26,186,269	27,102,788	28,051,386	29,033,185	30,049,346	31,101,073	32,189,611
Total Revenue		25,742,330	26,598,317	27,482,915	28,397,083	29,341,815	30,318,139	31,327,113	32,369,837	33,447,445	34,561,109	35,712,042	36,901,496	38,130,767	39,401,194	40,714,160	42,071,100	43,473,490	44,922,860	46,420,793	47,968,922
Total Expenditures		25,742,330 17,314,834	18,346,064	19,978,102	28,397,083	29,341,815	30,318,139	31,327,113	32,892,604	33,969,688	35,305,976	35,712,042	38,249,349	39,530,746	41,756,922	43,424,459	44,643,253	43,473,490	48,841,921	50,529,692	
-	Difference	8,427,496	8,252,253	7,504,813	6,878,273	(155,160)	70,771	103,916	(522,766)	(522,243)	(744,867)	(1,302,694)	(1,347,854)	(1,399,979)	(2,355,728)	(2,710,298)	(2,572,154)	(3,742,588)	(3,919,061)	(4,108,900)	) (5,824,709)
Cash Flow		8,427,496	16,679,749	24,184,562	31,062,835	30,907,675	30,978,447	31,082,363	30,559,596	30,037,353	29,292,486	27,989,792	26,641,938	25,241,959	22,886,231	20,175,933	17,603,779	13,861,191	9,942,130	5,833,230	8,522
Cash Flow		0,441,490	10,079,749	24,104,302	31,002,633	30,707,073	30,770,447	31,002,303	30,337,390	30,037,333	47,474,480	41,707,194	20,041,938	23,241,939	22,000,231	20,173,933	17,003,779	13,001,191	7,744,130	3,033,230	0,322

#### **CONSTRUCTION SCHEDULE**

DLR Group projected the proposed new jail's construction schedule of Phase I based on starting design after a possible local election in November 2019. The design process for the jail building may start right after the measure is approved. This schedule indicates approximately 18 months for design of the facility to allow for contingency and periods of owner review. This design process could be expedited to as short as 12 months with collaboration with the County to ensure the process can continue without delay. One method to expedite the design schedule is to provide early construction packages for site/grading during the design process to get the site work permitted and initiated in the "dry" seasons. Construction could begin immediately after receiving the site permit, and would take approximately 24 months to complete.

Jackson County has confirmed the project would be procured with a Construction Manager/General Contractor (CM/GC) construction delivery method. CM/GC is an alternative approach to the traditional design-bid-build process. In the design-bid-build approach, owners aim to have a complete project design finished before general contractors begin bidding. Under the CM/GC approach, the owner engages the services of a CM/GC during the early design stages which provides efficiency of design and constant cost analysis to ensure the design will align with available budget. The CM/GC takes on the role of

construction manager during design development, project planning, and budget creation. Approaching the start of construction, the owner and CM/GC negotiate a guaranteed maximum price (GMP) for construction services, and the construction manager becomes the general contractor. Because the contractor is involved during the entire planning and construction process, these projects often see better budget control, fewer change orders, and timesaving outcomes. CM/GC method is best suited for large, complex projects with site or schedule constraints such as this facility. Additionally, the caliber on contractors more experienced with the security construction requirements are limiting their project portfolio from traditional designbid-build because they are vested in teh preconstruction relationship with designers and owners. In a traditional design-bid-build methodology, the limitation to contractors willing to bid the project risks awarding an inexperienced contractor that submits a successful low bid and working through the complexities on the site where all modifications to the documentation requires more cost and effort from all parties, compromising the construction of the facility.

The following schedule provides an annual schedule from quarter four (Q4) of 2019 through final anticipated construction of Q3 2023. This schedule is in line with the cost estimate provided.

