



**Presentation
to the
North Dakota Legislative Council
and its
Correctional Facility Review Committee**

**Criminal Justice Institute
August 21, 2007**



**Criminal Justice Institute Team
Presenters**

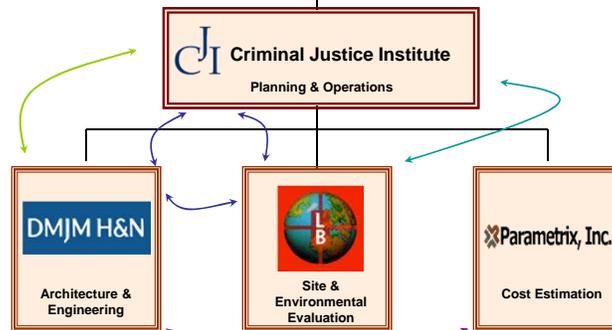
- George M. Camp, Ph.D., Criminal Justice Institute
- Lou Ragozzino, PE, Louis Berger Group
- Jeff Buck, DMJM H&N



Criminal Justice Institute Project Team



North Dakota Legislative Council
Correctional Facility Review Committee



Criminal Justice Institute Team's Relevant Prison Project Experience



Relevant Prison Project Experience Areas							
Firms / Years Doing Prison Work	Master Planning / Prison Design	Needs Assessment / Capacity Planning	Staffing Analyses	Site Identification / Evaluation	Cost-Benefit Analyses	Construction / Operational Cost Estimation	Totals
CJI (29 Years)	9	52	18	1	9	3	92
DMJM (60 Years)	70	40	30	30	20	20	210
Berger (25 Years)	75	20	10	250	25	25	405
Parametrix (39 Years)						820	820
Totals (153 Years)	154	112	58	281	54	868	1,527



Project Roles and Team Member Experience



Planning & Operations Analyses



Site & Environmental Assessment



Design Development



Cost Estimation



5

CJI's Leadership in Conducting Independent Performance Reviews



- Governor's Taskforce - Massachusetts Department of Correction
- Thomas Commission - Connecticut Department of Correction
- U.S. Congress - Federal Bureau of Prisons / Prison Industries
- State Legislature - Minnesota Department of Corrections
- Attorney General & Legislature - New Mexico Corrections Department
- Governor's Secretary - Massachusetts Department of Correction
- Governor - California Department of Corrections
- **State Auditor - North Dakota Department of Corrections & Rehabilitation**
- Governor's Taskforce - Delaware Department of Correction



6

Criminal Justice Institute Team's Practical Prison Experience



Correctional Management and Leadership Experience					
Project Team Member	Warden/Deputy Warden	Regional / Assistant / Deputy Director	Department Director	Total Correctional Management Experience	Total Correctional Experience
George M. Camp Project Director: Operations, Staffing, Costs	3	3	4	10	14
Jeff Buck (Facility Programmer)		4		4	4
Camille G. Camp Operations & Staffing	1	3		4	10
Robert Greene Facility Programmer					8
David Marcial Programs & Services	10	1		11	21
Terry Pitcher Prison Operations & Activation	13	2		15	30
TOTALS	27	13	4	44	87



CJI's North Dakota Experience



- Use of Restraints at NDSP (Attorney General, 1993)
- DOCR Performance Review (State Auditor, 2004 - 2005)
- Programs and Services for Male and Female Inmates at NDSP, JRCC, MRCC, and DWCRC (Office of Risk Management and Office of the Attorney General, 2006)

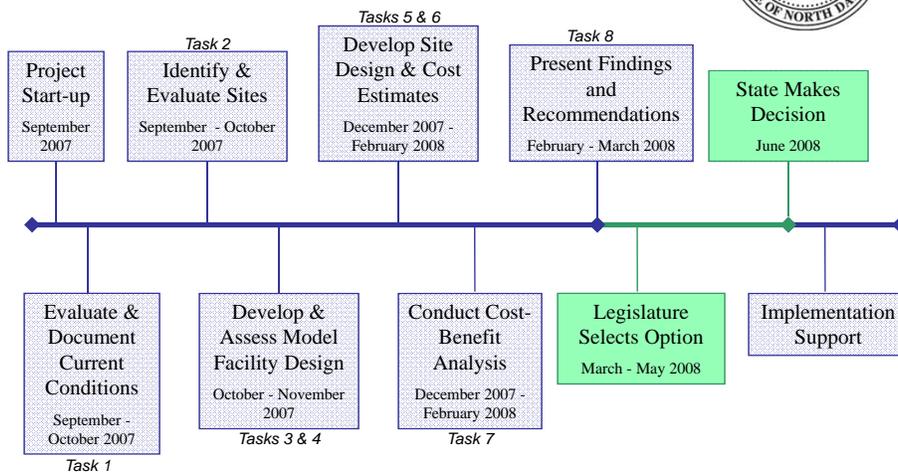


Understanding the Project: North Dakota's Expectations



- North Dakota's Objectives: Determine the most desirable and cost-efficient option for meeting the future needs of the Penitentiary.
- CJI's Task: Evaluate options from which the Legislature can make an informed decision. Those options are:
 - Renovate & Expand at the existing site; or
 - New Construction at the existing site; or
 - New Construction at another site.

Project Task Timeline



Facility Identification and Siting



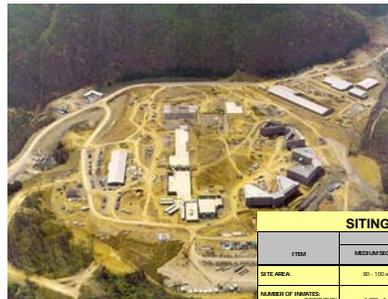
- Application of Siting, Environmental and Community Acceptance Criteria
- Environmental Compliance and Permitting; Environmental Science, Cultural Resource and Hazardous Waste Disciplines
- Close Coordination with State Historic Preservation Office and Tribal Entities



Infrastructure Assessment



- Civil/Site Engineering
- Utility Systems Engineering
- Traffic Engineering
- Permitting
- Land Availability
- Geotechnical Studies



ITEM	FACILITY TYPE	
	MEDIUM SECURITY	HIGH SECURITY
SIZE/AREA	50 - 100 acres	50 - 75 acres
NUMBER OF INMATES (MILITARY/PRISONERS)	1,200 - 1,400 700 - 800	1,000 - 1,200 700 - 800
NUMBER OF STAFF	300 - 350	300 - 400
APPROXIMATE UTILITY NEEDS:		
ELECTRICITY	30,000 kwh 10-20 bus bar load Peak Demand of 1.4 kva per bus Voltage at 12.47 - 13.8kV	
NATURAL GAS	45 million btu/hr Deliver at 75 psig minimum	
WATER	100 gallons per minute Storage of or treat facilities 200,000 gal.	
SEWER	100 gal average flow Peak flow (2x average flow)	
TELECOMMUNICATIONS	100 pairs of voice lines or their eqvt.	
WASTE/HAZARDOUS	4 pounds per day per inmate	
ACCESS:	Minimum 100 ft paved road, for passenger and commercial vehicle traffic, 100 - 1,000 ft per day	

Constraints Analysis



ALTERNATIVE SITE COMPARISON MATRIX													
Site	A1				B				C				
Land Area [1]	480 acres				350 acres				320 acres				
Land Cost [2]	\$240,000				\$200,000				\$200,000				
Site Specific Data	Area 1	Area 2	Area 3	Area 4	Area 1	Area 2	Area 3	Area 4	Area 1	Area 2	Area 3	Area 4	
	17.1	15.4	2.5	2.7	18.2	16.4	12.0	5.4	18.2	18.0	11.7	5.2	
Development Intensity	10	11.4	6.4	7.2	5.3	2.1	2.0	4.4	4.1	7.1	8.2	8.1	
Initial Mitigation Costs	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	\$0	
Capital Volume [3] [4]	\$12.9M	\$11.9M	\$1.7M	\$1.8M	\$2.2M	\$1.9M	\$1.2M	\$0.6M	\$2.8M	\$2.8M	\$1.4M	\$1.7M	
Earthwork Cost [5]	\$7,400,000	\$2,400,000	\$1,300,000	\$1,300,000	\$2,800,000	\$8,400,000	\$8,700,000	\$8,200,000	\$8,100,000	\$8,100,000	\$2,500,000	\$2,500,000	
Off-Site Costs [6]	Water Supply	\$300,000				\$1,800,000				\$3,200,000			
	Wastewater Collection	\$1,700,000				\$4,700,000				\$3,000,000			
	Wastewater Treatment	\$4,140,000				\$4,140,000				\$4,140,000			
	Electric Power	No significant construction costs anticipated				\$600,000				\$500,000			
	Natural Gas [7]	\$280,100				\$4,000,000				\$5,170,000			
Access-Related Issues	Remotely, close to State Loop Road (Highway 100) (Intermittent Road)				RCP construction to improve R1, R2P (also intermittent traffic) and State Loop Rd.				Minor, Close access from State Route 100				
Access-Related Costs	\$0.00				\$1,800,000.00				\$0.00				
Total Estimated Costs	\$12,900,000	\$11,900,000	\$1,700,000	\$1,800,000	\$12,200,000	\$17,000,000	\$18,200,000	\$18,000,000	\$12,200,000	\$18,700,000	\$11,400,000	\$11,600,000	

- Land Use/ Conflicts
- Land Availability
- Environmental Impact
- Capital Costs
- Infrastructure Costs
- Off Site Improvements
- Comparative Matrix



Document Existing Conditions and Verify Projected Needs



- Healthcare / Medical
- Staffing Levels
- Daily Operating Cost
- Intake Processing
- Population Projections
- Custody Levels
- Program Needs
- Service Delivery Systems

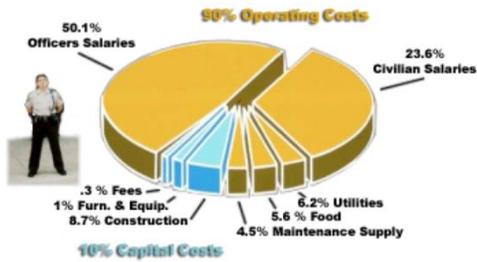




Operationally Based Approach to Planning & Design

- Basis for Planning & Conceptual Design Must Address:

Prison Facility Life Cycle Costs



- Current Facility Operations;
- Incorporate "best practices" as desired;
- Optimal configuration for operational effectiveness and positive work environment for staff; and
- Achieve objective at lowest capital and operational cost over time.



Conceptual Design - New Site: Developing the Model



Tennessee Multi-Custody Level Prototype



New Concept Applied to North Dakota State Penitentiary



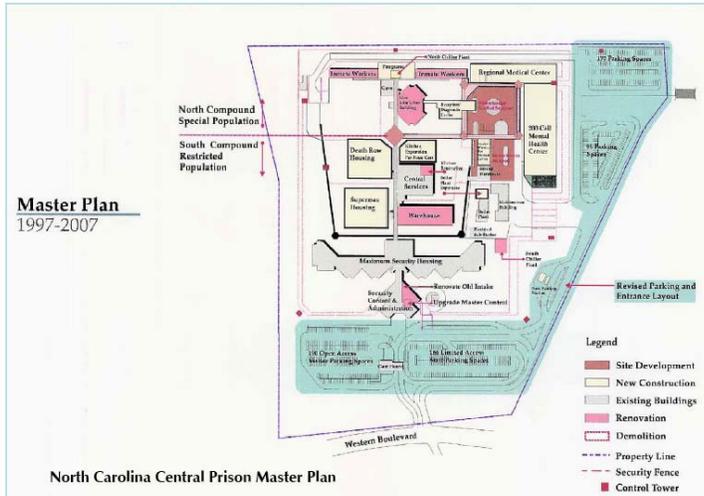
New Concept Applied to Existing Facility: Developing the Model



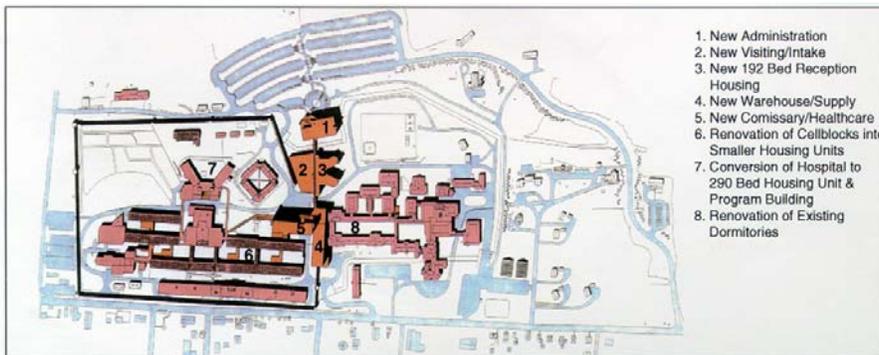
Tennessee Morgan County
Prison Expansion



Reuse of Existing Site: Assessing the Model



Reconfiguring Existing Site: Assessing the Model



Clinton Correctional Complex
Prison Master Plan

Construction Cost Estimation



Parametrix: 820 Correctional Project Cost Estimates

- Time (Speed)
- Quality
- Area (Space)



Total Cost: Construction, Site, & Operations



Must Take Into Consideration:

- Existing Conditions
- Site & Utility
- Requirements
- Temporary Facilities
- Program Needs
- Operational Impacts
- Optional Items/Alternates
- Consideration for Future Phases
- Owner, Design & Construction Contingencies

Life Cycle Analysis includes both Capital and Operational Costs

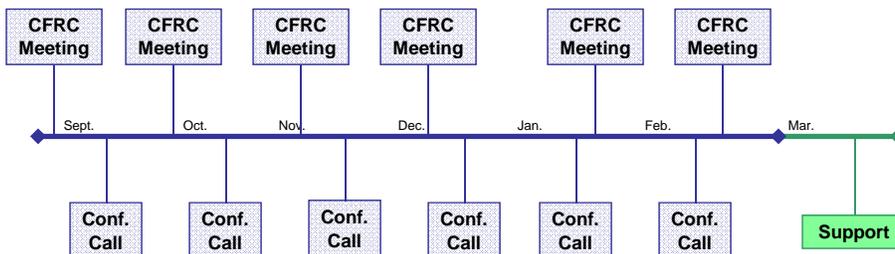
Option Analysis: Comparing Costs and Benefits



Sample Evaluation Criteria						
Construction Cost (Millions)	22.4	21.3	22.6	24.9	31.3	25.2
Total Project Cost (Construction, Site, Etc.)	28.4	27.9	29.4	32.6	40.3	32.1
Annual Operating Cost	2.7	2.9	2.6	3.1	4.2	3.5
30 Year Life-Cycle Cost	109.4	114.9	107.4	125.6	166.3	137.1
System Configuration (optimal system arrangement)	Good	Best	Good	Fair	Fair	Fair
Operational Efficiency (uses least amount of new staff)	Good	Good	Best	Good	Fair	Good
Maintaining Operations (least disruption to ongoing operation)	Fair	Good	Best	Good	Good	Fair
Ease of Implementation (has least number of hurdles to overcome)	Good	Good	Fair	Fair	Fair	Best
Functional Adjacencies (best physical relationships)	Good	Best	Best	Good	Fair	Good
Phasing Potential (easiest to accomplish in stages)	Fair	Best	Best	Good	Good	Fair
Future Expansion Capability (best in terms of long term expansion)	Good	Good	Best	Good	Good	Fair



Communicating Regularly with the Legislature





Criminal Justice Institute: Meeting Your Needs with the Best Team and the Right Approach

- Breadth and Depth of Experience
- Independent, Objective Assessment
- Corrections is Our Business
- Hit the Ground Running
- Fresh Set of Eyes
- First-hand Practical Knowledge
- National Perspectives - Best Practices