

Houghton County Justice Center Master Plan



Major Master Plan Conclusions
Board of County Commissioners' Meeting
Date: 4/15/2025

Agenda

Charrette Agenda	Duration	Time
Introductions and Acknowledgements	5 Minutes	10:00am – 10:05am
Master Plan Goals and Objectives, Approach and Methodology, Schedule and Report Status	5 Minutes	10:05am – 10:10am
Summary of Major Master Plan Conclusions: <ul style="list-style-type: none"> • Analytics and Projection Modeling • Bed Recommendations and Comparative Counties Evaluation • Space Standards and Existing Space Evaluation • Existing Facility Systems Evaluation • Staff and Space Programs • 2044 Parking Projections 	20 Minutes	10:10am – 10:30am
Charrette and Conceptual Design <ul style="list-style-type: none"> • Charrette Agenda, Participants and Philosophy. • Pre-Charrette and Charrette Options. • Charrette Scenario Options, Options for Inclusions and Remaining Options Opinion of Probable Base Cost Range. • Project Financing Options and Tax Impact. • Project Delivery Systems Options. 	25 Minutes	10:30am – 10:55am
Next Steps	5 Minutes	10:55am – 11:00am
<i>Adjourn</i>	<i>1 Hour +/-</i>	<i>11:00am +/-</i>

Introductions: County and Steering Committee

- **Board of County**

- **Commissioners:**

- Tom Tikkanen, Chairman
- Roy Britz
- Joel Keranen
- Glenn Anderson
- Gretchen Janssen

- **County Administrator:**

- Chelsea Rheault

- **Steering Committee (Committee):**

- Tom Tikkanen, Chairman, Board of County Commissioners
- Glenn Anderson, Board of County Commissioners
- Todd LaRoux, Building Inspector
- Brittany A. Bulleit, 12th Circuit Court Judge
- Nicholas J. Daavettila, 97th District Court Judge
- Nickole Jollimore, Court Administrator / Magistrate's Office
- Fraser T. Strome, Probate and Family Court Judge
- Joshua B. Saaranen, Sheriff
- Travis Dessellier, Captain
- Faith Morrison, LWVCC
- Tami Sleeman, City of Hancock Chief of Police
- Rob Cook, SSPP
- John Donnelly
- Kevin Store, CEO, Copper Shores Community Health Foundation
- Ryan Heinonen, CEO, UP Health System – Portage
- Angela Miles, Prosecuting Attorney
- Jason Bessner, Director of Security, Aspirus
- Matt Krause, CAO, Aspirus, Keweenaw Hospital and Clinics
- Mary Sears, Franklin Township Supervisor
- Roy Britz
- Jeff Williams, Copper County Mental Health

The Abonmarche/Byce and Securitecture Study Team (Study Team) would like to sincerely thank the Board of County Commissioners, Courts, Steering Committee (Committee) and Sheriff's Office, Corrections and all those who contributed invaluable assistance with completion of the Houghton County Justice Center Master Plan (Study).

Introductions: Master Plan Team

Team and Roles



Jim Escamilla, PE
Principal-In-Charge
Client Champion



**Joe Mrak, AIA, LEED AP, CPTED,
NCARB**
Justice Champion
Lead Subject Matter Expert



Bret Dodd, AIA, LEED AP, GBCI
Master Planning Lead
Design Team Manager

Daryl Knip, PE
President/CEO

Stan Skopek, RA
Project Manager / Construction
Administration

Robert Loftis
Senior BIM / Revit Specialist

Keith Martinez, PE, LC, LEED AP BD+C
Electrical Engineer

Trevor Richardson, PE
Mechanical Engineer

Bryan Webster, PE, LEED AP
Structural Engineer

Paul Warnick, LLA
Landscape Architect

Dan Bomzer, PE
Civil Engineer

As a Team: Completed Over Twenty Corrections Projects in Michigan Including Delta County Constructed in 2018.

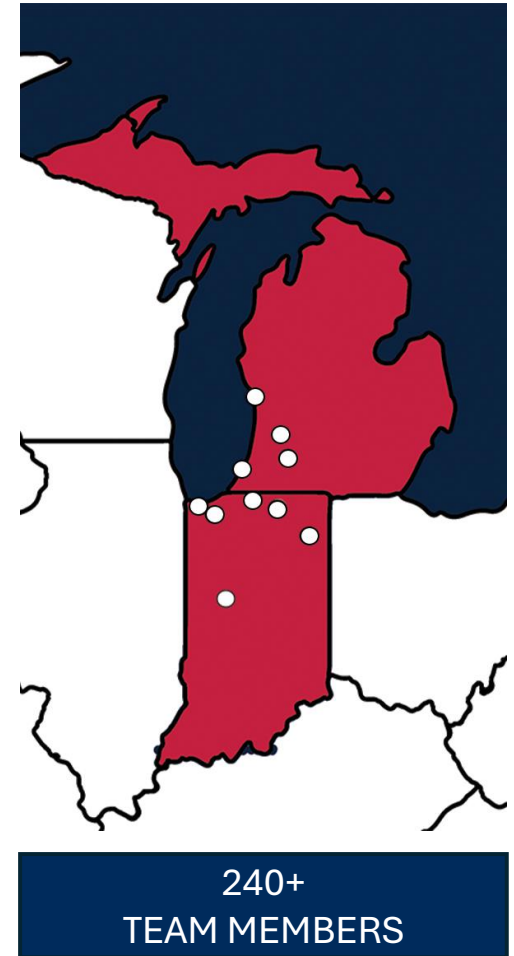
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- Goshen, IN
- Hobart, IN
- Lafayette, IN



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\$300k – \$290M
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Master Plan Goals and Objectives

- **Goals:**

- Evaluate the existing staff, space, system conditions and parking need to understand the current challenges and conditions that adversely impact operational effectiveness and efficiency.
- Define future twenty (20) year staff, space and parking needs.
- Explore options as required to address current and future staff, space and parking needs.
- Define opinion of probable project cost and anticipated schedules as required for the decision making process.
- Communicate, confirm and present major conclusions to the Committee, users and stakeholders to make informed decisions.
- Establish a design direction to address current and future staff, space and parking needs.

Master Plan Goals and Objectives

• Objectives:

- Complete historical data evaluation, analytics and projection modeling to define a potential future perspective of Houghton County population, court system, sheriff's office and corrections staff, space and number of corrections bed needs.
- Define space standards based upon how Houghton County operates to be used to conduct the space evaluation and architectural space programming.
- Complete an objective existing space evaluation to determine deficiencies, define an overall rating of the deficiencies and make necessary adjustments to achieve 2024 operational efficiency.
- Complete and existing site and building systems evaluation to define the current conditions, summarize necessary corrective work and establish costs associated with continual operation as a sheriff's office and corrections facility.
- Define current and potential future staff needs in five (5) year increments to 2043 (20 years).
- Define the space needs in ten (2034) and twenty (2044) year increments.
- Define the twenty (20) year parking needs.
- Conduce a charrette with the Committee, users and stakeholders to explore options that address the current and future staff, space and parking needs.
- Completed charrette, post-charrette and conceptual design of the selected preferred option(s) including graphic site and floor plan diagrams, total project budget opinion of probable cost and anticipated project schedule.
- Conduct project Committee and user meetings to review, confirm or revise information as required.
- Complete, issue for review and comment draft and final reports.
- Present major conclusions to the Board of County Commissioners for implementation consideration.

Committee Program Questionnaire Response 1/13/2025

1. How important is incarceration for the benefit of your community on a scale of 1 (Not Important) to 5 (Extremely Important):				
Not Important	Somewhat Important	Important	Very Important	Extremely Important
				√
2. How important are alternative programs to incarceration for the benefit of your community on a scale of 1 (Not Important) to 5 (Extremely Important):				
Not Important	Somewhat Important	Important	Very Important	Extremely Important
				√
3. How important is mental health and/or addiction treatment for detainees and/or incarcerated inmates for the benefit of your community on a scale of 1 (Not Important) to 5 (Extremely Important):				
Not Important	Somewhat Important	Important	Very Important	Extremely Important
				√ √
4. How important are recidivism reduction programs for the benefit of your community on a scale of 1 (Not Important) to 5 (Extremely Important):				
Not Important	Somewhat Important	Important	Very Important	Extremely Important
				√
5. Are there other programs could or should be available to inmates for the benefit of your community on a scale of 1 (Not Important) to 5 (Extremely Important):				
Not Important	Somewhat Important	Important	Very Important	Extremely Important
				√
6. Are there other programs, operations or procedures that could or should be implemented by the sheriff's office and/or corrections to improve public relations for the benefit of your community on a scale of 1 (Not Important) to 5 (Extremely Important):				
Not Important	Somewhat Important	Important	Very Important	Extremely Important
				√

Approach and Methodology Status

Houghton County Justice Center Master Plan Study Approach and Methodology

STEP 1: PRE - PROJECT

- Project "Kick-Off-Meeting"
 - Define Project Committee, Roles and Lines of Communication.
 - Confirm Goals, Objectives, Approach and Methodology.
 - Confirm all Users/Stakeholders Included in the Study and Verify Contact Information.
 - Confirm Facilities and Existing Programs Included in the Study.
 - Confirm Specific Areas of Concern Identified by the County.
 - Define Review and Approval Process.
 - Confirm Schedule and Deliverables.
- Develop Base Sheets as Required for Communication of Study Information
- Develop, Issuance and Receipt of Data/Information.
- Develop, Issuance and Receipt of Questionnaires.

Complete

STEP 2: STRATEGIC PLANNING/VISIONING SESSION

- Complete Analytics to Define the Immediate (2024), Projected and Future Growth (2034 and 2045) of the Current County Courts, Incarceration/Jail, Community Corrections and Treatment Programs.
- Investigate and Evaluate Alternative Programs Not Currently Being Utilized by the County that may be Beneficial.
- Conduct an Evaluation of the Existing Available Facilities to Determine Capacity.
- Conduct a Visioning Session to Explore Alternative Programs not currently being utilized.
- Conduct User/Stakeholders Interviews, Meet with the Committee as required to Review and Confirm Conclusions
- Complete Step Summary and Review with Users/Stakeholders and Committee.
- Present Conclusions to the Committee and Commissioners as Required.

Complete

STEP 3: STAFF AND SPACE PROGRAMMING

- Assess the opportunities within the community for partnerships to create treatment programs that support existing and anticipated County programs.
- Develop Detailed 10 (2034) and 20 (2044) Staff and Space Programs.
- Define 2044 Parking Needs.
- Define Critical Addressable Locations for Operational and Service Facilities.
- Survey and analyze the existing and potential site(s).
- Meet with Users/Stakeholders and Committee as required to Review and Confirm Conclusions.
- Complete Step Summary and Review with Users/Stakeholders and Committee.
- Present Conclusions to the Committee and Commissioners as Required.

Complete

STEP 6: PRELIMINARY DESIGN (Add. Service)

- Develop Preliminary Design Drawings:
 - Site Plan.
 - Detailed Floor and Roof Plans.
 - Civil, Mechanical, Electrical and Plumbing (Optional).
 - Elevation Drawings.
 - Elevations.
 - Exterior Image Rendering (Optional).
 - Typical Wall Sections.
 - Sanitary and Storm Drainage Plans.
- Line Item/Detailed Statement of Probable Cost.
- Detailed Phasing/Implementation Plan and Anticipated Project Schedule
- Complete Phase Summary and Review with Users/Stakeholders and Committee as required to Review and Confirm Conclusions.
- Complete Phase Summary and Review with Users/Stakeholders and Committee.
- Draft/Final Report and Present Conclusions to the Committee and Commissioners as Required.

Additional Service, If Requested

STEP 5: RECONCILIATION (Add. Service)

- Assist with determining and defining funding capabilities.
- Alignment of Architectural Space Program and/or Scope of Work with needs and funding capabilities.
- Finalize design and construction Delivery System.
- Review and Confirm Construction Schedule.
- Meet with Users/Stakeholders and Committee as required to Review and Confirm Conclusions.
- Complete Phase Summary and Review with Users/Stakeholders and Committee.
- Present Conclusions to the Committee and Commissioners as Required.





Additional Service, If Requested

STEP 4: CHARRETTE/CONCEPTUAL DESIGN

- Pre-Charrette:
 - Develop Charrette Tools.
- Charrette (Users/Stakeholders and Committee):
 - Review and Identify "Alternative Solutions" to Renovation and/or New Construction.
- Post-Charrette/Conceptual Design:
 - Refine and Finalize Conceptual Master Plan Design Options Graphics
 - Develop Statement of Probable Project Budget and Funding Options.
 - Prepare a life cycle cost analysis of the "Alternative Solutions" compared to renovation and/or new construction, including staffing projections.
 - Prepare and analyze financing and funding alternatives for the construction and operations of the facility.
 - Implementation/Phasing Plan and Schedule.
- Draft/Final Report and Present Conclusions to the Committee and Commissioners as Required.

Complete

Schedule Status

Anticipated Project Schedule							
STEP	2024			2025			
	October	November	December	January	February	March	April
STEP 1: PRE - PROJECT		 <i>Kick-Off Meeting 10/30/2024</i>					
STEP 2: STRATEGIC PLANNING/ VISIONING SESSION				 <i>Study Meeting #1 1/16/2025</i>			
STEP 3: STAFF AND SPACE PROGRAMMING				 <i>Draft report Issuance: March 3/17/2025</i>			
STEP 4: CHARRETTE/ CONCEPTUAL DESIGN					 <i>Charrette: February 2/18/2025</i> <i>Board of County Commissioners' Presentation: April 4/15/2025</i>		

STEP	ANTICIPATED COMPLETION
STEP 1: PRE - PROJECT	Completed
STEP 2: STRATEGIC PLANNING/VISIONING SESSION	Draft Issued. Completion End of February
STEP 3: STAFF AND SPACE PROGRAMMING	Draft Issued. Completion End of February
STEP 4: CHARRETTE/CONCEPTUAL DESIGN	Charrette: 2/18/2025 Draft Report Issuance: 3/17/2025 Board of County Commissioners' Presentation of Major Study Conclusions: 4/15/2025

Report Status

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- **Executive Summary:**
 - Summary of the Major Master Plan Conclusions,
 - 25 Pages.
- **Appendices:**
 - Detail Supporting the Major Master Plan Conclusions.
 - Included in Full Report.
 - 325 Pages.

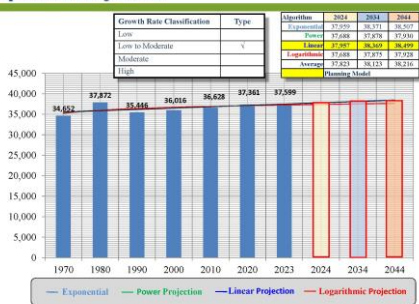
Houghton County Justice Center Master Plan Study



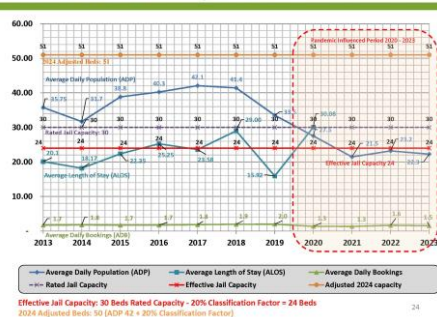
Draft Executive Summary Report
Date: 3/17/2025

Analytics and Projection Modeling

Population Projections



Historic Jail Data Summary: 2013 – 2023



- **Analytics and Projection Modeling Summary:**
 - 46 Historical Data Evaluation, Analytics and Projection Models.

Major Conclusions:

- Population Projection:

- Low to Moderate Population Growth.
- Projected 2024 Population of 37,957 Could Grow to 38,499 in 2044.

- Courts:

- Descending Total Case Load Consistent with the State of Michigan and U.S.
- Influence on Type and Number of Cells.
- **Sheriff's office call for Service and Arrests:**
 - Anticipated to Remain Consistent with Historic Trends.

- Corrections (Jail):

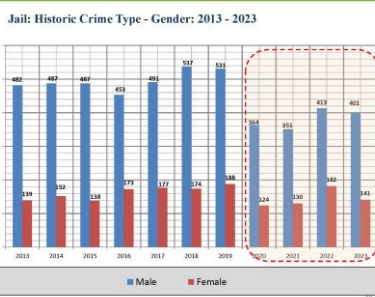
- Effective Jail Capacity: 30 Beds Rated Capacity - 20% Classification Factor = 24 Beds
- 2024 Adjusted Beds: 50 (Average Daily Population of 42 + 20% Classification Factor).

Classification Factor: Additional Beds Required to Safely Separate Inmates with Different Offense Classifications (Felons vs. Misdemeanor, etc.) and Gender (Male and Female Sight/Sound Separation).

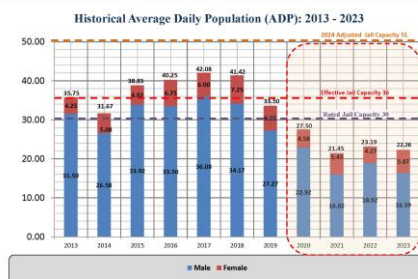
Historic Total Court Caseload Data Summary: 2013 – 2023



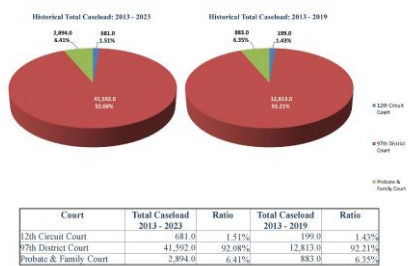
Jail: Historic Crime Type - Gender



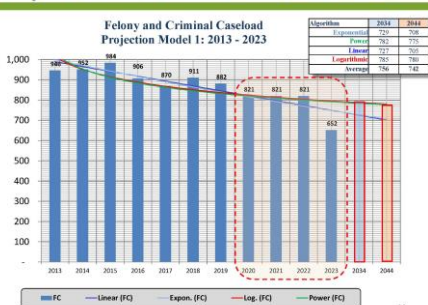
Jail: Historic Average Daily Population (ADP)



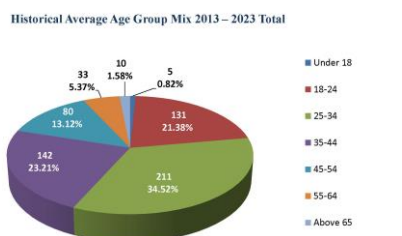
Historic Total Caseload Ratio



Felony and Criminal Caseload Model 1: 2013 - 2023



Jail: Historic Average Age Group Mix



Example Analytics and Projection Modeling.

Jail Projection Modeling Summary

Projection Model 1: 2013 - 2019 - ADP x CF	2034							2044						
	AJB	AMB	ADB	ALOS	ADP	CF	Beds	AJB	AMB	ADB	ALOS	ADP	CF	Beds
Exponential	730	60.8	1.99	22.7	39.8	20%	47.8	749	62.4	2.05	22.9	40.5	20%	52.7
Power	700	58.3	1.91	23.0	39.7	20%	47.6	704	58.8	1.93	23.1	39.8	20%	51.7
Linear	729	60.7	1.98	23.6	40.0	20%	48.0	747	62.3	2.04	24.0	40.4	20%	52.5
Logarithmic	700	58.2	1.90	23.6	39.8	20%	47.8	704	58.7	1.92	23.8	39.9	20%	51.9
Average	715	59.5	1.95	23.2	39.8	20%	47.8	726	60.6	1.99	23.5	40.2	20%	52.3
Model 2: 2013 - 2019 - ADB x ALOS x CF	2034							2044						
	AJB	AMB	ADB	ALOS	ADP	CF	Beds	AJB	AMB	ADB	ALOS	ADP	CF	Beds
Exponential	730	60.8	1.99	22.7	39.8	20%	54.2	749	62.4	2.05	22.9	40.5	20%	56.3
Power	700	58.3	1.91	23.0	39.7	20%	52.7	704	58.8	1.93	23.1	39.8	20%	53.5
Linear	729	60.7	1.98	23.6	40.0	20%	56.1	747	62.3	2.04	24.0	40.4	20%	58.8
Logarithmic	700	58.2	1.90	23.6	39.8	20%	53.8	704	58.7	1.92	23.8	39.9	20%	54.8
Average	715	59.5	1.95	23.2	39.8	20%	54.3	726	60.6	1.99	23.5	40.2	20%	56.1
Model 3: Period Peek Averages - ADB x ALOS x CF	2034							2044						
	AJB	AMB	ADB	ALOS	ADP	CF	Beds	AJB	AMB	ADB	ALOS	ADP	CF	Beds
Period Peek Averages	719	59.9	2.0	29.0	42.1	20%	62.6	719	59.9	2.0	29.0	42.1	20%	69.6
Terminology:				Table Legend				General Notes:						
Annual Jail Bookings = AJB				2033 Planning Model				1. Current Rated Jail Capacity: 30 Beds						
Average Monthly Bookings = AMB				2033 Planning Model				2. Current Effective Jail Capacity: 24 Beds						
Average Daily Bookings = ADB				Bed Calculation Componentets				3. 2024 Adjusted Beds based upon 2017						
Average Length of Stay = ALOS				Low Beds				Average of 42.08 x 20% Classification						
Average Daily Population = ADP				Mean Beds				Factor = 51 Beds						
CF = Classification Factor - Required for Classification/ Segregation				High Beds										

Adult Jail Bed Recommendation Considerations

- **Bed Recommendation Considerations:**

- Judicial and Legislative variables that may impact Jail Operations, Facility and Space Needs in the Future.
- Changes in Sentencing Philosophies and/or Guidelines.
- Changing Realignment of the County Courts with Adjacent Counties.
- Nascent Mental Health Guidelines and Recommendations, No Current Regulations.
- Potential Artificial Adjustment of ADP Due to Existing Facility Classification Limitations.
- Adjusted 2024 Beds: 51
- Descending Trends in New Circuit and District Courts Case Filings.
- Impact of Alternative programs to Incarceration.
- Facility Longevity - Should Last 40 – 50 years.
- Plan for What We Don't Know.
- Maximize Capacity Since Construction Cost Never Cheaper than Today.
- Maximize Number of Beds Around a Single Control Room – Staff Efficiency.
- Potential Opportunity to Provide Beds to Other Counties to Offset Operational Costs.

Options	General Housing								
	Beds	Male		Female		Special Classification		Juvenile	
		%	Beds	%	Beds	%	Beds	%	Beds
Option 1	60	74%	44	26%	12				2 - 4
Option 2	70	74%	52	26%	13				2 - 4
Option 3	80	74%	59	26%	15				2 - 4

Comparable County Jail Capacity

Co. Desig.	County	Estimated 2023	US Census 2020	Jail Capacity (Beds)	Beds Per 1,000 Population	Notes:
1.	Chippewa	36,264	36,785	179	4.9	
2.	Delta	36,790	36,903	156	4.2	
3.	Gratiot	41,368	41,761	70	1.7	
4.	Mecosta	41,099	39,714	97	2.4	
5.	Sanilac	40,368	40,611	175	4.3	
6.	Wexford	34,122	33,673	158	4.7	
Average		38,335	38,241	139	3.7	
7.	Houghton	37,599	37,361	30	0.8	

Marquette County Population Projections:

2024	37,957	Planning Model: Linear Algorithm
2033	38,369	Planning Model: Linear Algorithm
2044	38,499	Planning Model: Linear Algorithm

General Notes:

1. Beds per 1,000 population based upon 2020 US Census Data



Comparable County Population: Average and Houghton County Bed Recommendation Evaluation

Evaluation Component	Population	Jail Capacity (Beds)		Beds Per 1,000 Population	
	2020 Census	Current Beds	Recommended Beds	Current Per 1,000	Recommended Beds Per 1,000
Comparable Counties Average	38,241	139		3.7	
Houghton County	37,599	30		0.8	
2044 Houghton County Recommended Beds					
Recommendation Option	2044 Population	Current Beds	Recommended Beds	Current Per 1,000	Recommended Beds Per 1,000
Option 1:	38,499	30	60	0.8	1.6
Option 2:	38,499	30	70	0.8	1.8
Option 3:	38,499	30	80	0.8	2.1
Deviation from Comparable Counties Average within Houghton County 2044 Projected Population					
Recommendation Option				Bed Deviation	% Bed Deviation
Option 1: 60 Beds				79	57%
Option 2: 70 Beds				69	50%
Option 3: 80 Beds				59	42%

Space Standards Summary

Houghton County

Justice Center Master Plan Study

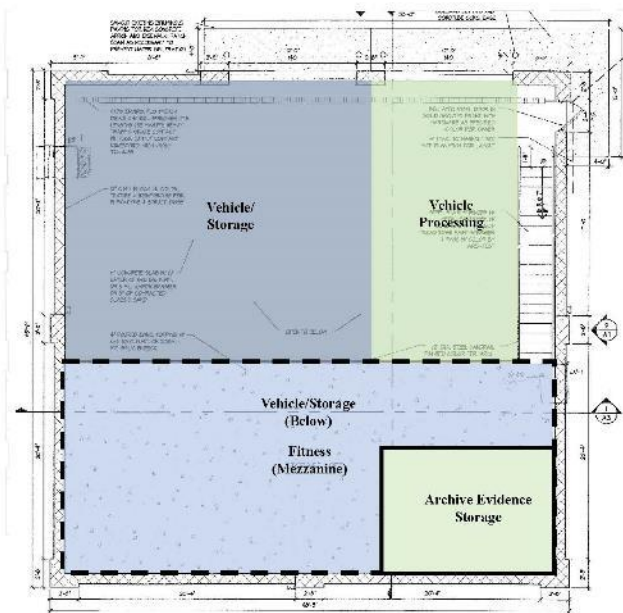
Space Standards Summary

Space Standard	Net Square Feet (nsf)	
A. Offices and Workstations		
1. Private Office Type "A" (Modified) a. Not Used	300nsf	
2. Private Office Type "A" a. Note Used	240nsf	
3. Private Office Type "B" a. Sheriff	192nsf	
4. Private Office Type "B" (Modified) a. Under Sheriff b. Jail Commander/Captain	168nsf	
5. Private Office Type "C" a. Lieutenant b. Detective	c. Counselor 120nsf	
6. Workstation Type "D" a. Not used	96nsf	
7. Workstation Type "E" a. Detective b. Sergeant	80nsf	
8. Workstation Type "E" (Modified) a. Corporal b. Nurse	60nsf	
9. Workstation Type "F" a. Not Used	48nsf	
B. Conference/Meeting Rooms		
1. Seating for 2 - 4	120nsf	
2. Seating for 4 - 6	150nsf	
3. Seating for 6 - 8	180nsf	
4. Seating for 8 - 10	210nsf	
5. Seating for 10 - 12	240nsf	
6. Seating for 12 - 14	280nsf	
7. Seating for 14 - 16	320nsf	
8. Seating for more than 16 persons	18-20nsf per person	
C. Conference/Training		
1. Large room (150 persons)	3,000nsf	
2. Medium room (70 persons)	1,400nsf	
3. Small room (35 persons)	750nsf	
D. Court and Hearing Rooms		
1. Small Courtroom/Hearing (Gallery Seating for 30-40, 5 man jury with 2 alternates/optional)	1,425nsf	
2. Video Arraignment	240 - 300 Min.	
E. Adult Detention		
	Michigan Standards	ACA Standards
1. One Man Cell Accessible	80 nsf - no standard	80nsf
2. One Man Accessible (IIC) with Shower	89 nsf - no standard	106nsf

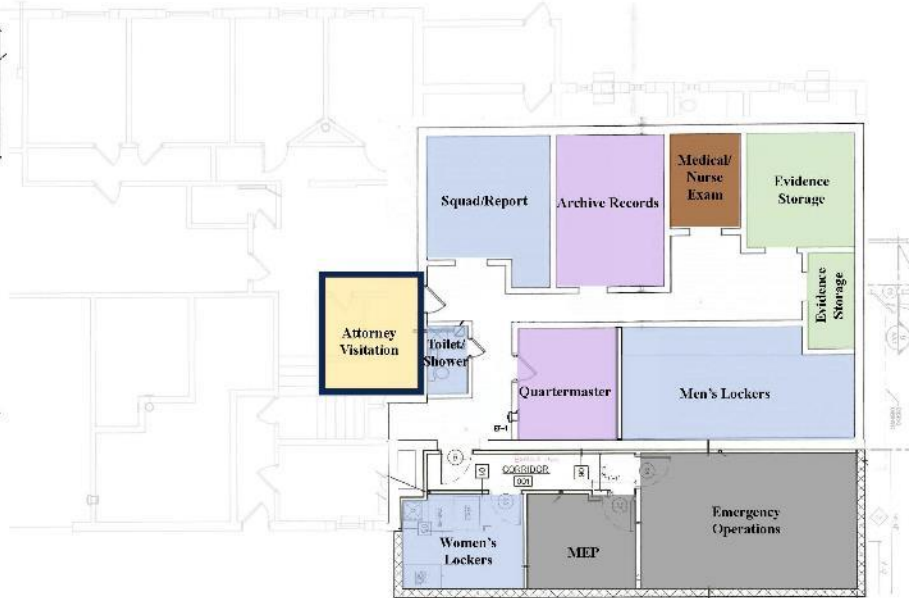
Office Types:	Description	Furniture and Equipment Diagram
A.1	240 Square Feet A. Plan View, Furniture and Equipment 1. Credenza-shown with PC (1) and Printer (2) 2. Double Pedestal Desk-36" x 72" 3. Desk Chair 4. Guest Chairs, Qty. -2 5. Bookshelf Units, Qty. -3 6. Conference Table, Qty. -1 7. Conference Chairs, Qty. -3 B. Storage 1. File: 156" 2. Drawer: 136" 3. Bookshelf: 368"	
A.2	240 Square Feet A. Plan View, Furniture and Equipment 1. Credenza-shown with PC (1) and Printer (2) 2. Double Pedestal Desk-36" x 72" 3. Desk Chair 4. Guest Chairs, Qty. -2 5. Bookshelf Units, Qty. -3 6. Lounge Seating, Qty. -2 7. Coffee Table, Qty. -1 B. Storage 1. File: 156" 2. Drawer: 136" 3. Bookshelf: 368"	
A.3	240 Square Feet A. Plan View, Furniture and Equipment 1. Credenza-shown with PC (1) and Printer (2) 2. Double Pedestal Desk-36" x 72" 3. Desk Chair 4. Guest Chairs, Qty. -5 5. Bookshelf Units, Qty. -3 6. Conference Table, Qty. -1 7. Conference Chairs, Qty. -5 B. Storage 1. File: 156" 2. Drawer: 136" 3. Bookshelf: 368"	

Two Man Accessible Cell 120 Square Feet Plan View A. Wall Mounted Bank, Qty. -2 B. Cell Desk With Two Seats, Qty. -1 C. Stainless Steel Robe Hook, Qty. -2 D. Stainless Steel Toilet Sink Combo Unit, Qty. -1 E. Window, Qty. -1	
Two Man Accessible Cell with Shower 120 Square Feet Plan View A. Wall Mounted Bank, Qty. -2 B. Cell Desk With Two Seats, Qty. -1 C. Stainless Steel Robe Hook, Qty. -2 D. Stainless Steel Robe Hook For Shower, Qty. -1 E. Stainless Steel Accessible Shower Unit With Anti-Microbial Curtain, Qty. -1 F. Stainless Steel Toilet Sink Combo Unit, Qty. -1 G. Window, Qty. -1	

Existing Space Evaluation Diagrams



REMOTE STORAGE BUILDING - FIRST FLOOR & MEZZANINE PLAN
Scale: 3/16" = 1'-0"



BASEMENT PLAN
Scale: 3/16" = 1'-0"

I.	Sheriff's Office
A.	Public
B.	Executive Administration
C.	Road Patrol
D.	Investigations
E.	Marine/ORV/Snow Mobile
II.	Corrections
F.	Administration
G.	Intake/Booking
H.	Medical
I.	Confinement Housing
J.	Program
K.	Kitchen/Laundry
III.	Support Space
L.	Support Space



FIRST FLOOR PLAN
Scale: 3/16" = 1'-0"

Existing Space Evaluation Methodology

Rating	<i>Unacceptable</i>		<i>Unsuitable</i>		<i>Marginal</i>		<i>Adequate</i>		<i>Appropriate</i>	
Score:	1	2	3	4	5	6	7	8	9	10

Score	Rating	Definition
9 - 10	Appropriate	Sufficient quantity of space; good configuration and layout; little, if any improvement required
7 - 8	Adequate	Quantity may be barely sufficient; configuration/flow are less than ideal; some renovation or expansion would enhance operations
5 - 6	Marginal	Lacks sufficient quantity of space, quality of space or both; requires some expansion or renovation to achieve minimum recommended space standards
3 - 4	Unsuitable	Poor quality and quantity of space; too small, improper layout, urgently requires improvement
1 - 2	Unacceptable	Very overcrowded; numerous difficulties and inefficiencies; considered fundamentally unacceptable for continued use
0	Non Existent	Space currently does not exist but is critical to minimum operational efficiency

Existing Space Evaluation Summary

**Houghton County
Justice Center Master Plan Study
Existing Space Evaluation Summary**

Department: All

Division: All

Ref.	Component	Existing/Adjusted				Comments: Adjust Beds to 51 in Confinement Housing. 30 current.
		NSF	Rating	Adjusted NSF	Adjusted DGSF	
I.	Sheriff's Office					
A.	Public	274	3.0	1,088	1,251	Unsuitable
B.	Executive Administration	1,674	4.9	2,344	3,047	Unsuitable
C.	Road Patrol	2,381	3.0	4,350	5,655	Unsuitable
D.	Investigations	1,138	2.9	2,708	3,520	Unacceptable
E.	Marine/ORV/Snow Mobile	2,042	10.0	2,000	2,200	Adequate
	Subtotal	7,509	4.8	12,490	15,674	Unsuitable
II.	Corrections					
F.	Administration	216	1.6	933	1,213	Unacceptable
G.	Intake/Booking	653	2.4	2,234	2,904	Unacceptable
H.	Medical	98	1.0	588	764	Unacceptable
I.	Confinement Housing	2,366	5.2	5,070	7,098	Marginal
J.	Program	663	1.2	1,725	2,415	Unacceptable
K.	Kitchen/Laundry	647	2.5	1,410	1,622	Unacceptable
	Subtotal	4,643	2.3	11,960	16,016	Unacceptable
III.	Support					
L.	Support	899	2.6	2,288	2,517	Unacceptable
	Total NSF, DGSF & Overall Rating	13,051	3.2	26,738	34,207	Unsuitable
	Building Gross Square Feet (BGSF)	39,240	10%	3,421	37,627	Existing BGSF: 16,448
	Deficiency			13,687	21,179	Includes remote building (5,675 BGSF)

Notes:

1. The existing Space Evaluation only accounts for operational deficiencies to the extent they are addressed by space adjustments. This evaluation assumes that current operational deficiencies will be addressed by the insuring design phases

2. Terminology:

a. NSF: Net Square Footage = The actual area required for optimum performance of a function, task or duty.

- **13 of the 15 Program Components Rated in Unsuitable (3-4) to Unacceptable Range (1-2)**
- **Lowest Rating in Over 30 years.**

Houghton County Jail Deficiencies Summary

- **Security Garage**
 - Marginally-compliant
 - Access / Pull-in-Back out difficult
- **Processing Area**
 - Marginally-compliant
 - Lacks adequate area and support functions
 - Lacks security
- **Detoxification/Holding Cells**
 - Generally-compliant
 - Good separation of male/female
- **Control Centers**
 - Non-compliant
 - Too many disparate functions
- **Housing**
 - Minimally-compliant
 - Very Poor visibility and layout
 - Inadequate inmate capacity
- **Program Spaces**
 - Non-compliant
 - Does not exist
- **Multipurpose Room/Outdoor Recreation**
 - Non-compliant
 - Does not exist
- **Inmate Classification**
 - Non-compliant
 - Performed in Booking room
- **Correctional Officer Duty Stations**
 - Minimally-Compliant
 - Central, Housing & Locker Room
- **Public Lobby/Waiting**
 - Minimally-compliant
 - Very small
- **Visiting Accommodations**
 - Minimally-Compliant
 - No privacy and requires upgrades in technology and design
- **Dayrooms**
 - Non-compliant
 - Some cells have no dayroom
 - Finishes in poor condition
- **Medical Examination and Treatment Rooms**
 - Non-compliant
 - Completely inadequate space
- **Administrative and Clerical Space**
 - Marginally-compliant
 - Significant space needs
 - Significant lack of storage

• ***Only 1 of 14 MDOC Standards is Generally Compliant***

Existing Systems Evaluation – Corrective Work Summary

- **Roof:**
 - Replace roof.
- **Shell:**
 - Replace exterior security windows and cages and deteriorated hollow metal doors/frames.
 - Replace exterior caulking/sealants.
- **Interior Doors, Frames and Borrowed Light:**
 - Maintenance only.
- **Interior Partitions:**
 - Maintenance only.
- **Finishes:**
 - Maintenance only.
- **Fittings:**
 - Replace deteriorated plastic laminate countertops.
 - Replace deteriorated stair from sallyport.
- **ADA:**
 - Renovate/expand toilet rooms to be ADA compliant.
- **Vertical Circulation:**
 - Install vertical circulation at staff area and sallyport.
- **Mechanical:**
 - Replace the roof top HVAC equipment including related electrical.
- **Plumbing:**
 - Replace vitreous china fixtures in detention holding areas with stainless steel fixtures and reinforce wall anchoring system.
 - Continue maintenance of under slab sewer piping.
- **Fire Protection:**
 - Install fire alarm system.
 - Install code compliant automatic fire suppression/sprinkler system.
- **Electrical:**
 - Replace all light fixtures, upgrade lighting controls.
- **Security Electronics:**
 - Integrate systems, configure consoles.
- **Site:**
 - Structurally stabilize, patch and paint south retaining wall.

Existing Systems Evaluation – Probable Cost Summary

Ref.	Component	Low	High
A.	Structural/Architecture	\$403,728	\$469,198
B.	Mechanical	\$523,904	\$608,861
C.	Plumbing	\$151,758	\$176,367
D.	Fire Protection	\$292,708	\$340,174
E.	Electrical	\$75,000	\$125,000
F.	Security Electronics/Systems	\$45,000	\$100,000
G.	Site	\$4,700	\$5,300
Total		\$1,496,798	\$1,824,900

- **Maintenance (Not included in cost of corrective work):**

- Quarterly thermographic scanning of power distribution equipment: \$6,000 to \$10,000 per year. \$60,000 to \$80,000 for 10 years.
- Monthly testing of back-up generator and continue regular maintenance: \$10,000 to \$15,000 per year. \$100,000 to \$150,000 for 10 years.

Evaluation Summary

- **Space Evaluation:**

- Significant Space Deficiency: Overall Rating of 3.0 on a scale of 0 – 10 (Unsuitable).
- Significant Number of Beds Deficiency:
 - Currently 30 Beds, Adjust to 51
- Numerous ADA Non-Compliant Spaces.
- Numerous Spaces Too Small and Non-Compliant with Space Standards.
- Some Required Spaces Not Provided.
- Lack of Storage Throughout.

- **Operational Evaluation:**

- Linear Cell Block Configuration.
- Lack of Visual Monitoring from a Single Control Room
- Lack of Contiguous Department/Division Spaces.
- Limited Availability of Outdoor Recreation Due To Inclement Weather Conditions.
- Not enough beds or cell blocks to safely address classification/segregation of inmates and gender.

Mission Statement

Community Engagement at the Houghton County Sheriff's Office is a foundational element of our ability to realize our organizational mission. Embracing our role as a service organization, "engagement" describes how we perform our duties, and how we interact with and relate to the residents of Houghton County. We believe that we exist to serve our community, making our community a safer place and contributing to the improvement of everyone's quality of life. Community Engagement isn't just a program. It is how we communicate, build trust, identify needs, and collaboratively work side by side with our partners to create interventions and provide solutions.

Whether it's a small intimate setting where a deputy sits with a community member over lunch or a room full of people discussing solutions, our office has worked tirelessly to balance traditional law enforcement responses with non-traditional responses and to enhance what you see when you look at the badge. All of this was designed as a systemic approach to engaging our community. We are not just the Sheriff's Office; we are the People's Sheriff's office.

Space and Operational Deficiencies Are Obstacles to Achieving the Houghton County Sheriff's Office and Corrections Mission.

Population, Staff and Space Projection Modeling

Houghton County Justice Center Master Plan Study

Population, Staff and Space Projection Modeling

Component	2024 Adjusted		2034										2044										Notes:
	DGSF		Exponential		Power		Linear		Logarithmic		Average		Exponential		Power		Linear		Logarithmic		Average		
	Pop.	37,957	Pop.	38,371	Pop.	37,878	Pop.	38,369	Pop.	37,875	Pop.	38,123	Pop.	38,507	Pop.	37,930	Pop.	38,499	Pop.	37,928	Pop.	38,216	
	Staff	Space	Staff	Space	Staff	Space	Staff	Space	Staff	Space	Staff	Space	Staff	Space	Staff	Space	Staff	Space	Staff	Space	Staff	Space	
I. Sheriff's Office																							
A. Public	0.0	1,251	0.0	1,265	0.0	1,249	0.0	1,265	0.0	1,248	0.0	1,257	0.0	1,269	0.0	1,250	0.0	1,269	0.0	1,250	0.0	1,260	
B. Executive Administration	2.0	3,047	2.0	3,080	2.0	3,041	2.0	3,080	2.0	3,041	2.0	3,061	2.0	3,091	2.0	3,045	2.0	3,091	2.0	3,045	2.0	3,068	
C. Road Patrol	14.0	5,655	14.2	5,717	14.0	5,643	14.2	5,716	14.0	5,643	14.1	5,680	14.2	5,737	14.0	5,651	14.2	5,736	14.0	5,651	14.1	5,694	
D. Investigations	1.0	3,520	1.0	3,559	1.0	3,513	1.0	3,559	1.0	3,513	1.0	3,536	1.0	3,571	1.0	3,518	1.0	3,571	1.0	3,518	1.0	3,544	
E. Marine/ORV/Snow Mobile	1.0	2,200	1.0	2,224	1.0	2,195	1.0	2,224	1.0	2,195	1.0	2,210	1.0	2,232	1.0	2,198	1.0	2,231	1.0	2,198	1.0	2,215	
Subtotal	18.0	15,674	17.2	15,845	17.0	15,641	18.2	15,844	17.0	15,640	17.1	15,742	17.2	15,901	17.0	15,663	18.3	15,898	17.0	15,662	17.1	15,781	
II. Corrections																							
F. Administration	1.0	1,213	1.0	1,226	1.0	1,210	1.0	1,226	1.0	1,210	1.0	1,218	1.0	1,230	1.0	1,212	1.0	1,230	1.0	1,212	1.0	1,221	
G. Intake/Booking	0.0	2,904	0.0	2,936	0.0	2,898	0.0	2,936	0.0	2,898	0.0	2,917	0.0	2,946	0.0	2,902	0.0	2,946	0.0	2,902	0.0	2,924	
H. Medical	1.00	764	1.0	773	1.0	763	1.0	773	1.00	763	1.0	768	1.0	775	1.0	764	1.0	775	1.00	764	1.0	770 (1).	
I. Confinement Housing	14.0	7,098	14.2	7,175	14.0	7,083	14.2	7,175	14.0	7,083	14.1	7,129	14.2	7,201	14.0	7,093	14.2	7,199	14.0	7,093	14.1	7,146	
J. Program	0.0	2,415	0.0	2,441	0.0	2,410	0.0	2,441	0.0	2,410	0.0	2,426	0.0	2,450	0.0	2,413	0.0	2,449	0.0	2,413	0.0	2,431	
K. Kitchen/Laundry	3.0	1,622	3.0	1,639	3.0	1,618	3.0	1,639	3.0	1,618	3.0	1,629	3.0	1,645	3.0	1,620	3.0	1,645	3.0	1,620	3.0	1,633 (2), (3).	
Subtotal	19.00	16,016	19.2	16,191	19.0	15,983	19.2	16,190	18.96	15,981	19	16,086	19.3	16,248	19.0	16,005	19.3	16,245	19.0	16,004	19.1	16,125	
III. Support																							
L. Support	0.0	2,517	0.0	2,544	0.0	2,512	0.0	2,544	0.0	2,511	0.0	2,528	0.0	2,553	0.0	2,515	0.0	2,553	0.0	2,515	0.0	2,534	
Subtotal	0.0	2,517	0.0	2,544	0.0	2,512	0.0	2,544	0.0	2,511	0.0	2,528	0.0	2,553	0.0	2,515	0.0	2,553	0.0	2,515	0.0	2,534	
Total Staff/DGSF	37.00	34,207	36.4	34,580	35.9	34,135	37.4	34,578	35.92	34,133	36.2	34,356	36.5	34,702	36.0	34,182	37.5	34,695	35.97	34,180	36.2	34,440	
Total Building Gross Square Feet (BGSF)	10%	37,627	10%	38,038	10%	37,549	10%	38,036	10%	37,546	10%	37,792	10%	38,172	10%	37,600	10%	38,165	10%	37,599	10%	37,884	

General Notes:

1. Part time Staff at 1 each
2. DGSF = Department Gross Square Feet: Net square footage of occupied space within a Department + Walls + Circulation within the Department.
3. BGSF = DGSF + Exterior Walls and Circulation to Each Department

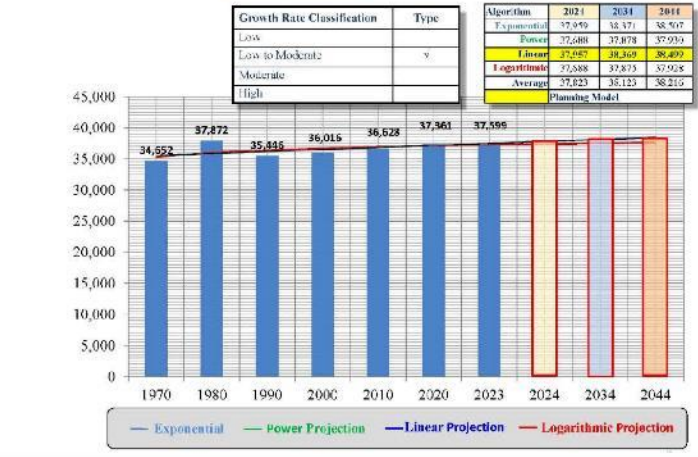
2034 Planning Model
2044 Planning Model

Table Notes:

- 2024:
- (1). Nurse is contracted 14 hours per week through Advanced Correctional Healthcare
 - (2). Cook is employed by the county.
 - (3). Part Time Cook paid out of sheriff's office budget.

Algorithm	2024	2034	2044
Exponential	37,959	38,371	38,507
Power	37,688	37,878	37,930
Linear	37,957	38,369	38,499
Logarithmic	37,688	37,875	37,928
Average	37,823	38,123	38,216
Planning Model			

Population Projection Modeling Summary



Population Projection Model

Staff Program Summary

Houghton County Justice Center Master Plan Study *Staff Program Summary*

Department: All

Division: All

Staff Positions		2024 Staff	Projected Staff				Notes
		Number	2029	2034	2039	2044	
I. Sheriff's Office							
A.	Public	0.0	0.0	0.0	0.0	0.0	
B.	Executive Administration	2.0	2.0	2.0	2.0	2.0	
C.	Road Patrol	14.0	14.0	14.0	14.0	14.0	
D.	Investigations	1.0	1.0	1.0	1.0	1.0	
E.	Marine/ORV/Snow Mobile	1.0	1.0	1.0	1.0	1.0	
Subtotal		18.0	18.0	18.0	18.0	18.0	
II Corrections							
F.	Administration	1.0	1.0	1.0	1.0	1.0	
G.	Intake/Booking	0.0	0.0	0.0	0.0	0.0	
H.	Medical	1.0	1.0	1.0	1.0	1.0	(1).
I.	Confinement Housing	14.0	14.0	14.0	14.0	14.0	*2).
J.	Program	0.0	0.0	0.0	0.0	0.0	
K.	Kitchen/Laundry	3.0	3.0	3.0	3.0	3.0	(3)., (4).
Subtotal		19.0	19.0	19.0	19.0	19.0	
III. Support							
L.	Support	0.0	0.0	0.0	0.0	0.0	
Subtotal		0.0	0.0	0.0	0.0	0.0	
Total		37.0	37.0	37.0	37.0	37.0	

Table Notes:

(1). Nurse is contracted 14 hours per week through Advanced Correctional Healthcare

(2). Includes 2 part-time corrections officers at 1 each and 3 part-time bailiffs at 1 each.

(3). Cook is employed by the county.

(4). Part Time Cook paid out of sheriff's office budget.

May Require 3 Part-Time Transportation Staff if Courts Are Remote.

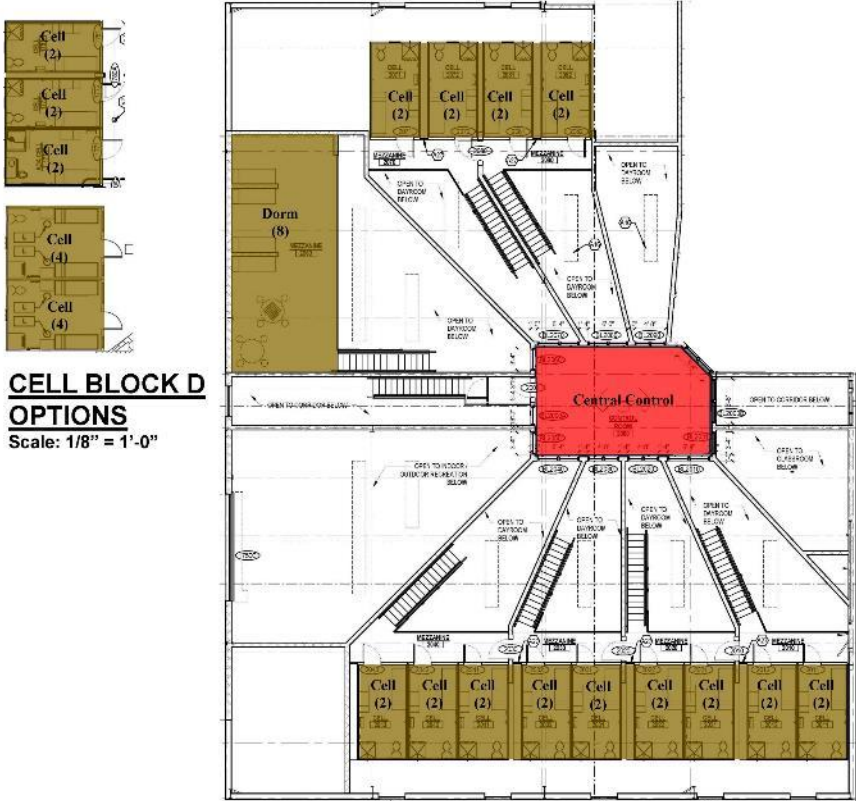
Architectural Space Program Summary

Houghton County Justice Center Master Plan Study Architectural Space Program: 2034 and 2044 Summary

Department: All										
Division: All										
No.	Component	Adjacency: Refer to Each Department/Division								General Remarks:
		2034 Space Program				2044 Space Program				1. 2034: 60 Beds - General Population
		Staff	No. of Spaces	Total NSF	Total DGFSF	Staff	No. of Spaces	Total NSF	Total DGFSF	2. 2044: 70 Beds - General Population
I.	Sheriff's Office									
A.	Public	0.0	8	1,088	1,251	0.0	8	1,088	1,251	Refer to Each Division
B.	Executive Administration	2.0	17	2,344	3,047	2.0	18	2,344	3,047	Refer to Each Division
C.	Road Patrol	14.0	15	4,039	5,251	14.0	15	4,039	5,251	Refer to Each Division
D.	Investigations	1.0	25	2,708	3,520	1.0	25	2,708	3,520	Refer to Each Division
E.	Marine/ORV/Snow Mobile	1.0	1	2,000	2,200	1.0	1	2,000	2,200	Refer to Each Division
		18.0	66	12,179	15,270	18.0	67	12,179	15,270	
II.	Jail									
F.	Corrections Administration	1.0	8	933	1,213	1.0	8	933	1,213	Refer to Each Division
G.	Intake/Booking	0.0	20	2,180	2,834	0.0	20	2,180	2,834	Refer to Each Division
H.	Medical	1.0	9	588	764	1.0	9	588	764	Refer to Each Division
I.	Confinement/Housing	14.0	128	6,606	9,248	14.0	136	7,142	9,999	Refer to Each Division
J.	Program	0.0	8	2,080	2,912	0.0	8	2,230	3,122	Refer to Each Division
K.	Kitchen/Laundry	3.0	10	1,548	1,780	3.0	9	1,668	1,918	Refer to Each Division
	Subtotal	19.00	183	13,935	18,752	19.00	190	14,741	19,850	
III.	Support									
L.	Support Space	0.0	8	1,940	2,134	0.0	8	2,040	2,244	Refer to Each Division
	Subtotal	0.0	8	1,940	2,134	0.0	8	2,040	2,244	
										Notes:
										2024 Staff: 37.0
	Total	37.0	257	28,054		37.0	265	28,960		Current BGSF: 16,448
	Total Departmental Gross Square Feet (DGFSF)				36,155				37,364	2024 Adjusted BGSF: 36,692
	Building Grossing Factor			10%	3,616				3,736	2034 BGSF
	Total Building Gross Square Feet (BGSF)				39,771				41,100	2044 BGSF

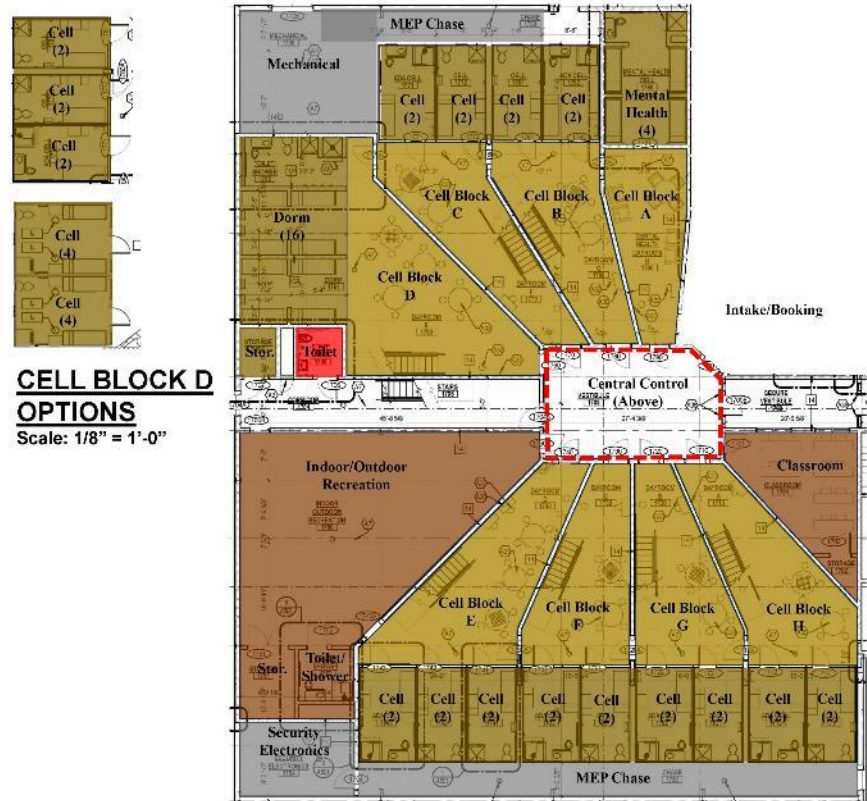
Charrette: add Juvenile Cells for 2 to 4 Pre-Booking. No additional Square Footage Anticipated.

Architectural Space Program Summary – Example Cell Pod



**CELL BLOCK D
OPTIONS**
Scale: 1/8" = 1'-0"

MEZZANINE PLAN
Scale: 1/8" = 1'-0"



**CELL BLOCK D
OPTIONS**
Scale: 1/8" = 1'-0"

FIRST FLOOR PLAN
Scale: 1/8" = 1'-0"

Cell Block	Beds		
	Option 1	Option 2	Option 3
A	4	4	4
B	8	8	8
C	8	8	8
D	24	16	12
E	12	12	12
F	8	8	8
G	8	8	8
H	8	8	8
Total	80	72	68
D	Dorm	4 Man	2 man

Existing Adjusted, Projected and Programmed Evaluation

Houghton County Justice Center Master Plan Study

2024 Adjusted, Projected and Programmed Evaluation

Component	2024 Existing		2024 Adjusted		Projected				Programmed				General Notes:		
	Staff	NSF	NSF	DGSF	2034		2044		2034		2044		1.	< 5%: No to Minor Deviation	
					Staff	DGSF	Staff	DGSF	Staff	DGSF	Staff	DGSF	2.	> 5%: Major Deviation	
I. Sheriff's Office													<i>Notes:</i>	<i>Deviation</i>	
A. Public	0.0	274	1,088	1,251	0.0	1,265	0.0	1,269	0.0	1,251	0.0	1,251		98.6% < 5%: Minor Deviation	
B. Executive Administration	2.0	1,674	2,344	3,047	2.0	3,080	2.0	3,091	2.0	3,047	2.0	3,047		98.6% < 5%: Minor Deviation	
C. Road Patrol	14.0	2,381	4,350	5,655	14.2	5,716	14.2	5,736	14.0	5,251	14.0	5,251		91.5% < 5%: Minor Deviation	
D. Investigations	1.0	1,138	2,708	3,520	1.0	3,559	1.0	3,571	1.0	3,520	1.0	3,520		98.6% < 5%: Minor Deviation	
E. Marine/ORV/Snow Mobile	1.0	2,042	2,000	2,200	1.0	2,224	1.0	2,231	1.0	2,200	1.0	2,200		98.6% < 5%: Minor Deviation	
Subtotal	18.0	7,509	12,490	15,674	18.2	15,844	18.3	15,898	18.0	15,270	18.0	15,270		96.0% < 5%: Minor Deviation	
II. Corrections															
F. Administration	1.0	216	933	1,213	1.0	1,226	1.0	1,230	1.0	1,213	1.0	1,213		98.6% < 5%: Minor Deviation	
G. Intake/Booking	0.0	653	2,234	2,904	0.0	2,936	0.0	2,946	0.0	2,834	0.0	2,834		96.2% < 5%: Minor Deviation	
H. Medical	1.00	98	588	764	1.01	773	1.01	775	1.00	764	1.00	764		98.6% < 5%: Minor Deviation	
I. Confinement Housing	14.0	2,366	5,070	7,098	14.2	7,175	14.2	7,199	14.0	9,248	14.0	9,999	(1).	138.9% > 5%: Major Deviation	
J. Program	0.0	663	1,725	2,415	0.0	2,441	0.0	2,449	0.0	2,912	0.0	3,122	(2).	127.5% > 5%: Major Deviation	
K. Kitchen/Laundry	3.0	647	1,410	1,622	3.0	1,639	3.0	1,645	3.0	1,780	3.0	1,918	(3).	116.6% > 5%: Major Deviation	
Subtotal	19.0	4,643	11,960	16,016	19.2	16,190	19.27	16,245	19.0	18,752	19.0	19,850		122.2% > 5%: Major Deviation	
III. Support															
L. Support	0.0	899	2,288	2,517	0.0	2,544	0.0	2,553	0.0	2,134	0.0	2,244	(4).	87.9% > 5%: Major Deviation	
Subtotal	0.0	899	2,288	2,517	0.0	2,544	0.0	2,553	0.0	2,134	0.0	2,244		87.9% > 5%: Major Deviation	
Total Staff, NSF and DGSF	37.0	13,051	26,738	34,207	37.4	34,578	37.5	34,695	37.0	36,155	37.0	37,364		107.7% > 5%: Major Deviation	
Total BGSF	10%	16,488	10%	37,627	10%	38,036	10%	38,165	10%	39,771	10%	41,100		107.7% > 5%: Major Deviation	

General Notes:

1. 2024 adjusted beds - 51, 2034 programmed beds - 60, 2044 programmed beds - 70

Evaluation Notes:

(1). Increase in beds from adjusted 51 to 60 in 2034 and 70 Beds in 2044.

(2). Increase in Indoor/Outdoor Recreation due to number of programmed inmates.

(3). Increase in Kitchen due to number of programmed inmates.

(4). Assumes 1 story new construction, elimination of vertical circulation square footage.

Architectural Space Program Summary – Work Camp

Houghton County Justice Center Master Plan Study Architectural Space Program: Work Camp Summary

<i>Department: II. Jail</i>											
<i>Division: M. Work Camp</i>											
No.	Component	NSF	2034 Space Program				2044 Space Program				Notes:
			Staff	No. of Spaces	Total NSF	Total DGSF	Staff	No. of Spaces	Total NSF	Total DGSF	
II.	Jail										
M.	Work Camp		0.0	77	4,026						
Total Departmental Gross Square Feet (DGSF)						5,144					
Building Grossing Factor						10%	514				
Total Building Gross Square Feet (BGSF)						5,658					

- *Defined as Option*
- *2034 Architectural Space Program Based Upon 24 Males and 10 Females*

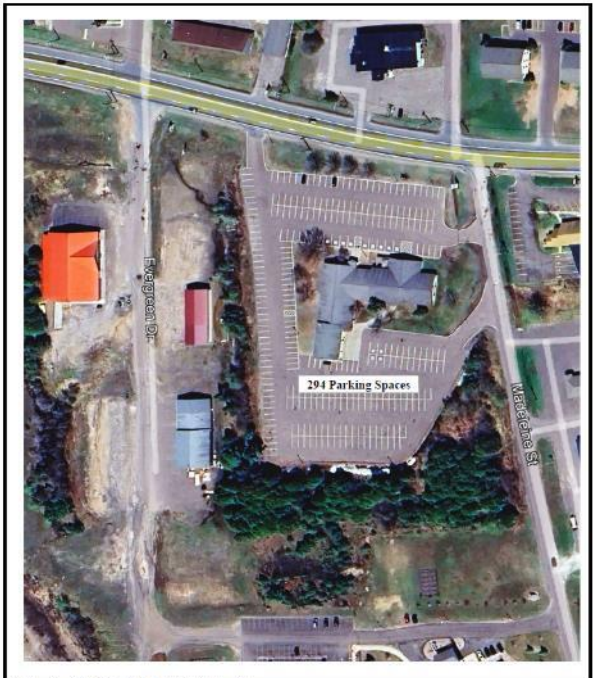
Parking Projections

Houghton County Justice Center Master Plan Study				
2043 Parking Projections				
Component	Projected Parking			Notes
	Subtotal	Non-Concurrent Use Factor (1).	Total	
Sheriff's Office/Jail				
B. Executive Administration				
1. Staff	2	100%	2	
2. Visitors	4	50%	2	
3. Special Events/Vehicles	20	50%	10	(1).
C. Road Patrol				
1. Staff	14	75%	11	(2).
2. Visitors	2	50%	1	
3. Special Events/Vehicles	0	50%	0	
D. Investigations				
1. Staff	1	100%	1	
2. Visitors	1	50%	0.5	
3. Special Events/Vehicles	0	75%	0	
E. Marine/ORV/Snow Mobile				
1. Staff	2	100%	2	
2. Visitors	0	50%	0	
3. Special Events/Vehicles	2	100%	2	
F. - K. Corrections				
1. Staff	19	75%	14	(2).
2. Visitors	4	50%	2	
3. Special Events/Vehicles	0	75%	0	
L. Support Space				
1. Staff	0	100%	0	
2. Visitors	2	50%	1	(3).
3. Special Events/Vehicles	0	75%	0	
Total Staff Secure Parking - Surface Lot	18	54%	10	
Total Staff Secure Parking	20	100%	20	
Total Visitor	13	50%	7	
Total Special Events/Vehicles	22	55%	12	
Total Parking Spaces	73	66%	48	
General Notes:		Table Notes:		
(1). Non-Concurrent Use Factor assumes the following:		(1). Training event.		
a. Not all parking occurs simultaneously		(2). Considers Shift Overlap of Day and Night Shifts		
30	Secure Parking	(3). Assumes maintenance or repair staff/contractors.		
19	Non-Secure Parking			
		Existing Available		
		On Site Surface Lot Secure		0
		Dedicated Street Parking		8 +/-
		Street Parking		8 +/-
		Remote Site		
		Total		16 +/-



Existing Sheriff's Office/Jail Available Parking Diagram

16 Parking Spaces +/-



Existing Sheriff's Office/Jail Available Parking Diagram

294 Parking Spaces +/-

Charrette 2/18/2025

Charrette Agenda	Duration	Time
Introductions	5 Minutes	9:00am – 9:05am
Master Plan Study Approach, Methodology and Status	5 Minutes	9:05am – 9:10am
Major Conclusions – Analytics, Space Standards, Space Evaluation and Projection Modeling	30 Minutes	9:10am – 9:40am
Existing Facility and Systems Evaluation	10 Minutes	9:40am – 9:50am
<i>Break</i>	15 Minutes	9:50am – 10:05am
2033 – 2043 Staff and Architectural Space Programs, Round Table Discussion	55 Minutes	10:05am – 11:00am
Introduction and Discussion of Pre-Charrette Options	30 Minutes	11:00am – 11:30am
<i>Lunch</i>	30 Minutes	11:30am – 12:00pm
Site/Building Charrette	60 Minutes	12:00pm – 1:00pm
<i>Break</i>	30 Minutes	1:00pm – 1:30pm
Consensus Building for Preferred Option and Next Steps	30 Minutes	1:30pm – 2:00pm
<i>Adjourn</i>	<i>5 Hours +/-</i>	<i>2:00pm +/-</i>

Charrette Attendees

Name/Title	Attendance
County Commissioners	
Roy Britz, Commissioner	√
Glenn Anderson, Commissioner	√
Courts	
Nicholas J. Daavettila, 97 th District Court Judge	√
Nickole Jollimore, Court Administrator / Magistrate's Office	√
Probate and Family	
Fraser T. Strome, Judge	√
Tracy Beauchamp	√
Sheriff's Office/Jail	
Joshua B. Saaranen, Sheriff	√
Travis Dessellier, Captain	√
Charlie Klein, Detective Lieutenant	√
Additional Steering Committee Members	
Kurt Rickard, Mayor, Hancock	√
Tami Sleeman, City of Hancock Chief of Police	√
Aaron Gehrke	√
Kevin Store, CEO, Copper Shores Community Health Foundation	√
Mary Sears, Franklin Township Supervisor	√
Other Participants	
Tom Cremonte, Risk Control Consultant	√
Ronald Trachet, Regulation Agent MDOC	√
Study Team	
Jim Escamilla, PE, President/CEO	√
Bret Dodd, AIA, LEED AP	√
Total	18 +/-

+/- = All attendees may not have signed-in.

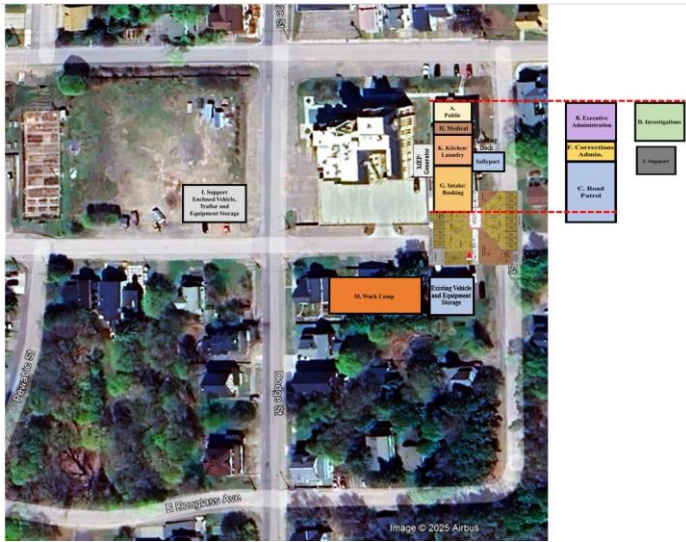


Charrette

- **Charrette Philosophy:**
 - There are no Dumb Ideas.
 - Everyone has a say.
 - Leave no stone unturned, explore all options.
 - Deductive process to get to the best solution.
- **Charrette Goals and Objectives:**
 - Jump Start the Decision Making and Design Process.
 - Build Longstanding Partnership.
 - Explore Site and Building Options.
 - Build Consensus for the Best Solution.
 - Select Preferred Option - Establish the Design Direction.
- **Major Efforts:**
 - Confirmation of Steps 2 and 3.
 - Round Table Discussion.
 - Review of Sheriff's Office and Jail Design Examples.
 - Establish the Design Direction.



Pre-Charrette and Charrette Options



*Pre-Charrette Option 1:
New Construction on
Existing Site.*



*Pre-Charrette Option 2:
Addition/Renovation on
Church Site.*



*Pre-Charrette Option 3:
Addition/Renovation on
Church Site.*



*Pre-Charrette Option 4: All New
Construction on Church Site.*



*Charrette Option 1: All New
Construction on Church Site.*

Pre-Charrette Options Opinion of Probable Cost Components

- **Hard Construction Costs**
 - Demolition
 - Addition
 - Renovation
 - New Construction
 - Site
 - Contingencies
 - Inflationary Factors
- **Soft Costs Construction Related**
 - Survey
 - Subsurface Soils Investigations/Geotechnical Report
 - Land Acquisition (Currently Not Included)
 - Temporary Housing/Accommodations (Currently Not Included- Separate Budget Item)
 - Architectural/Engineering Fees
 - Construction Manager Fees
 - Financing, Consulting and Legal Fees
 - Bid Printing and Advertising
 - Contingencies
 - Inflationary Factors
- **Soft Costs Occupancy Related**
 - Furniture and Equipment
 - Technology
 - Audio/Visual
 - Telephone
 - Moving Expenses
 - Contingencies
 - Inflationary Factors

Pre-Charrette Options Opinion of Probable Cost Summary

Option (60 Beds)	Opinion of Probable <u>Base</u> Cost Range			
	Low	Mean	High	Available Space
Pre-Charrette Options				
Option 1: Existing Site, New Construction	\$32,728,189	\$35,381,826	\$38,035,463	14,728+/-
Option 2: Church Site, Addition & Renovation	\$24,316,175	\$26,287,757	\$26,287,757	2,115
Option 3: Church Site, Addition & Renovation	\$27,284,989	\$29,497,286	\$31,709,582	7,379
Option 4: Church Site, All New Construction	\$31,052,005	\$33,569,735	\$36,087,465	11,911+/-

Base Cost Does Not Include the Following Options:

Pre-Charrette Inclusion Options	Opinion of Probable Cost Range		
	Low	Mean	High
Option 1: Enclosed Vehicle, Trailor and Equipment Storage	\$1,661,927	\$1,796,677	\$1,931,428
Option 2: Replacement Vehicle, and Equipment Storage	\$1,122,986	\$1,214,039	\$1,305,091
Option 3: M. Work Camp	\$2,376,461	\$2,569,147	\$2,761,833
Option 4: Add 10 Beds (70 Total)	\$1,133,202	\$1,225,083	\$1,316,964
Option 5: Add 20 Beds (80 Total)	\$2,266,404	\$ 2,450,166	\$2,633,928

Budget Considerations

New Staff	2024 Annual Compensation			Additional Annual Staff Cost	
	Salary	Benefits	Total	Staff	Total
Part Time Transport Officer	\$25,584.00	\$1,956.97	\$27,540.97	3	\$82,622.91

May Apply to Pre-Charrette Options 2, 3 and 4

Temporary Housing

Component	Low	Average	High
Average Daily Population 2014 - 2019	47.2	51.0	54.8
Per Day Average Cost of Temporary Inmate Housing	\$57.04	\$61.66	\$66.28
Annual Average Cost of Temporary Inmate Housing	\$20,533	\$22,198	\$23,862
Total Annual Average Cost of Temporary Inmate Housing	\$968,634	\$1,132,078	\$1,308,257
Total Cost of Temporary Inmate Housing (2 Years)	\$1,937,268	\$2,264,155	\$2,616,514
Total Cost of Temporary Inmate Housing (3 Years)	\$2,905,902	\$3,396,233	\$3,924,772
Total Cost of Temporary Inmate Housing (4 Years)	\$3,874,536	\$4,528,310	\$5,233,029

Applies to Pre-Charrette Option 1 Only

Utility Cost	2024 Total Annual Cost	Total Square Feet	Cost per SF	<i>Total Utility Cost Includes: Water, Sewer, Gas, Electrical and Telephone</i>			
Total	\$52,410	16,448	\$3.19				
Pre-Charrette Options	Square Feet	Range of Probable Cost			Range of Probable Additional Utility Cost		
		Low	Mean	High	Low	Mean	High
Option 1: Existing Site, New Construction	47,552	\$140,156	\$151,520	\$162,884	\$102,188	\$110,474	\$118,760
Option 2: Church Site, Addition & Renovation	51,507	\$151,813	\$164,122	\$176,431	\$103,334	\$111,712	\$120,091
Option 3: Church Site, Addition & Renovation	51,251	\$151,058	\$163,306	\$175,554	\$113,909	\$123,144	\$132,380
Option 4: Church Site, All New Construction	51,066	\$150,513	\$162,717	\$174,921	\$102,034	\$110,307	\$118,580

General Notes:

1. Pre-Charrette Options Include Unassigned/Available Space in Existing Church Building.
2. Does not Include Option 1: Enclosed Vehicle, Trailer and Equipment Storage.
3. Pre-Charrette Options 2 - 4 Do Not Include Option 2 - Replacement Vehicle and Equipment Storage or Option 3 – M. Work Camp

Anticipated Project Schedule

Schedule Component	Pre-Charrette Option			
	Option 1:	Option 2:	Options 3:	Options 4:
	Existing Site, New Construction	Church Site, Addition & Renovation	Church Site, Addition & Renovation	Church Site, All New Construction
Design	10 to 12 Months	8 to 10 Months	8 to 10 Months	8 to 10 Months
Bidding/Award	1.5 to 2 Months	1.5 to 2 Months	1.5 to 2 Months	1.5 to 2 Months
Construction	2 to 2.5 Years	1.5 to 2 Years	1.5 to 2 Years	2 to 2.5 Years
Total Duration	3.0 to 4.2 years	2.3 to 3 Years	2.3 to 3 Years	2.8 to 4 Years

Does Not Include Millage Duration

Advantages and Disadvantages

Houghton County Justice Center Master Plan Study Pre-Charrette Options Summary, Advantages and Disadvantages

Pre-Charrette Option 1: Existing Site, New Construction		Pre-Charrette Option 2: Church Site, Addition & Renovation		Pre-Charrette Option 3: Church Site, Addition & Renovation		Pre-Charrette Option 4: Church Site, New Construction	
<ul style="list-style-type: none"> Total Square Feet: 47,552 <ul style="list-style-type: none"> - Demolition: 10,733 - Renovation: 0 - New Construction: 36,779 - Unassigned Space: 0 Beds: 60 Opinion of Total Probable Mean Cost: \$35,381,826 Anticipated Construction Duration: 2.0 to 2.5 years 		<ul style="list-style-type: none"> Total Square Feet: 47,192 <ul style="list-style-type: none"> - Demolition: 12,613 - Renovation: 12,613 - Addition: 24,166 - Unassigned Space: 2,115 Beds: 60 Opinion of Total Probable Mean Cost: \$26,287,757 Anticipated Construction Duration: 1.5 to 2.0 years 		<ul style="list-style-type: none"> Total Square Feet: 43,827 <ul style="list-style-type: none"> - Demolition: 7,048 - Renovation: 7,048 - Addition: 29,731 - Unassigned Space: 7,379 Beds: 60 Opinion of Total Probable Mean Cost: \$29,497,286 Anticipated Construction Duration: 1.5 to 2.0 years 		<ul style="list-style-type: none"> Total Square Feet: 39,155 <ul style="list-style-type: none"> - Demolition: 2,376 - Renovation: 0 - New Construction: 36,779 - Unassigned Space: 11,911 Beds: 60 Opinion of Total Probable Mean Cost: \$33,7569,735 Anticipated Construction Duration: 2.0 to 2.5 years 	
Advantages	Disadvantages	Advantages	Disadvantages	Advantages	Disadvantages	Advantages	Disadvantages
<ol style="list-style-type: none"> Achieves 2034 Does Not Require Vehicular Transportation and Related Costs to Courthouse. Public Location Identification. 	<ol style="list-style-type: none"> May Require More Space Due to Constraints of Existing Site. Requires Street Closure, City Cooperation and Possible Utility Relocation. Requires Property Acquisition. Requires Temporary Housing for Duration of Construction. Potential Major Operation Disruption. Difficult to Impossible Future Expansion. Does Not Address Security Parking. Potential Adverse Impact on Operational Efficiency (Multi-Story Building). More Costly Due to All New Construction. 	<ol style="list-style-type: none"> Achieves 2034 Architectural Space Program. Requires Street Closure, City Cooperation and Possible Utility Relocation. Does Not Require Additional Property Acquisition. Requires Temporary Housing for Duration of Construction. No Operation Disruption. Simple Future Expansion Opportunities. Addresses Security Parking. No Adverse Impact on Operational Efficiency (Single Story Building). Less Costly Due to Addition Renovation. 	<ol style="list-style-type: none"> Potential Initial Public Location Identification Challenges. Minimal Opportunity to Relocate Courts. Potential Cost of Vehicular Transportation to Courts. 	<ol style="list-style-type: none"> Achieves 2034 Architectural Space Program. Requires Street Closure, City Cooperation and Possible Utility Relocation. Does Not Require Additional Property Acquisition. Requires Temporary Housing for Duration of Construction. No Operation Disruption. Simple Future Expansion Opportunities. Addresses Security Parking. No Adverse Impact on Operational Efficiency (Single Story Building). Less Costly Due to Addition Renovation. 	<ol style="list-style-type: none"> Potential Initial Public Location Identification Challenges. Medium Opportunity to Relocate Courts. Potential Cost of Vehicular Transportation to Courts. 	<ol style="list-style-type: none"> Achieves 2034 Architectural Space Program. Does Not Require Street Closure Cooperation or Utility Relocation. Requires Street Closure, City Cooperation and Possible Utility Relocation. Does Not Require Additional Property Acquisition. Requires Temporary Housing for Duration of Construction. No Operation Disruption. Simple Future Expansion Opportunities. Addresses Security Parking. No Adverse Impact on Operational Efficiency (Single Story Building). Maximum Opportunity to Relocate Courts. 	<ol style="list-style-type: none"> Potential Initial Public Location Identification Challenges. More Costly Due to All New Construction. Potential Cost of Vehicular Transportation to Courts.



Master Plan Charrette: Eliminated Options

- **Reasons for Pre-Charrette Option 1 Elimination:**

- More costly than all options.
- Requires temporary housing, property acquisition and street closure.
- More disadvantages than advantages.
- Major disruption to operations during construction.
- Longest construction duration.



- **Reasons for Pre-Charrette Option 3 Elimination:**

- Not enough remaining space for courts, related functions or county departments.
- Concern about mixed functions in same building.





- **Reasons for Charrette Option 1 Elimination:**

- More costly than the remaining options.
- Reduced available effective site area for other options.



Remaining Options Advantages and Disadvantages

Houghton County Justice Center Master Plan Study Remaining Options Summary, Advantages and Disadvantages

Pre-Charrette Option 2: Church Site, Addition & Renovation		Pre-Charrette Option 4: Church Site, New Construction	
<ul style="list-style-type: none"> Total Square Feet: 47,192 <ul style="list-style-type: none"> - Demolition: 12,613 - Renovation: 12,613 - Addition: 24,166 - Unassigned Space: 2,115 Beds: 60 Opinion of Total Probable Mean Cost: \$26,287,757 Anticipated Construction Duration: 1.5 to 2.0 years 		<ul style="list-style-type: none"> Total Square Feet: 39,155 <ul style="list-style-type: none"> - Demolition: 2,376 - Renovation: 0 - New Construction: 36,779 - Unassigned Space: 11,911 Beds: 60 Opinion of Total Probable Mean Cost: \$33,569,735 Anticipated Construction Duration: 2.0 to 2.5 years 	
Advantages	Disadvantages	Advantages	Disadvantages
<ol style="list-style-type: none"> Achieves 2034 Architectural Space Program. Does Not Require Street Closure Cooperation or Utility Relocation. Does Not Require Additional Property Acquisition. Does Not Require Temporary Inmate Housing During Construction. No Operation Disruption Due to Construction Sequence - Construct New Facility, Move-In and Then Take Action Related to Existing Facility. Ability to Provide Courtroom on Site at no Additional Cost. Simple Future Expansion Opportunities. Addresses Security Parking. Less Costly Due to Addition Renovation. 	<ol style="list-style-type: none"> Potential Initial Public Location Identification Challenges. Potential Cost of Vehicular Transportation to Courts. May Require More Space of Compromise Due Existing Building Design Limitations. Limited to No Opportunity to Co-Locate Court System and/or County Offices on Same Site. 	<ol style="list-style-type: none"> Achieves 2034 Architectural Space Program. Does Not Require Street Closure Cooperation or Utility Relocation. Does Not Require Additional Property Acquisition. Does Not Require Temporary Inmate Housing During Construction. No Operation Disruption Due to Construction Sequence - Construct New Facility, Move-In and Then Take Action Related to Existing Facility. Does Not Require More Space of Compromise Due Existing Building Design Limitations. Simple Future Expansion Opportunities. Addresses Security Parking. Maximum Opportunity to Co-Locate Court System and/or County Offices on Same Site. 	<ol style="list-style-type: none"> Potential Initial Public Location Identification Challenges. No Ability to Provide Courtroom on Site Without Additional Cost. More Costly Due to All New Construction. Potential Cost of Vehicular Transportation to Courts.
			

- **Pre-Charrette Option 2:**
 - **Major Advantage:**
 - Lowest Mean Cost: \$26,287,757.
 - **Major Disadvantage:**
 - Challenging to Co-Locate Courts and/or County Departments on Site Due to Central Location.
- **Pre-Charrette Option 4:**
 - **Major Advantage:**
 - Maximum Flexibility to Co-Locate Courts and/or County Departments on Site Due to South Location.
 - **Major Disadvantage:**
 - Highest Mean Cost: \$33,569,735.

Charrette Scenario Options

1. **Move only courts, no related support functions, to church site and utilize remaining space in courthouse for other functions:** This Charrette Scenario was eliminated during the charrette by the charrette attendees since the courts are a system and need to remain contiguous to court functions.
2. **Move all courts and related support functions, to the church site and utilize remaining space in courthouse for other functions:**
 - a. Utilize remaining space in courthouse for other functions.

No.	Component	Adjacency:			
		Staff	No. of Spaces	Total NSF	Total DGFSF
I.	Courts				
A.	Public	0.0	8	1,532	1,762
B.	12th Circuit Court and Circuit Court Probate	7.0	100	3,490	4,537
C.	97th District Court	8.0	74	3,564	4,633
D.	Probate Court & Family Court	7.0	58	2,684	3,489
E.	Prosecutor	5.0	10	1,456	1,893
F.	Friend of Court	6.0	14	1,824	2,371
G.	Courts Support Space	1.0	22	3,753	4,316
Total Courts		34.0	286	18,303	23,001
Building Grossing Factor				15%	3,450
Total Courts Building Gross Square Feet (BGSF)					26,451
II.	County				
H.	Administration/Board of County Commissioners	8.0	48	1,480	1,924
I.	Building	2.0	7	716	931
J.	Clerk	4.0	11	1,156	1,503
K.	Drain Commission	1.0	8	768	998
L.	Equalization	2.0	9	832	915
M.	Treasurer	4.0	11	1,120	1,456
N.	Register of Deeds	3.0	10	1,056	1,373
O.	Maintenance and Grounds	1.0	7	504	655
P.	County Support Space	1.0	16	2,828	3,252
Total County		16.0	56	5,648	7,176
Building Grossing Factor				10%	718
Total County Building Gross Square Feet (BGSF)					7,894
Total Courts and County Building Gross Square Feet (BGSF)					34,345

Range of Opinion of Total Project Cost - Courts: 26,451 BGSF

Low	Mean	High
\$13,308,838	\$14,387,933	\$15,467,028

Charrette Scenario Options

3. Move all courts, related support functions and county to church site:

- a. Sell existing courthouse for redevelopment.

Range of Opinion of Total Project Cost - Courts and County: 34,345 BGS		
Low	Mean	High
\$15,682,462	\$16,954,013	\$18,225,564

4. Move only county functions to church site:

- a. Renovate the remaining space to address court, support function needs and separation of public, secure staff and secure inmate circulation patterns.

Range of Opinion of Total Project Cost - County: 9,655 BGSF (Includes A. Public)		
Low	Mean	High
\$2,977,480	\$3,218,898	\$3,460,315

- 5. **Don't move courts or county functions, renovate courthouse to address separation of public, secure staff and secure inmate circulation patterns and secure inmate transportation to courts from church site:** Internal building separation of the inmate secure circulation from public and staff is not feasible given the building configuration, current lack of space for even basic functions and historic features such as the main entrance stair case and circuit courtroom which would be required to preserve based upon the governing Secretary of Interior Standards for renovation of an historic structure.

Charrette Scenario Options

5. Don't move courts or county functions, renovate courthouse to address separation of public, secure staff and secure inmate circulation patterns and secure inmate transportation to courts from church site:

Construct a sallyport at the current jail outdoor recreation area between the courthouse and existing sheriff's office/jail including holding cells and an elevator to access a second floor exterior secure circulation enclosure to both circuit and district courtroom witness stands:



Range of Opinion of Total Project Cost – Circulation Separation		
Low	Mean	High
\$1,306,036	\$1,411,930	\$1,517,825

5a. Construct the sallyport and holding with no vertical or second floor inmate circulation. Inmates to be walked to the courthouse and courtrooms through open, public and staff areas constant with the current process. The means of accessing this proposed sallyport may vary dependent upon the selected scenario to address the current sheriff's office/jail (f, and g. below):

Range of Opinion of Total Project Cost – Second Option		
Low	Mean	High
\$731,344	\$790,642	\$849,940

Charrette Scenario Options

5b. A no cost option is to not construct a sallyport, utilize available parking and walk inmates to the courthouse and courtrooms through open, public and staff areas constant with the current process:

Range of Opinion of Total Project Cost – Third Option		
Low	Mean	High
\$0.00	\$0.00	\$0.00

5c. Demolish the existing sheriff’s office/jail, construct new courtrooms (14,558 BGSF) to the east of the existing building including a sallyport and holding with separate secure inmate circulation to the new circuit and district courtrooms. The vacated space could them be renovated to address other court support such as the prosecutor and friend of the court, as well as county government space needs:

Range of Opinion of Total Project Cost – Fourth Option		
Low	Mean	High
\$7,390,265	\$7,989,475	\$8,588,686

6. Demolish the existing sheriff’s office and corrections facility and either leave undeveloped or construct parking: The scope of work associated with this scenario would include demolition of the existing sheriff’s office/jail, haul off, compacted backfill and seeding:

Range of Opinion of Total Project Cost - Demolition		
Low	Mean	High
\$103,864	\$112,285	\$120,707
Range of Opinion of Total Project Cost – Demolition and New Parking		
Low	Mean	High
\$191,241	\$206,747	\$222,253

Charrette Scenario Options

7. Complete corrective work as applicable and utilize the existing sheriff's office and corrections for other needs: The minimum scope of work associated with this scenario would include re-roofing the existing facility and a new mechanical system that could be interior with exposed ductwork below the roof/floor:

Range of Opinion of Total Project Cost		
Low	Mean	High
\$644,154	\$696,383	\$748,611

Pre-Charrette Inclusion Options	Opinion of Probable Cost Range		
	Low	Mean	High
Option 1: Enclosed Vehicle, Trailer and Equip. Stor.	\$1,661,927	\$1,796,677	\$1,931,428
Option 2: Replacement Vehicle, and Equip. Stor.	\$1,122,986	\$1,214,039	\$1,305,091
Option 3: M. Work Camp	\$2,376,461	\$2,569,147	\$2,761,833
Option 4: Add 10 Beds (70 Total)	\$1,133,202	\$1,225,083	\$1,316,964
Option 5: Add 20 Beds (80 Total)	\$2,266,404	\$ 2,450,166	\$2,633,928

Option (60 Beds)	Remaining Options Opinion of Probable <u>Base</u> Cost Range			
	Low	Mean	High	Available Space
Pre-Charrette Options				
Option 2: Addition and Renovation	\$24,316,175	\$26,287,757	\$26,287,757	2,115
Option 4: All New Construction	\$31,052,005	\$33,569,735	\$36,087,465	11,911 to 14,728+/-

Financing Options and Tax Impact

Financing Options	Opinion of Mean Total Probable Cost	Duration	Rate	Bond Type	Annual Payment	No. Mills	Recommended No. Mills
Option 1	\$27,684,090	30 Years	4.500%	Tax Exempt	\$1,683,252.00	1.5165	1.6000
Option 2	\$27,684,090	30 Years	5.500%	Tax Exempt	\$1,897,947.81	1.6994	1.7100
Option 3	\$27,684,090	40 Years	4.125%	USDA	\$1,414,356.00	1.2742	1.3000
Financing Impact	Houghton County 1 Mill Generates \$ Annually	Annual Bond Payment	Percent of Bond Payment	Home Net Assessed Evaluation	Home Net Taxable Value	Annual Home Owner Payment	Monthly Home Owner Payment
Option 1	\$1,775,875.60	\$1,683,252.00	106%	\$ 200,000	\$100,000	\$160.00	\$13.33
Option 2	\$1,897,947.81	\$1,897,947.81	101%	\$ 200,000	\$100,000	\$171.00	\$14.25
Option 3	\$1,442,884.30	\$1,414,356.00	102%	\$ 200,000	\$100,000	\$130.00	\$10.83

General Notes:

1. Estimated Delinquency Rate: 6.25% - \$79,734

2. Estimated Other Deductions (DDA, TIFNL and Bank/Sen Cit Dis AD, etc.) - \$86,113

3. Estimated Total Deductions: \$165,847

4. Estimated Tomi Deduction (varies).

5. 2024 Taxable: \$1,237,399,250

6. 2025 Taxable (estimated): \$1,275,758,627

Project Delivery System Options

- **Design Bid Build (DBB):**
 - Traditional project delivery method that includes the
 - Design of the project by an architect and/or engineer.
 - Bidding to general contractors and a single general contractor contract to build the project.
 - The advantage is that you have a single point of responsibility, the general contractor, during construction.
 - The disadvantages include minimum control of the cost during the design phases, little to no control of the subcontractor selection and a higher risk of change orders during construction.
- **Construction Manager as Agent (CMa):**
 - The CMa acts to represent your interest during all phases of the project.
 - This option is often coupled with DBB.
 - The advantages to this option include less demands on your time and a second opinion during the course of the project.
 - The disadvantages include those related to the DBB, additional management costs and potentially relationship conflicts between the designers, contractors and the CMa.
- **Construction Manager as Constructor (CMc):**
 - The CMc acts to represent your interest during all phases of the project, contributes cost estimating and constructability to the design phases and acts as the general contractor to construct the project.
 - The advantages to this option include less demands on your time a more integrated design and estimating process, a little more control over the subcontractor selection and a single point of responsibility during construction.
 - The disadvantages include risk of change orders during construction, additional management costs and potentially relationship conflicts between the designers, contractors and the CMc.

Project Delivery System Options

- **Construction Manager at Risk (CMar):**
 - CMar acts to represent your interest during all phases of the project, contributes cost estimating, constructability and establishes a guaranteed maximum price during the design phases as well acts as the general contractor to construct the project.
 - The major advantage to this option is establishing a not to exceed guaranteed maximum price (GMP) for the project during the design phases and the design is completed to achieve that cost. Other advantages include the opportunity to engage design assist partners to contribute to the design and establishing the GMP, control of the subcontractor selection to ensure quality, a single point of responsibility during construction and less risk of change orders during construction.
 - A disadvantage is that the cost can sometimes be greater since the CMar is taking more risk.
- **Progressive Design-Build (PDB)/Integrated Project Delivery (IPD):**
 - This delivery method designates a design- builder under one contract for the design and construction of the project. The design, cost- estimating, and final pricing of the project progresses during the first step with the development of a GMP for the project often defined by a criteria developer.
 - The selected PDB firm completes design and submits a fixed-price or GMP proposal for the total project to the Board of County Commissioners for approval.
 - The advantages and disadvantages are similar to those noted for the CMar delivery system with an added advantage of fostering teamwork and more creativity in how the project is going to be delivered. Another potential additional disadvantage could be the selection process and cost of a criteria developer.
- **Private Public Partnership (P3):**
 - If the county is challenged to fund a project, it could form an agreement with a private development firm to finance the project on terms and a payment structure the county could afford.
 - The county would then be responsible for the monthly and annual payments on the loan.

Next Steps

- Select either Pre-Charrette Option 2 or 4.
- Select Options for Inclusion, if any, to be incorporated into the project.
- Select Charrette Scenarios, if any, to be incorporated into the project.
- Determine means of financing.
- If funding of the project involves an increase in taxes, define millage ballot date and campaign strategy.
- Choose project delivery system.
- Select design and/or management or funding professionals to be involved in the project.
- Determine anticipated project design start date.