

The background of the entire slide is a semi-transparent red overlay on top of a grayscale architectural rendering of a modern building's interior. The rendering shows multiple levels, glass railings, and people walking, suggesting a large, open public space.

SESSION # CD-05

NOVEMBER 4, 2011 | 8:00 AM

JUSTICE DESIGN FOR A NEW ECONOMY

**POETIC
PRAGMATISM**

NOVEMBER 2-4, 2011
LOS ANGELES, CA

2011 Academy of Architecture Justice National Conference

CELEBRATING CREATIVE, COST EFFECTIVE, AND FUNCTIONAL DESIGN FOR JUSTICE FACILITIES



SESSION # CD-05

NOVEMBER 4, 2011 | 8:00 AM

BOB SCHWARTZ, AIA, LEED AP BD+C

HOK, Group Vice President



ERIC HACKMAN, AIA, LEED AP

TOWER PINKSTER, Project Manager

TowerPinkster

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THREE COUNTIES DOING MORE WITH LESS

KENT COUNTY
Grand Rapids



MIDLAND COUNTY
Midland

WASHTENAW COUNTY
Ann Arbor

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ECONOMIC CLIMATE IN THE STATE OF MICHIGAN

- High unemployment & foreclosure rates
- Government expenditures driven down by declining resources
- Spending on local government much below the national median in almost every category
- Michigan plunges to the bottom in public infrastructure spending.
- Michigan local governments spend less per capita than national average
- Bottom 10 states in per capita income
- 48th in overall capital outlay expenditures
- Deferred maintenance allow minor problems to deteriorate into major reconstruction projects



MIDLAND

NEW CONSTRUCTION

250 BEDS

EXPANDABLE TO 500

106,000 SF

\$ 21,220,000

DECEMBER 2009



WASHTENAW

ADDITION

112 BEDS-INTAKE-COURTS

600 TOTAL BEDS (EXPAND TO 800)

78,300 SF

\$ 28,500,000

JUNE 2010



KENT

ADDITION

REPLACE 512 BEDS

1,100 TOTAL BEDS

109,250 SF

\$ 24,000,000

DECEMBER 2012



MIDLAND

DAYLIGHT HARVESTING

DOUBLE EXTERIOR WALL

EXPANDED FOAM INSULATION

DECENTRALIZED GEOTHERMAL

LOCAL MATERIALS

DIAMOND FINISH CONCRETE



WASHTENAW

NEW CENTRAL PLANT

REPLACE AIR HANDLERS

LEED SILVER

WATER EFFICIENT LANDSCAPE

LOCAL MATERIALS

INDOOR COMFORT



KENT

REPLACES INEFFICIENT HOUSING

DOUBLE EXTERIOR WALL

600 TOTAL BEDS

CENTRALIZED GEOTHERMAL

LOCAL MATERIALS

DIAMOND FINISH CONCRETE



SIMILARITIES OF ALL THREE FACILITIES

- Borrowed light
- Horizontal rear service chase
- Maximized use of local building trades and materials with load-bearing masonry and precast concrete plank construction
- Video visitation
- Video arraignment
- Security electronics utilizing internet protocol
- Maximized disabled accessibility with all programs and services at dayroom level



MIDLAND COUNTY JAIL

- Home to Dow Chemical
- Population: 83,629 (.9% Growth)
- Existing Conditions Require a new Detention Center
- Protracted Site Selection Process and Millage Issue lead to Approval in 2006.

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Space No.	Component	Total Departmental Gross Square Feet
1.0	Public Lobby Visitation	3,189
2.0	Administration	3,117
3.0	CPU/Booking/Transfers	10,319
4.0	Medical Clinic	2,288
5.0	Male-Special Management Housing	3,244
6.0	Trustee Housing - General Population	4,728
7.0	Male - General Population	28,505
8.0	Male Work Release/Detail	5,524
9.0	Female -General Population/Special Management	6,285
10.0	Security/Central Control	1,168
11.0	Inmate Program Services	3,881
12.0	Food and Laundry Services	6,830
13.0	Jail Staff Support	4,221
14.0	Jail Facility Support	6,193
	Total Facility Space Requirements	89,493
	Building Efficiency Factor @ .10	8,949
	Estimated Building Area GSF	98,442
	Building Support Factor @ .08 (M-E-P)	7,875
	TOTAL BUILDING AREA	106,318

MIDLAND COUNTY JAIL

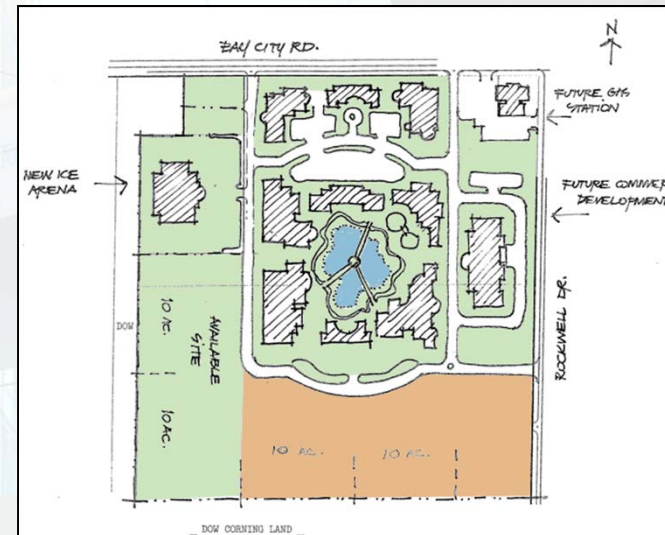
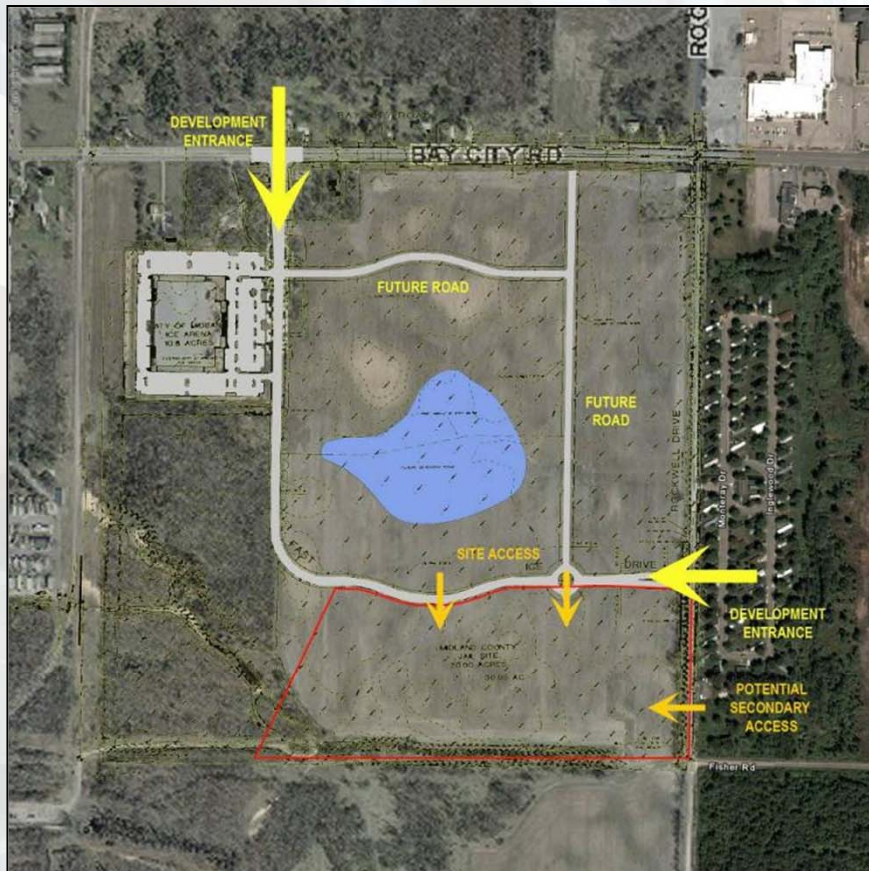
Space Requirements for the New Midland County Jail completed by Carter Goble Lee

MIDLAND COUNTY JAIL

Midland County Jail Program Requirements Detention Center Bed Assignments and Classification

Classification Category	# Cells/Unit	# Beds/Unit	#Units	#Beds
Male Special Management	12	12	1	12
Male General Population	28	56	3	168
Male Trustees	1	20	1	20
Male Work Release/Work Detail	1	18	1	18
Male Subtotal	42		6	218
Female Population	20	32	1	32
Female Subtotal	20		1	32
TOTAL POPULATION			7	250

MIDLAND COUNTY JAIL



JAIL SITE
• 30 Acres



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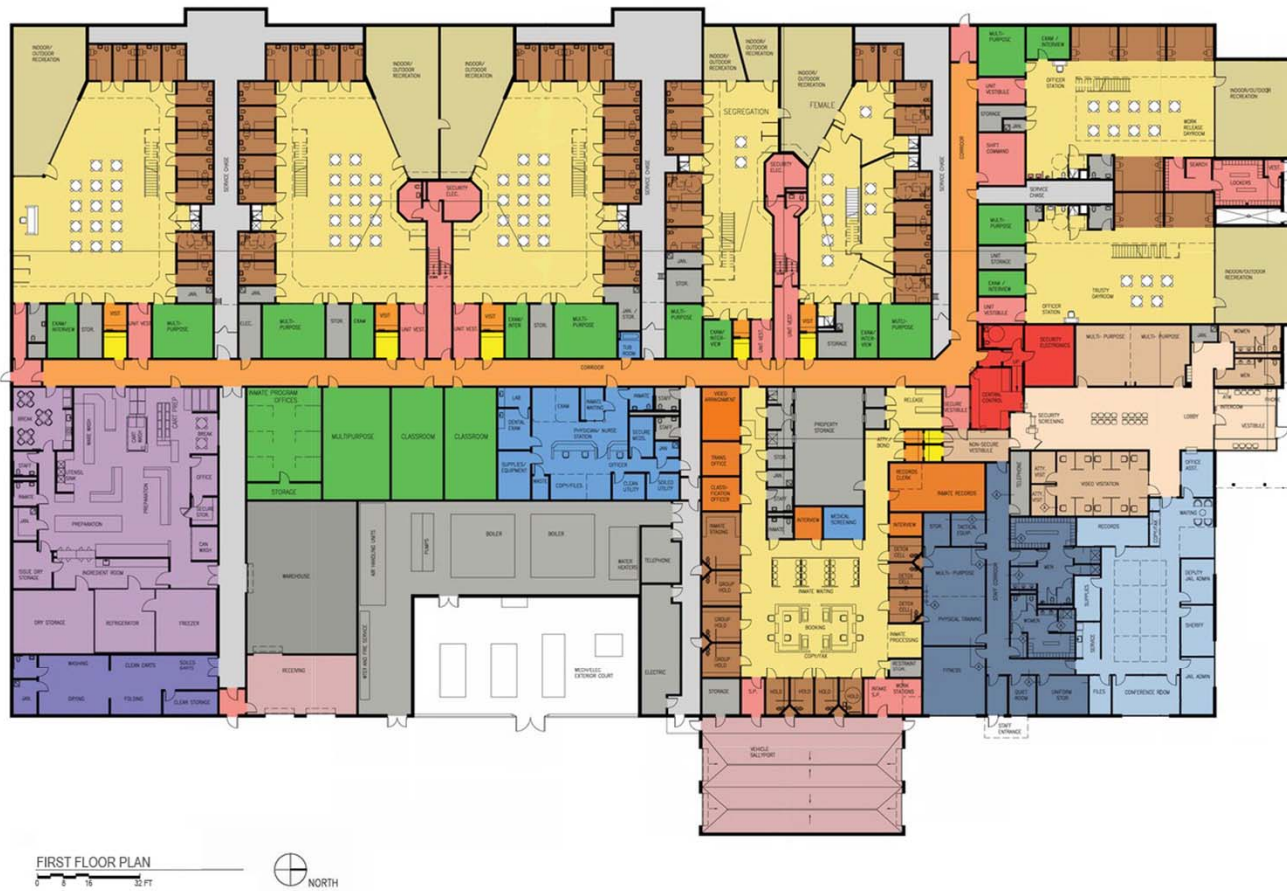
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MIDLAND COUNTY JAIL



KEY SUSTAINABLE ATTRIBUTES

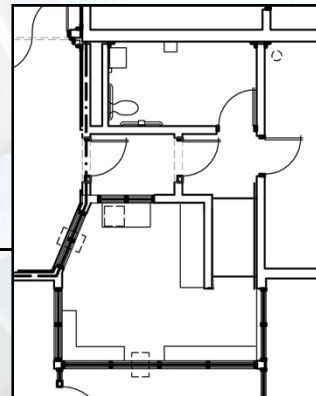
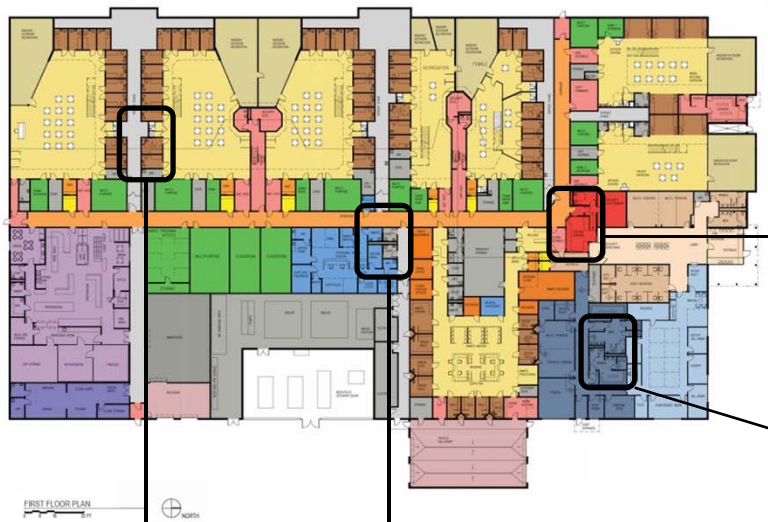
- Compact Floor Plan
- Rear Service Chases
- Daylight Harvesting
- Decentralized Ground Source Heat Pumps
- Ozone Laundry System

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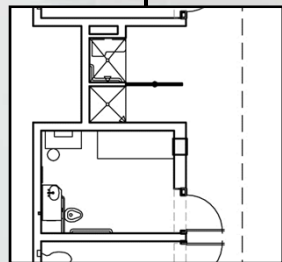
MIDLAND COUNTY JAIL



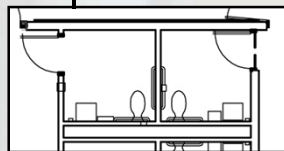
CONTROL ROOM

KEY ACCESSIBILITY ATTRIBUTES

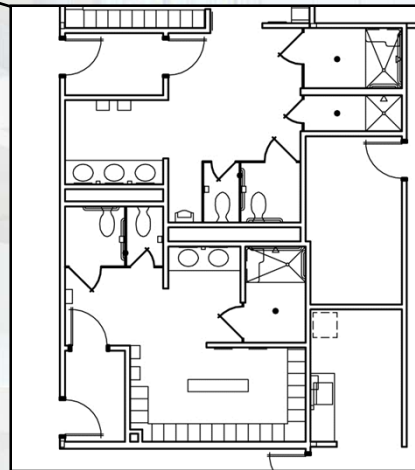
- All Programs and Services at Dayroom Level
- Wheelchair Ramp to Central Control
- Each Housing Unit has Accessible Cells/Beds



CELLS

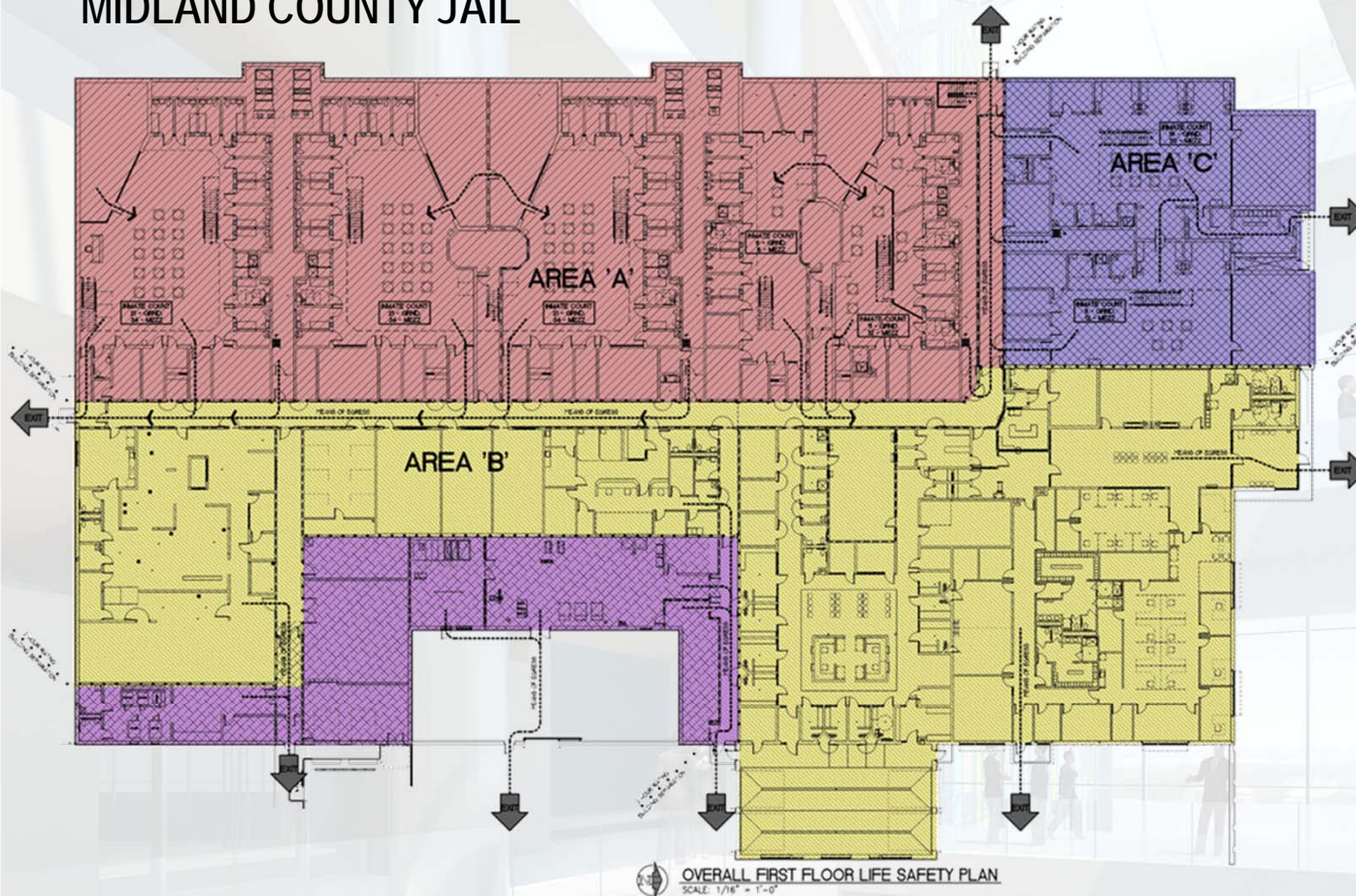


SINGLE TOILETS



STAFF LOCKER ROOMS

MIDLAND COUNTY JAIL



LIFE SAFETY PLAN

- 2 Hour Separation
- Reduce Fire Proofing
- Lengthen Travel Distances

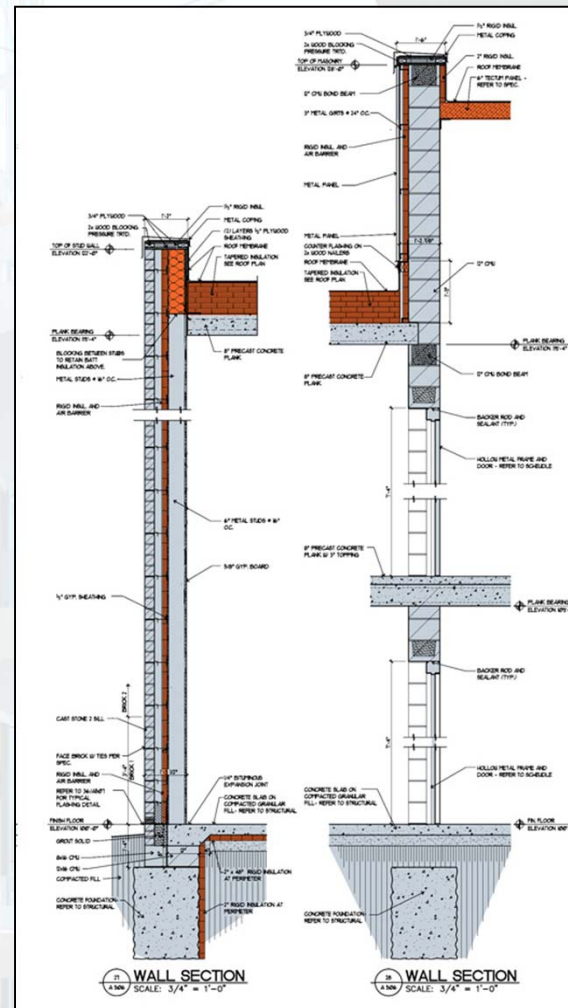
AGENCY REVIEWS

- NFPA - State Fire Marshall
- MBC - City Officials
- Jail Standards - MDOC

MIDLAND COUNTY JAIL

Construction

- Rear Mechanical Chase Design – occupied spaces insulated by non-occupied space
- Foam Spray Insulation in walls (R-19)
- Minimum 5" roof insulation (R-35)
- Tectum Structural Insulated Roof Deck on Steel Joist
- Roof Steel 20' above floor to avoid the expense of fire proofing
- Rear of Cell as Secure Perimeter – allows for Stud construction at exterior wall.
- Economical Trenched footings



MIDLAND COUNTY JAIL



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MIDLAND COUNTY JAIL



DIRECT SUPERVISION HOUSING UNIT



DIRECT SUPERVISION HOUSING UNIT



PODULAR REMOTE HOUSING UNIT



WORK RELEASE DORMITORY UNIT

Diamond Polished Concrete floors
minimize cleaning

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REAR SERVICE CHASE



CHASE UTILITIES



COVERED EXERCISE
AREA



VEHICLE SALLYPORT

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MIDLAND COUNTY JAIL



PUBLIC LOBBY & COMMUNITY ROOM



VIDEO VISITATION



MAIN CORRIDOR



INTAKE CENTER

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106,000 SF

\$/SF

Site	\$ 1,230,000	\$11.60
Foundation Slab and Structure	\$ 2,520,000	\$23.77
Masonry	\$ 2,270,000	\$21.42
General Trades / DEC	\$ 1,340,000	\$12.64
Exterior Finish (less brick)	\$ 1,200,000	\$11.32
Doors and Frames	\$ 800,000	\$7.55
Windows	\$ 620,000	\$5.85
Finishes	\$ 1,090,000	\$10.28
Mechanical	\$ 5,400,000	\$50.94
Fire Protection	\$ 410,000	\$3.87
Electrical	\$ 2,250,000	\$21.23
Security systems	\$ 970,000	\$9.15
Video Visitation System	\$ 210,000	\$1.98
Equipment	\$ 910,000	\$8.58
Total Construction Cost	\$ 21,220,000	\$200.19
Furnishings	\$ 810,000	\$7.64
Owners Soft Costs	\$ 2,470,000	\$23.30
Project Cost	\$ 24,500,000	\$231.13

MIDLAND COUNTY JAIL

ESTIMATED ANNUAL ENERGY SAVINGS

\$57,000 for a High Performance Building

25% better than a typical building

Electrical Usage - 131,000 KWH / Month (1.72 W/SF)

Natural Gas Usage - 3875 Ccf / Month

Current Energy Costs: \$185,000 per year

- \$1.75 per SF annually
- \$740 per bed annually



MIDLAND COUNTY JAIL

Schedule

- Programming Jan '07 – Apr '07
- Design Apr '07 – May '08
- Construction Oct '07 – Dec '09

CM as Agent - Design/Bid/Build

Bid Packages

- Site Clearing Fall '07
- Foundation Feb. '08
- Frames & Hardware April '08
- Remaining May '08
- Security Electronic July '08



MIDLAND COUNTY JAIL

LESSONS LEARNED

- Unpredictable bid climate during phased bid packages
 - *Project came in \$1.0 Million under budget*
- Coordination between light harvesting lighting controls and the security controls touch screen software
- The use of steel joist 20' above floor level proved to be cost effective by avoiding fireproofing the material and more expensive construction types



WASHTENAW COUNTY JUSTICE COMPLEX

- County seat: Ann Arbor
- Home to the University of Michigan
- Part of the Detroit Metropolitan Area
- Population: 344,791 (6.8% Growth)



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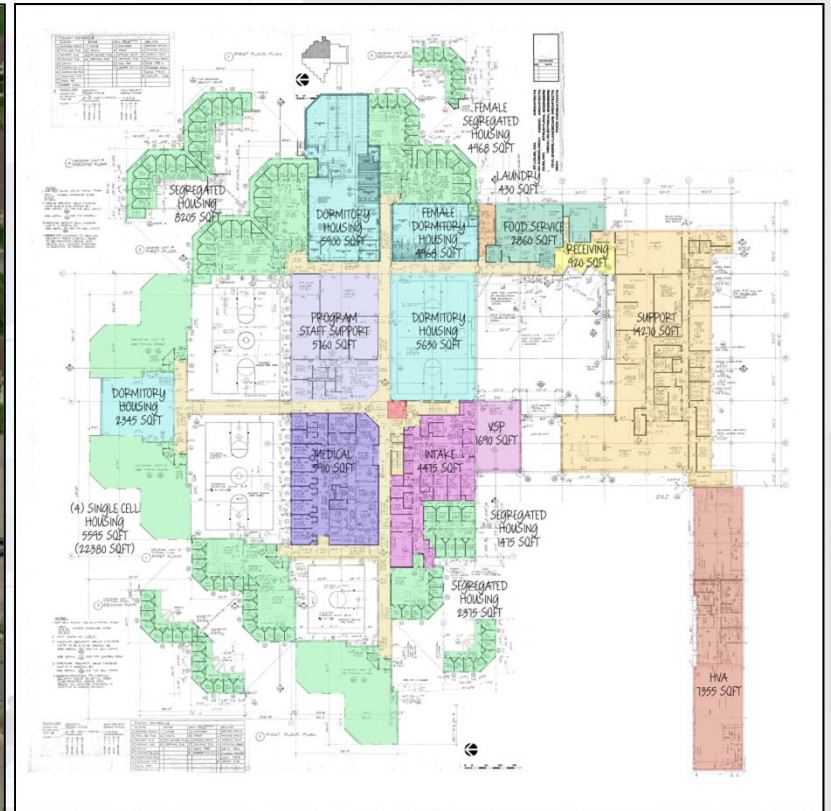
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WASHTENAW COUNTY JUSTICE COMPLEX

Total Project Summary

Component	Net Square Feet	Departmental Gross Factor	Total Gross Square Feet
Jail Expansion			
Central Support Areas	15,019	4,264	19,283
Housing Unit Addition	13,572	5,273	18,845
Mechanical/Electrical and Building Gross SF			7,035
Jail Expansion Grand Totals	28,591	9,536	45,162
New District Court Building			
Court Operations, Administration, Clerk of Court	18,633	5,826	24,459
Justice and Allied Agencies	3,095	913	4,008
Building Support	1,918	384	2,302
Mechanical/Electrical and Building Gross SF			8,800
New Court Building Grand Totals	23,646	7,123	39,569
TOTAL PROJECT SQUARE FOOTAGES	52,237	16,659	84,731

Source: Estimates by Carter Goble Lee, July 20, 2007.

- Total 600 Beds including 112 Bed Addition
- Support Core upgraded to support 800 bed capacity
- New 14th District Court

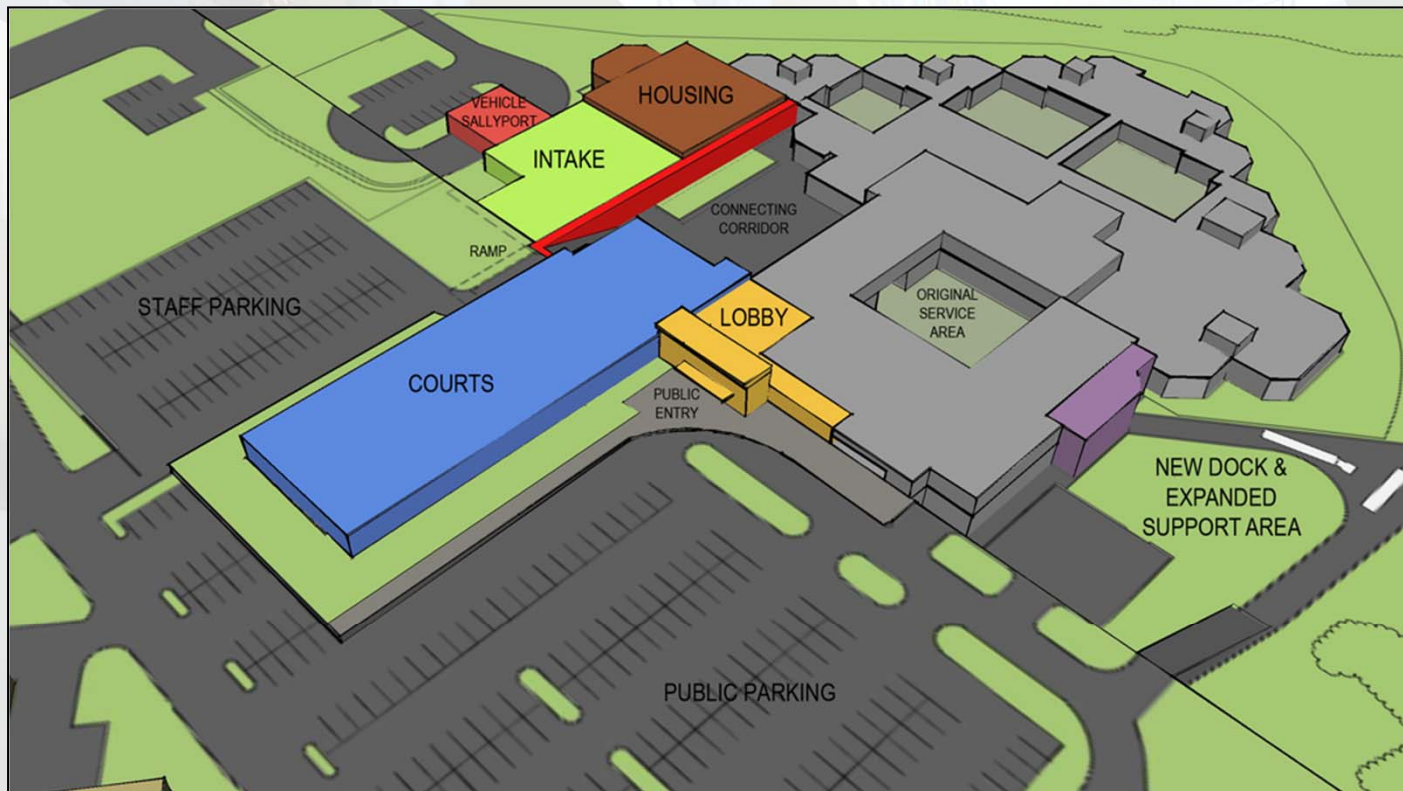
WASHTENAW COUNTY JUSTICE COMPLEX

Jail Expansion Space Allocation Summary

Code	Component	Net Square Feet	Departmental Gross Factor	Total Gross Square Feet
JAIL CENTRAL SUPPORT AREAS				
1.000	COURTS AND JAIL CENTRAL PUBLIC ENTRY	3,775	944	4,719
2.000	VEHICLE SALLY PORT	2,000	200	2,200
3.000	INTAKE/TRANSFER/RELEASE	6,950	2,430	9,380
4.000	CENTRAL CONTROL	460	161	621
5.000	SPECIAL MANAGEMENT CELL UNIT	810	324	1,134
6.000	RECEIVING/WAREHOUSE	1,024	205	1,229
Total Net Square Feet		15,019		
Total Grossing Factor			4,264	
Total Department Gross Square Feet				19,283
Mechanical/Electrical Spaces @ 3%				578
Building Gross Factor @ 15%				2,979
Total Building Gross Square Feet Non-Housing				22,840
JAIL HOUSING AREAS - 112 OPERATIONAL BEDS				
10.100	UNIT CENTER	1,562	469	2,031
10.200	POD 1 - 56 BEDS IN 14 QUAD CELLS	6,005	2,402	8,407
10.300	POD 2 - 56 BEDS IN 14 QUAD CELLS	6,005	2,402	8,407
Total Net Square Feet		13,572		
Total Grossing Factor			5,273	
Total Department Gross Square Feet				18,845
Mechanical/Electrical Spaces @ 3%				565
Building Gross Factor @ 15%				2,911
Total Building Gross Square Feet Housing				22,321
TOTAL BGSF - JAIL EXPANSION				45,162

Source: Estimates by Carter Goble Lee, July 20, 2007.

WASHTENAW COUNTY JUSTICE COMPLEX



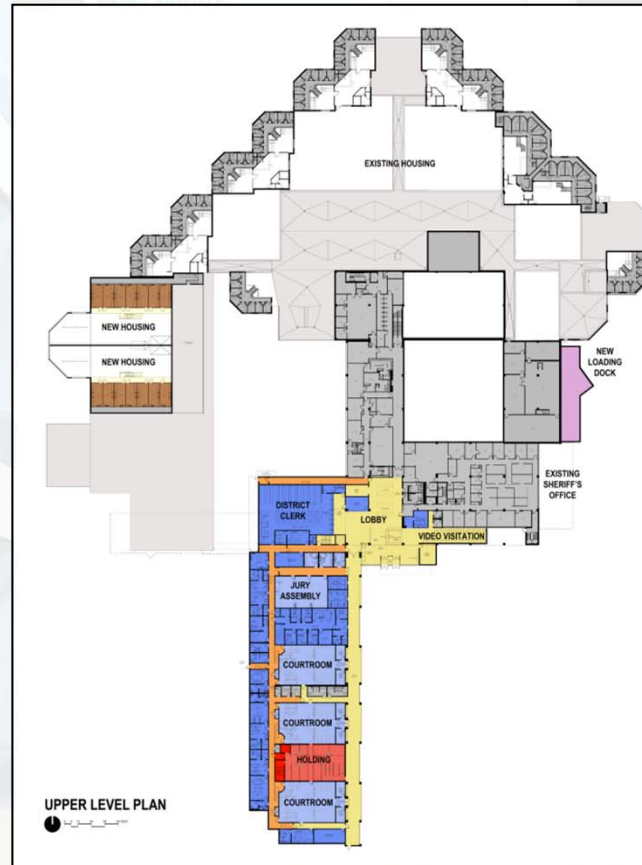
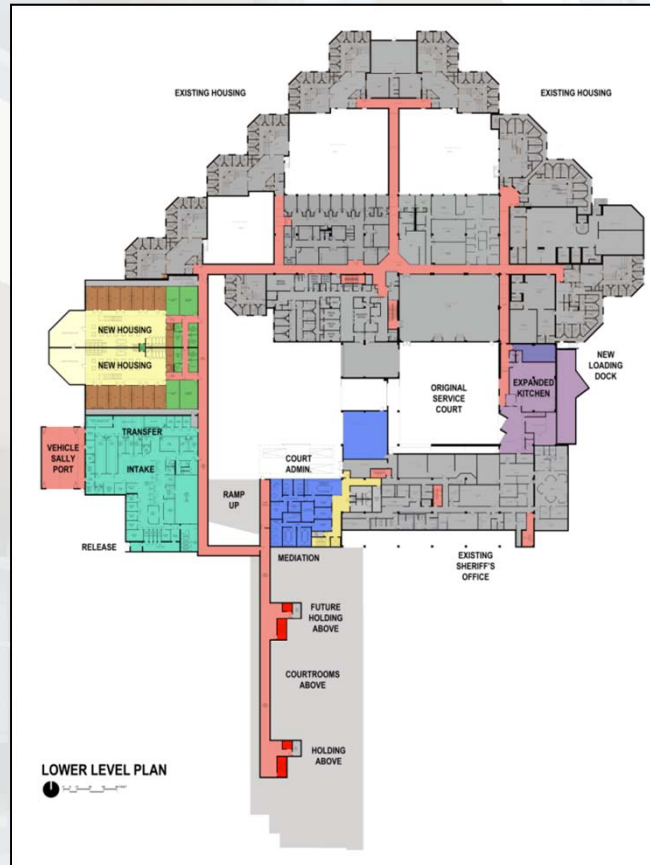
Project Goals

- Operationally Efficient
- Easily Maintainable
- Low Energy Use

Operational Objectives

- Reduce Inmate movement
- Secure Connection between Courts and Jail
- Separate Circulation Paths

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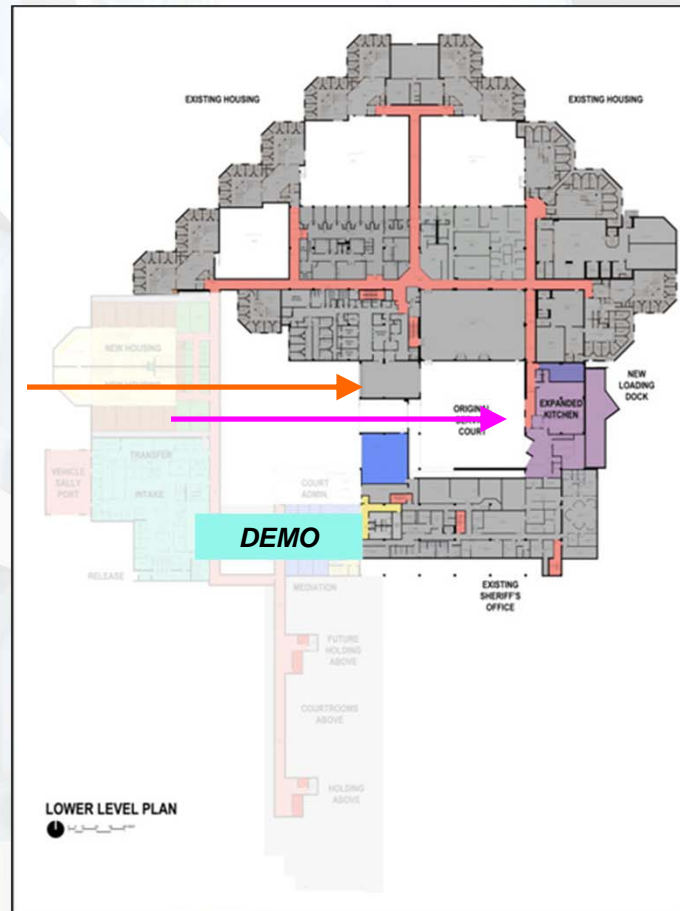
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PHASE ONE

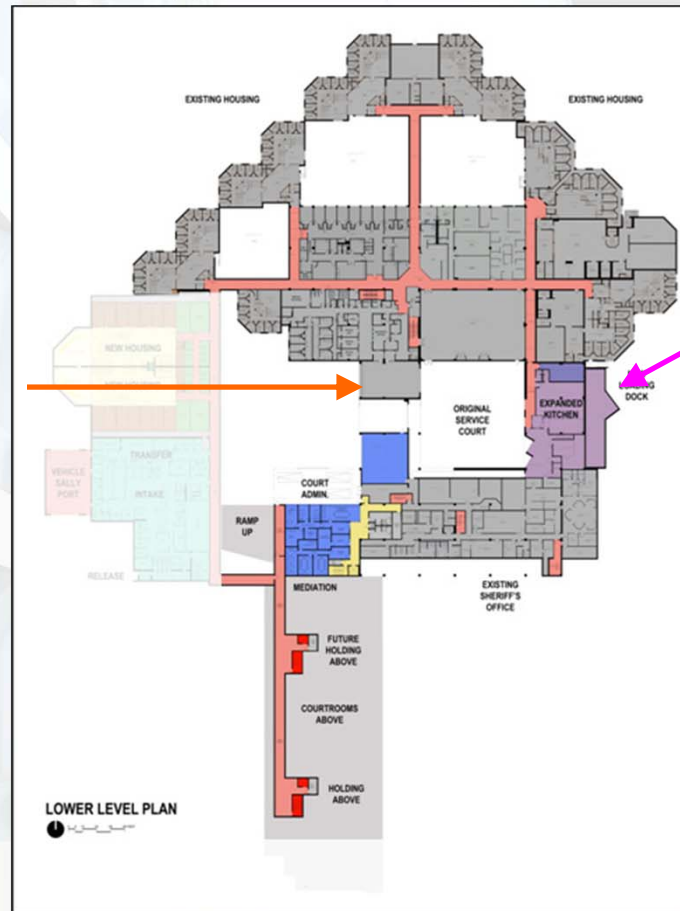
- Move Services to East Side
- Replace Kitchen
- Upgrade boilers, cooling towers and generator
- Demo Two Story Building
- Reroute site utilities



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PHASE TWO

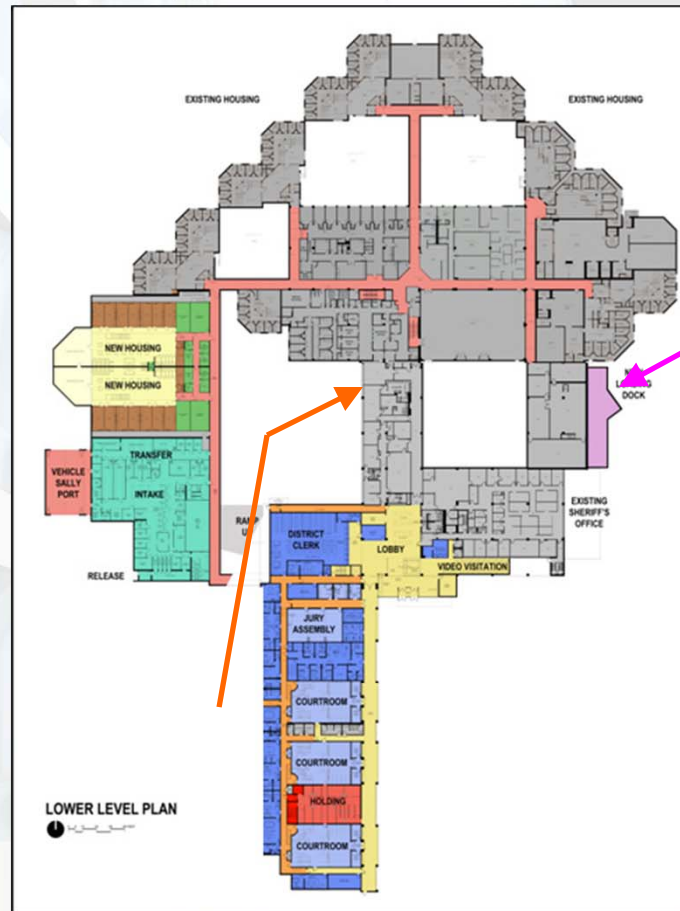
- Construct Lower Level
- Construct Temporary Ramp to Existing Intake/Transfer/Release



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PHASE THREE

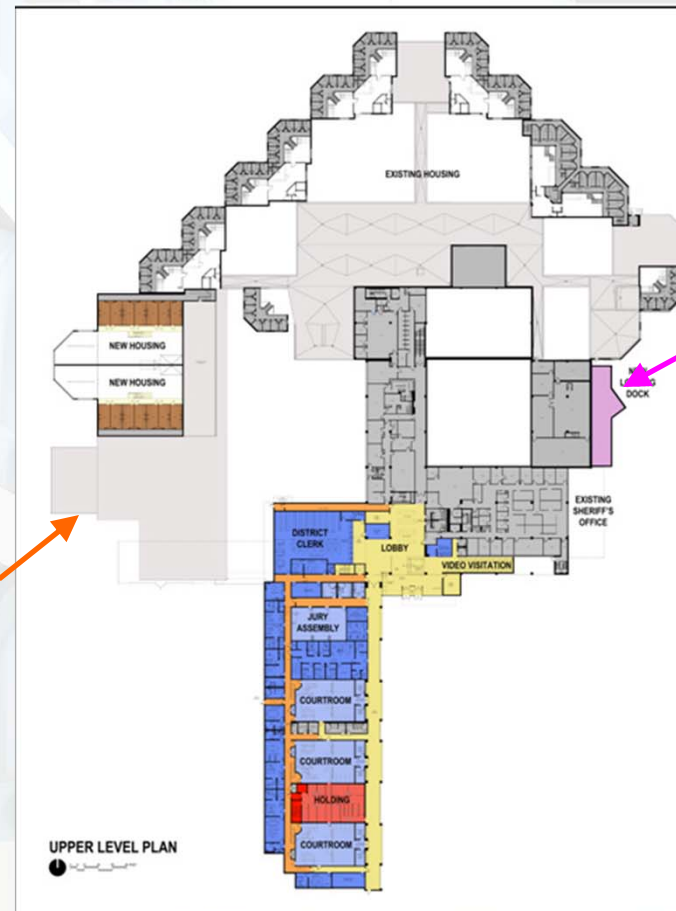
- Construct New Intake/Transfer/Release Center Housing
- Construct New Courts (upper level)



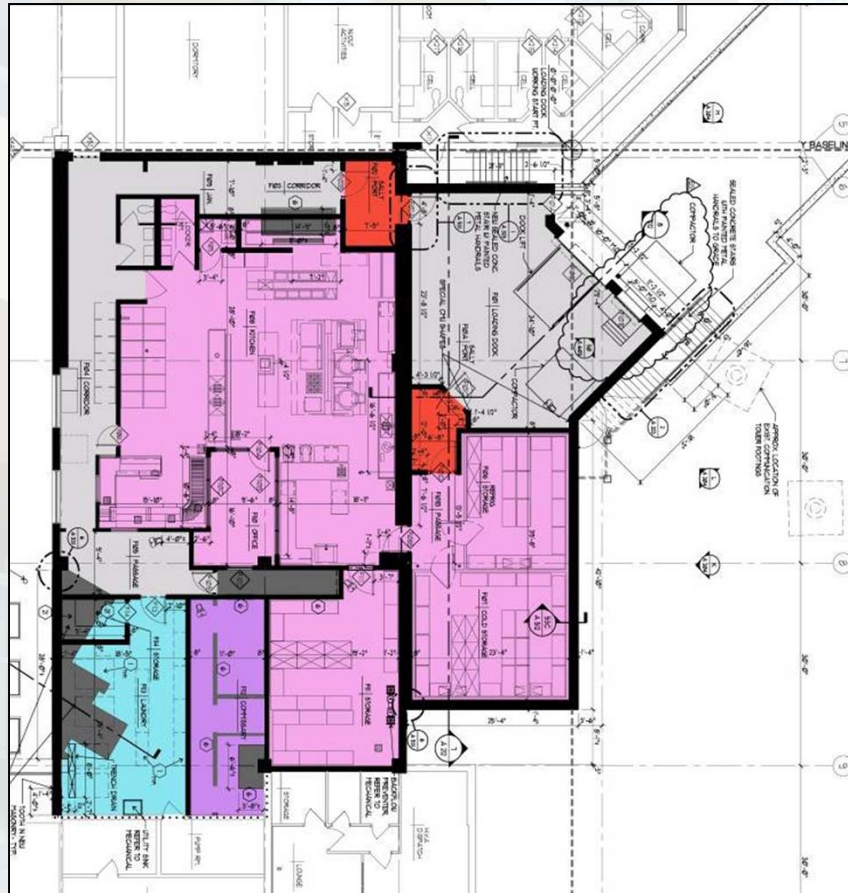
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PHASE FOUR

- Utilize new ITR
- Move / Swing inmates through the new housing as existing housing AHUs are replaced



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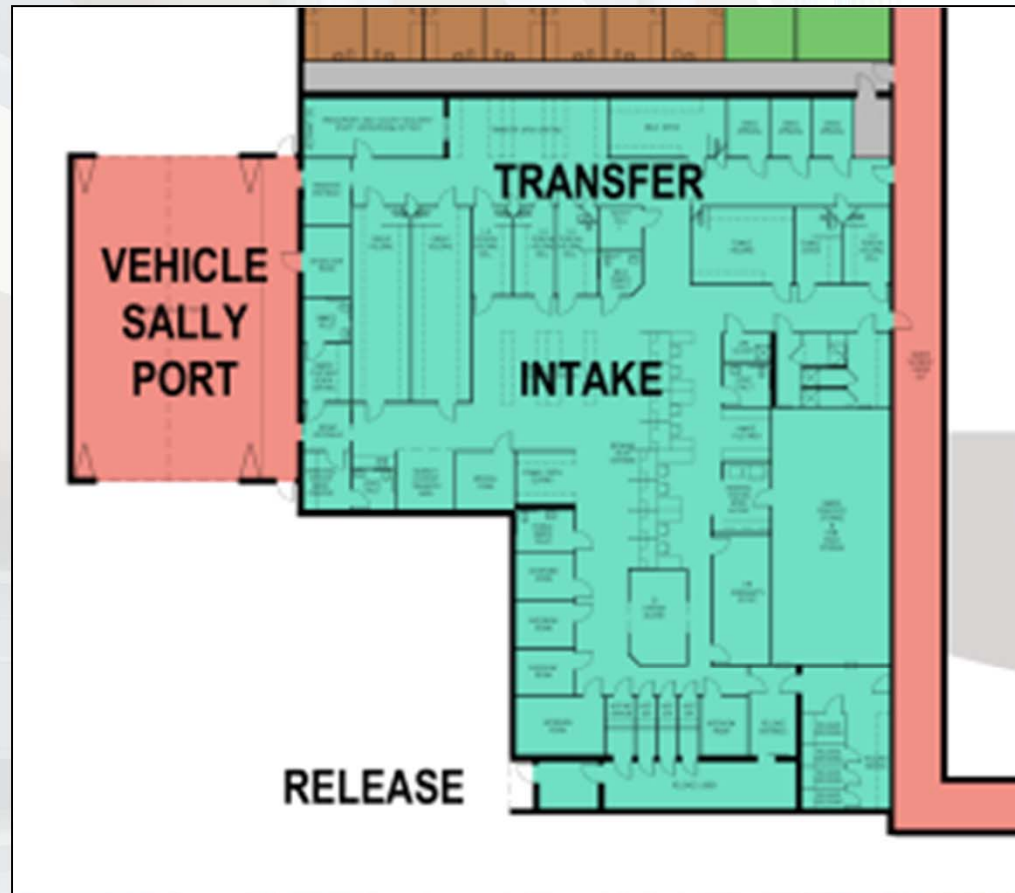
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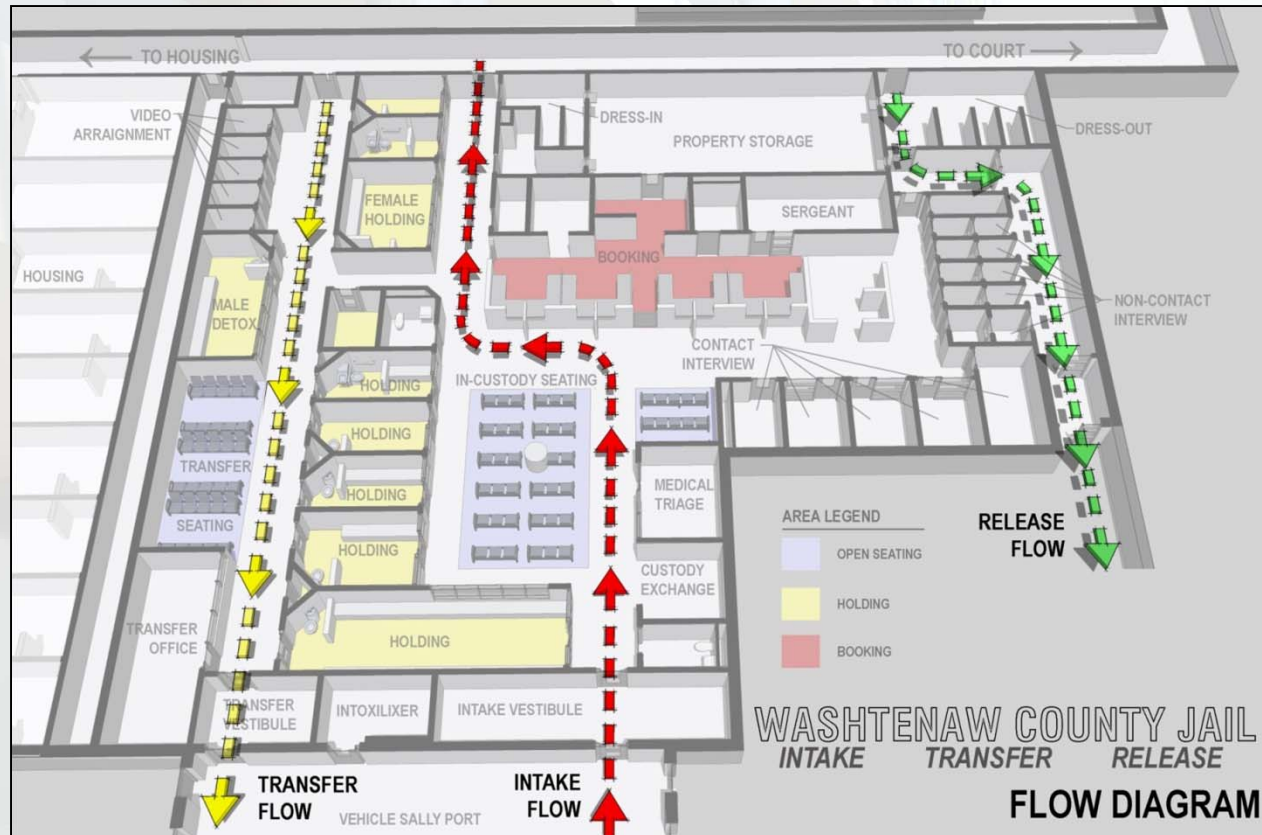
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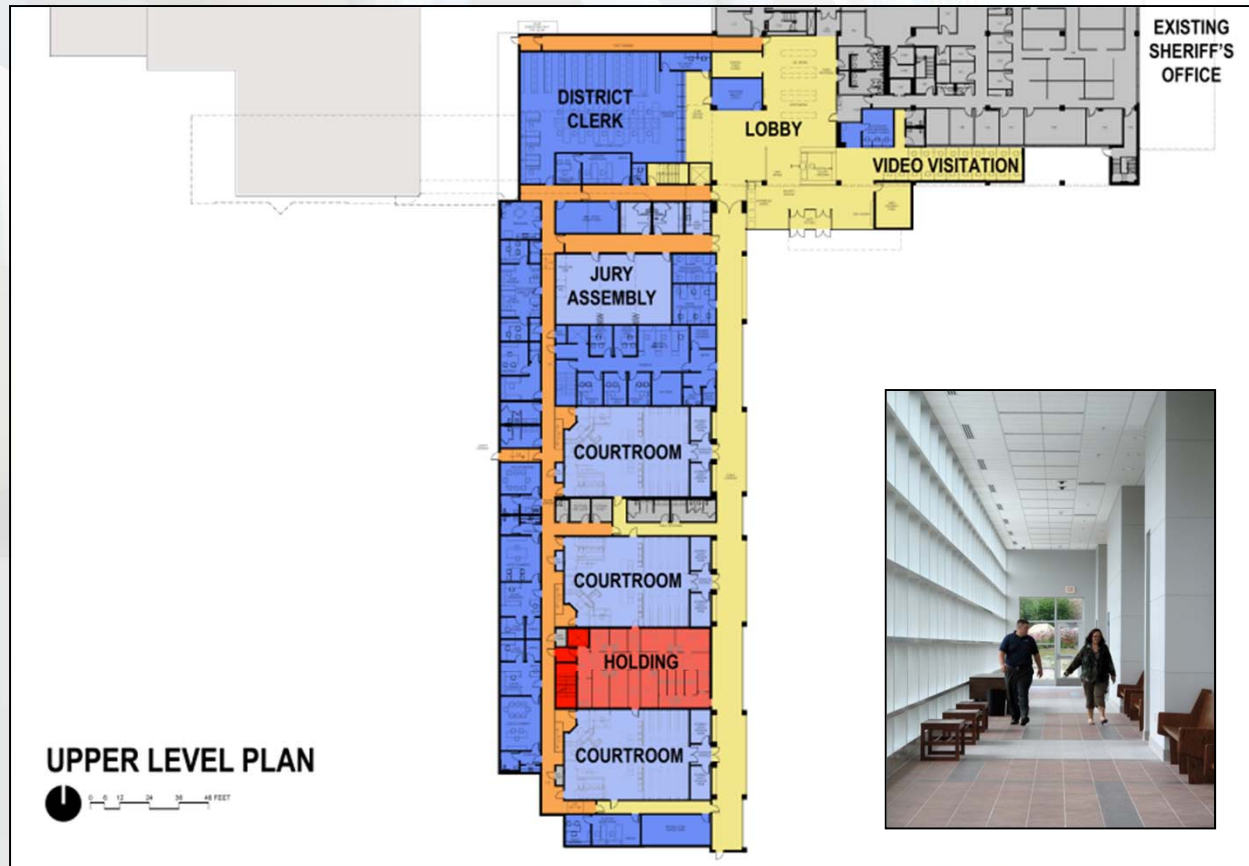
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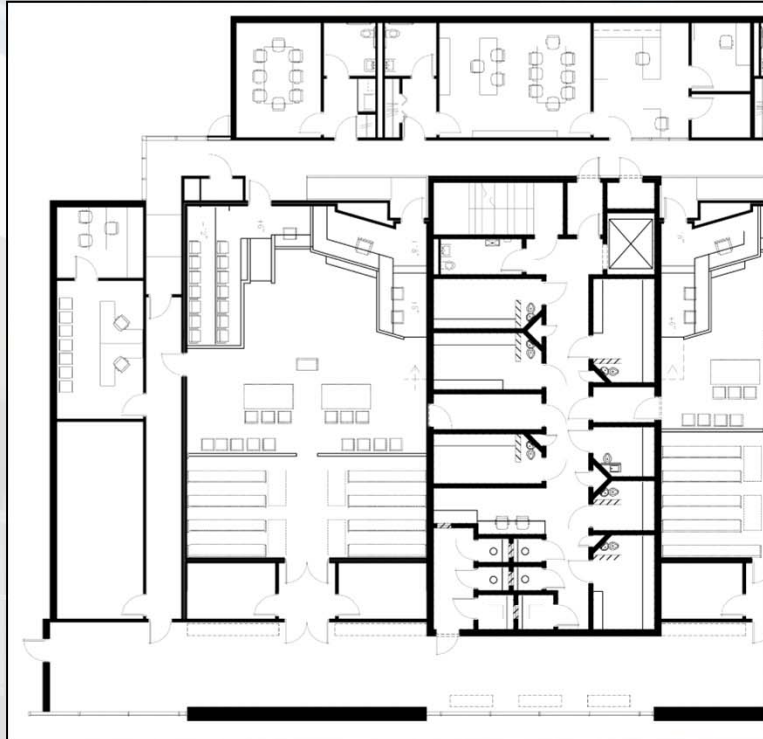
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WASHTENAW COUNTY JUSTICE COMPLEX

ACCESSIBILITY

- ADA & Michigan Standards
- Ramps to all Courtroom areas
- Ramps to Judges' Benches in Private Corridor
- All Inmate activities and programs on the Main Detention Level





WASHTENAW COUNTY JUSTICE COMPLEX

JAIL COST

- 112 Beds and Intake Center addition
 - 40,000 SF
 - \$10,000,000
- Service Addition and Mechanical Upgrades
 - 3,300 SF
 - 8 New Air Handlers, Boilers, Chillers
 - \$5,000,000

COURT COST

- Three Courtroom Addition and New Entry
 - 35,000 SF addition
 - 5,000 SF Renovation
 - \$13,500,000

WASHTENAW COUNTY JUSTICE COMPLEX

Previous Energy Consumption

- 2007 and 2008 Two Facilities

- 149,190 SF
- \$363,000
- \$2.43 per SF

Current Energy Consumption

- July 2010 – June 2011 Single Facility

- 215,840 SF (additional 66,650 SF 30% increase)
- \$417,400
- \$1.93 per SF – 20% savings

- *includes improved air quality to the existing jail cells*

WASHTENAW COUNTY JUSTICE COMPLEX



14A District Court LEED NC 2.2

LEED Score Card

- Site – Alternative Transportation; Light Pollution Reduction
- Water – 30% Use Reduction
- Optimized Energy Performance 5 points (of 10)

Prerequisite	Yes				Total Possible Points
<input checked="" type="checkbox"/>	<input type="checkbox"/>	C	Prereq 1	Construction Activity Pollution Prevention	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 1	Site Selection	1
<input type="checkbox"/>	<input type="checkbox"/>	D	Credit 2	Development Density & Community Connectivity	1
<input type="checkbox"/>	<input type="checkbox"/>	D	Credit 3	Brownfield Redevelopment	1
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 4.1	Alternative Transportation: Public Transportation Access	1
<input type="checkbox"/>	<input type="checkbox"/>	D	Credit 4.2	Alternative Transportation: Bicycle Storage & Changing Rooms	1
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 4.3	Alternative Transportation: Low Emitting & Fuel Efficient Vehicles	1
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 4.4	Alternative Transportation: Parking Capacity	1
<input type="checkbox"/>	<input type="checkbox"/>	C	Credit 5.1	Site Development: Protect or Restore Habitat	1
<input type="checkbox"/>	<input type="checkbox"/>	D	Credit 5.2	Site Development: Maximize Open Space	1
<input type="checkbox"/>	<input type="checkbox"/>	D	Credit 6.1	Stormwater Management: Quantity Control	1
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 6.2	Stormwater Design: Quality Control	1
<input type="checkbox"/>	<input type="checkbox"/>	C	Credit 7.1	Heat Island Effect: Non-Roof	1
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 7.2	Heat Island Effect: Roof	1
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 8	Light Pollution Reduction	1
<input type="checkbox"/>	<input checked="" type="checkbox"/>			14 Points Available	14
				Water Efficiency	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	C	Prereq 1	Water Use Reduction	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 1	Water Efficient Landscaping	2
<input type="checkbox"/>	<input type="checkbox"/>	D	Credit 2	Innovative Wastewater Technologies	1
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 3	Water Use Reduction (30% = 2 points; 35% = 3 points; 40% = 4 points)	2
<input type="checkbox"/>	<input checked="" type="checkbox"/>			5 Points Available	5
				Energy & Atmosphere	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	C	Prereq 1	Fundamental Commissioning of the Building Energy Systems	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	D	Prereq 2	Minimum Energy Performance	
<input checked="" type="checkbox"/>	<input type="checkbox"/>	D	Prereq 3	Fundamental Refrigerant Management	
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 1	Optimize Energy Performance	10
<input type="checkbox"/>	<input type="checkbox"/>	D	Credit 2	On-Site Renewable Energy (1% = 1 Point; 3% = 2 Points; 5% = 3 Points; 7% = 4 Points; 9% = 5 Points; 11% = 6 Points; 13% = 7 Points)	3
<input type="checkbox"/>	<input type="checkbox"/>	C	Credit 3	Enhanced Commissioning	1
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 4	Enhanced Refrigerant Management	1
<input type="checkbox"/>	<input type="checkbox"/>	C	Credit 5	Measurement & Verification	1
<input type="checkbox"/>	<input type="checkbox"/>	C	Credit 6	Green Power	1
<input type="checkbox"/>	<input checked="" type="checkbox"/>			17 Points Available	17

WASHTENAW COUNTY JUSTICE COMPLEX



14A District Court LEED NC 2.2

LEED Score Card

- Materials – 50% Waste Mgt.; Recycled Content & Regional Materials
- Indoor Environment – Low Emitting Materials; System Control; Thermal Comfort

Prerequisite	Yes			Total Possible Points
Materials & Resources				
<input type="checkbox"/>	<input type="checkbox"/>	D	Prereq 1	Storage & Collection of Recyclables
<input type="checkbox"/>	<input type="checkbox"/>	C	Credit 1.1	Building Reuse: Maintain Existing Walls, Floors & Roof (55% = 1 Point; 75% = 2 Points; 95% = 3 Points)
<input type="checkbox"/>	<input type="checkbox"/>	C	Credit 1.2	Building Reuse: Maintain Existing Interior Nonstructure Elements
<input type="checkbox"/>	<input checked="" type="checkbox"/>	C	Credit 2	Construction Waste Management (50% = 1 Point; 75% = 2 Points)
<input type="checkbox"/>	<input type="checkbox"/>	C	Credit 3	Materials Reuse (5% = 1 Point; 10% = 2 Points)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	C	Credit 4	Recycled Content (10% = 1 Point; 20% = 2 Points)
<input type="checkbox"/>	<input checked="" type="checkbox"/>	C	Credit 5	Regional Materials (10% = 1 Point; 20% = 2 Points)
<input type="checkbox"/>	<input type="checkbox"/>	C	Credit 6	Rapidly Renewable Materials
<input type="checkbox"/>	<input checked="" type="checkbox"/>	C	Credit 7	Certified Wood
0	7			13 Points Available
Indoor Environmental Quality				
<input type="checkbox"/>	<input type="checkbox"/>	D	Prereq 1	Minimum IAQ Performance
<input type="checkbox"/>	<input type="checkbox"/>	D	Prereq 2	Environmental Tobacco Smoke (ETS) Control
<input type="checkbox"/>	<input type="checkbox"/>	D	Credit 1	Outdoor Air Delivery Monitoring
<input type="checkbox"/>	<input type="checkbox"/>	D	Credit 2	Increased Ventilation
<input type="checkbox"/>	<input type="checkbox"/>	C	Credit 3.1	Construction IAQ Management Plan: During Construction
<input type="checkbox"/>	<input type="checkbox"/>	C	Credit 3.2	Construction IAQ Management Plan: Before Occupancy
<input type="checkbox"/>	<input checked="" type="checkbox"/>	C	Credit 4.1	Low-Emitting Materials: Adhesives & Sealants
<input type="checkbox"/>	<input checked="" type="checkbox"/>	C	Credit 4.2	Low-Emitting Materials: Paints & Coatings
<input type="checkbox"/>	<input checked="" type="checkbox"/>	C	Credit 4.3	Low-Emitting Materials: Flooring Systems
<input type="checkbox"/>	<input checked="" type="checkbox"/>	C	Credit 4.4	Low-Emitting Materials: Composite Wood & Agrifiber Products
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 5	Indoor Chemical & Pollutant Source Control
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 6.1	Controllability of Systems: Lighting
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 6.2	Controllability of Systems: Thermal Comfort
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 7.1	Thermal Comfort: Design
<input type="checkbox"/>	<input checked="" type="checkbox"/>	D	Credit 7.2	Thermal Comfort: Verification
<input type="checkbox"/>	<input type="checkbox"/>	D	Credit 8.1	Daylight & Views: Daylight
<input type="checkbox"/>	<input type="checkbox"/>	D	Credit 8.2	Daylight & Views: Views
0	9			15 Points Available
Innovation & Design Process				
<input type="checkbox"/>	<input type="checkbox"/>	D/C	Credit 1.1	Innovation in Design
<input type="checkbox"/>	<input type="checkbox"/>	D/C	Credit 1.2	Innovation in Design
<input type="checkbox"/>	<input type="checkbox"/>	D/C	Credit 1.3	Innovation in Design
<input type="checkbox"/>	<input type="checkbox"/>	D/C	Credit 1.4	Innovation in Design
<input type="checkbox"/>	<input checked="" type="checkbox"/>	C	Credit 2	LEED Accredited Professional
0	1			5 Points Available
0	34		Total	69
Certified 26-32 points Silver 33-38 points Gold 39-51 points Platinum 52 points and above				



WASHTENAW COUNTY JUSTICE COMPLEX

LESSONS LEARNED

- The importance of acoustics within the dayroom
- Fine balance between first costs and life cycle cost within a limited budget and prescribed program
- Phased construction with the operations of securing a perimeter add cost and time

KENT COUNTY CORRECTIONAL REPLACEMENT



- County seat: Grand Rapids
- Home to Amway, Herman Miller and Steelcase
- Population: 602,622 (4.9% Growth)
- Existing Capacity: 1,107 beds
- Replacement of antiquated detention beds
 - Building H Dormitories: 192 beds
 - Buildings L & M: 320 beds

KENT COUNTY CORRECTIONAL REPLACEMENT

Housing Unit	Number of Units	Number of Beds per Unit	Total Beds
Dormitory	3	64	192
Small Multi-Occupancy	3	32	96
Large Multi-Occupancy	2	64	128
Classification Orientation	1	96	96
Total			512

KENT COUNTY CORRECTIONAL REPLACEMENT

Housing Unit	Number of Units	Number of Beds per Unit	Total Beds	Square Foot per Unit	Total Square Feet
Small Multi-Occupancy	3	32	96	12,043	36,130
Large Multi-Occupancy	2	64	128	12,043	24,086
Classification Orientation	1	88	88	17,072	17,072
Total	6		312		77,288
Building Gross @ 12%					9,275
GRAND TOTAL BUILDING REQUIREMENT					86,563

KENT COUNTY CORRECTIONAL REPLACEMENT



EXISTING MASTER PLAN

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KENT COUNTY CORRECTIONAL REPLACEMENT



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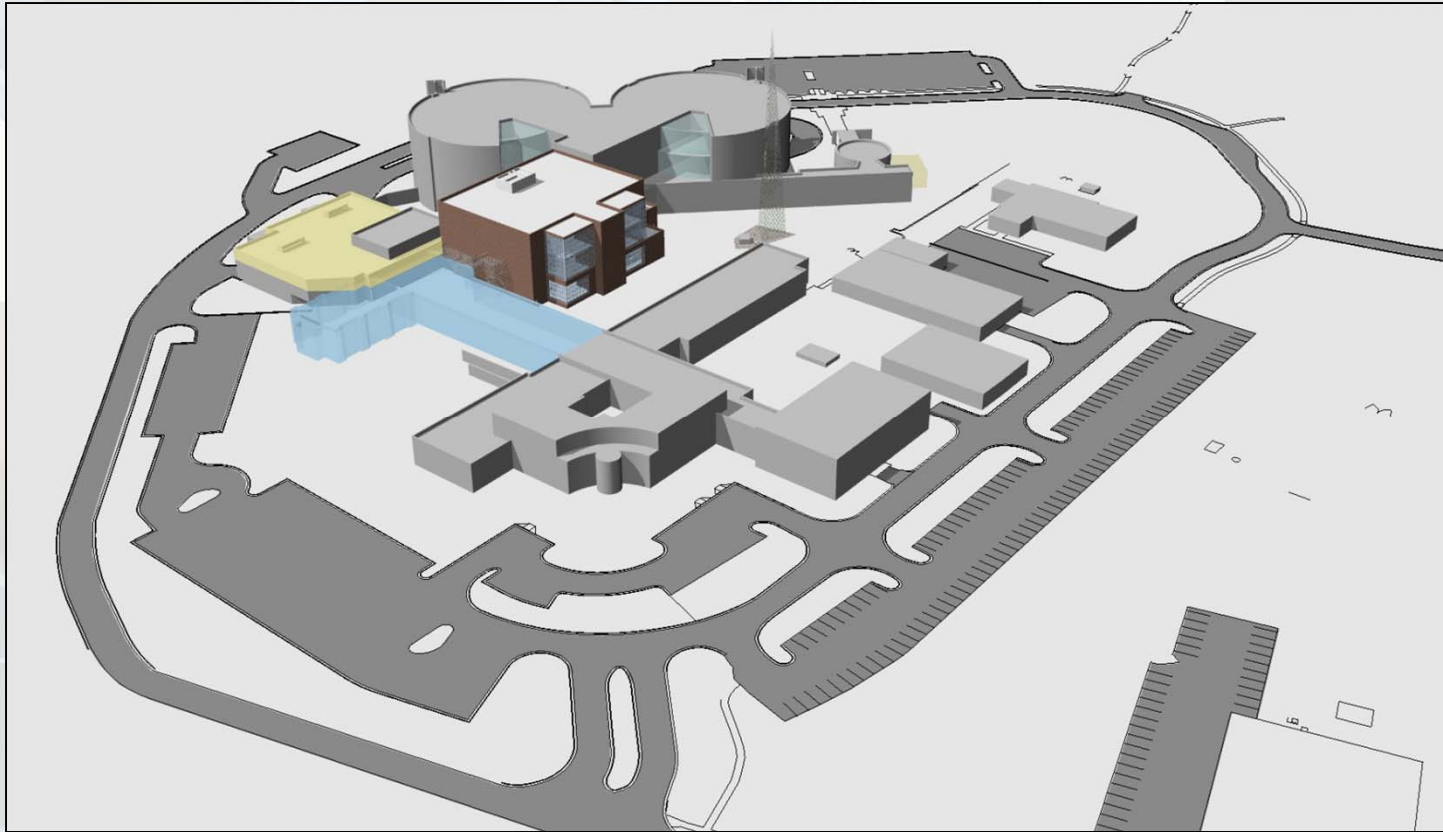
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MASTER PLAN DIAGRAM

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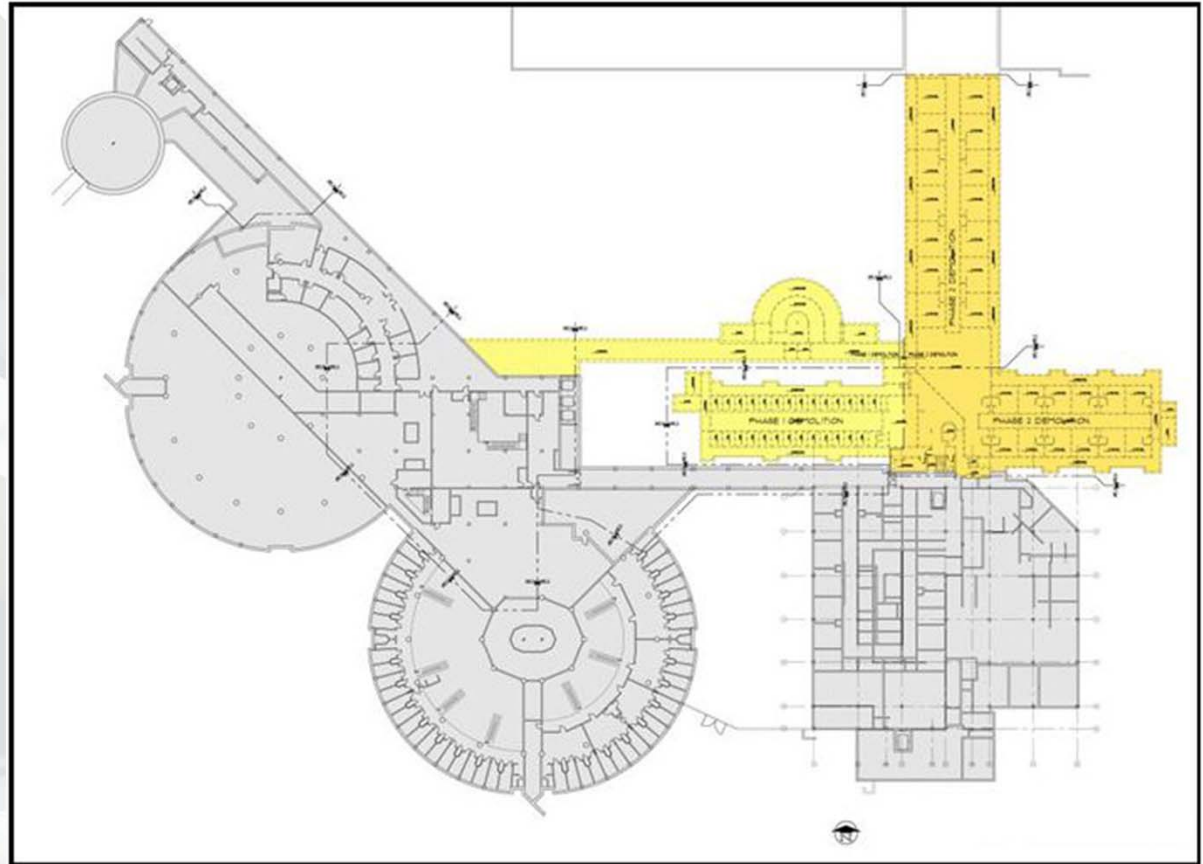
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KENT COUNTY CORRECTIONAL REPLACEMENT

Existing housing to be replaced



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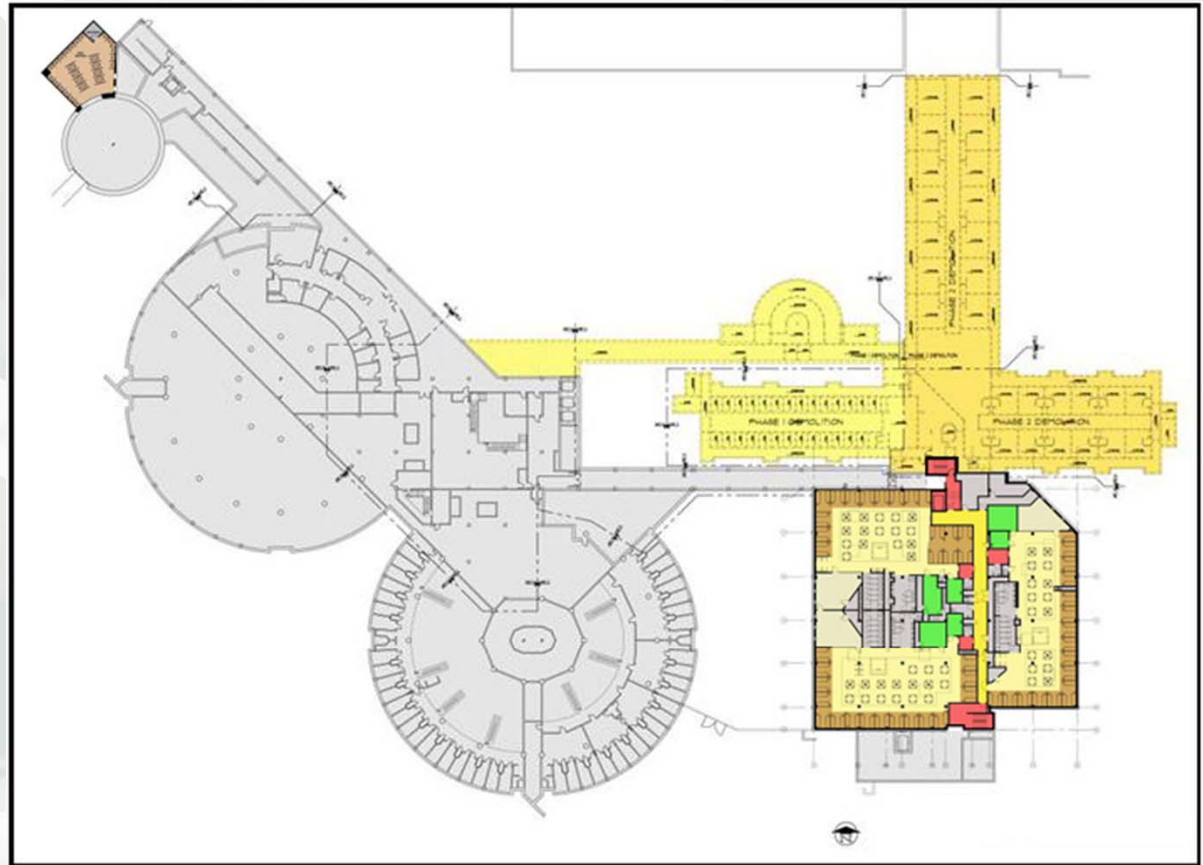
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KENT COUNTY CORRECTIONAL REPLACEMENT

PHASE ONE

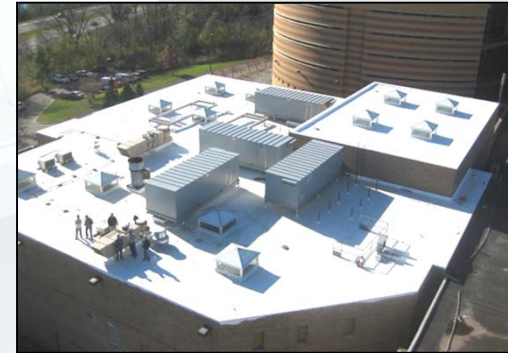
- Remodel H2 in to Dormitories (3) 64 beds
- Construct video visitation unit
- Install video visitation through out the existing jail



KENT COUNTY CORRECTIONAL REPLACEMENT



H2 DORMITORY (192 BEDS)



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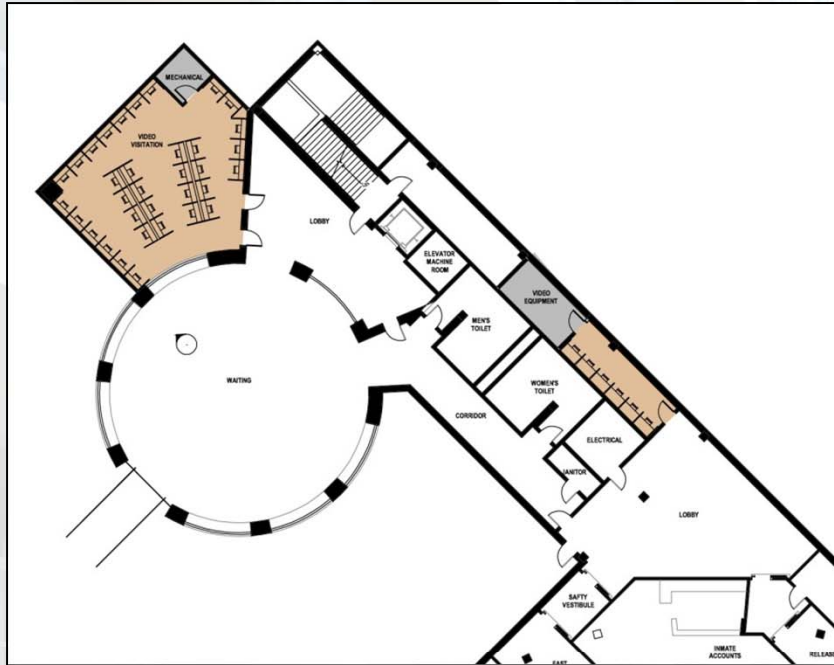
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KENT COUNTY CORRECTIONAL REPLACEMENT



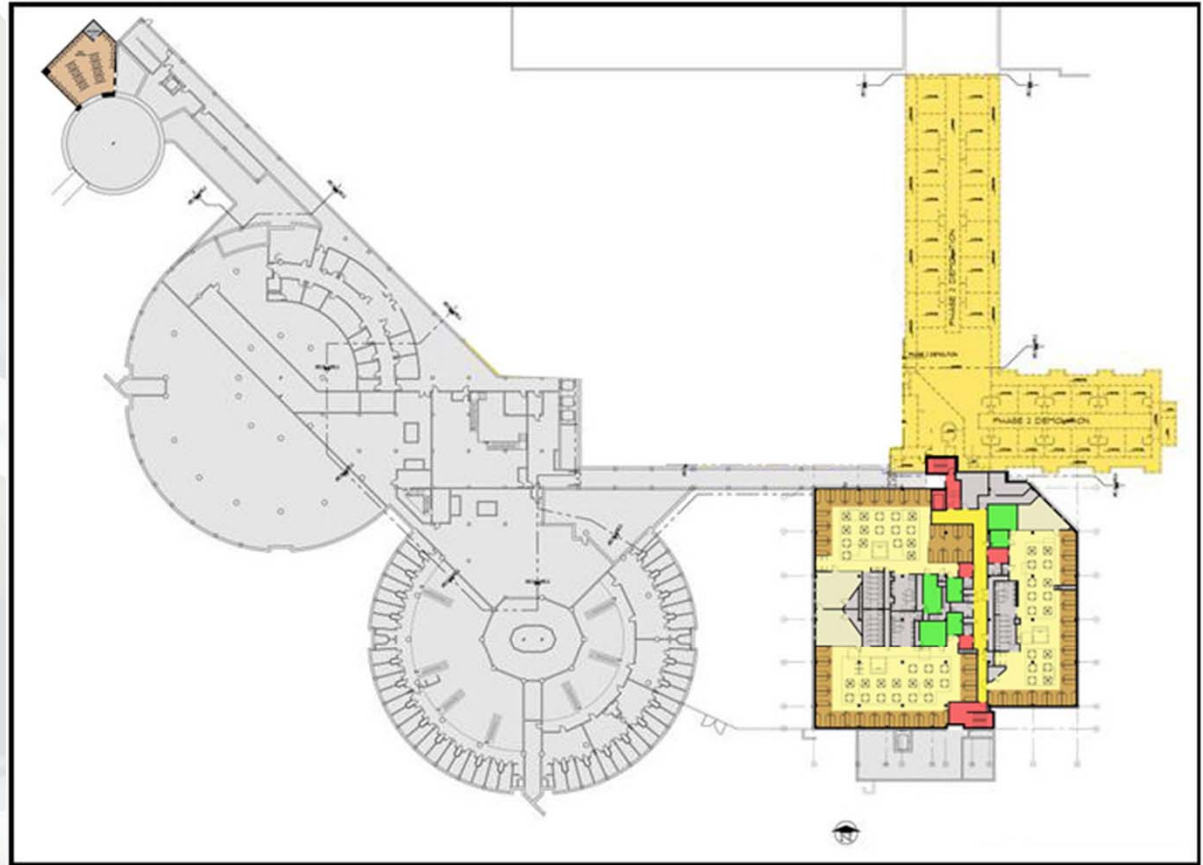
VIDEO VISITATION



KENT COUNTY CORRECTIONAL REPLACEMENT

PHASE TWO

- Move inmates to new dormitory beds
- Demolish portion of existing housing



KENT COUNTY CORRECTIONAL REPLACEMENT



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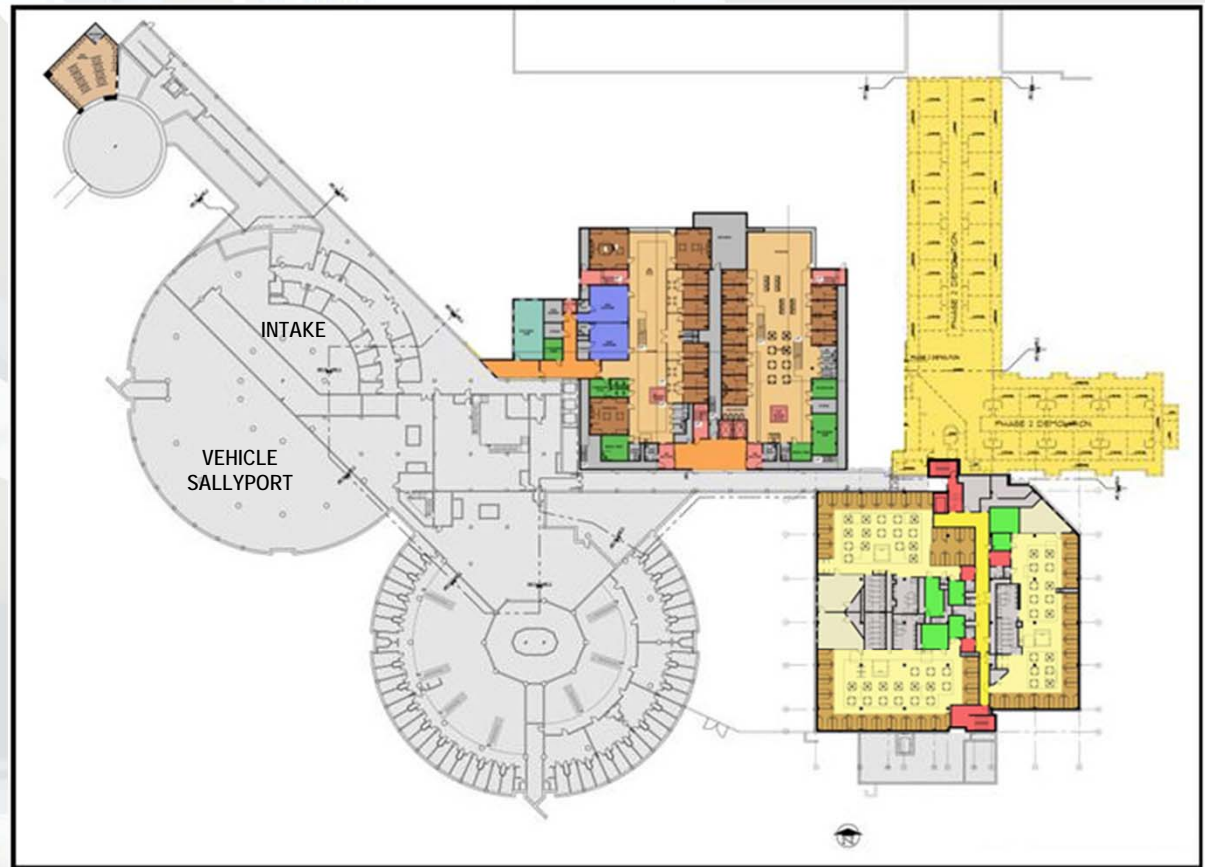


KENT COUNTY CORRECTIONAL REPLACEMENT

PHASE THREE

Construct new housing

- Classification Pod
- Two 64-bed 8 man cells
- Three 63-bed 2 man cells



KENT COUNTY CORRECTIONAL REPLACEMENT



FIRST FLOOR PLAN

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KENT COUNTY CORRECTIONAL REPLACEMENT



FIRST FLOOR MEZZANINE PLAN

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KENT COUNTY CORRECTIONAL REPLACEMENT



SECOND AND THIRD FLOOR PLAN



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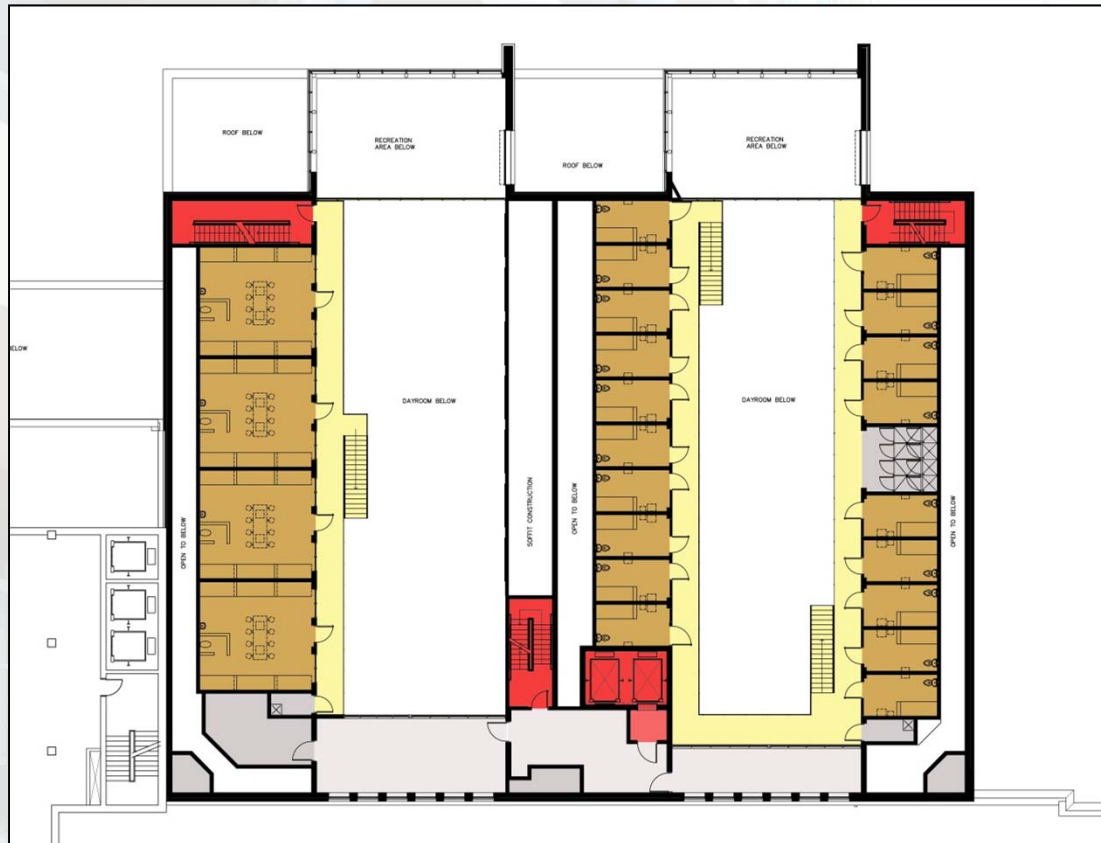
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KENT COUNTY CORRECTIONAL REPLACEMENT



SECOND AND THIRD FLOOR MEZZANINE PLAN



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KENT COUNTY CORRECTIONAL REPLACEMENT



BUILDING SECTION

Key Attributes

- Loadbearing CMU with Precast Planks
- Rear Service Chases
- Extensive Daylighting
- Ground Source Heat Pumps

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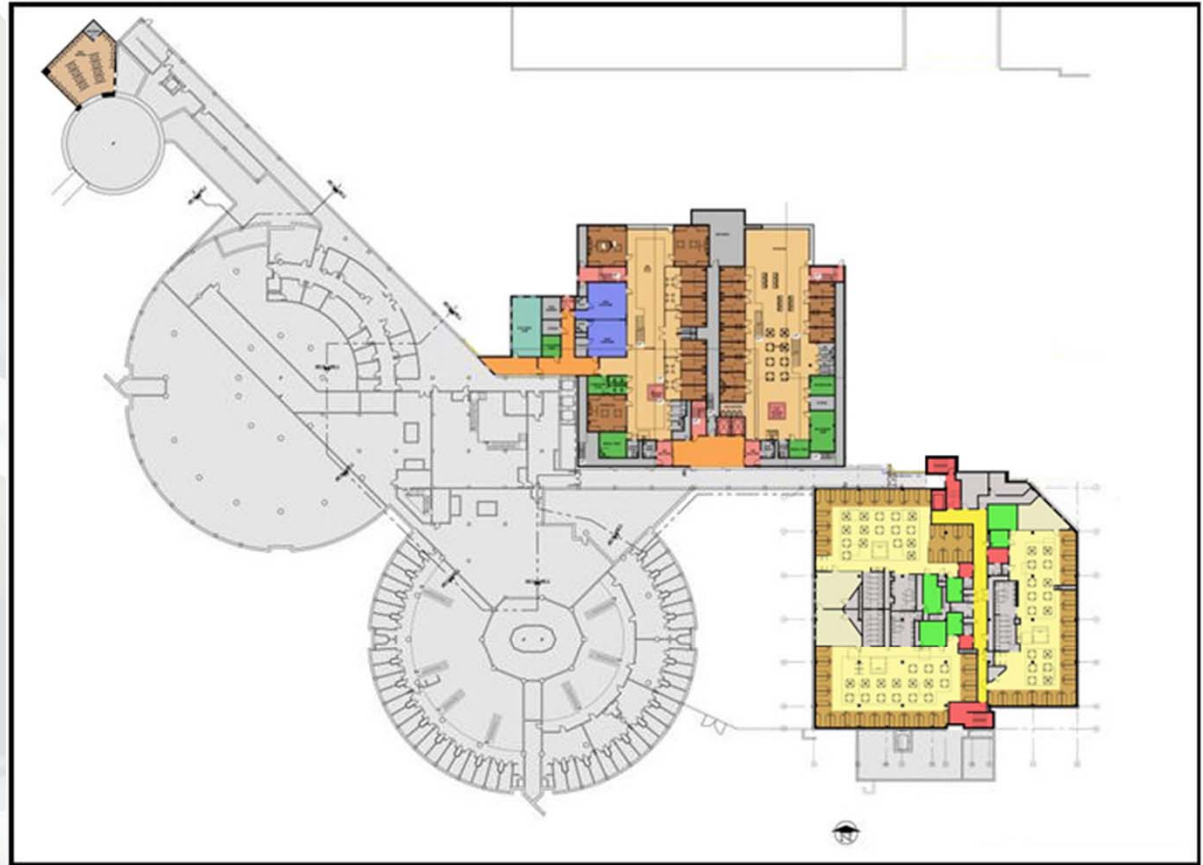
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KENT COUNTY CORRECTIONAL REPLACEMENT

PHASE FOUR

- Move inmates to new housing units
- Demolish remainder of 1950's housing units



KENT COUNTY CORRECTIONAL REPLACEMENT



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KENT COUNTY CORRECTIONAL REPLACEMENT



SCHEDULE

- Key Dates: Start January 12, 2009
- Finish December 3, 2012 (1,421 days)



KENT COUNTY CORRECTIONAL REPLACEMENT

SIZE

- 92,500 SF Addition
- 16,750 SF Renovation
- 60,000 SF Demolition

COST

- 24 million Construction Cost

Energy Use

- Projected to be less than \$2.00 per SF



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SESSION # CD-05

NOVEMBER 4, 2011 | 8:00 AM

JUSTICE DESIGN FOR A NEW ECONOMY

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