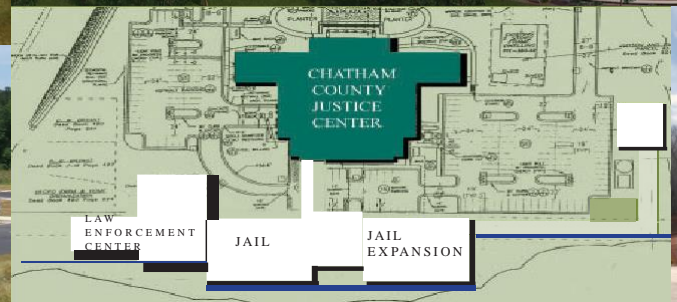
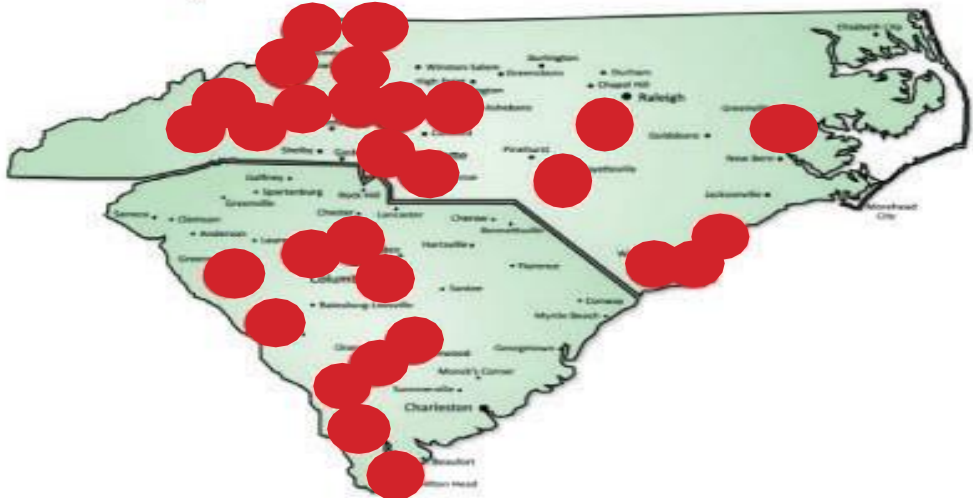


HEMPHILL RANDEL DETENTION PROJECTS



DESIGN TEAM LEADERSHIP



Frank Randel, AIA

**PRINCIPAL IN CHARGE
ARCHITECT-OF-RECORD**

HEMPHILL - RANDEL ASSOCIATES



Alan Richardson, CCHP

**CRIMINAL JUSTICE
PLANNING CONSULTANT**

JUSTICE PLANNERS



Patrick Bradshaw, PE

**LEAD CIVIL
ENGINEER**

CIVIL DESIGN CONCEPTS



Mark Kuvka, AIA

**CO-PROJECT
MANAGER**

LABELLA



Mike Gardina, PE

**STRUCTURAL
ENGINEER**

STEWART ENGINEERS



Wally Overton, PE

**PLUMBING & FIRE PROTECTION
ENGINEER**

P.E.A.



Karl Buddenbaum, PE

**MECHANICAL
ENGINEER**

P.E.A.



Jim Henderson, PE

**ELECTRICAL
ENGINEER**

LABELLA



DESIGN TEAM LEADERSHIP

3 OF THE 7 DESIGN TEAM LEADERS HAVE OVER 23 YEARS OF EXPERIENCE WORKING TOGETHER ON DETENTION CENTER PROJECTS.

OUR PLUMBING, FIRE PROTECTION, AND MECHANICAL ENGINEERS JOINED OUR TEAM OVER 12 YEARS AGO AND HAVE WORKED ON ALL OUR DETENTION CENTER PROJECTS EVER SINCE.

COMBINED OUR DESIGN TEAM HAS OVER 120 YEARS OF EXPERIENCE IN THE DESIGN OF DETENTION CENTER FACILITIES AND OVER 30 YEARS HANDS ON EXPERIENCE IN THE CORRECTIONAL FIELD.

FAMILIARITY WITH STATE PLAN REVIEWERS & INSPECTORS:

- NC Department of Insurance
- NC DHSR - Construction Section
- NC DHSR - Jails and Detention Unit

ASSISTED WITH AND PROVIDED INPUT ON LATEST ROUND OF CHANGES TO THE STATE RULES FOR JAILS & DETENTION CENTERS.



- Facility Programming
- Needs Assessment and Planning
- Staffing Analyses
- Criminal Justice System Assessments
- Training



- Founded in 2000
- Principals all native to WNC
- Headquartered in Asheville
- Waynesville Branch Office
- Over 2,500 projects completed





FINAL CONSTRUCTION PHOTO



COMPUTER BIM MODEL



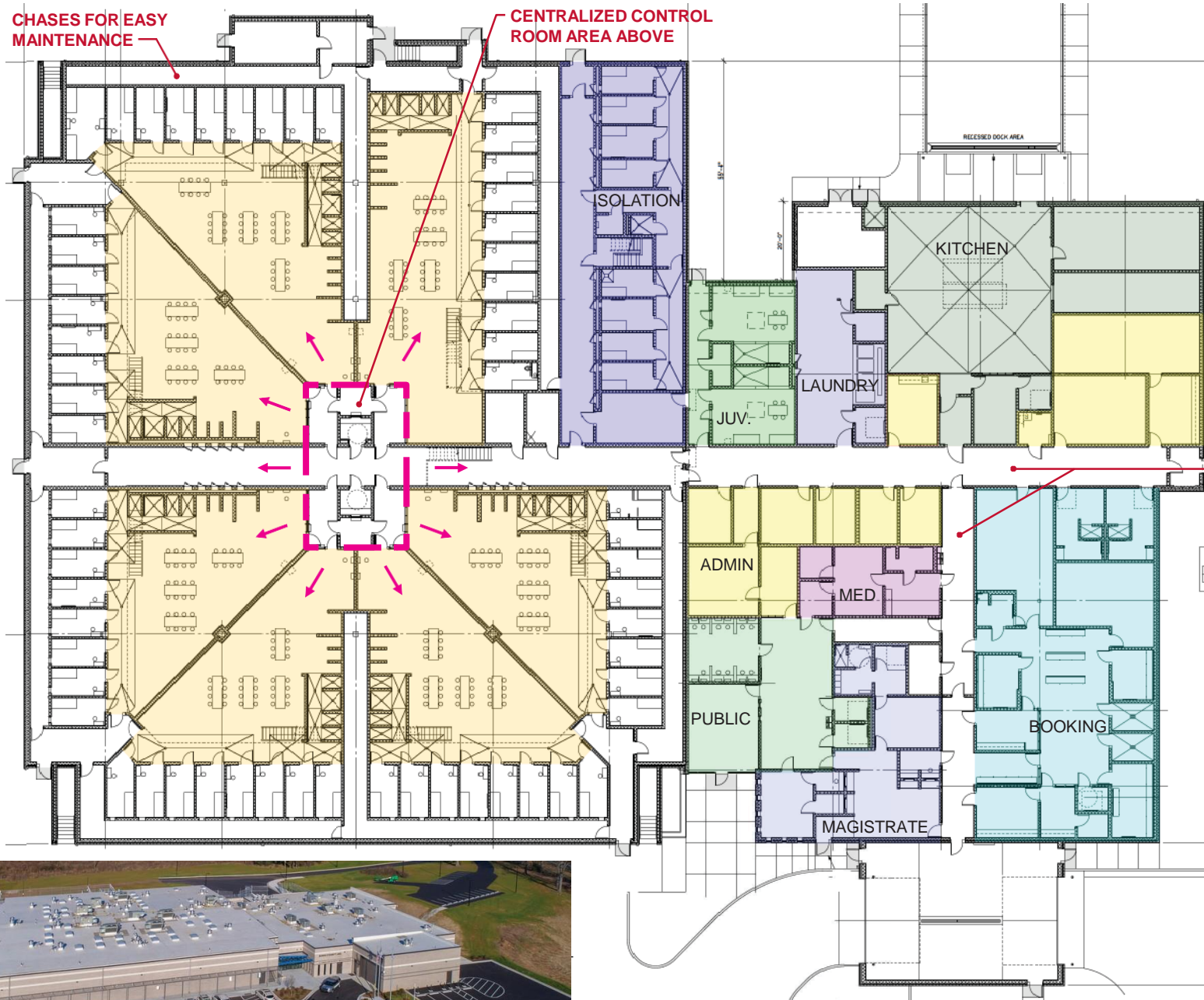
COMPUTER BIM MODEL



FINAL CONSTRUCTION PHOTO

CHASES FOR EASY MAINTENANCE

CENTRALIZED CONTROL ROOM AREA ABOVE



Size:
71,000 SF

BED COUNT:
200 Males Beds
40 Female Beds
16 Isolation
8 Juvenile

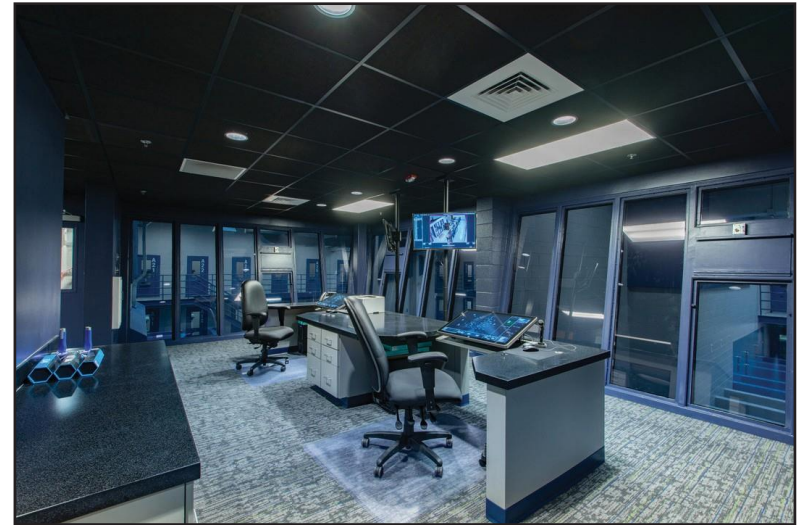
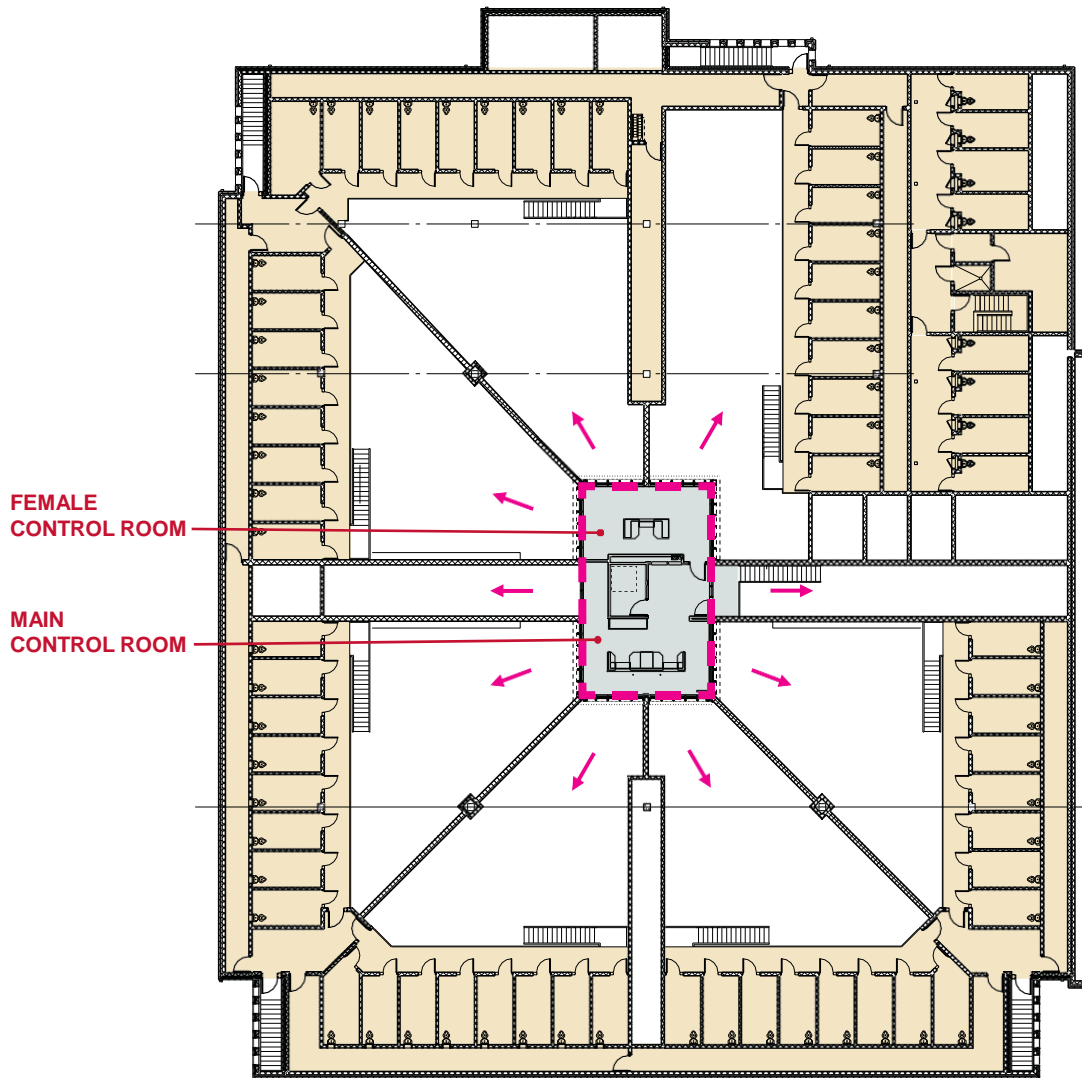
264 TOTAL

SIMPLE CIRCULATION FACILITATES MONITORING



BURKE COUNTY JAIL

HEMPHILL - RANDEL ASSOCIATES



MAIN CONTROL ROOM



CONTROL ROOM VIEW

BURKE COUNTY JAIL

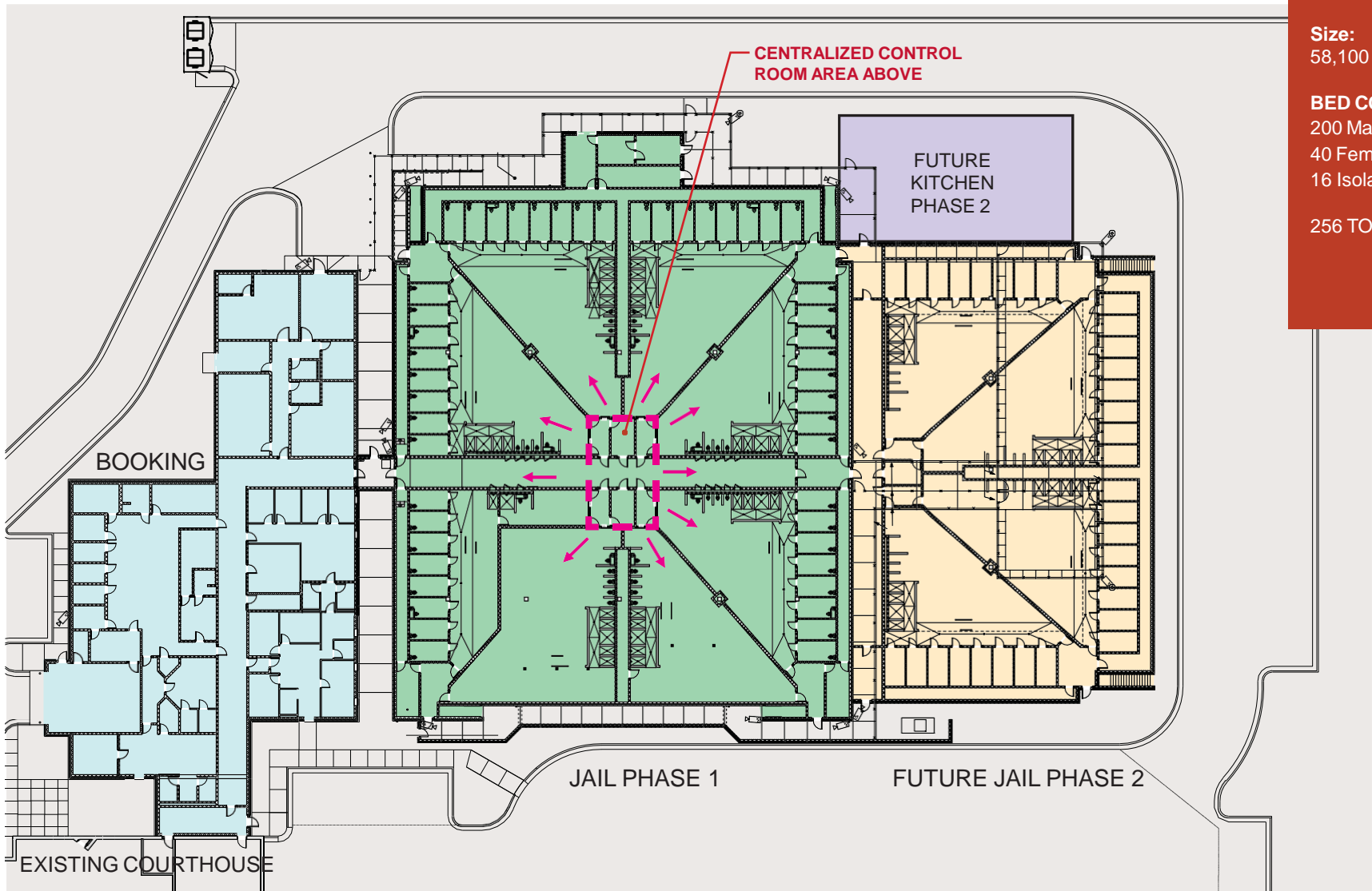
HEMPHILL - RANDEL ASSOCIATES



DESIGN DEVELOPMENT OF
CONTROL ROOM SIGHT
LINES

FINAL CONTROL ROOM DESIGN





Size:
58,100 SF

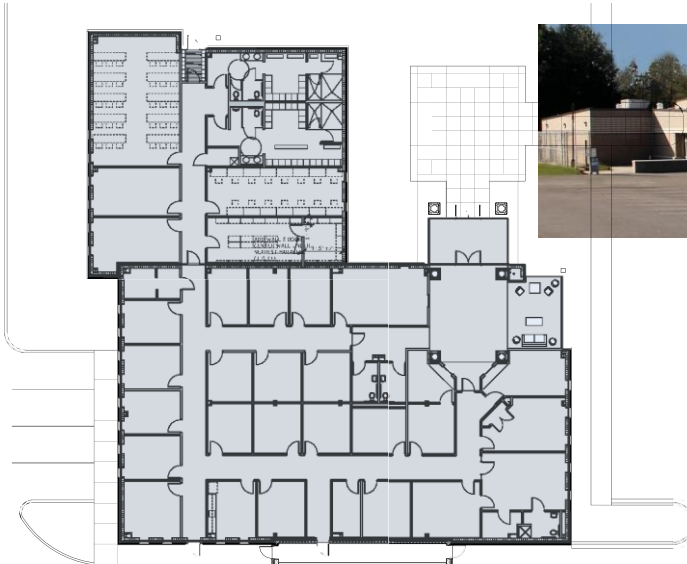
BED COUNT:
200 Males Beds
40 Female Beds
16 Isolation

256 TOTAL



WILKES COUNTY JAIL

HEMPHILL - RANDEL ASSOCIATES



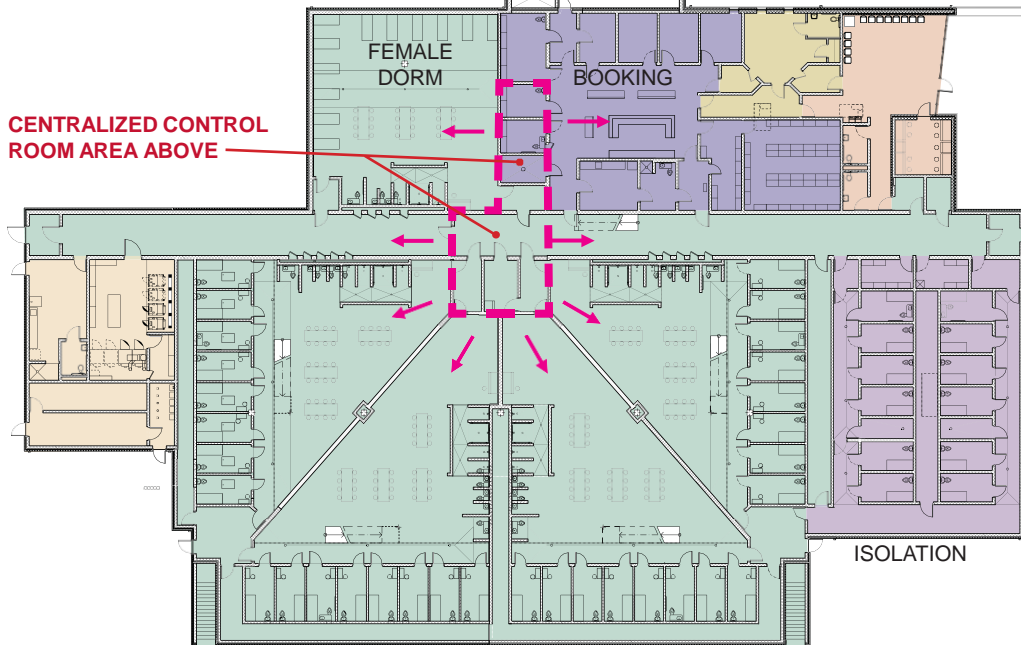
DETENTION CENTER SIZE:
40,400 SF

BED COUNT:
128 Males Beds
24 Female Beds
12 Isolation

164 TOTAL

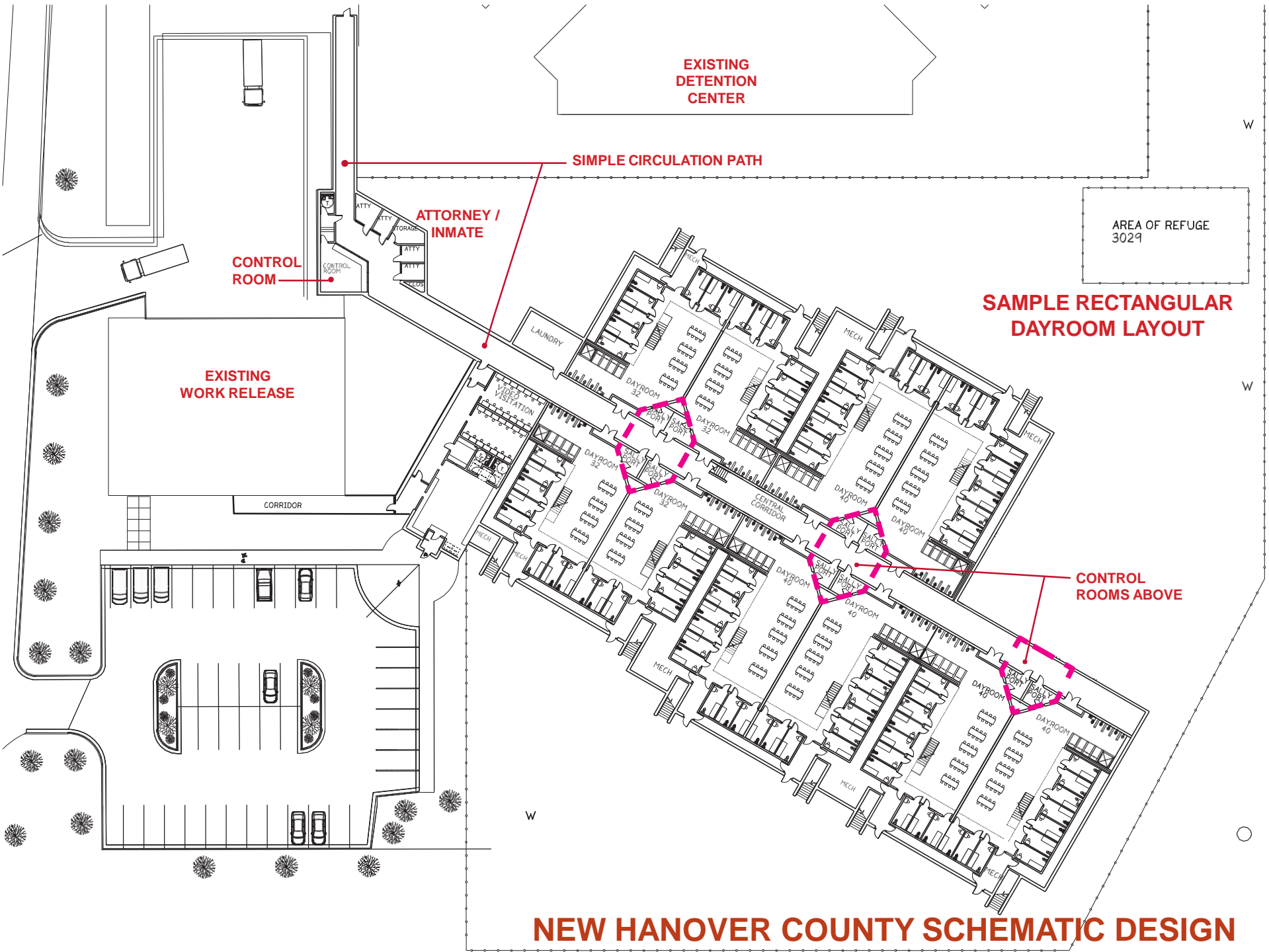
LAW ENFORCEMENT CENTER SIZE:
11,000 SF

CENTRALIZED CONTROL ROOM AREA ABOVE



ALEXANDER COUNTY LAW ENFORCEMENT & DETENTION CENTER

HEMPHILL - RANDEL ASSOCIATES



NEW HANOVER COUNTY SCHEMATIC DESIGN

HEMPHILL - RANDEL ASSOCIATES

SAMPLE DETENTION CENTER PROJECT OUTCOMES

Project	Square Feet	Master Planned for	No. of Beds	Budget	Bid Cost	Total of all Change Orders	Change Order % of Bid	Final Cost per 2021 SF
Burke County Jail	71,000 SF	408 beds	264 beds	\$21,900,000	\$21,800,000	-\$149,000	-0.68%	\$360
Chatham	64,150 SF	320 beds	160 beds	\$13,500,000	\$13,500,000	\$678,000	4.99%	\$310
Wilkes	58,100 SF	384 beds	256 beds	\$11,000,000	\$10,900,000	\$233,904	2.20%	\$290
Alexander	51,400 SF	324 beds	164 beds	\$10,440,000	\$9,470,000	-\$976,000	-11.90%	\$260
Ashe	63,800 SF	204 beds	165 beds	\$12,800,000	\$12,900,000	\$320,040	2.48%	\$330



WATAUGA COUNTY JAIL & LAW ENFORCEMENT CENTER



BRUNSWICK COUNTY JAIL & LAW ENFORCEMENT CENTER



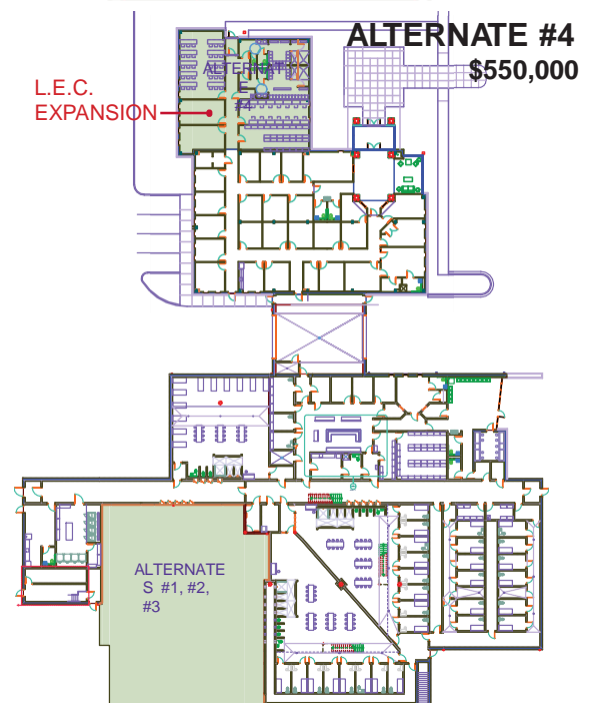
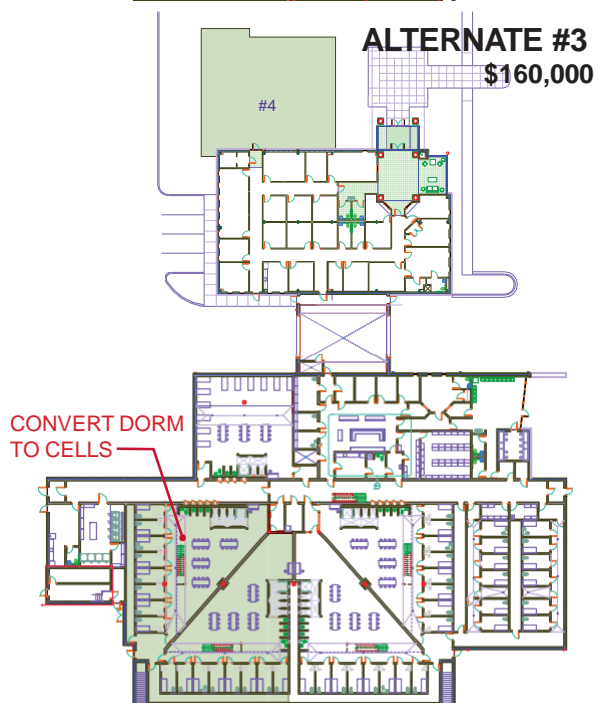
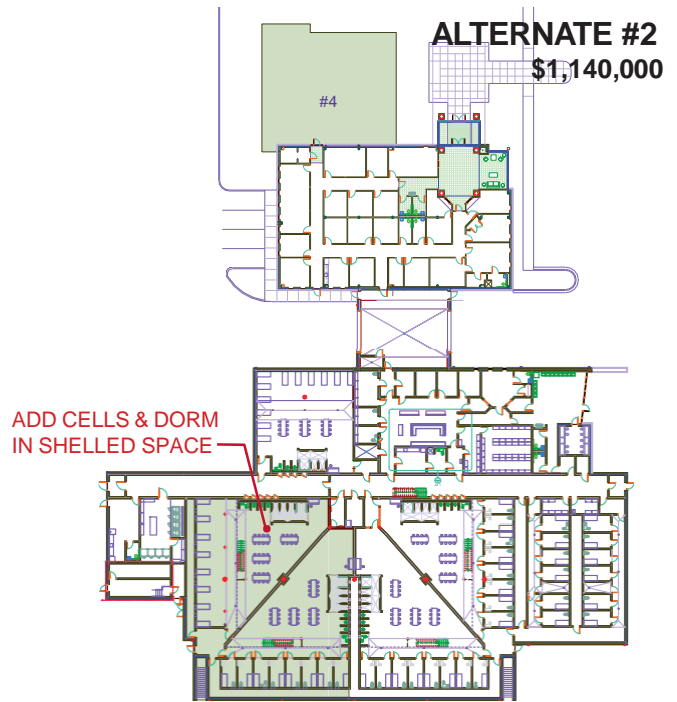
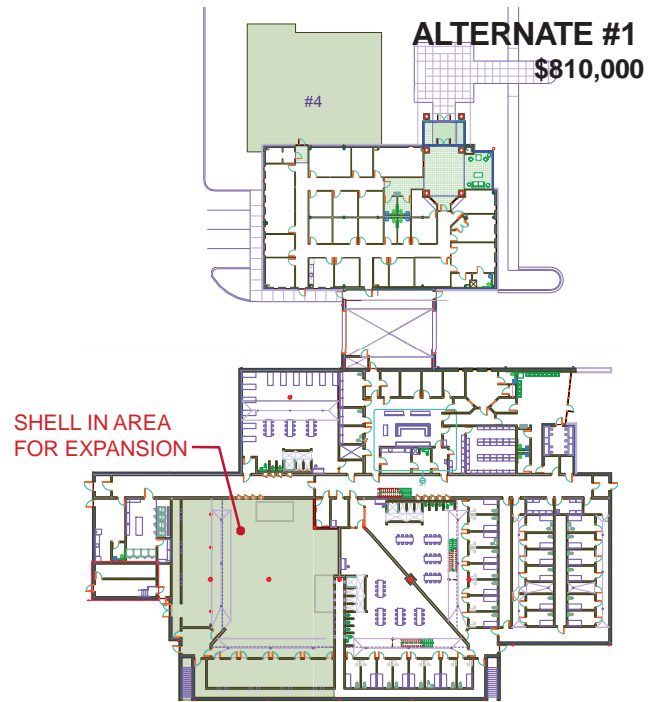
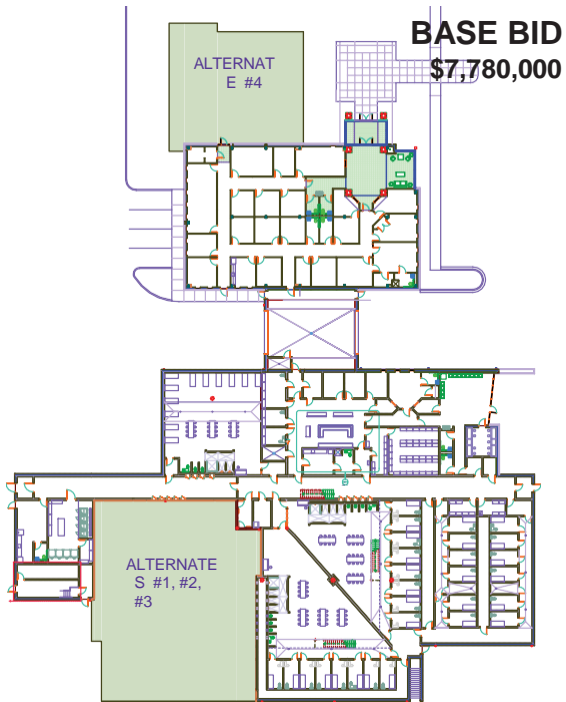
ALEXANDER COUNTY JAIL & LAW ENFORCEMENT CENTER



ASHE COUNTY JAIL & LAW ENFORCEMENT CENTER



NEW HANOVER COUNTY JAIL EXPANSION



**ALEXANDER COUNTY
REMOTE SITE
OPTIONS & COSTS**

TOTAL BUDGET
\$10,440,000



LAW ENFORCEMENT CENTER	14,600 SF
DETENTION CENTER PHASE 1	43,350 SF
DETENTION CENTER PHASE 2	47,750 SF
ADMINISTRATION BUILDING	35,400 SF
KITCHEN / CAFE EXPANSION AND RENOVATION	15,000 SF
D.S.S. BUILDING ADDITION	15,500 SF
HEALTH BUILDING MECHANICAL RENOVATIONS	21,800 SF
TOTAL AREA	193,400 SF

BRUNSWICK COUNTY CAMPUS

HEMPHILL - RANDEL ASSOCIATES

HRA REPEAT WORK CLIENTELE

ALLEGHANY COUNTY

- LAW ENFORCEMENT & DETENTION CENTER
- ALLEGHANY COUNTY GROUP HOMES
- HEALTH DEPARTMENT
- ADMINISTRATION BUILDING
- HISTORIC COURTHOUSE RENOVATIONS
- COMMUNITY COLLEGE & BUSINESS INCUBATOR
- ALLEGHANY COUNTY LIBRARY
- COURTROOM #2
- COURTHOUSE EARTHQUAKE REPAIRS
- + HALF DOZEN BUILDING STUDIES / EVALUATIONS



WATAUGA COUNTY

- LAW ENFORCEMENT & DETENTION CENTER
- 911 CALL CENTER
- COURTHOUSE EXPANSION & MAIN COURTROOM RENOVATION
- COURTROOM #2 INTERIOR RENOVATIONS



BURKE COUNTY

- DETENTION CENTER
- COURTHOUSE (POSTPONED)
- REGIONAL SUBSTANCE ABUSE TREATMENT CENTER



BUILDING PROGRAM DEVELOPMENT

The program development process will address these fundamental questions:

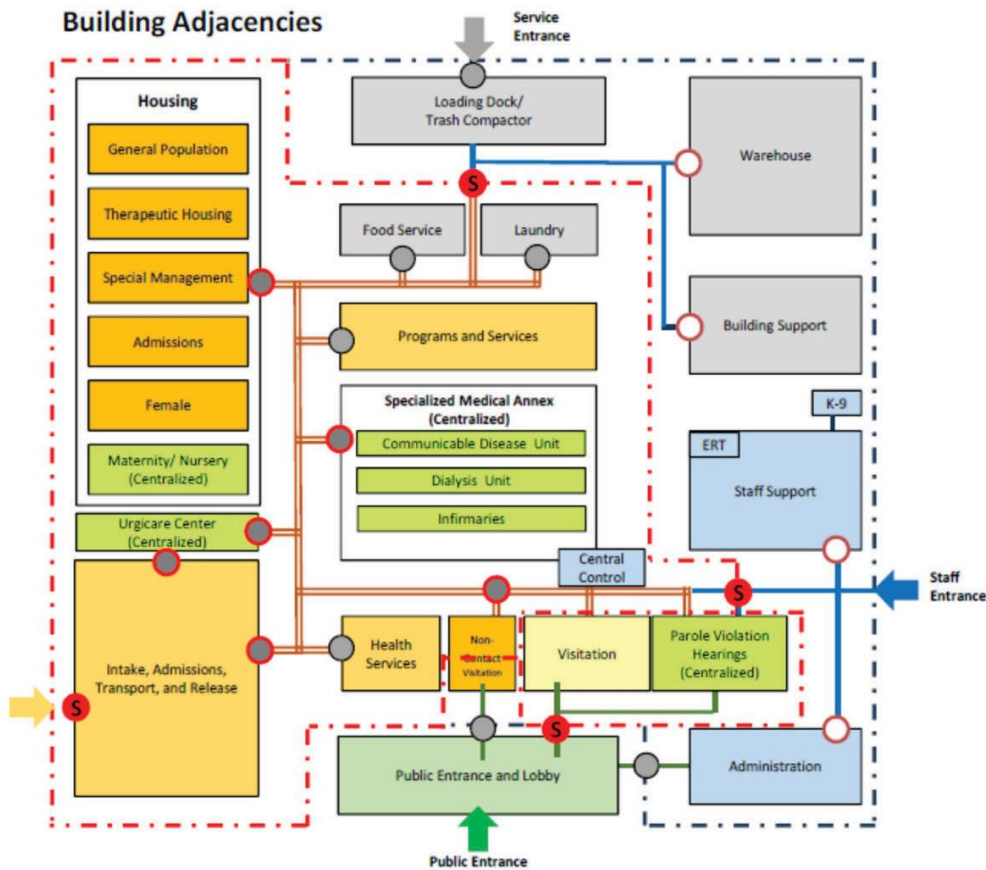
- How big should the spaces be?
- How will this expansion impact the overall jail operations?
- How will emerging technology impact operational needs?
- How will emerging management structures impact space needs?
- Should future expansion be anticipated and when will it be needed?



JUSTICE PLANNERS

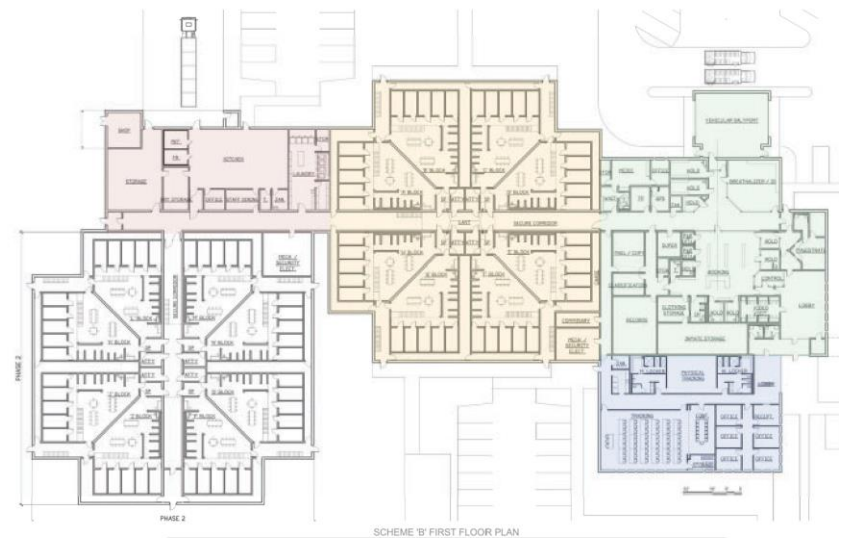
HEMPHILL - RANDEL ASSOCIATES

BUILDING PROGRAM DEVELOPMENT



WILL CLEARLY DEFINE:

- T functional adjacencies
- T security envelopes and separations
- T traffic flows



JUSTICE PLANNERS

HEMPHILL - RANDEL ASSOCIATES

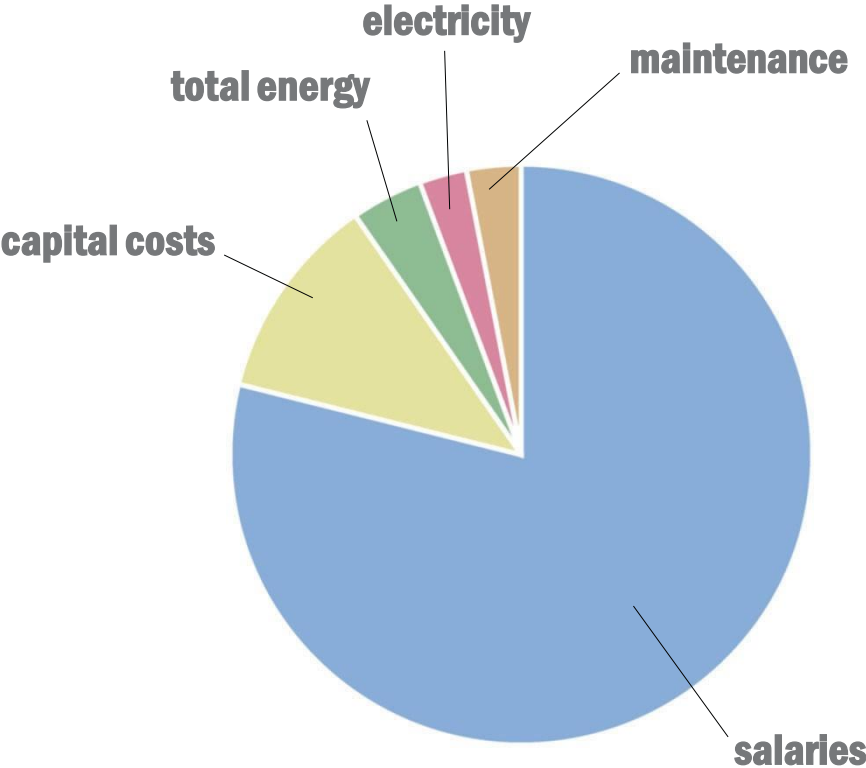
OPERATIONAL COSTS

ESTABLISH RELATIVE STAFFING NEEDS

Determining the projected staffing requirements is a pivotal task when estimating future costing since staffing represents 70% -80% of a county correctional center’s annual operating budget.

There are several key determinants of the ultimate staffing required:

- Size of facility
- Split versus consolidated facilities
- Nature of housing, housing density and inmate supervision approach
- Level of programs, services and movement concepts
- Support services provided (food service, laundry, etc.)



TRANSITION / ACTIVATION

A new addition can have a great impact on the total operations of a jail.

Managed & provided Transition/Activation training for the National Institute of Corrections.

We can provide a full training to your transition team on the transition/ activation process and will assist them throughout the process with:

- Transition Overview
- Managing Change
- Construction Overview
- Scheduling
- Staffing
- Scenario Development
- Policies & Procedures/ Post Orders
- Furniture, Fixtures, Equipment & Supplies
- Staff Training
- Inmate Orientation
- Move Logistics
- Post Transition Scenario Development

JUSTICE PLANNERS

HEMPHILL - RANDEL ASSOCIATES

Detention Center Planning

Working Together

EVERY JAIL HAS UNIQUE NEEDS AND REQUIREMENTS

Direct Supervision vs. Podular Remote Observation

- Staffing Challenges
 - Staff Turnover
 - Maintaining Adequate Number Trained Staff
- Direct Supervision More Staff Intensive Both In Number of Positions Required & Stress
- Every 24 / 7 Staff Position Saved Through Efficient Design Saves \$4,000,000+ Over 20 Year Period

Minimize Inmate Movement

- Inmate Movement Inside Facility Observed & Recorded 24 / 7
- Simple Clean Circulation Paths
- No Blind Spots
- Bring Services To Inmates

Safety of Staff, Inmates, and Public

- Fire Safety
- Ability To Move Inmates In An Emergency From One Smoke Compartment To Another & Maintain Control Is Key In An Urban Setting
- Emergency Power Backup
- Redundant Security Electronics

Master Plan For Future Expansion





Program

Working Together

Overall Security Review During Design

- Site Lines, 3D Walk Through
- Circulation
- Hands On Presentation of Door Hardware & Security Electronics
- Extend Existing Security Electronics Systems or Replace?
- Locations of All Cameras & Guard Tour Stations

SHOP DRAWING PHASE

- Review Doors and Hardware
- Review Security Electronics

TRAINING

- 40 Hours Security Electronics Hands-On Training
- Training is Recorded For Future Hiring

MASONRY vs. PRECAST CONCRETE OR PREFABRICATED STEEL CELLS



- Use local materials and labor to greatest extent possible to benefit local economy.
- Reinforced masonry construction with precast concrete floor and roof panels historically more budget friendly.
- Security walls in masonry construction are strategically planned, reinforced and grouted solid full height.
- Typically precast concrete cells and prefabricated steel cells add about 15% to the project budget.
- Majority of escapes are due to a failure to follow procedures.



SAFE ENVIRONMENT & EASY TO MAINTAIN FINISHES

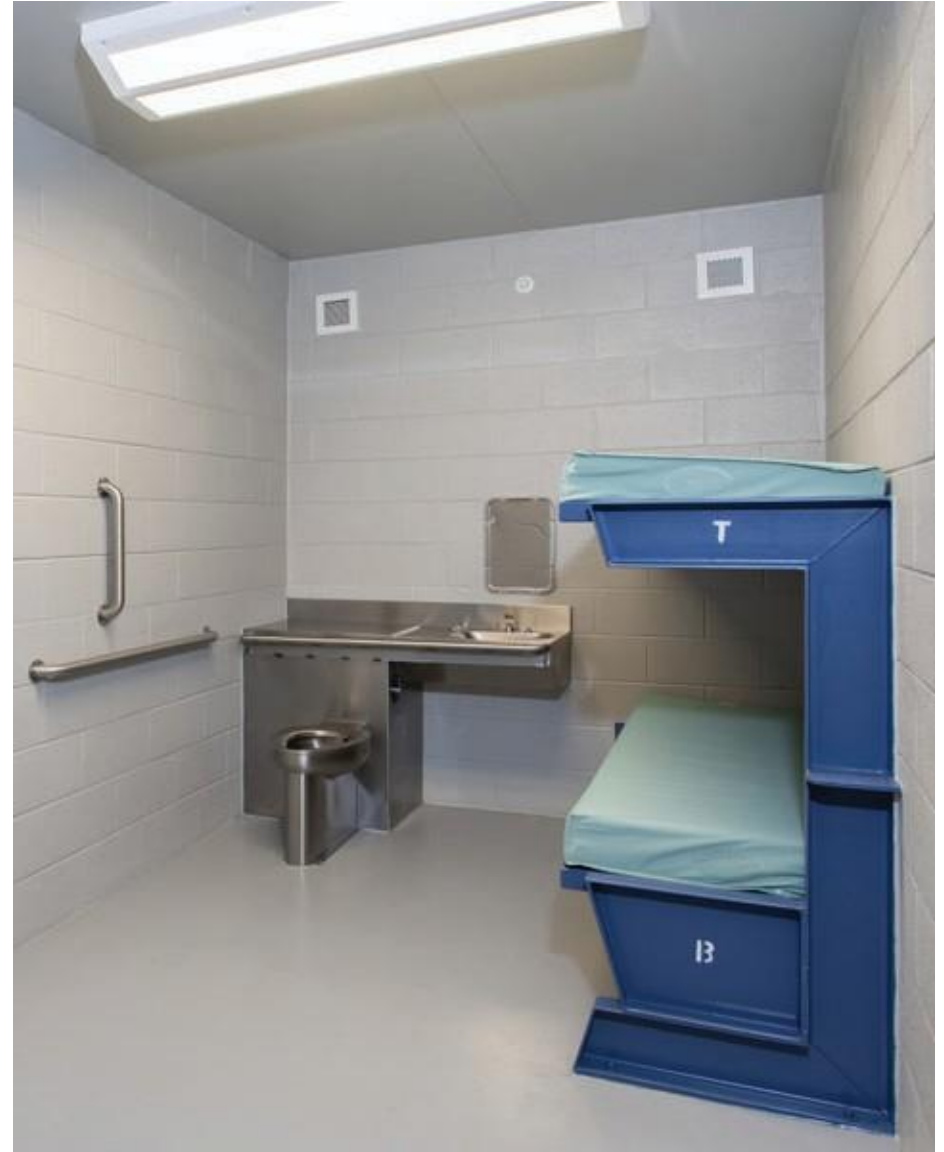
- CONTROL ROOM HAS UNOBSTRUCTED VIEW OF ENTIRE DAYROOM
- ANTI-MICROBIAL EPOXY WALL AND FLOOR COATINGS AT SHOWER AREA
- ENERGY EFFICIENT, DETENTION GRADE LED LIGHTING FIXTURES
- 4'-0" HIGH GUARD RAILS
- SOUND ABSORBING WALL PANELS FOR ACOUSTICAL COMFORT
- SLIP RESISTANT EPOXY FLOOR COATING

- ACCESS TO NATURAL LIGHT
- SPACE FOR INDOOR AND OUTDOOR EXERCISE



TYPICAL CHASE BEHIND CELLS

- EASY MAINTENANCE ACCESS
- MINIMIZES INMATE INTERACTION W/ MAINTENANCE PERSONNEL
- FACILITATES REGULAR MAINTENANCE
- PROVIDES ADDITIONAL LEVEL OF SECURITY

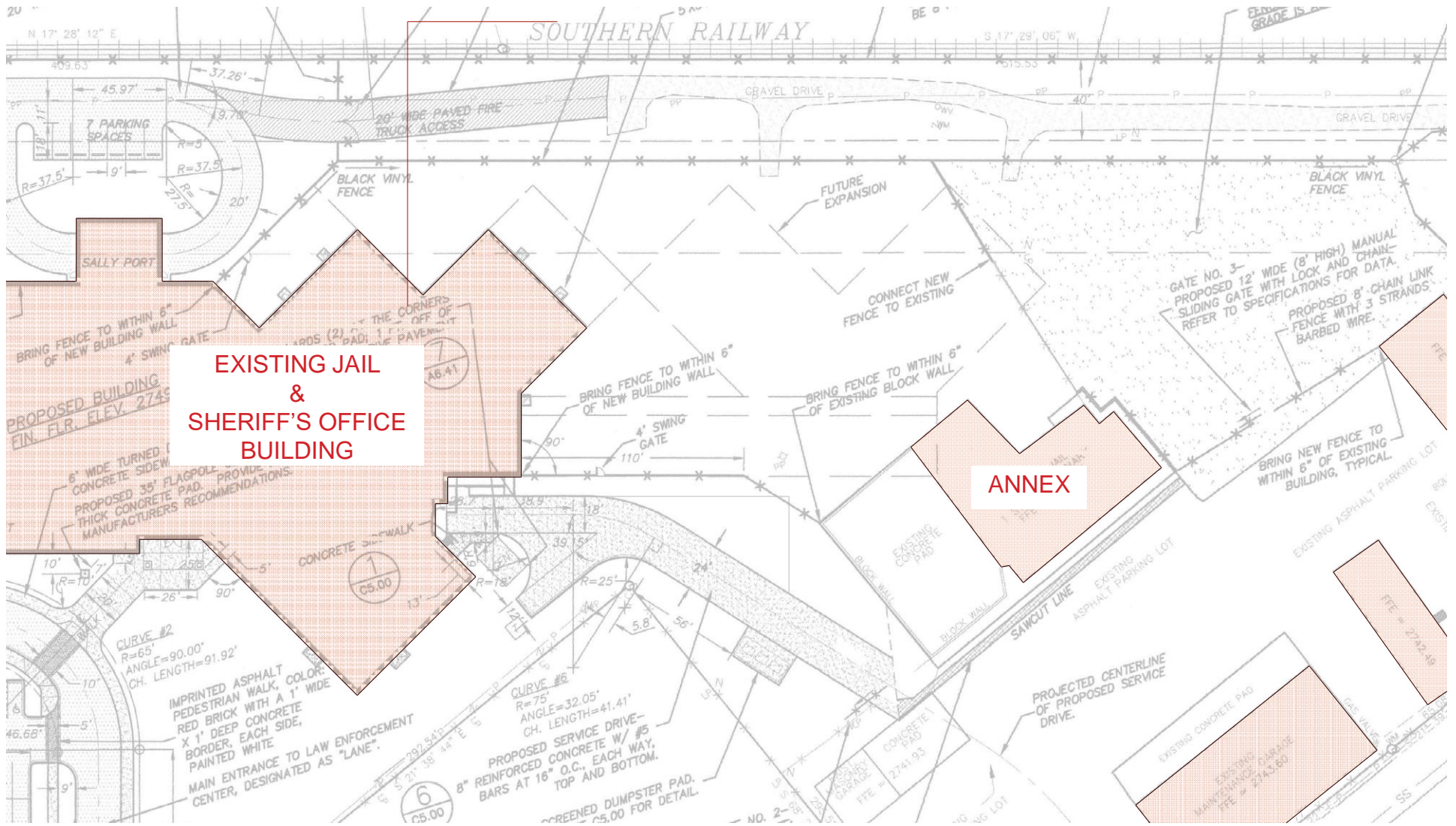


TYPICAL CELL DESIGN

- LIGATURE RESISTANT BUNK DESIGN
- LIGATURE RESISTANT GRAB BARS
- FLAT SURFACE SPRINKLER HEAD
- SMOKE DETECTOR CONCEALED IN EXHAUST
- CELL IN SLIGHTLY NEGATIVE PRESSURE & 100% EXHAUSTED TO THE OUTSIDE - HELPS REDUCE VIRUS SPREAD

HAYWOOD COUNTY DETENTION CENTER EXPANSION SAMPLE SCHEDULE

	2022								2023							2024			
	May	June	July	Aug	Sept	Oct	Nov	Dec	Jan	Feb	Mar	Apr	May	June	July	Sep	Oct	Nov	Dec
Notice to Proceed	█																		
Kickoff Meeting w/ Client	█	█																	
Project Programming	█	█	█																
SCHEMATIC DESIGN	█	█	█	█															
Preliminary Cost Estimate		█	█	█															
Meetings with Client		█	█	█															
Plan Review by NC DOI, DHSR, and Local			█	█	█														
DESIGN DEVELOPMENT			█	█	█	█	█												
Update Cost Estimate				█	█	█	█												
Meetings with Client					█	█	█	█											
Plan Review by NC DOI, DHSR, and Local						█	█	█	█	█									
CONSTRUCTION DOCUMENTS					█	█	█	█	█	█	█								
Update Cost Estimate										█	█								
Meetings with Client									█	█	█								
Plan Review by NC DOI, DHSR, and Local										█	█	█	█						
ADVERTISE FOR BIDS																			
Open Bids																			
Recommendation for Award																			
LGC Review & Approval																			
Award Contract																			
Construction Mobilization																			
CONSTRUCTION (16 Months)																			
Smoke Control Special Inspection																			
Final Inspections Local & DHSR																			
Staff Training																			
FFE Deliveries																			
MOVE IN (October 28, 2024)																			



HAYWOOD COUNTY DETENTION CENTER EXISTING SITE

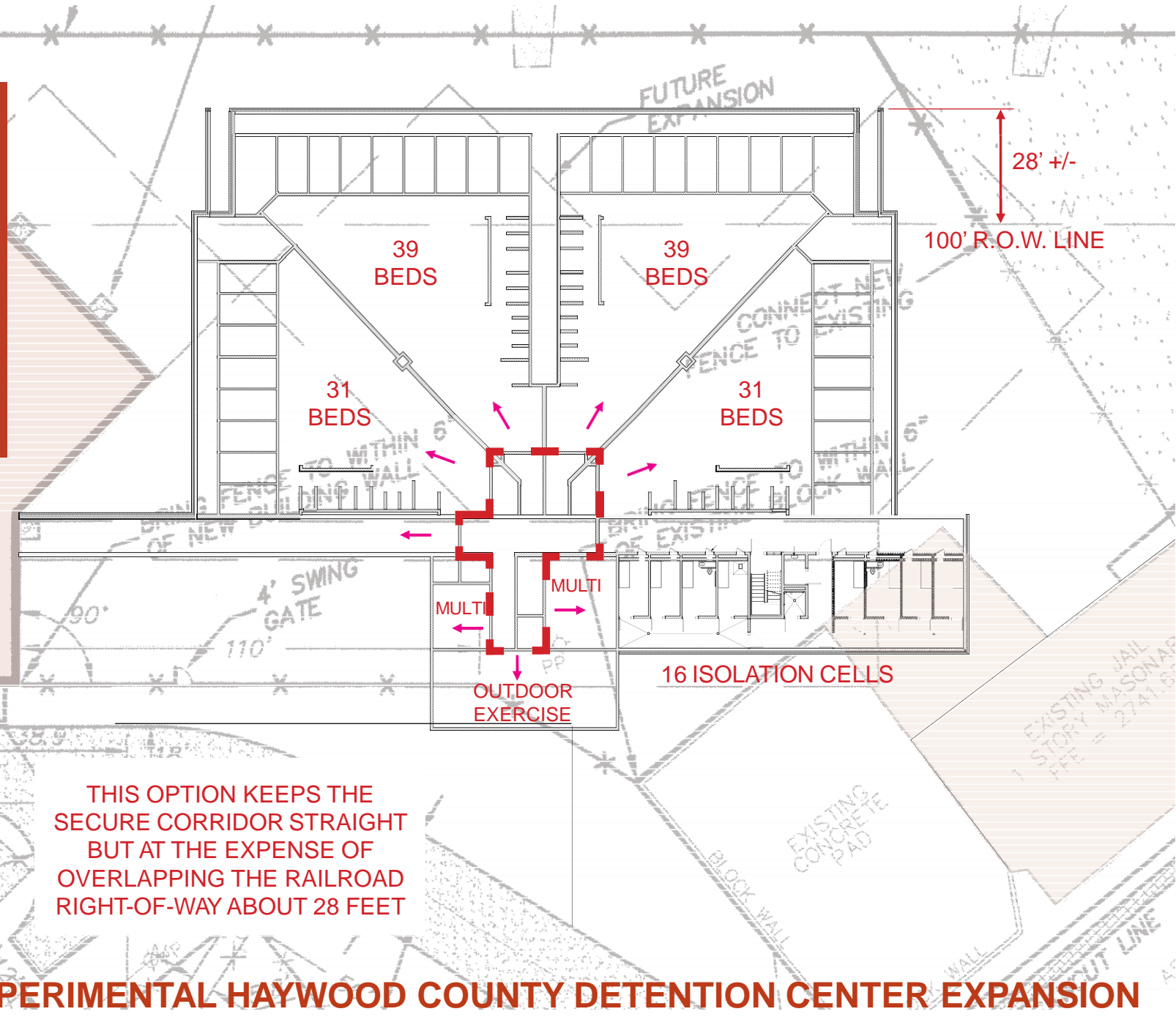
HEMPHILL - RANDEL ASSOCIATES

DETENTION CENTER SIZE:
31,600 SF

OUTDOOR EXERCISE
780 SF

BED COUNT:
140 General Population
16 Isolation

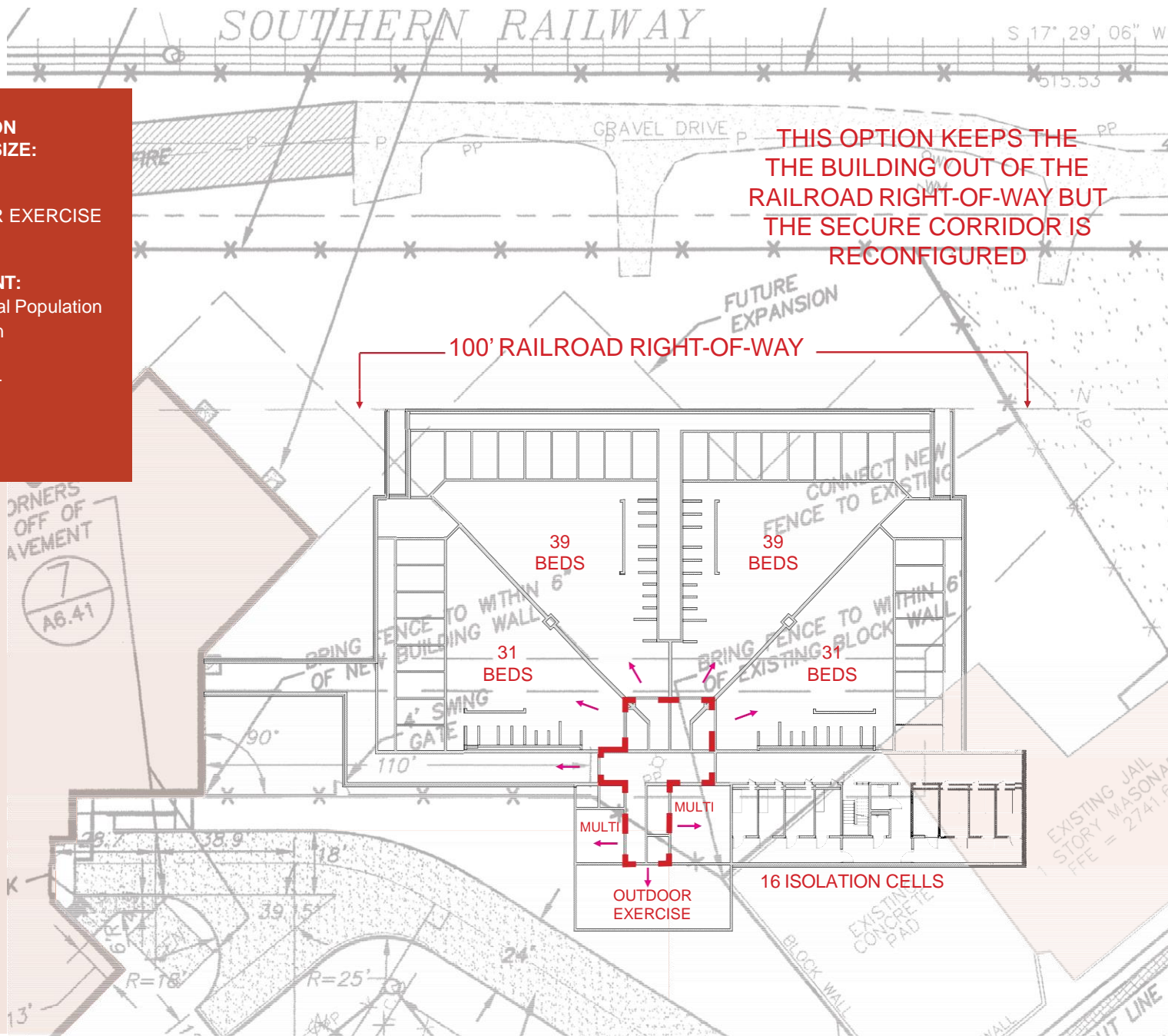
156 TOTAL



THIS OPTION KEEPS THE SECURE CORRIDOR STRAIGHT BUT AT THE EXPENSE OF OVERLAPPING THE RAILROAD RIGHT-OF-WAY ABOUT 28 FEET

EXPERIMENTAL HAYWOOD COUNTY DETENTION CENTER EXPANSION

HEMPHILL - RANDEL ASSOCIATES



DETTENTION CENTER SIZE:
32,300 SF

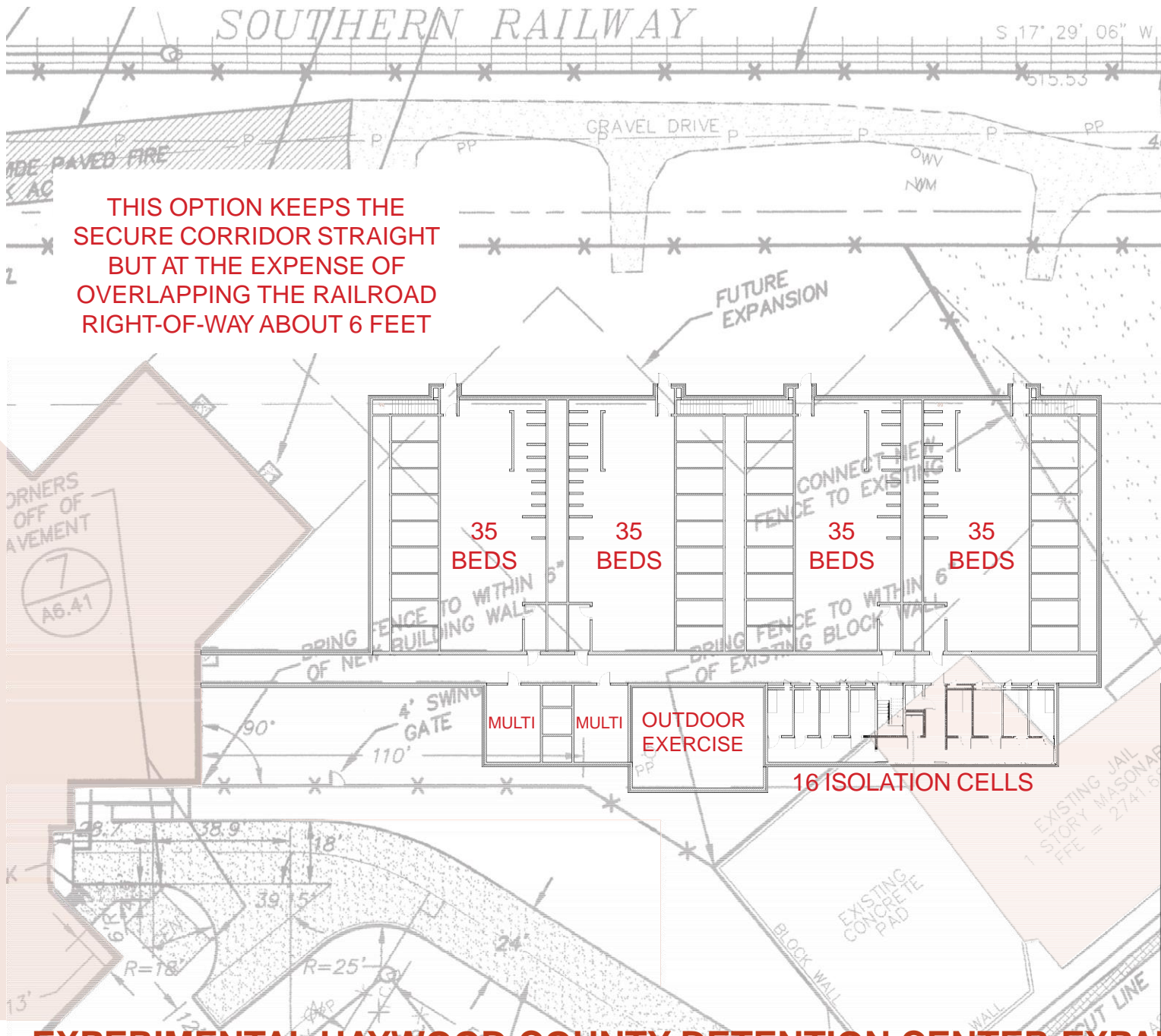
OUTDOOR EXERCISE
780 SF

BED COUNT:
140 General Population
16 Isolation
156 TOTAL

THIS OPTION KEEPS THE BUILDING OUT OF THE RAILROAD RIGHT-OF-WAY BUT THE SECURE CORRIDOR IS RECONFIGURED

100' RAILROAD RIGHT-OF-WAY

EXPERIMENTAL HAYWOOD COUNTY DETENTION CENTER EXPANSION



THIS OPTION KEEPS THE SECURE CORRIDOR STRAIGHT BUT AT THE EXPENSE OF OVERLAPPING THE RAILROAD RIGHT-OF-WAY ABOUT 6 FEET

EXPERIMENTAL HAYWOOD COUNTY DETENTION CENTER EXPANSION