Mental Health Design 101

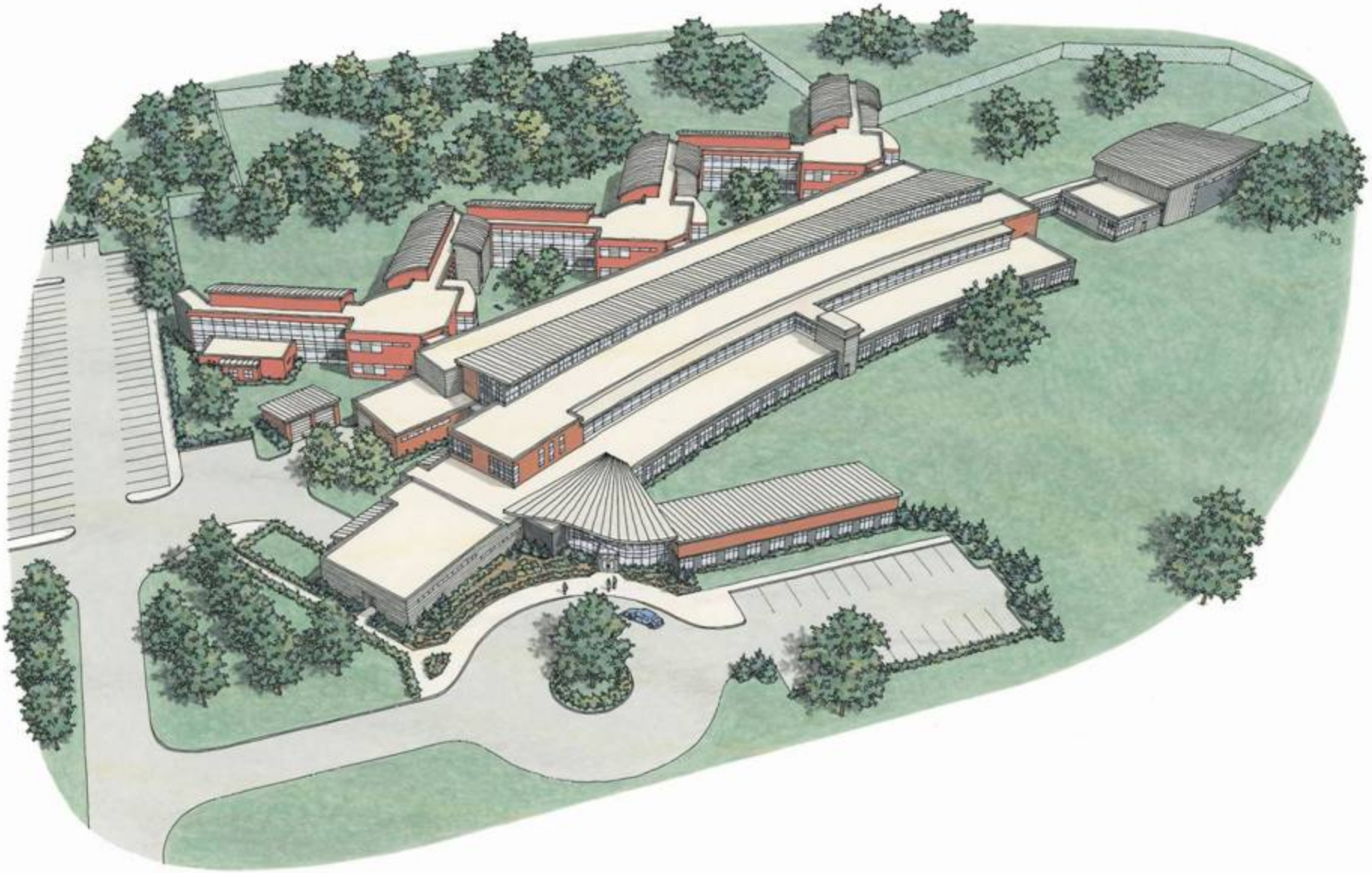
AIA Academy of Architecture for Health

September 17, 2013

architecture+

Troy, New York

St. Joseph’s Healthcare, London



St. Josephs Healthcare, St. Thomas, Ontario

CMHS

Mental Health 101: Class Poll Question 1

How many Mental Health projects have you already worked on?

1

2

3

4-6

6 or more.

Mental Health 101: Class Poll Question 2

The largest project on which I've worked is:
16 beds
24 beds
50 beds
150 beds
300 beds or more

Innovations in Mental Health: Treatment and Research

Social Sciences and Epidemiology

Pycho-pharmacology

Psych-social Rehabilitation

Recovery

Evidence-based Practice

ECT (again)

Implants (e.g. Vagal Nerve Stimulation)

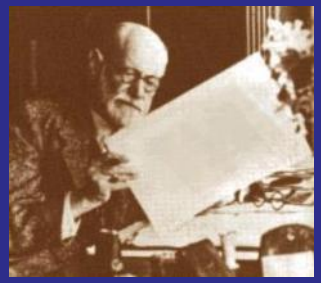
Imaging

Transcranial Magnetic Stimulation

Genetics and Genomics

Neurology and Neurosciences

We are witnessing the beginning of a movement from palliative care to active medical/biological/neurological treatment and intervention.



The Neuro-Psychiatric Convergence: Implications

Co-located Emergency Departments

Increased Emphasis on Early Diagnosis and Treatment

Shorter ALOS

Acknowledged and Treated Co-morbidities

Robust Community Supports and ICM

Continuity of Care

On-Site Ambulatory and Outpatient Services

On-Site Access to Primary Care Services

Increased Interventional Procedure Spaces

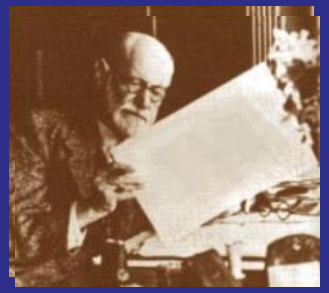
Access to imaging Facilities (fMRI, CT, PET)

Co-located Research and Medical Education

Integration with Major Medical Centers

Flexibility

Whatever happened to TB asylums?

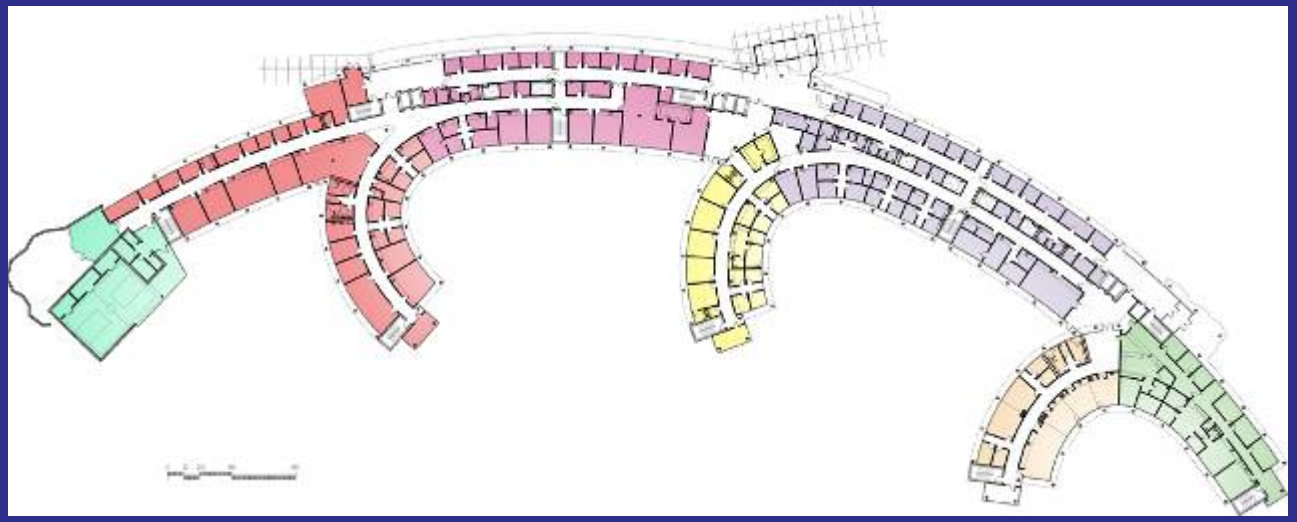


Innovations in Mental Health: Flexibility

Embedded Reuse Options

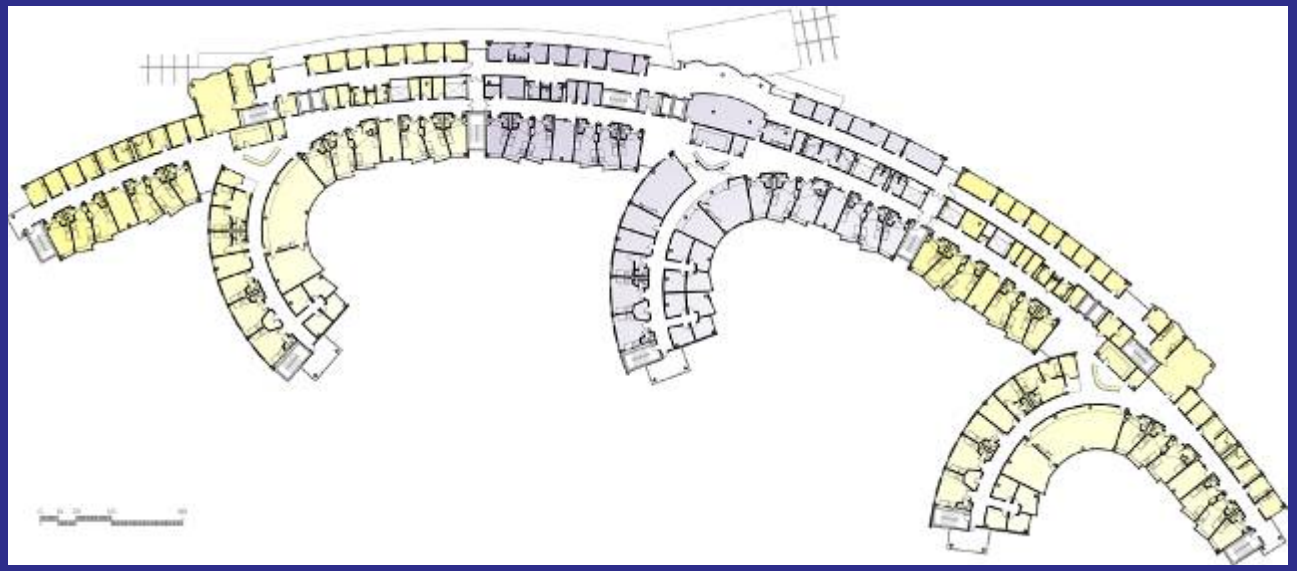
Flex Beds

Flexible Floor Plate



Anticipate Growth

Template Units



Decreasing Length of Stay: Implications

Greater Instability

Larger Need to Manage the Milieu

Increased Need to Provide Supports for Patient and Staff Safety and Security

Increased Value of Sub-Units & Direct Observation

Thresholds for Patient Mobility Are More Critical

Less Opportunity to Be Off-Unit = Less Space Off-Unit

Increased Fragility/Brittleness = Greater Value for Secure Mobility

Less Time Requires Greater Opportunity for Clinical Interventions and More Staff

Flexibility to Accommodate Longer LOS Now and Shorter Later

The Patient as Human

Implications for Medicine and Design

Solve the Fundamental Human Problem…

Then Focus on the Illness

Secondary Symptomology

Making Well vs. Making Sick

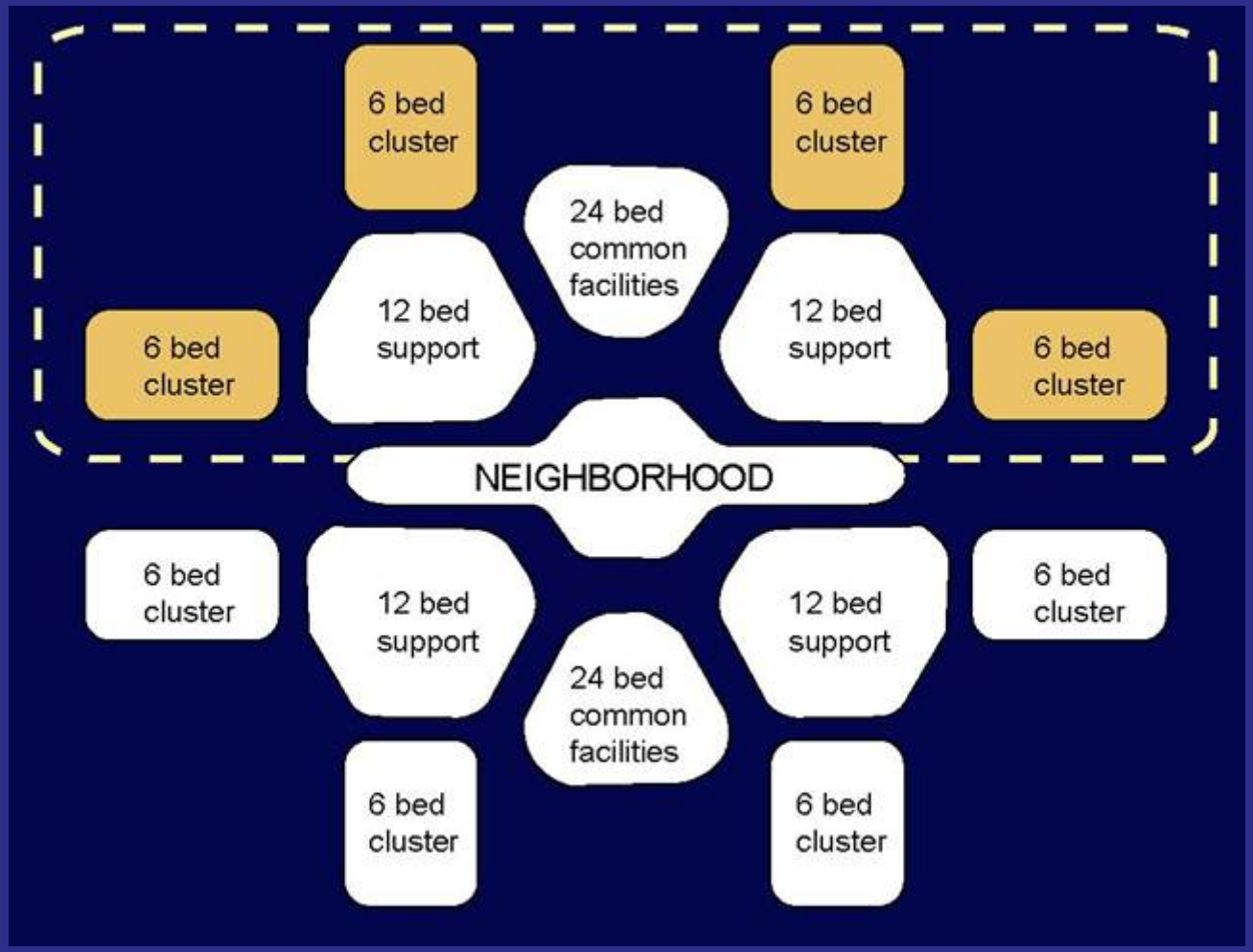
(the non-iatrogenic setting)

Relationship between therapeutic program & environment

Milieu Therapy

Innovations in Mental Health: Unit Size

6-8 beds
lowers stress for patients



Innovations in Mental Health: Unit Size

6-8 beds
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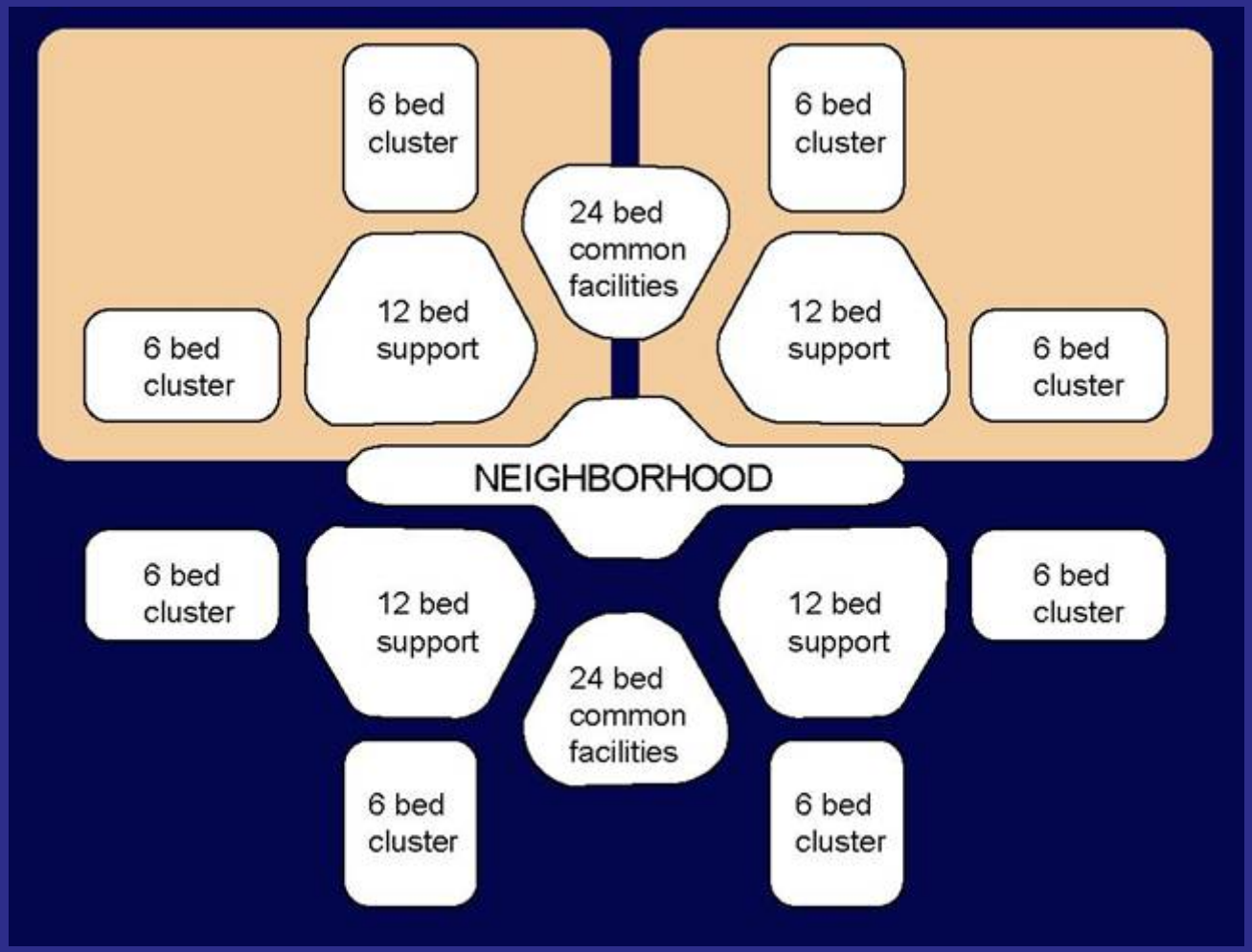
12-16 beds
builds diverse clinical team



Innovations in Mental Health: Unit Size

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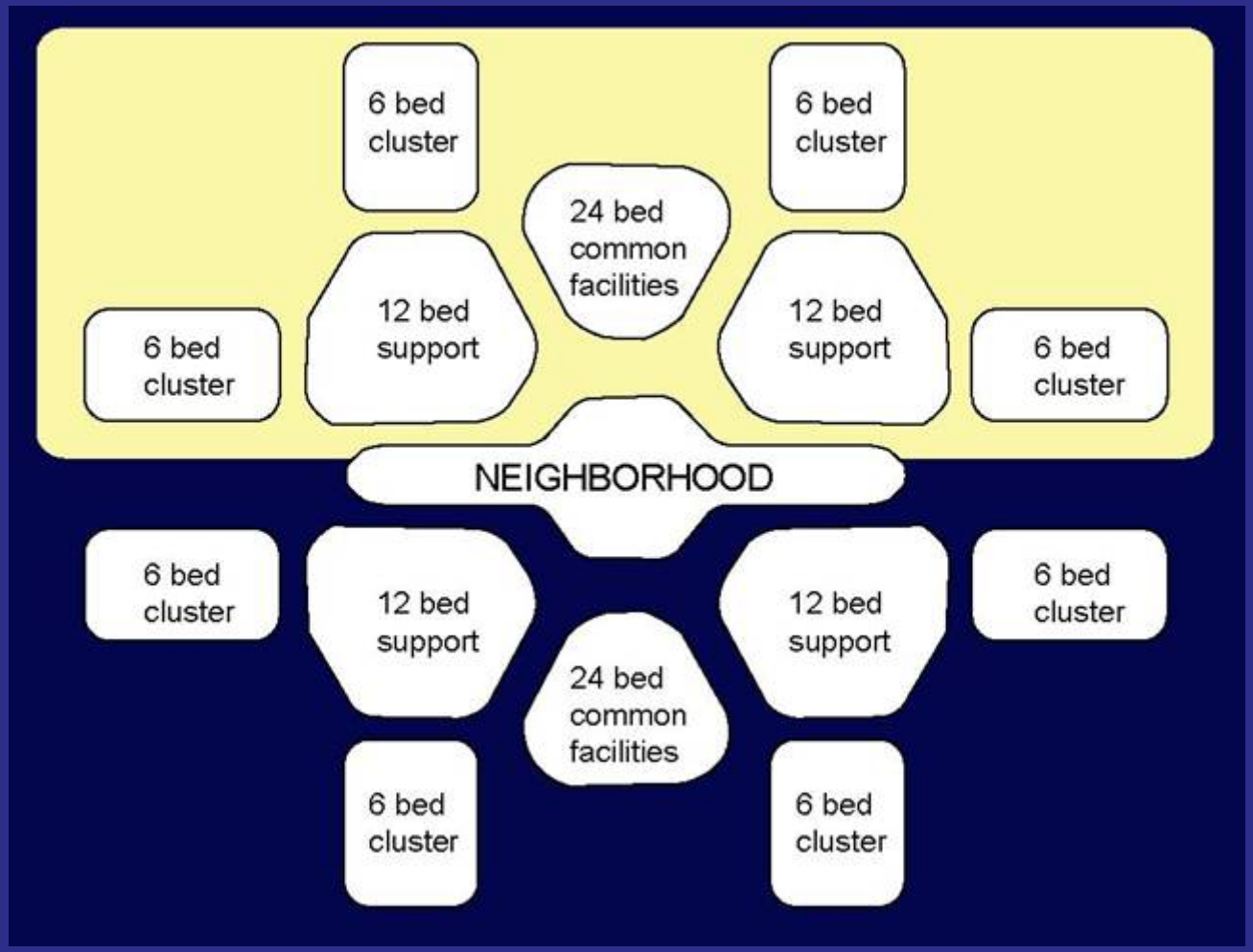
24+ beds
affordable nighttime post-position staffing



Innovations in Mental Health: Unit Size

6-8 beds
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12-16 beds
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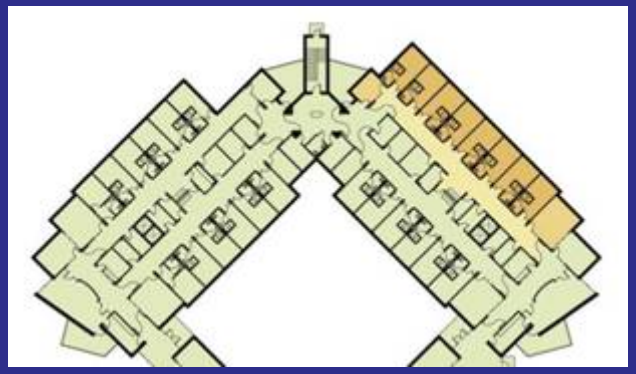
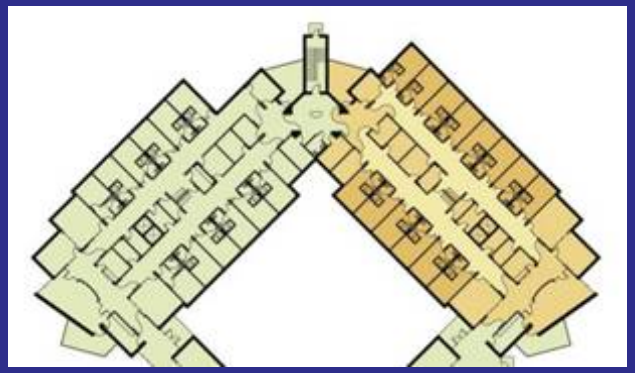
affordable nighttime post-position staffing

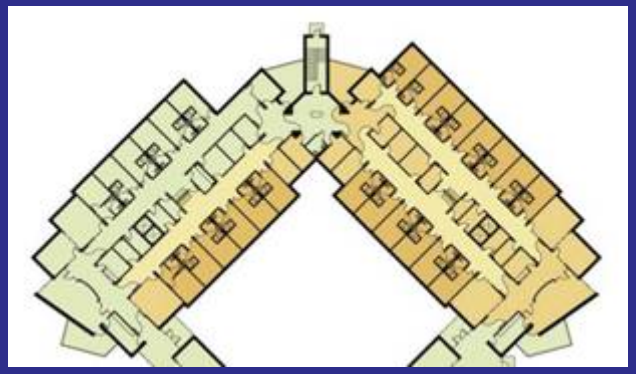
Design should accommodate two and preferably three of these patterns.



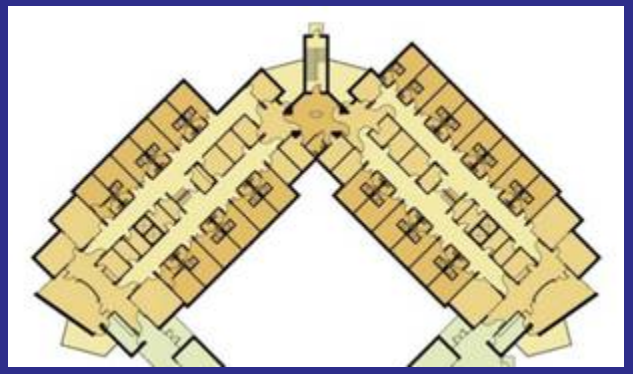
6-8 beds



12-16 beds

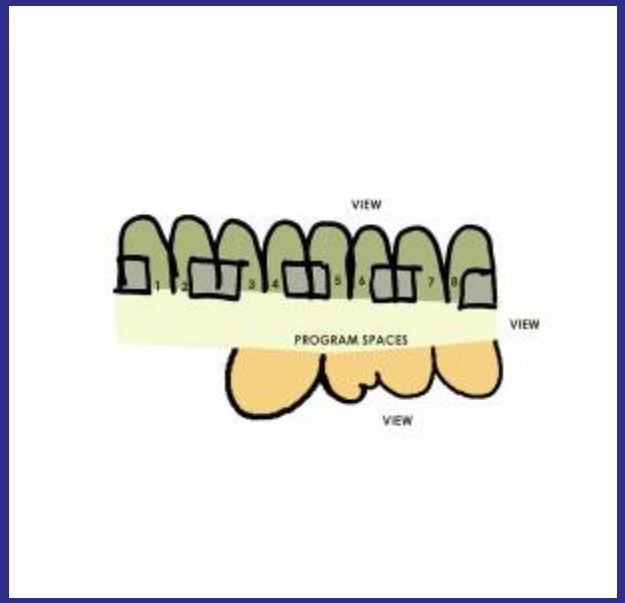


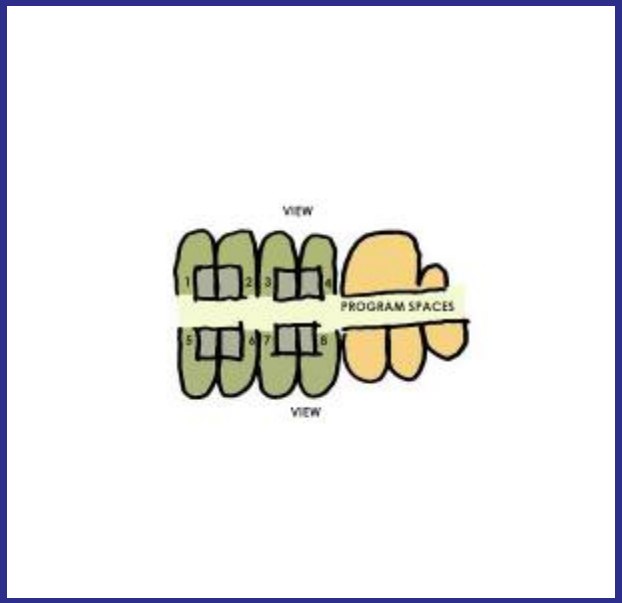
Flex 18-24 beds

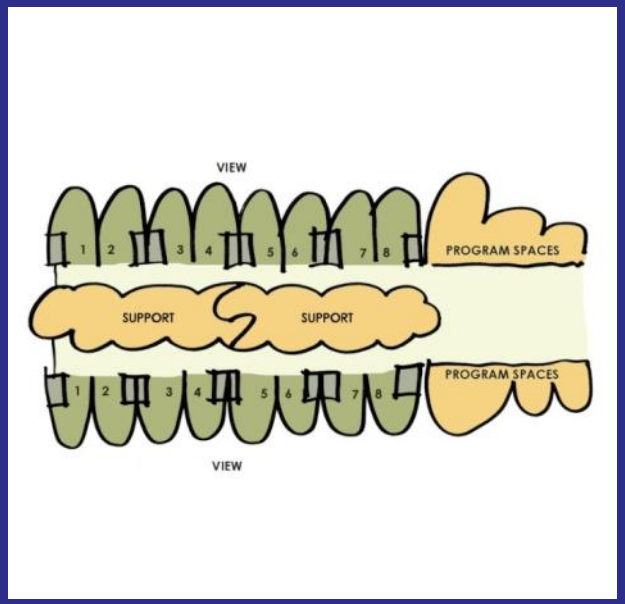


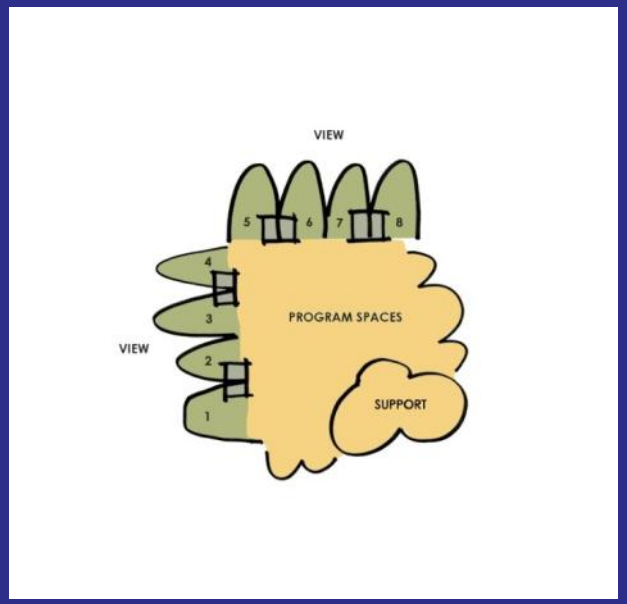
24-32 beds

Innovations in Mental Health: Unit Character/Configuration









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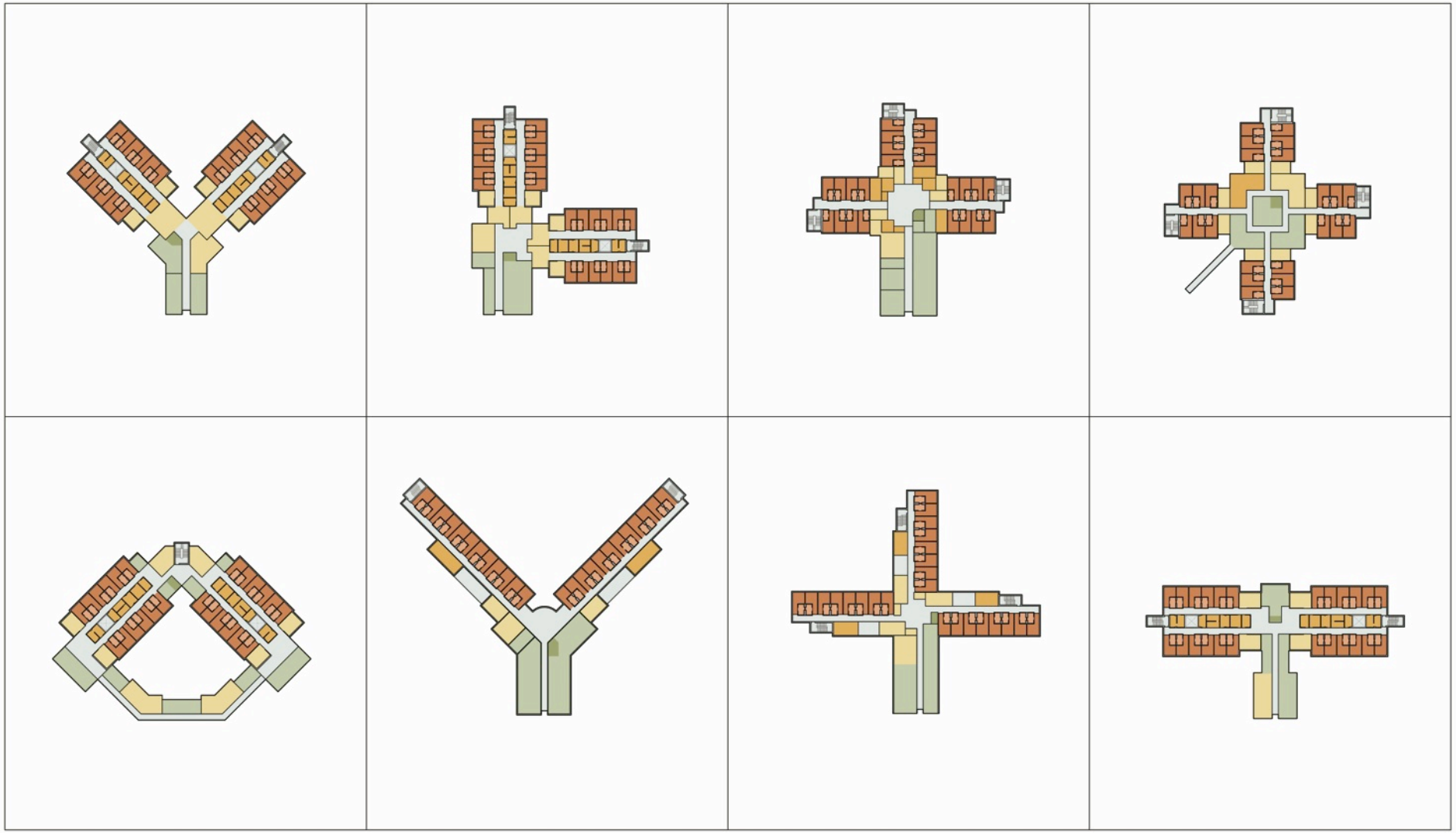

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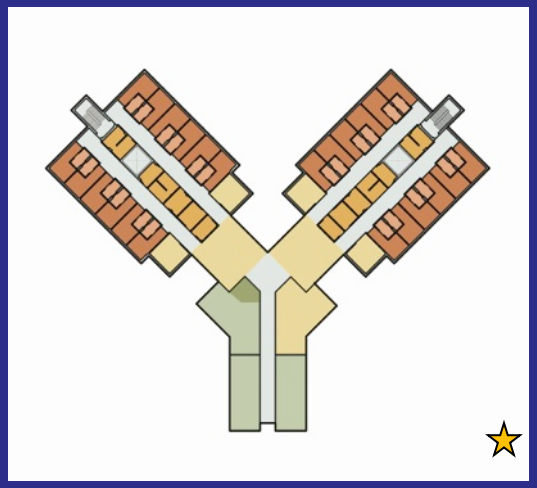
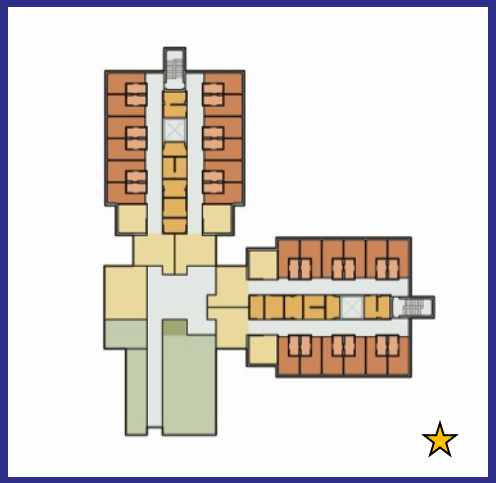
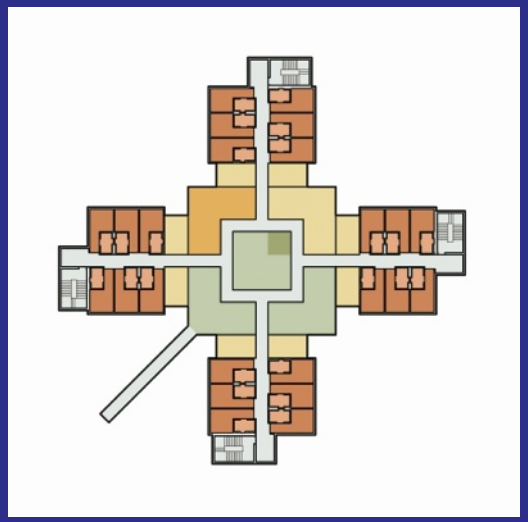
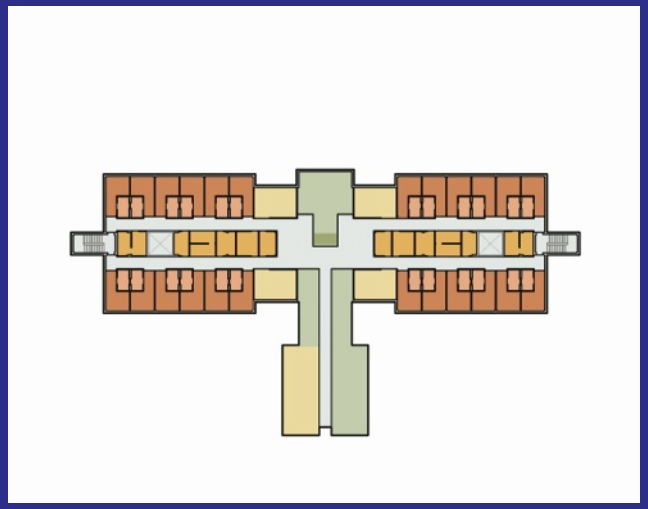
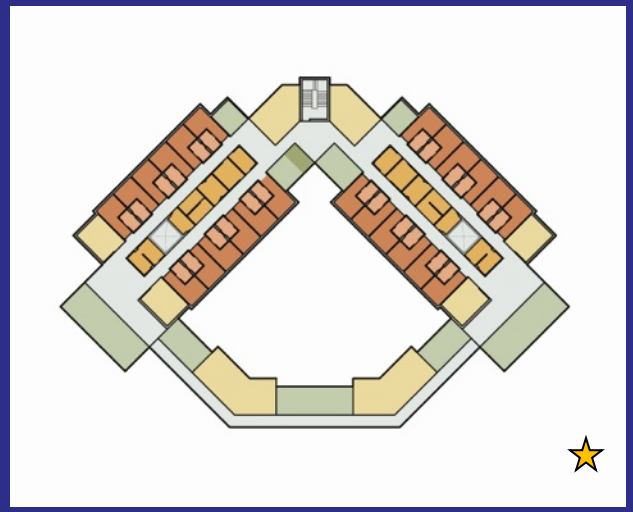




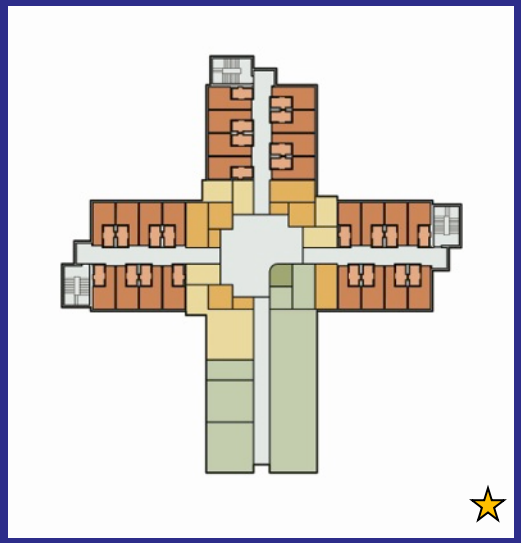


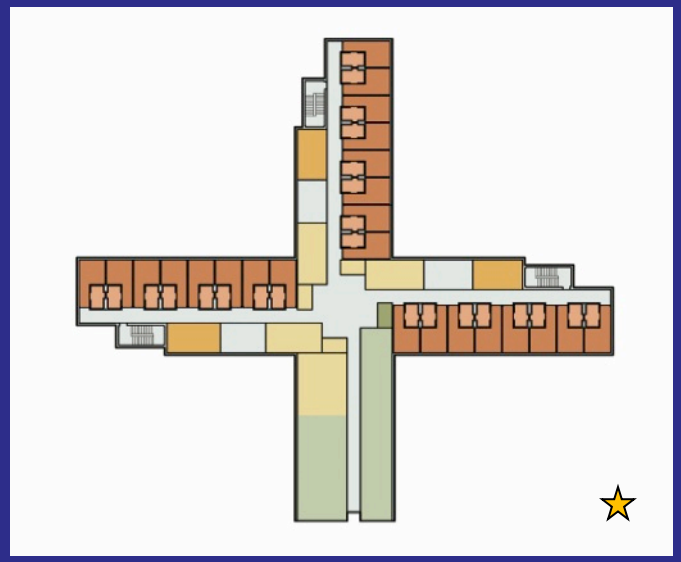




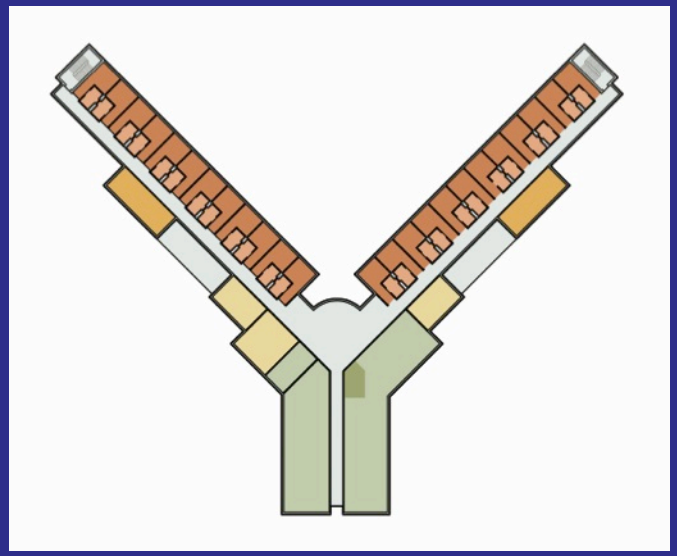
6-Bed Sub-Cluster

Innovations in Mental Health: Unit Character/Configuration





8-Bed Sub-cluster

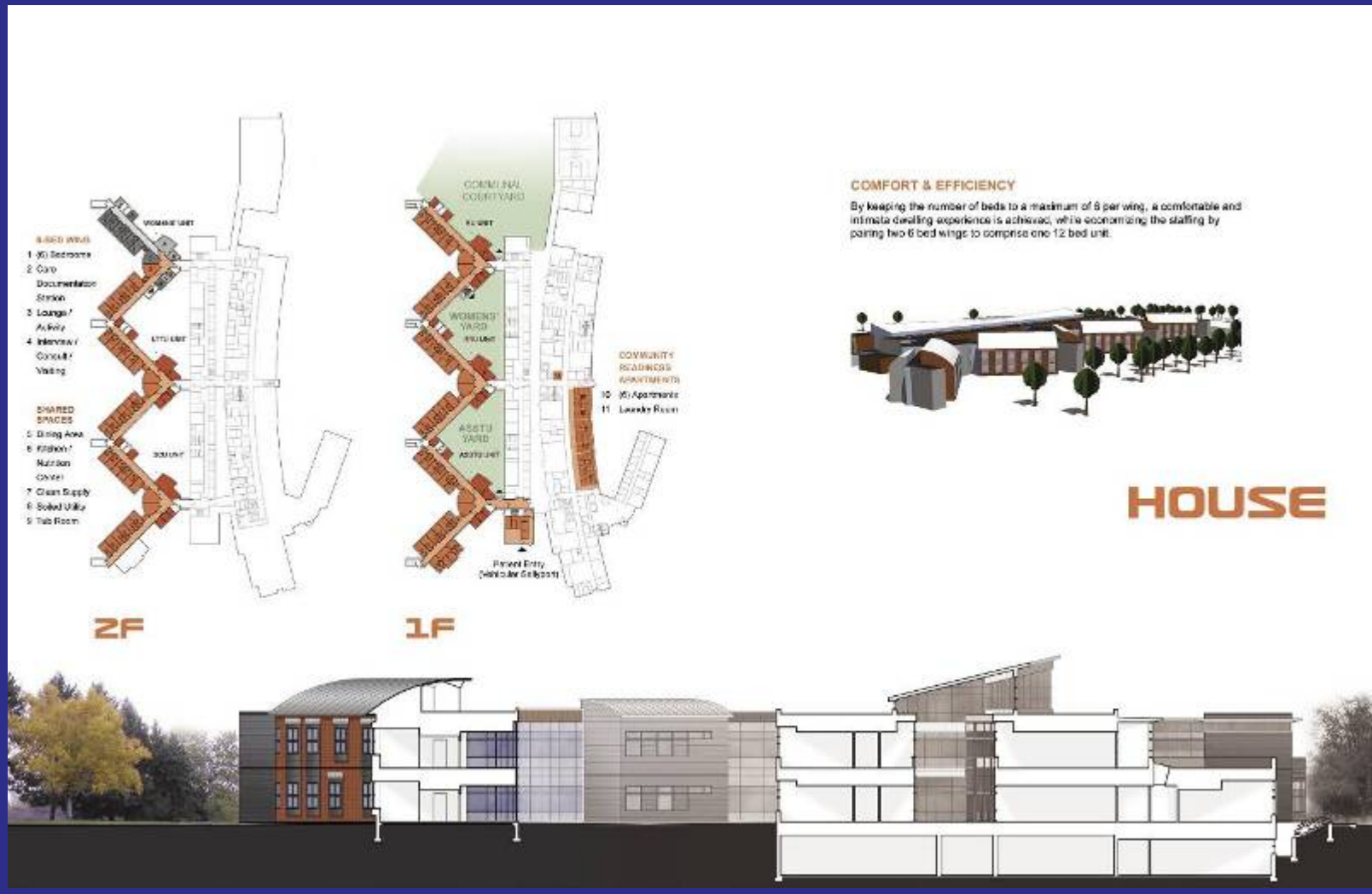


12-Bed Sub-cluster

Innovations in Mental Health: Unit Character/Configuration

Innovations in Mental Health: Environment of Care

House



Innovations in Mental Health: Environment of Care

House

Neighborhood

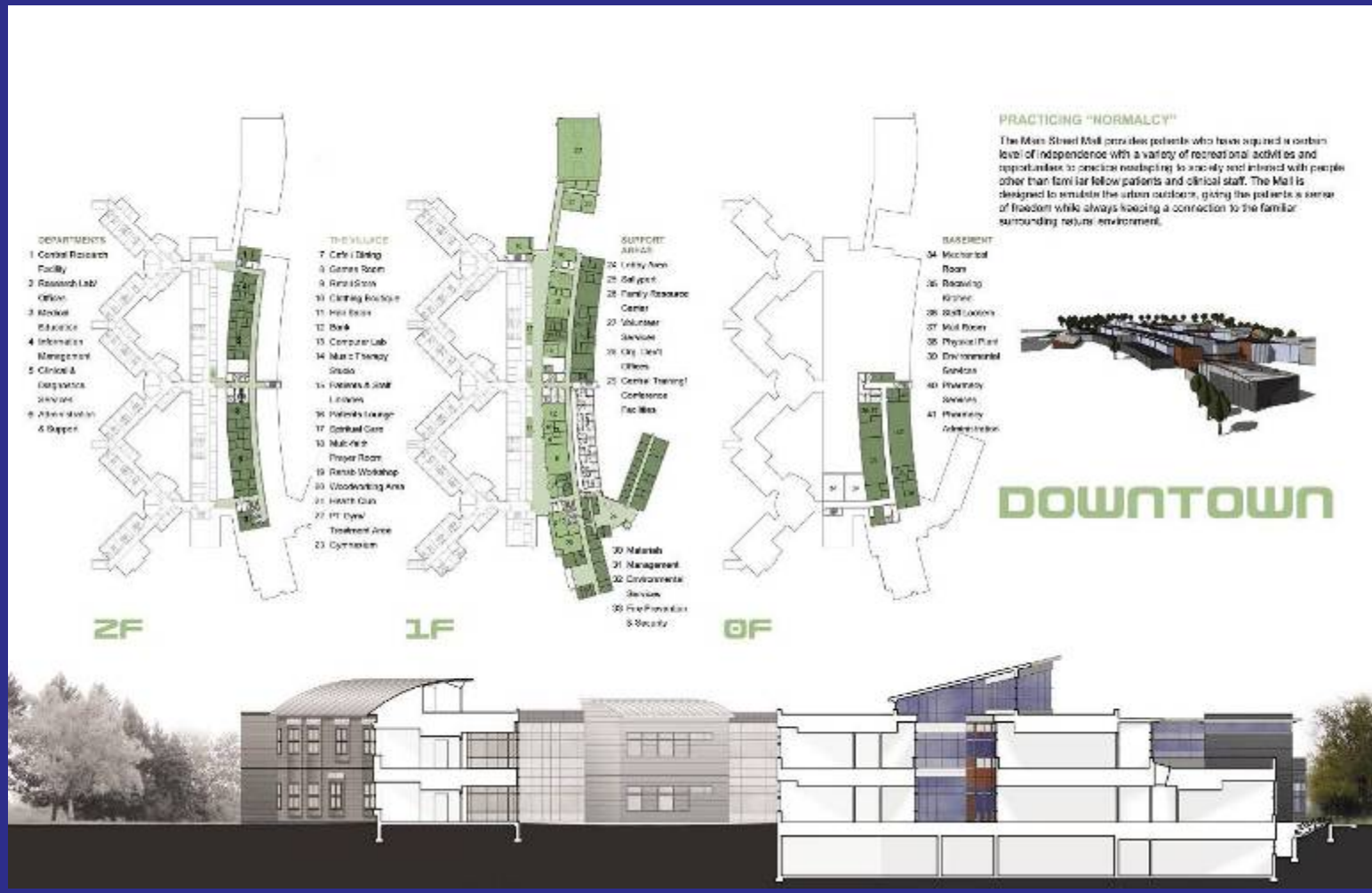
Innovations in Mental Health: Environment of Care

House

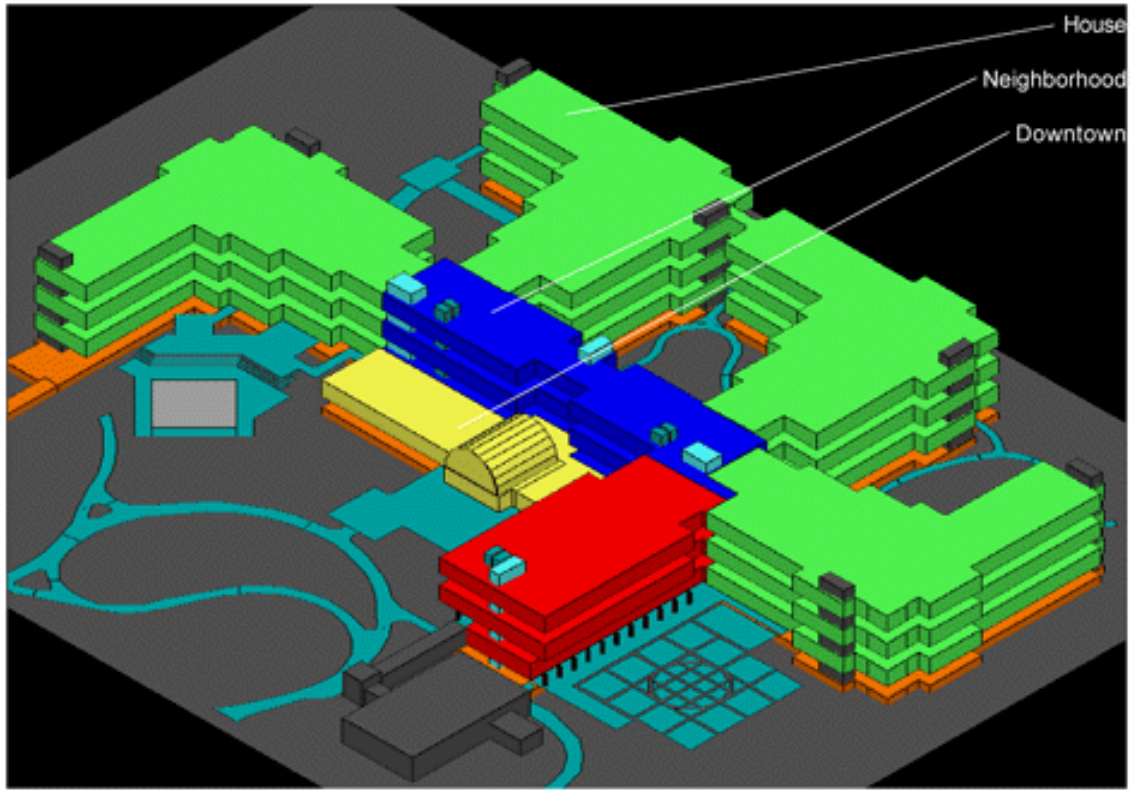
Neighborhood

Downtown

(and a discriminating approach to flexibility)

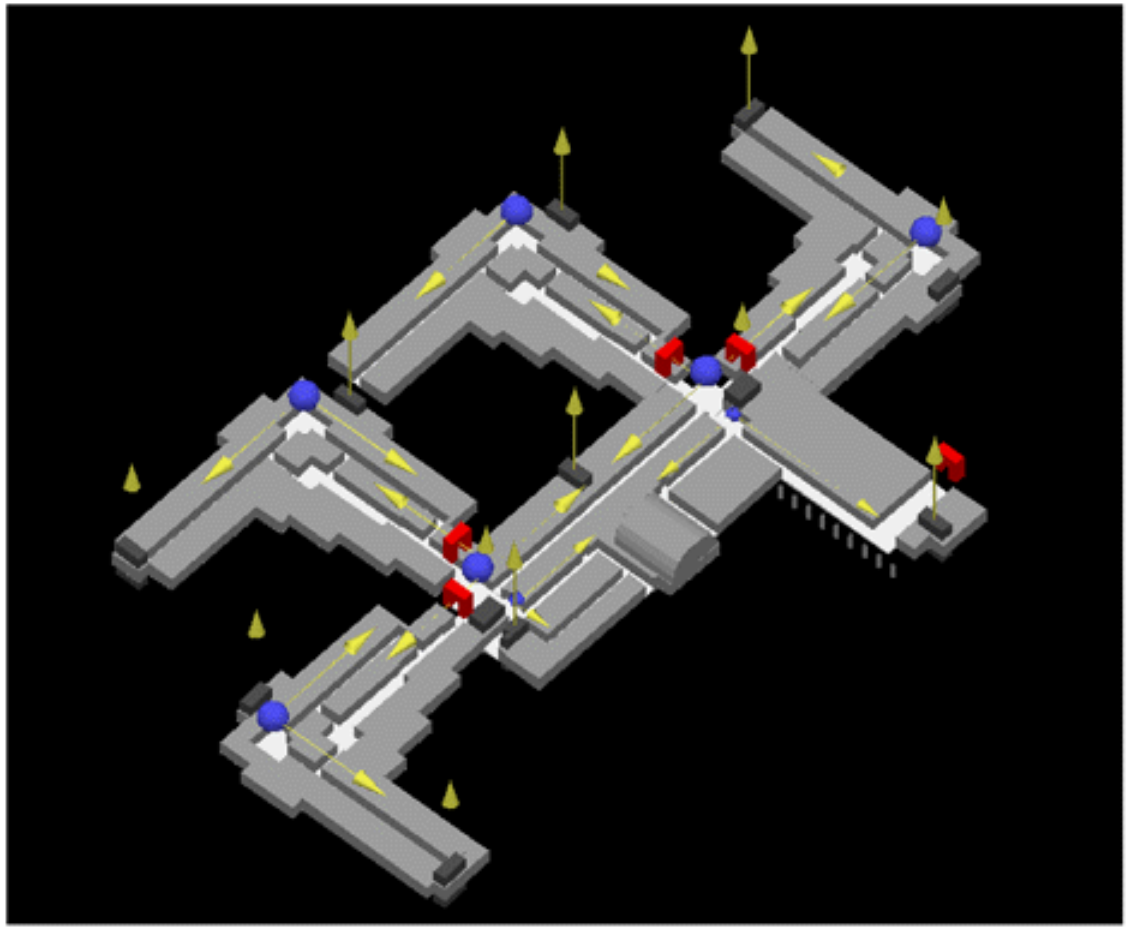


House, Neighborhood, Downtown

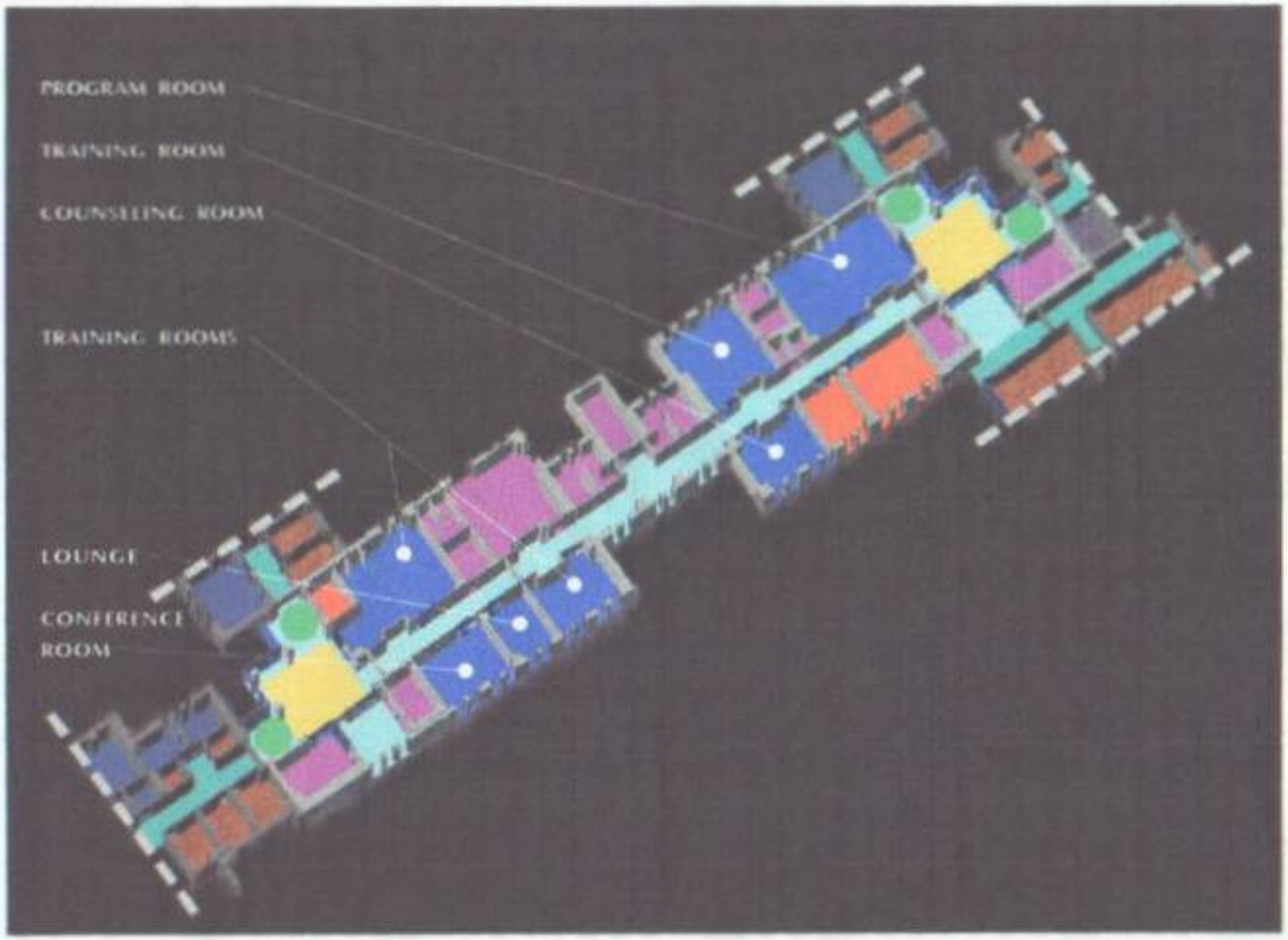


Portal / Passage / Node

Pedestrian Circulation Model



Neighborhood
Isometric Drawing



COMMUNITY/PROGRAM SPACES

CORRIDORS

SERVICE SPACES

STAFF AREAS

NEIGHBORHOOD SQUARE

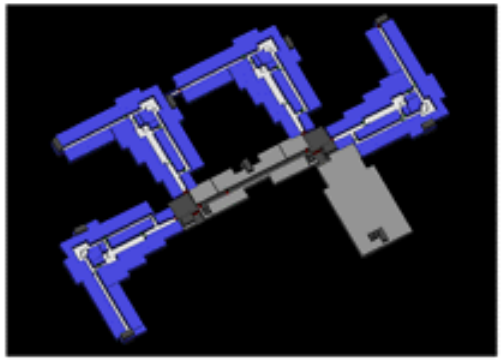
STOOP

Neighborhood Square

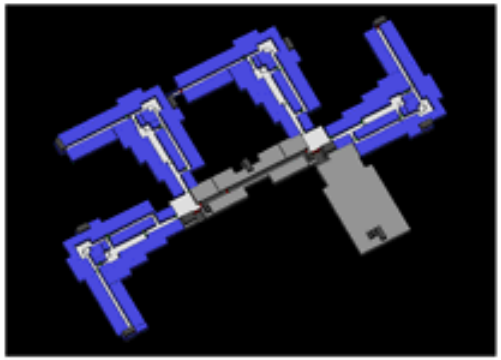
Neighborhood Activity Zone

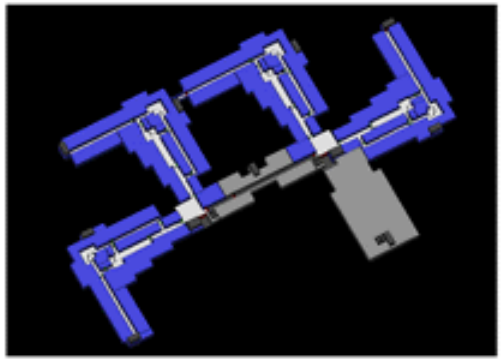
Levels of Access

"House" access only

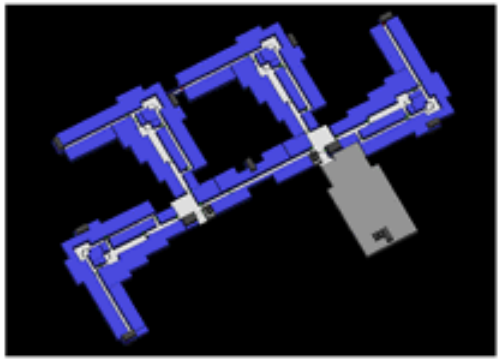


"Neighborhood" square access





Partial "Neighborhood" access



Full "Neighborhood" access

SCALE: 1" = 60'-0"

NORTH

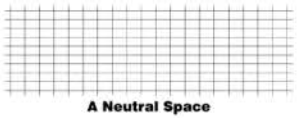
ST JOSEPH'S HEALTH CARE LONDON

SPECIALIZED MENTAL HEALTH
MASTER PLAN - PARKWOOD
LEVEL 2 FLOOR PLAN

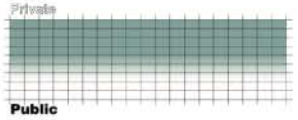
APRIL 8, 2003

ARCHITECTURE+

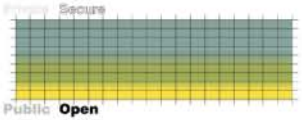
DEVELOPMENT OF THE OPTIMAL MODEL



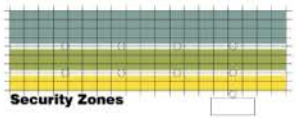
SITE-LESS-NESS



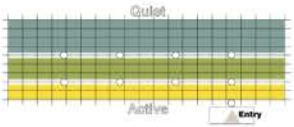
FIRST PRESUMED GRADIENT



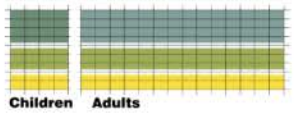
SECOND PRESUMED GRADIENT



THIRD PRESUMED GRADIENT

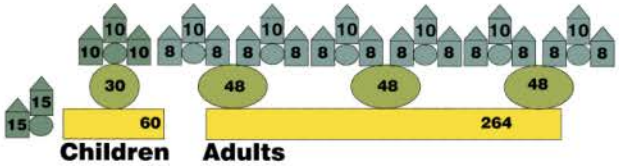


FOURTH PRESUMED GRADIENT

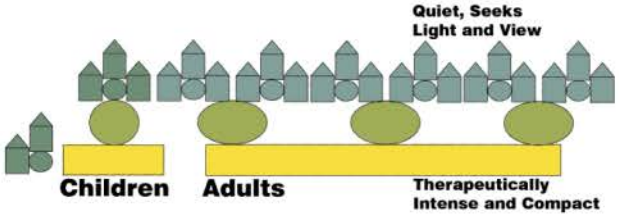


TWO HOSPITALS

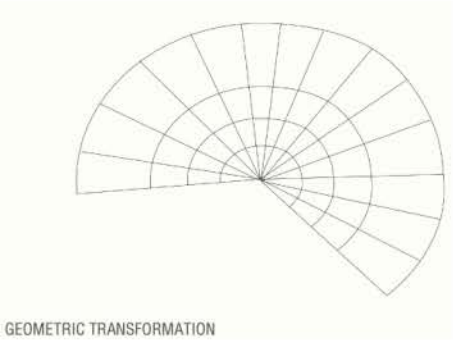
01 MAJOR PROGRAM ELEMENTS



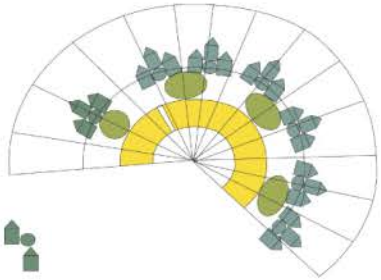
02 MAJOR PROGRAM ELEMENTS



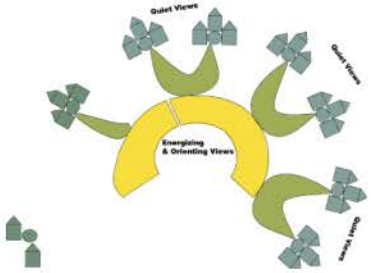
INHERENT NATURE



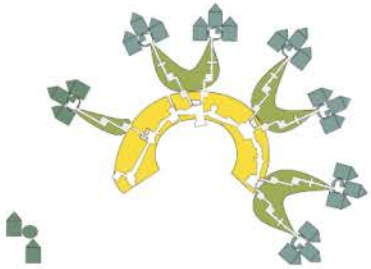
GEOMETRIC TRANSFORMATION



GEOMETRIC TRANSFORMATION MODELED



LIGHT, VIEWS, & COURTYARDS



BOULEVARDS, STREETS, & SQUARES

THE HOSPITAL AS VILLAGE: STREETS & SQUARES

DOWNTOWN: PLACES, LANDMARKS & DISTRICTS

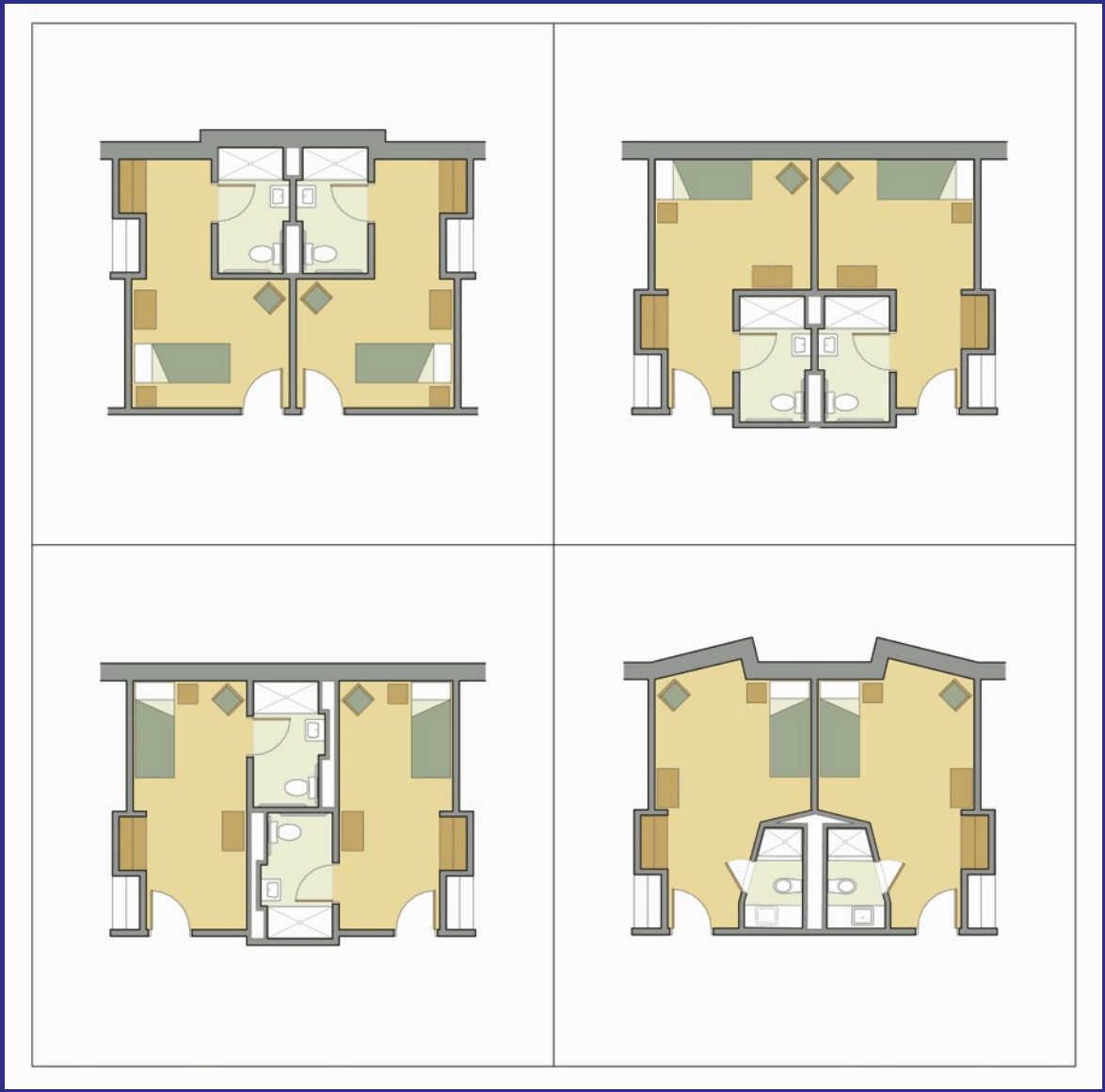
NEIGHBORHOOD: PLACES, LANDMARKS & DISTRICTS

HOUSES: PLACES, LANDMARKS & DISTRICTS

ADOLESCENT HOSPITAL
ADULT HOSPITAL
ARTS CENTER
CAFE CENTER
WINTER GARDEN
GYM
RETAIL CENTER
RECREATION CENTER
CREATIVE ARTS CENTER
ADMISSION
SAFETY
LOBBY SERVICES
LEGAL
VOLUNTEERS
COMMUNITY
LIBRARY
SCHOOL
GYM
WORKSHOPS
EXERCISE
DOWNTOWN
NEIGHBORHOOD
HOUSE

FIRST FLOOR

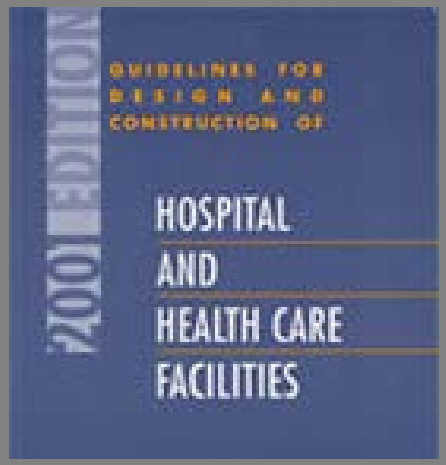
Mental Health 101: Basic Room Options



Q&A

Mental Health 101: The Regulatory Environment

- AIA Guidelines
- CMS CoP
- JCAHO Standards
- NFPA 101
- IBC (I2 Occupancy)
- State Regulations



CMS

Joint Commission™ RESOURCES

Mental Health 101: Project Types

- Outpatient Clinics
- Day Hospitals
- Partial Hospitals
- Substance Abuse Treatment Centers
- Free-standing State Hospitals
- Free-standing Private Hospitals
- Behavioral Units in General Hospitals
- Forensic Hospitals
- Intermediate Care Facilities
- Correctional Mental Health Units
- Community Residences and Residential Treatment Centers
- Geriatric Mental Health

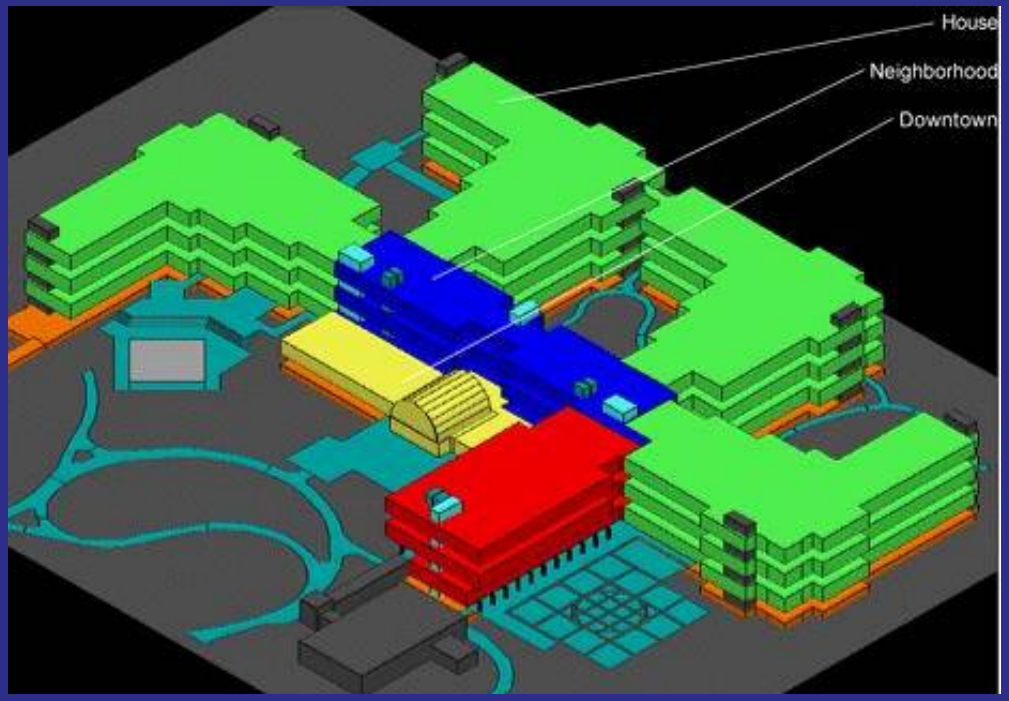
Mental Health 101: Building Induced Staffing Variables

Plan Unit Size & Configuration to Optimize Post Positions

Achieve Support Staffing Efficiencies

Patient Access = More Efficient Use of Clinical Staff

All three reduce costs and increase patient access to clinical and direct care staff.



Mental Health 101: Building Induced Staffing Variables

Work with users to shift perspective from current, known approach to a future with more innovation

Approach to staffing new facility is integral to planning process – staffing influences the conceptual model and vice versa

Allows models to be tested for impact on operating costs

Baseline Direct Staff Positions as per Coverage Requirements:85 (excluding 1:1 Situations)

	Model	Clustering	Staff Posts	Staff Premium
Model A	10-bed	5-bed	141	56
Model B	10/12 hybridized	5/6 bed	120	35
Model C	15-bed	5-bed	129	44
Model D	15/16 hybridized	5/8 bed	112	27
Model E	20 bed hybridized	10 & 5-bed	109	24
Model F	24 bed	12 & 6 bed	99	14
Model G	24 bed	8-bed	97	12
Model H	12 bed hybridized	5/6 bed	120	35

Benchmarking: Space Standards

Minimums

Recommendations

Benchmarking

Predictive Modeling

Facility Size Impacts

Recommendations

120 nsf for singles
200 nsf for doubles
75 nsf/bed for program minimum
105 nsf/bed for program is better

Benchmarking: Predictive Modeling

314 Bed Facility Program

419,000 BGSF

1,334 SF per bed

	5% under	Mid-point	5% over	notes
Beds		*320*		
FTE's		*720*		
Acres		*25*		
Computers		*450*		
Vehicles		*30*		
Intern Med Residents (PGME)		*0*		
Total gsf facility (including "other" OMH and non-OMH		*441,153*		
Total gsf for OMH Adult, C&Y and Forensic		*441,153*		
Adult Inpatient				
Residential Services	213,333	**224,000**	235,200	
Decentralized Treatment Service	22,857	**24,000**	25,200	*On-ward or "neighborhood" programs*
Centralized Treatment Services	31,429	**33,000**	34,650	*Cebtralized/decentralized sized for 20 hrs off ward therapy/week*
Administration & Other				
1100 Institution Direction	2,952	**3,100**	3,255	*Standard is very rich.*
1102 Personnel	952	**1,000**	1,050	*Standard is very rich.*
1103 Community Relations	210	**220**	231	
1105 Spiritual Care	1,000	**1,050**	1,103	
1106 Data Processing	1,143	**1,200**	1,260	
1109 Nursing Admin.	895	**940**	987	
1112 Medical Staff Admin.	762	**800**	840	
1114 Social Services Staff Admin.	238	**250**	263	
1116 Rehab Staff Admin.	276	**290**	305	
1130 Medical Records	5,333	**5,600**	5,880	
1131 Prog Eval. & Utilization Review	1,410	**1,480**	1,554	
1135 EAP	229	**240**	252	
1136 Education & Training	5,952	**6,250**	6,563	
1140 Business Office	1,371	**1,440**	1,512	
1141 Stores	11,204	**11,764**	12,352	
1161 PGME	0	**0**	0	
1165 Barbers/ Beauticians	276	**290**	305	
1144 Central Medical Supplies	1,619	**1,700**	1,785	
1152 Pharmacy	2,714	**2,850**	2,993	
3401 Radiology	1,429	**1,500**	1,575	
3403 EEG-EKG	229	**240**	252	
3404 Laboratory Processing	410	**430**	452	
3405 Dentistry	1,143	**1,200**	1,260	
3406 Medical Clinics	2,524	**2,650**	2,783	
3421 Physical Therapy	3,629	**3,810**	4,001	
3422 Speech & Hearing	190	**200**	210	
				Shared conference, storage, breakrooms etc.
Shared A & O	23,429	**24,600**	25,830	*Very rich!*

	5% under	Mid-point	5% over	notes
Support Services				
1148 Nutrition Services	8,629	**9,060**	9,513	
1145 Housekeeping & Linen	8,057	**8,460**	8,883	
1104 Communications	1,387	**1,456**	1,529	
1157 Safety	2,933	**3,080**	3,234	
1153 Work Control/ Maintenance	7,002	**7,353**	7,720	
1154 Transportation	1,143	**1,200**	1,260	
1155 Groundskeeping	1,905	**2,000**	2,100	
1156 Utilities	29,410	**30,881**	32,425	
				Shared conference, storage, breakrooms etc.
Shared Support	5,429	**5,700**	5,985	*Very rich!*
Grossing Factor	15,238	**16,000**	16,800	*Lobby and connectors between major functions*
	420,270	**441,283**	463,348	

Benchmarking: Comparative Facilities

Hospital	Hospital	Beds	BGSF/ Bed	Size (bgsf)
St. Joseph's SMHC, St. Thomas	A	74	2,245	166,138
St. Joseph's SMHC, London	B	144	1,898	273,240
New Hampshire State Hospital	C	144	1,361	196,000
SE Regional Treatment Center, Indiana	D	150	1,443	216,429
Arizona State Hospital	E	200	1,240	247,960
Kings	F	225	1,351	304,000
Hillside Hospital	G	236	1,232	290,674
a+ Benchmark Modeler for Kentucky	H	314	1,334	419,000
Whitby Psychiatric, Ontario	I	325	1,538	500,000
Rochester PC	J	330	1,309	432,000
Centre for Addiction and Mental Health	K	500	1,214	607,191
Logansport	L	105	1,076	113,000

MH 101: Variables Impacting Facility Size

Hospital Size

Typical Unit Size

Patient Cohort
(Forensic, Seniors, Children)

Private Bedrooms

Sub-Clustered Units

Acuity and Program Amenity

Free-Standing or Supported

Hospital vs. Residential
Treatment Facility

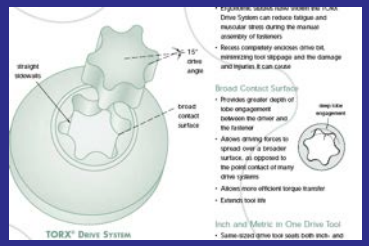
Research

Medical Education

Trends: Patient Safety

With respect to NYS-OMH operated facilities, these Guidelines apply solely to new construction and major renovation projects. Existing facilities should use these Guidelines as a reference document whenever they make improvements to existing facilities.

1. Introduction
2. Nomenclature & Applicability
3. Fasteners
4. Sealants
5. Glazing & Windows
6. Anti-barricade Strategies
7. Door Hardware
8. Seclusion Rooms
9. Shower Curtain & Tracks
10. Wardrobe Hooks & Closet Bars
11. Access Panels & Medical Gas Enclosures
12. Cabinet Hardware
13. Grab Bars, Handrails & Corner Guards
14. Toilet Accessories
15. Window Treatments
16. Sprinklers & Fire Extinguishers
17. Louvers & Grilles
18. Plumbing Fixtures & Systems
    a. Faucets
    b. Shower Heads
    c. Activators
    d. Basins, Pipe Enclosures & Mirrors
    e. Toilets
    f. Drinking Fountains
    g. Systems: Lavatories
19. Electrical
    a) Outlets & Switches
    b) Fire Alarm Components
20. Lighting Fixtures
    a. Seclusion Rooms
    b. Patient Rooms
    c. Toilet Rooms
    d. Common Areas/ Corridors
21. Furniture
    a. Patient Rooms
    b. Living & Dining Areas



Trends: Patient Safety

1998: JCAHO Sentinel Event Notification

Joint Commission on Accreditation of Healthcare Organizations

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Sentinel Event Alert ▪ Issue 7 - November 6, 1998

Sentinel Event ALERT

Printer friendly version

Inpatient Suicides: Recommendations for Prevention

Since the Joint Commission enacted its Sentinel Event Policy two years ago, the Accreditation Committee of the Joint Commission's Board of Commissioners has reviewed 65 cases related to inpatient suicides. A root cause analysis was completed for each of the events reviewed. Most of the suicides occurred in psychiatric hospitals (34), followed by general hospitals (27) and residential care facilities (4). Of those cases in general hospitals, 14 occurred in psychiatric units, 12 in medical/surgical units and one in the emergency room.

> "For patients with a high suicide risk, make sure there is adequate around -the-clock observation."
>
> *John Oldham M.D.*
> *Director New York State Psychiatric Institute*

In 75 percent of the cases, the method of suicide was a hanging in a bathroom, bedroom or closet. Twenty percent of the suicides resulted from patients jumping from a roof or window.

Root Cause Analyses Conducted

Root causes of inpatient suicides that the organizations identified include:

- The environment of care, such as the presence of non-breakaway bars, rods or safety rails; lack of testing of breakaway hardware; and inadequate security.
- Patient assessment methods, such as incomplete suicide risk assessment at intake, absent
- or incomplete reassessment, and incomplete examination of the individual (for example, failure to identify a contraband).
- Staff-related factors, such as insufficient orientation or training, incomplete competency review or credentialing, and inadequate staffing levels

Trends: Patient Safety

Process: Risk Assessment

Patient Safety Risk Assessment/Feature Assignment

architecture+

Wake County Continuum of Care , Raleigh, NC

	Self-Harm Risk Level High (Difficult to Manage or Risk of Solitary and Unsupervised Use)	Self-Harm Risk Level Medium (Controlled Patient Access, Rarely Solitary Use, and/or Regular Supervision)	Self-Harm Risk Level Low (No Patient Use or Constant Supervision)	Anti-Barricade Desired (Yes/No)	Security Window (Yes/No)	Contraband Control Level (Hi, Low, Med)	Monolithic Ceiling (Yes/No)	Other/Comments
Entrance Point								
Entrance Point, Vestibule			Low	No	No	Low	No	
Entrance Point, Lobby			Low	No	No	Low	No	
Entrance Point, General Waiting (15-18)			Low	No	No	Low	No	
Entrance Point, Triage Room	High			Yes	Yes	High	Yes	
Entrance Point, Public Toilets		Medium		Yes	No	Low	No	
Entrance Point Confereence Room			Low	No	No	Low	No	
Routine Assessment, Sub-Waiting Adults (6-8)				Yes	Yes	High	Yes	
Routine Assessment, Sub-Waiting Children		Medium		No	No	Low	No	
Routine Assessment, Consultation Rooms		Medium		No	No	Low	No	Security windows at courtyard
Routine Assessment, Family Meeting Rooms		Medium		No	No	Low	No	Security windows at courtyard
Routine Assessment, Physical Examination		Medium		No	No	Low	No	
Routine Assessment, Patient Toilets		Medium		No	No	Low	No	
Routine Assessment, Clinical Offices			Low	No	No	Low	No	Security windows at courtyard
Emergent Assessment, Sub-Waiting Acute Adults (6-8)	High			Yes	Yes	High	Yes	
Emergent Assessment, Sub-Waiting Acute Children (4-6)	High			Yes	Yes	High	Yes	
Emergent Assessment, Consultation Rooms	High			Yes	Yes	High	Yes	
Emergent Assessment, MSO Rooms	High			Yes	Yes	High	Yes	
Emergent Assessment, Day Space/Lounge (3)	High			Yes	Yes	High	Yes	
Emergent Assessment, Soft Room (Time Out)	High			Yes	Yes	High	Yes	
Emergent Assessment, Physical Examination Room	High			Yes	Yes	High	Yes	
Emergent Assessment, Shower	High			Yes	Yes	High	Yes	
Emergent Assessment, Patient Toilets	High			Yes	Yes	High	Yes	
Emergent Assessment, Holding Rooms	High			Yes	Yes	High	Yes	
Emergent Assessment, Holding Vestibule		Medium		No	No	Low	No	
Emergent Assessment, Holding Toilet/Shower	High			Yes	Yes	High	Yes	
Emergent Assessment, Sally Port		Medium		No	No	Low	No	
Emergent Assessment, Clinical Offices			Low	No	No	Low	No	
Housekeeping			Low	No	No	Low	No	
Clean Utility			Low	No	No	Low	No	
Soiled Utility			Low	No	No	Low	No	

Trends: Patient Safety

Process: Risk Assessment

Typical High Risk Areas:

Patient is difficult to manage, or risk of solitary and/or unsupervised use:

- **Patient Bedrooms**
- **Bathroom/Toilet Rooms**
- **Seclusion Rooms**

Special care should also be taken in on-unit patient spaces with ceilings with less than 9'-0" above finished floor.

Typical Medium Risk Areas:

Patient access is controlled, or use is supervised with no solitary unsupervised use.

- **Living Room**
- **Dining Room**
- **Group Room**

Typical Low Risk Areas:

No patient use or constantly supervised.

- **Medication Room**
- **Offices**
- **Clean and Soiled Utility Rooms**

Trends: Patient Safety Standards

NAPHS

"Design Guide for the Built Environment of Behavioral Health Facilities: Edition 3.0“

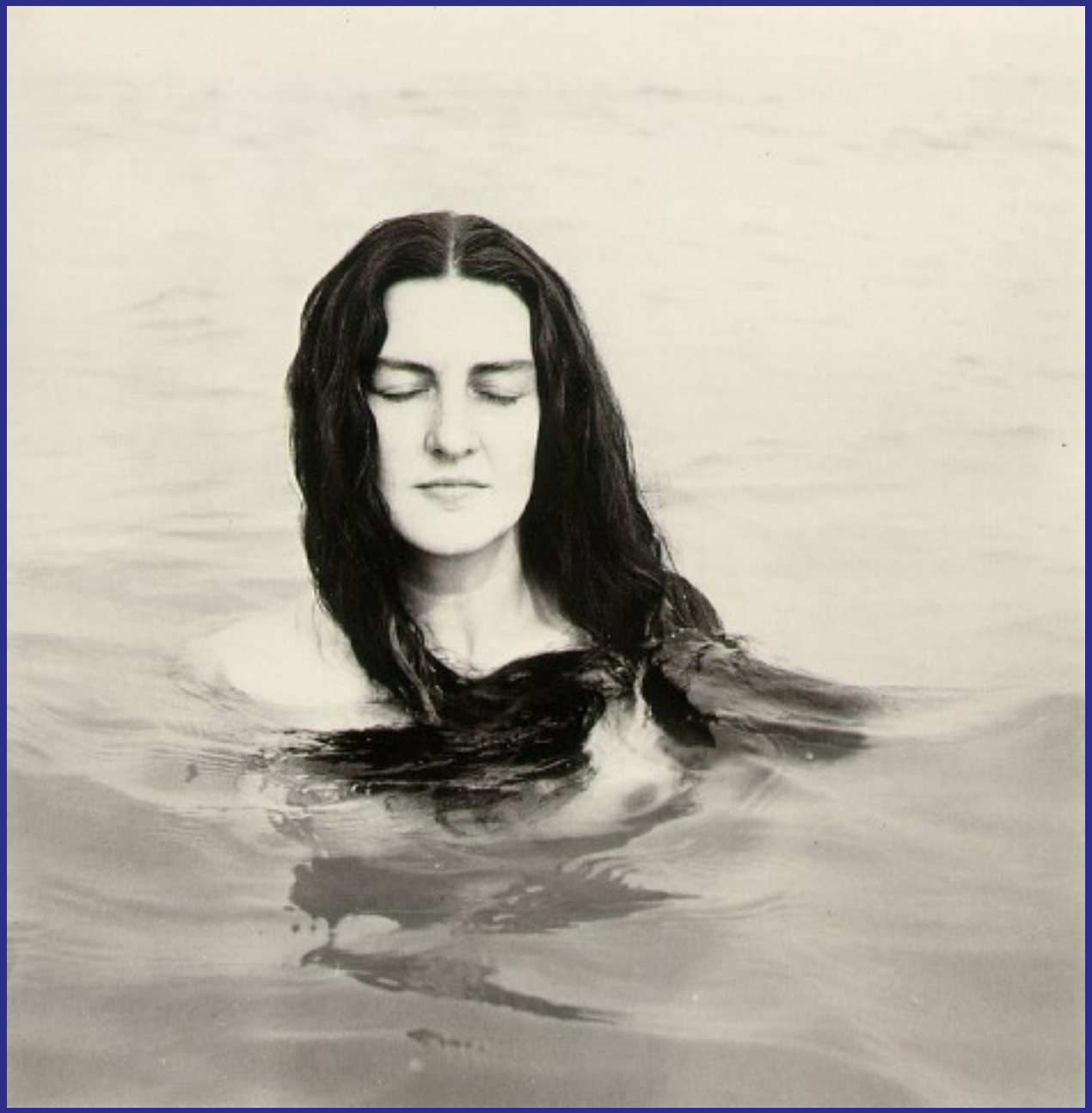
http://www.naphs.org/teleconference/documents/DesignGuide3.0FINALUPDATED.8.11.2009.pdf

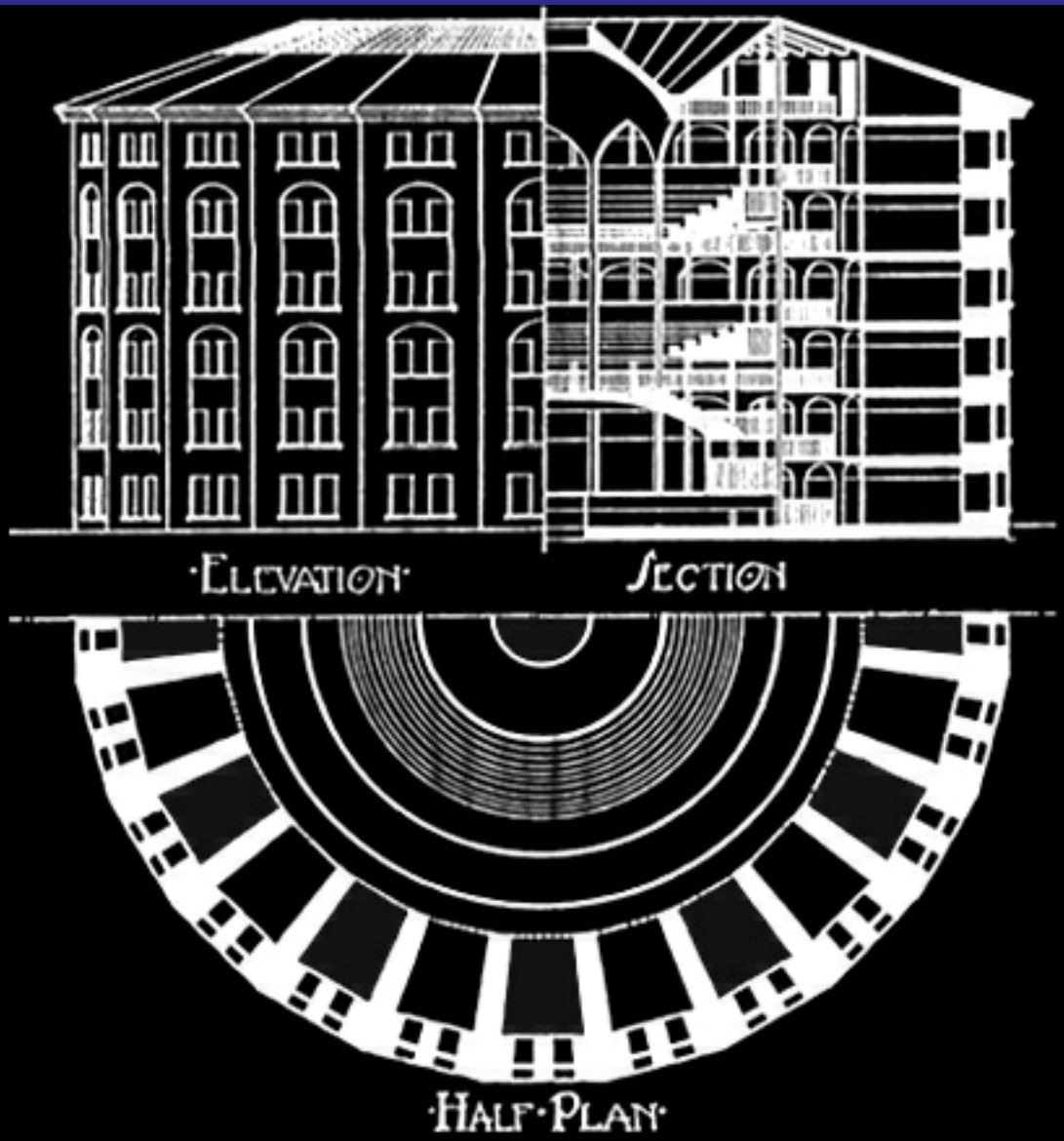
New York State Office of Mental Health Patient Safety Standards

http://www.omh.state.ny.us/omhweb/patient_safety_standards/guide.pdf

Mental Health 101: Safety and Security

- Staff Can Not Provide Effective Treatment in an Environment That is Not Safe and Secure
- Patients Can Not Heal in an Environment that is Not Safe and Secure




·ELEVATION·
SECTION
·HALF·PLAN·

"The best security lies in knowing your patient."

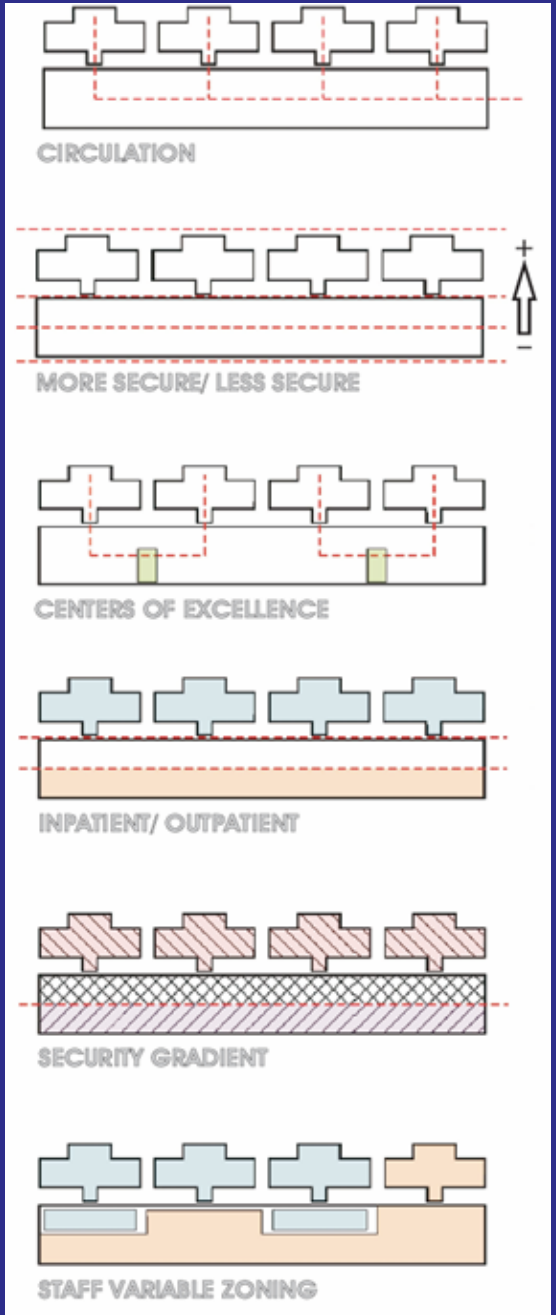
Dr. Marvin Chapman

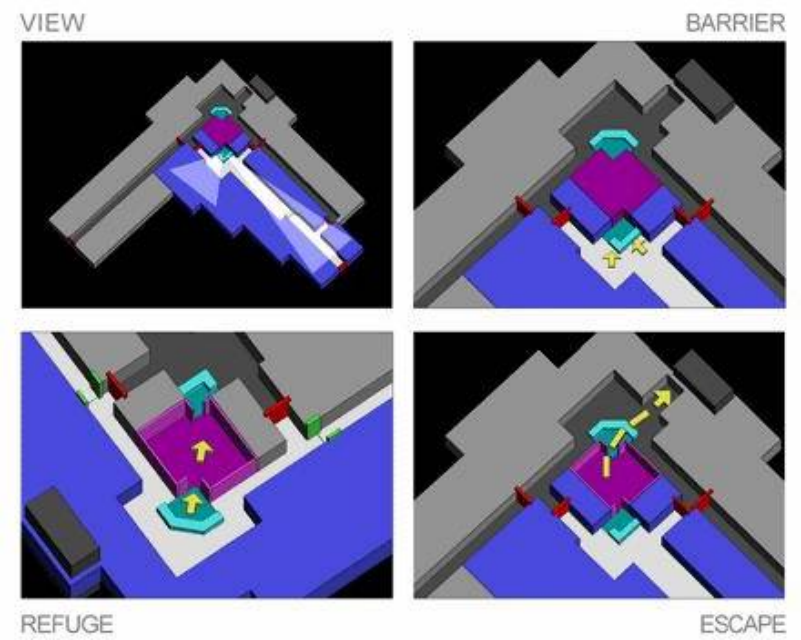
Mental Health 101: Security

- Balance Seeing and Knowing
- Provide Both Passive Security and Visibility

Mental Health 101: Safety and Security

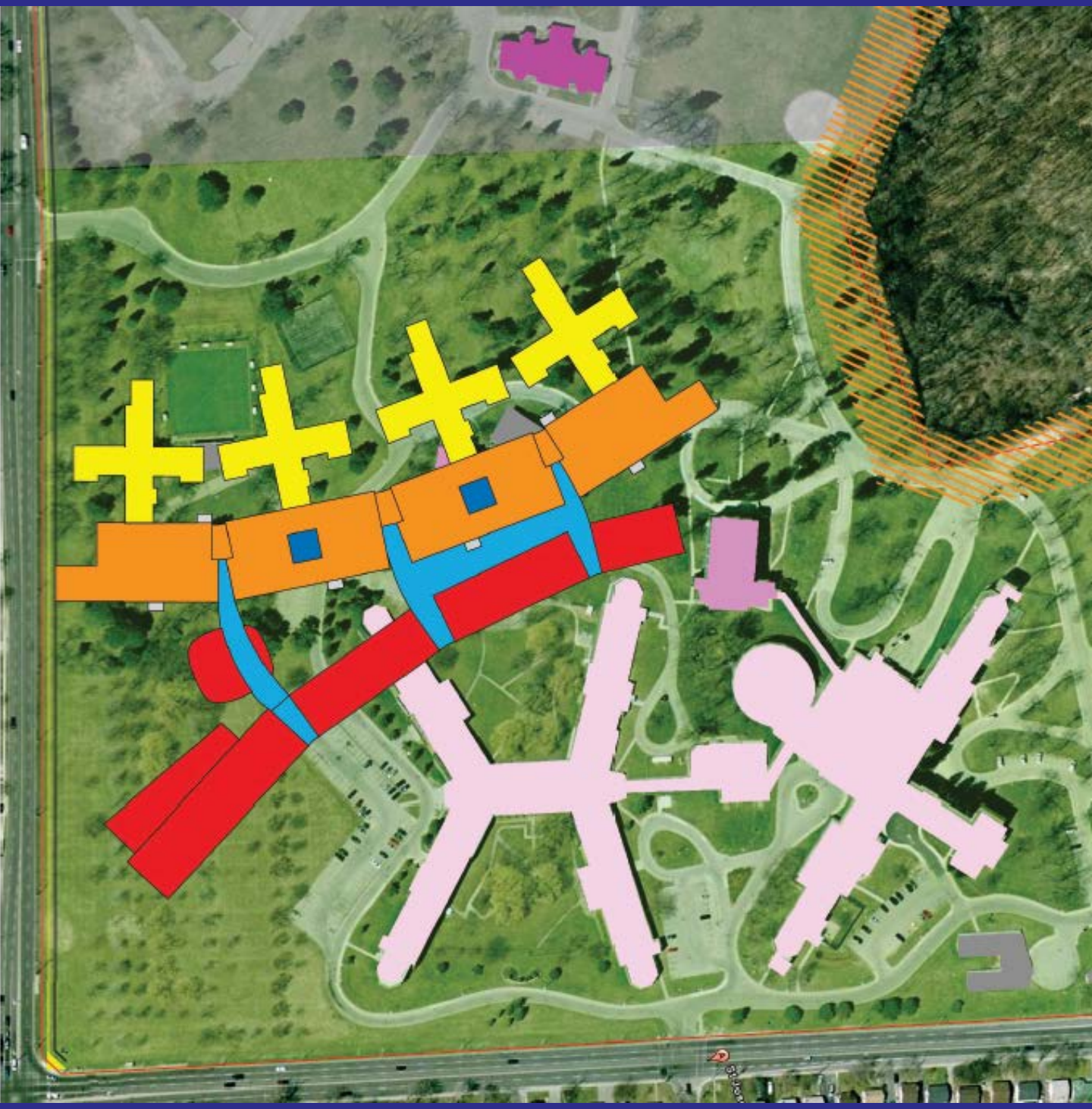
- Passive Security and Visibility
- Perimeters and Flexing Zones
- Suicide Prevention
- Duress Alarm Systems





Mental Health 101: On-Site Research

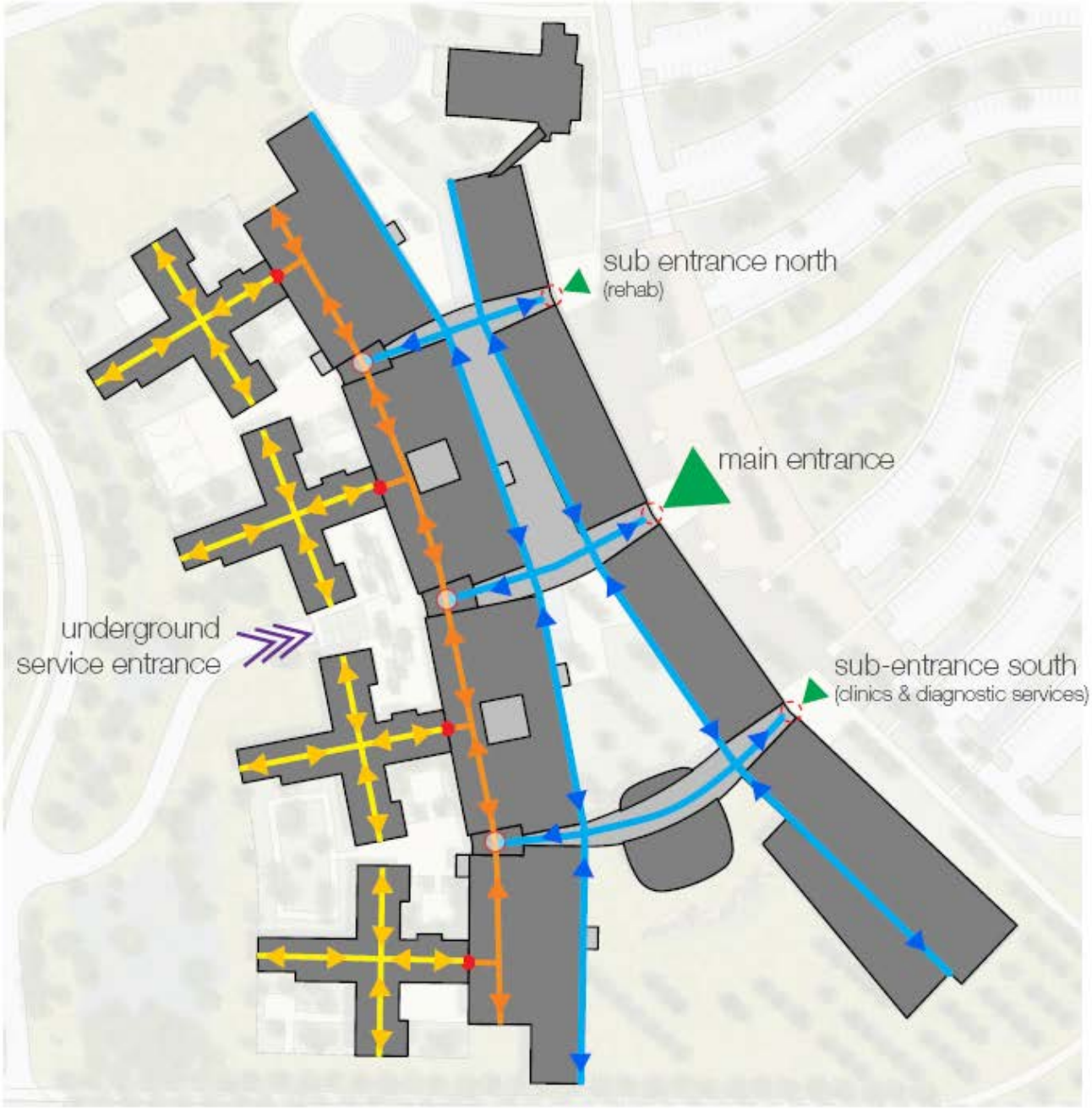
29.16 acres
55.00 acres
FENNELL
AVENUE
WEST
5TH
STREET



Conceptual Site Masterplan

CONCEPT: ZONING

CONCEPT: MAJOR CIRCULATION



public circulation

intermediate circulation

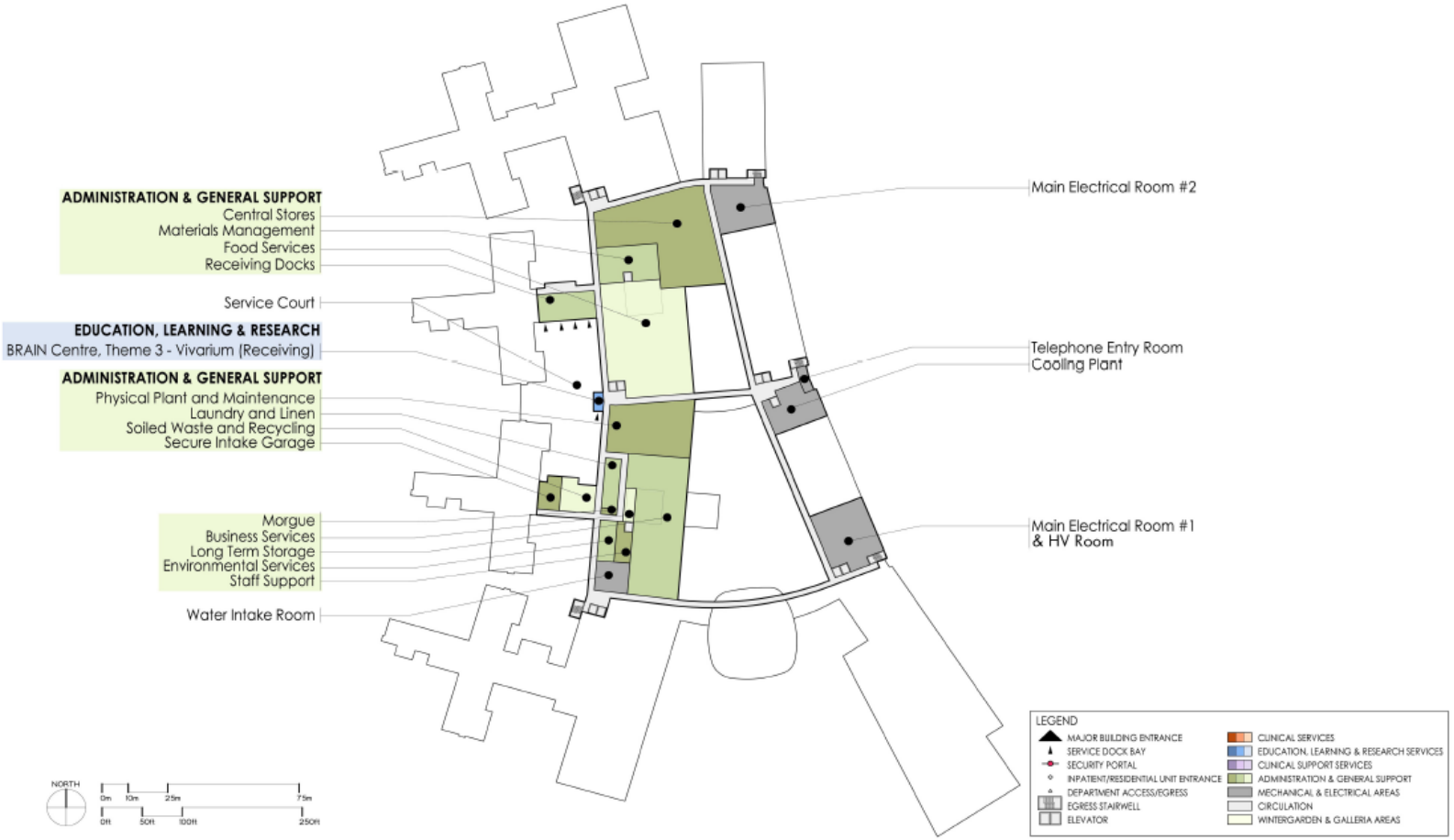
inpatient circulation

major building entrance

inpatient unit entrance

security portal

entrance portal


ADMINISTRATION & GENERAL SUPPORT
Central Stores
Materials Management
Food Services
Receiving Docks
Service Court
EDUCATION, LEARNING & RESEARCH
BRAIN Centre, Theme 3 - Vivarium (Receiving)
ADMINISTRATION & GENERAL SUPPORT
Physical Plant and Maintenance
Laundry and Linen
Soiled Waste and Recycling
Secure Intake Garage
Morgue
Business Services
Long Term Storage
Environmental Services
Staff Support
Water Intake Room
Main Electrical Room #2
Telephone Entry Room
Cooling Plant
Main Electrical Room #1
& HV Room
NORTH
0m 10m 25m 75m
0ft 50ft 100ft 250ft
LEGEND
MAJOR BUILDING ENTRANCE
SERVICE DOCK BAY
SECURITY PORTAL
INPATIENT/RESIDENTIAL UNIT ENTRANCE
DEPARTMENT ACCESS/EGRESS
EGRESS STAIRWELL
ELEVATOR
CLINICAL SERVICES
EDUCATION, LEARNING & RESEARCH SERVICES
CLINICAL SUPPORT SERVICES
ADMINISTRATION & GENERAL SUPPORT
MECHANICAL & ELECTRICAL AREAS
CIRCULATION
WINTERGARDEN & GALLERIA AREAS

BASEMENT

MENTAL HEALTH REHABILITATION SERVICES
Intensive Rehabilitation Unit
Homes for Special Care
Specialized Rehab Resource Team
MHS for Adults with Developmental Disability

ACUTE MENTAL HEALTH
20 Bed Inpatient Unit A
Research Module

SCHIZOPHRENIA
Transitional/Outpatient Services (Cleghorn)

ADMINISTRATION & GENERAL SUPPORT
Coordinated Access

CLINICAL SUPPORT SERVICES
Pharmacy
General Assessment & Treatment

ACUTE MENTAL HEALTH
20 Bed Inpatient Unit B

ADMINISTRATION & GENERAL SUPPORT
Museum
Nursing Office/GRASP
Security Services
Cafeteria

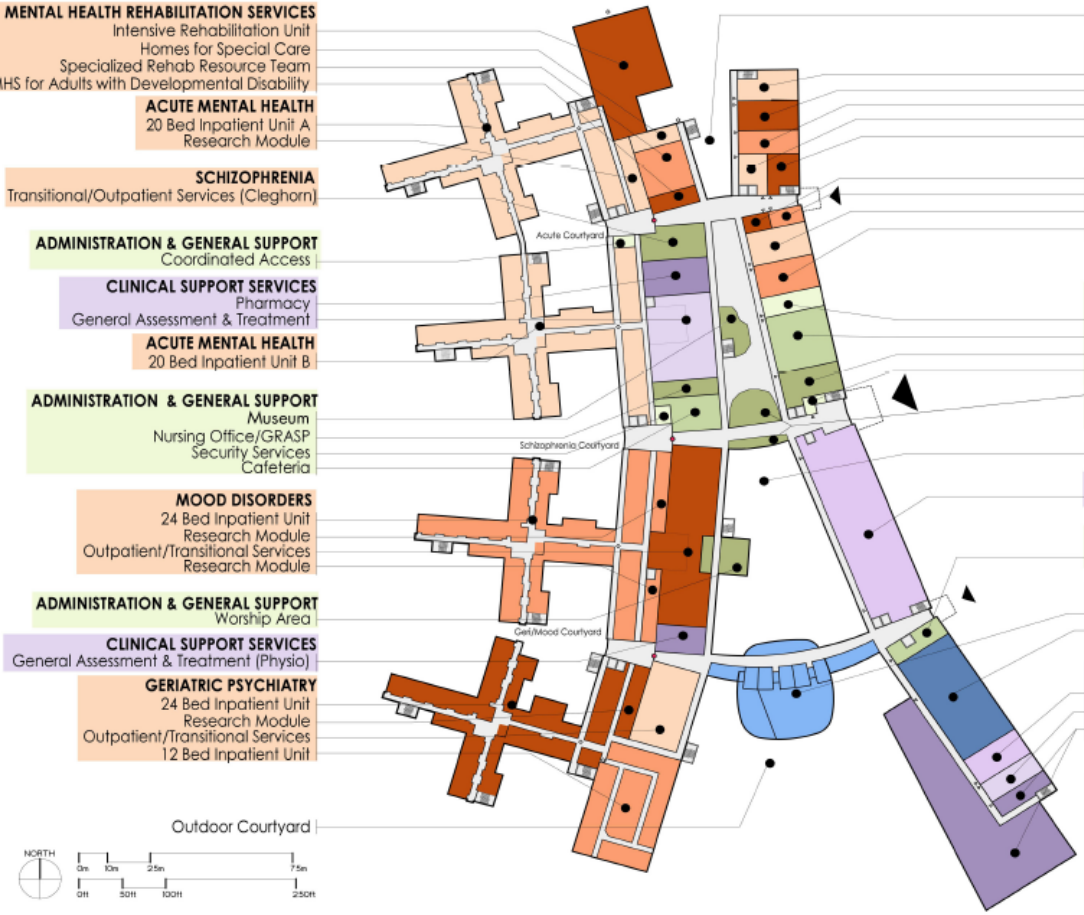
MOOD DISORDERS
24 Bed Inpatient Unit
Research Module
Outpatient/Transitional Services
Research Module

ADMINISTRATION & GENERAL SUPPORT
Worship Area

CLINICAL SUPPORT SERVICES
General Assessment & Treatment (Physio)

GERIATRIC PSYCHIATRY
24 Bed Inpatient Unit
Research Module
Outpatient/Transitional Services
12 Bed Inpatient Unit

Outdoor Courtyard



Outdoor Courtyard

MENTAL HEALTH REHABILITATION SERVICES
Research Module
Psychiatric Rehabilitation
Vocational Rehabilitation
Concurrent Disorders
Transcultural

General Support
Administration
ACTT1
ACTT2

ADMINISTRATION & GENERAL SUPPORT
OH & S/Infection Control
Human Resources
Health Information Management
Reception
Cafeteria Seating

Outdoor Courtyard

CLINICAL SUPPORT SERVICES
Medical Outpatient Services

ADMINISTRATION & GENERAL SUPPORT
Health Information Management

EDUCATION, LEARNING & RESEARCH SERVICES
Central Conference & Training
BRAIN Centre, Theme 1 - Neuroimaging & Neuropsychophysiology

CLINICAL SUPPORT SERVICES
Electroconvulsive Therapy Services
Transcranial Magnetic Stimulation
Diagnostic & Treatment Services

LEGEND
- MAJOR BUILDING ENTRANCE
- SERVICE DOCK BAY
- SECURITY PORTAL
- INPATIENT/RESIDENTIAL UNIT ENTRANCE
- DEPARTMENT ACCESS/EGRESS
- EGRESS STAIRWELL
- ELEVATOR
- CLINICAL SERVICES
- EDUCATION, LEARNING & RESEARCH SERVICES
- CLINICAL SUPPORT SERVICES
- ADMINISTRATION & GENERAL SUPPORT
- MECHANICAL & ELECTRICAL AREAS
- CIRCULATION
- WINTERGARDEN & GALLERIA AREAS

GROUND FLOOR

ADMINISTRATION & GENERAL SUPPORT
On Call Rooms
Management Information Services

FORENSIC SERVICES
Minimum Security Unit E
Research Module

SCHIZOPHRENIA
Research Module
24 Bed Inpatient Services Unit A

MENTAL HEALTH REHABILITATION SERVICES
Gymnasium
Therapeutic Recreation

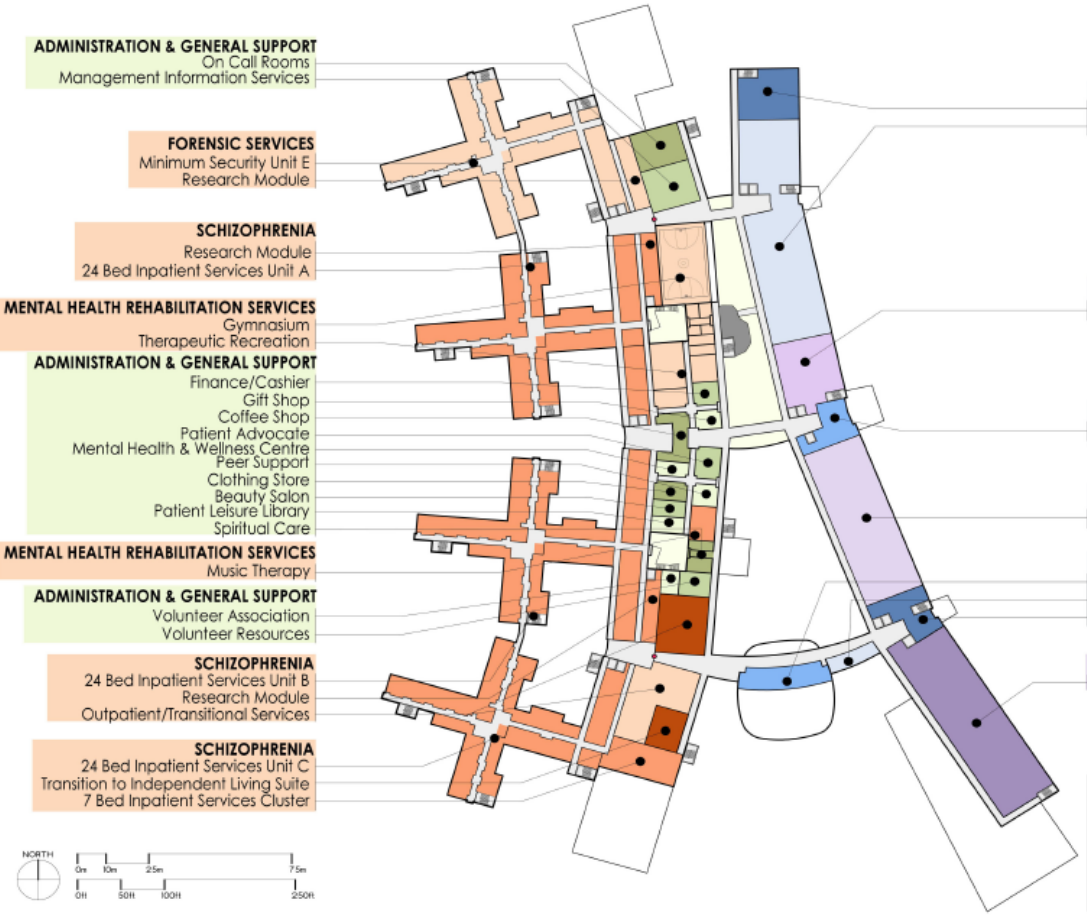
ADMINISTRATION & GENERAL SUPPORT
Finance/Cashier
Gift Shop
Coffee Shop
Patient Advocate
Mental Health & Wellness Centre
Peer Support
Clothing Store
Beauty Salon
Patient Leisure Library
Spiritual Care

MENTAL HEALTH REHABILITATION SERVICES
Music Therapy

ADMINISTRATION & GENERAL SUPPORT
Volunteer Association
Volunteer Resources

SCHIZOPHRENIA
24 Bed Inpatient Services Unit B
Research Module
Outpatient/Transitional Services

SCHIZOPHRENIA
24 Bed Inpatient Services Unit C
Transition to Independent Living Suite
7 Bed Inpatient Services Cluster



EDUCATION, LEARNING & RESEARCH
Clinical Research Centre
BRAIN Centre, Theme 2 - Health Outcomes

CLINICAL SUPPORT SERVICES
Clinical Laboratory Services

EDUCATION, LEARNING & RESEARCH SERVICES
Department of Psychology

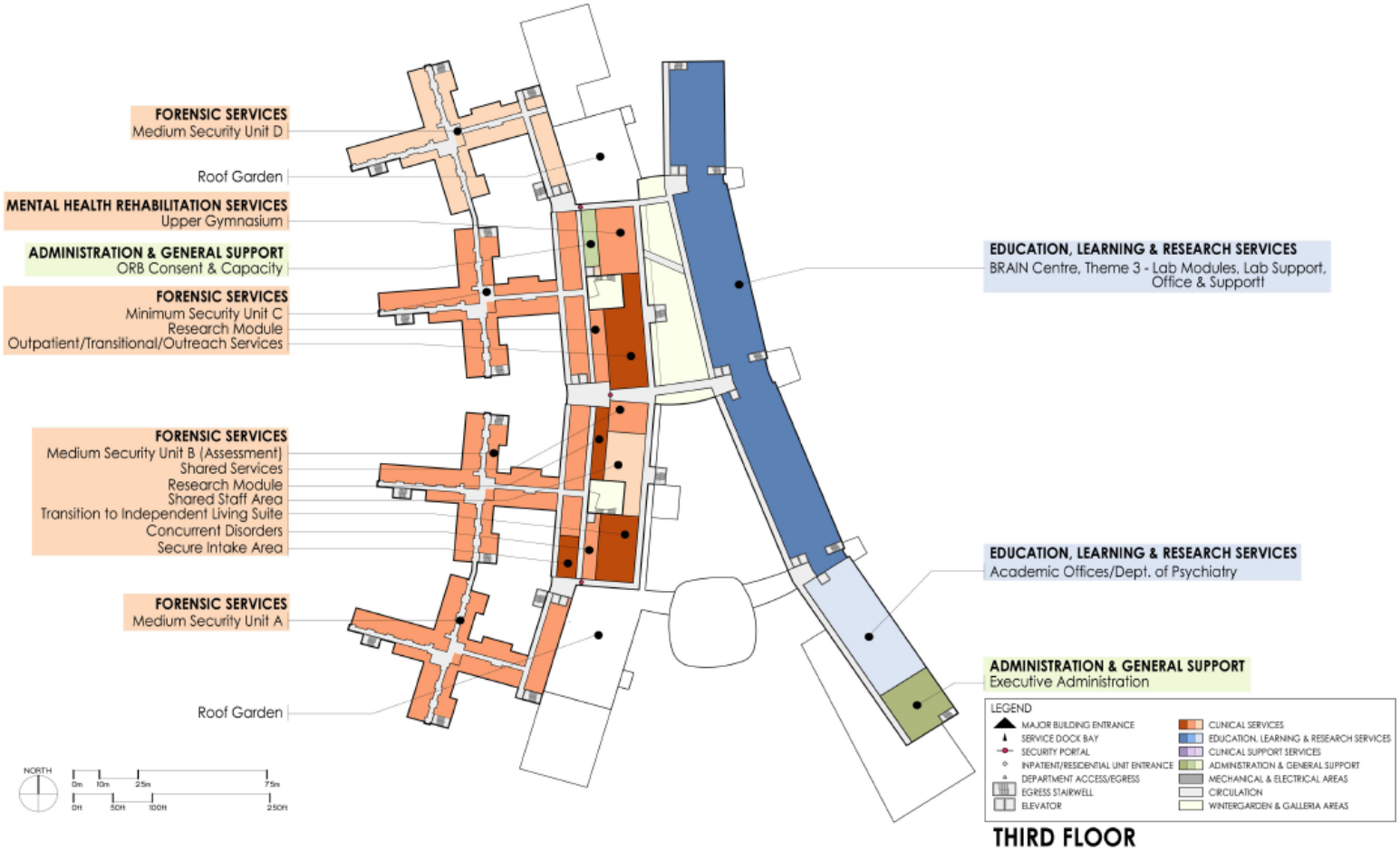
CLINICAL SUPPORT SERVICES
Anxiety Disorders

EDUCATION, LEARNING & RESEARCH SERVICES
Information and Learning Centre
Education Services Offices
Psychotherapy Treatment Centre

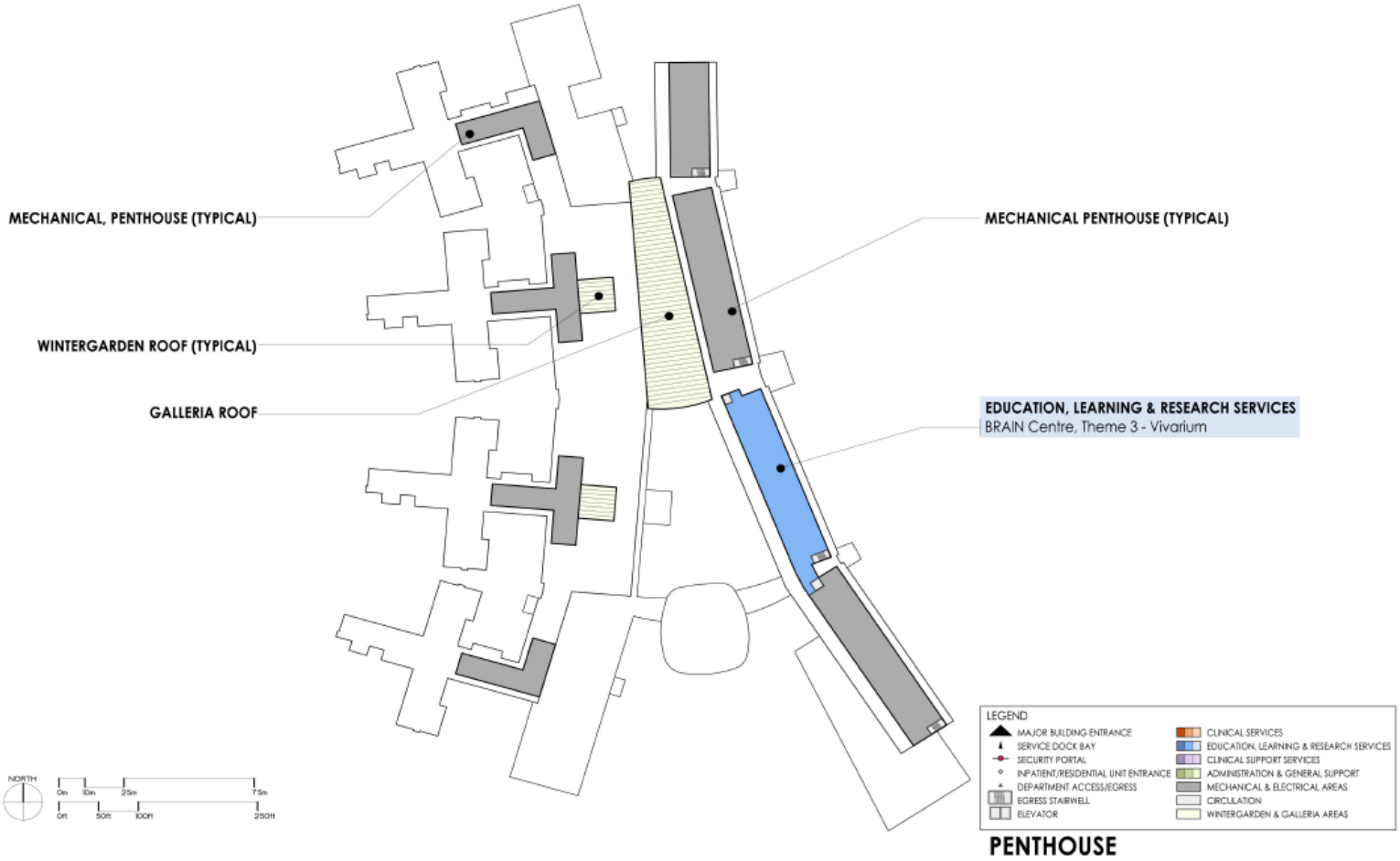
CLINICAL SUPPORT SERVICES
Community Psychiatry Services

LEGEND
- MAJOR BUILDING ENTRANCE
- SERVICE DOCK BAY
- SECURITY PORTAL
- INPATIENT/RESIDENTIAL UNIT ENTRANCE
- DEPARTMENT ACCESS/EGRESS
- EGRESS STAIRWELL
- ELEVATOR
- CLINICAL SERVICES
- EDUCATION, LEARNING & RESEARCH SERVICES
- CLINICAL SUPPORT SERVICES
- ADMINISTRATION & GENERAL SUPPORT
- MECHANICAL & ELECTRICAL AREAS
- CIRCULATION
- WINTERGARDEN & GALLERIA AREAS

SECOND FLOOR


FORENSIC SERVICES
Medium Security Unit D
Roof Garden
MENTAL HEALTH REHABILITATION SERVICES
Upper Gymnasium
ADMINISTRATION & GENERAL SUPPORT
ORB Consent & Capacity
FORENSIC SERVICES
Minimum Security Unit C
Research Module
Outpatient/Transitional/Outreach Services
FORENSIC SERVICES
Medium Security Unit B (Assessment)
Shared Services
Research Module
Shared Staff Area
Transition to Independent Living Suite
Concurrent Disorders
Secure Intake Area
FORENSIC SERVICES
Medium Security Unit A
Roof Garden
EDUCATION, LEARNING & RESEARCH SERVICES
BRAIN Centre, Theme 3 - Lab Modules, Lab Support, Office & Supportt
EDUCATION, LEARNING & RESEARCH SERVICES
Academic Offices/Dept. of Psychiatry
ADMINISTRATION & GENERAL SUPPORT
Executive Administration
NORTH
0m 10m 25m 75m
0ft 50ft 100ft 250ft
LEGEND
MAJOR BUILDING ENTRANCE
SERVICE DOCK BAY
SECURITY PORTAL
INPATIENT/RESIDENTIAL UNIT ENTRANCE
DEPARTMENT ACCESS/EGRESS
EGRESS STAIRWELL
ELEVATOR
CLINICAL SERVICES
EDUCATION, LEARNING & RESEARCH SERVICES
CLINICAL SUPPORT SERVICES
ADMINISTRATION & GENERAL SUPPORT
MECHANICAL & ELECTRICAL AREAS
CIRCULATION
WINTERGARDEN & GALLERIA AREAS

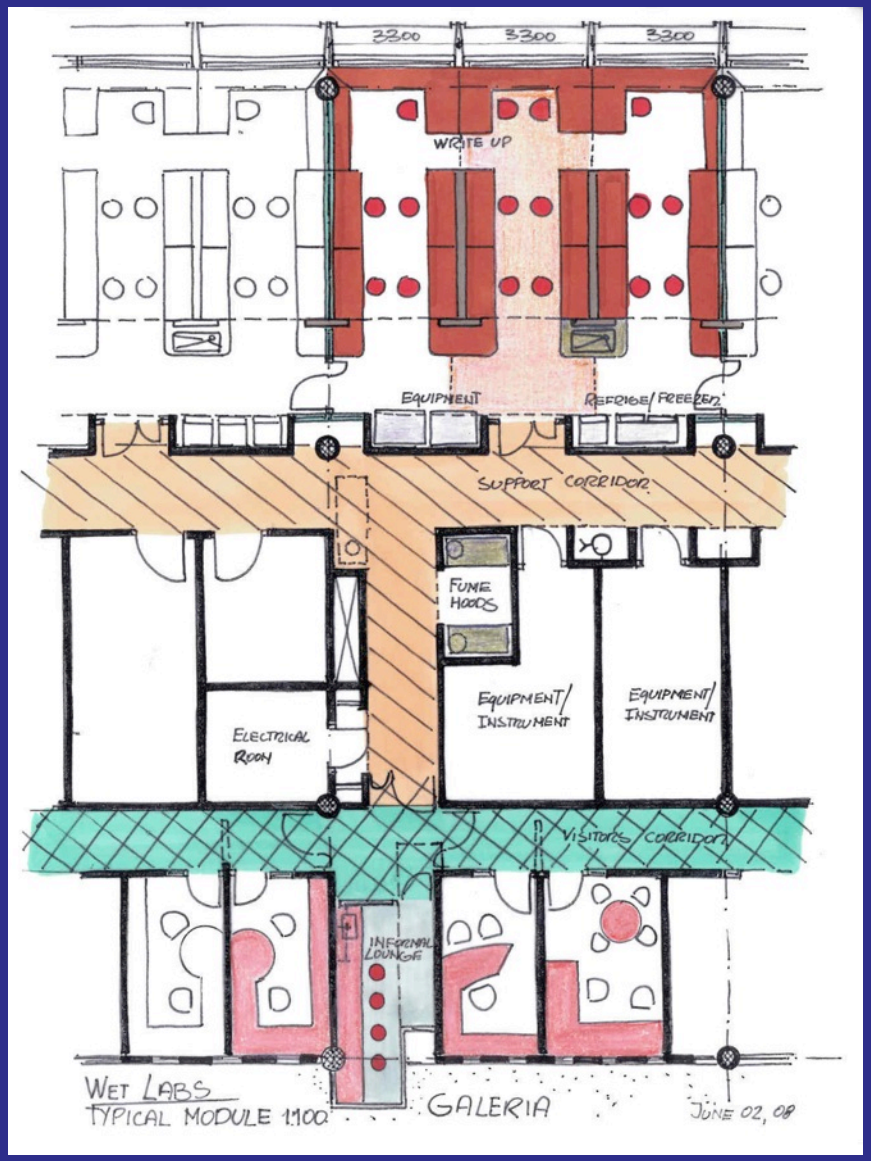
THIRD FLOOR

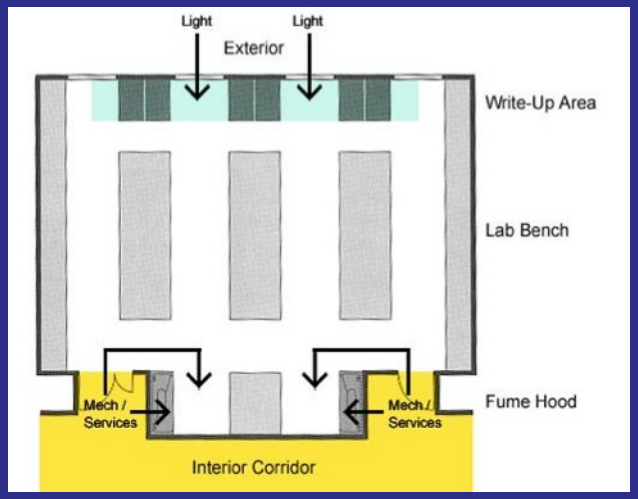

MECHANICAL, PENTHOUSE (TYPICAL)
WINTERGARDEN ROOF (TYPICAL)
GALLERIA ROOF
MECHANICAL PENTHOUSE (TYPICAL)
EDUCATION, LEARNING & RESEARCH SERVICES
BRAIN Centre, Theme 3 - Vivarium
NORTH
0m 10m 25m 75m
0ft 50ft 100ft 250ft
LEGEND
MAJOR BUILDING ENTRANCE
SERVICE DOCK BAY
SECURITY PORTAL
INPATIENT/RESIDENTIAL UNIT ENTRANCE
DEPARTMENT ACCESS/EGRESS
EGRESS STAIRWELL
ELEVATOR
CLINICAL SERVICES
EDUCATION, LEARNING & RESEARCH SERVICES
CLINICAL SUPPORT SERVICES
ADMINISTRATION & GENERAL SUPPORT
MECHANICAL & ELECTRICAL AREAS
CIRCULATION
WINTERGARDEN & GALLERIA AREAS

PENTHOUSE

Theme 3, Wet Lab

Lab Module, Scheme A



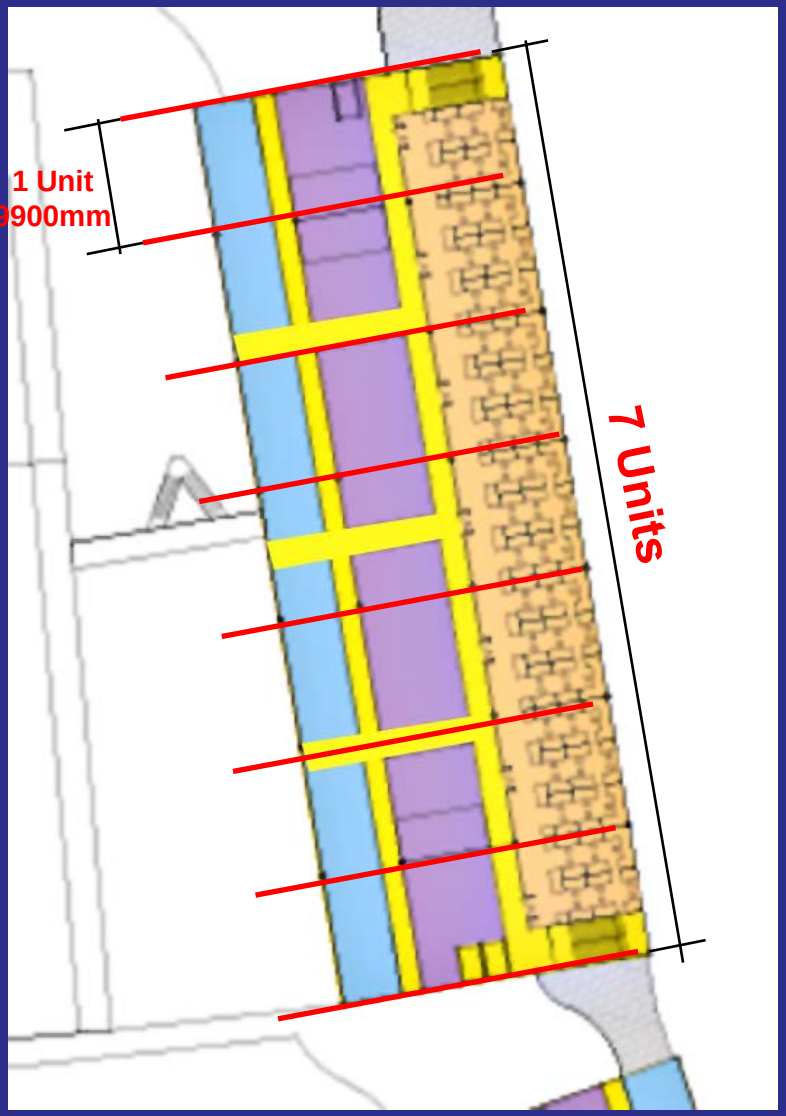


from: research laboratories, by Daniel D. Watch

03 Schematic Layout

Theme 3, Wet Lab

3rd Floor Layout Diagram, Scheme A



- Labs
- Support
- Office
- Corridors

03 Schematic Layout

Theme 3, Wet Lab

3rd Floor Layout Diagram, Scheme C

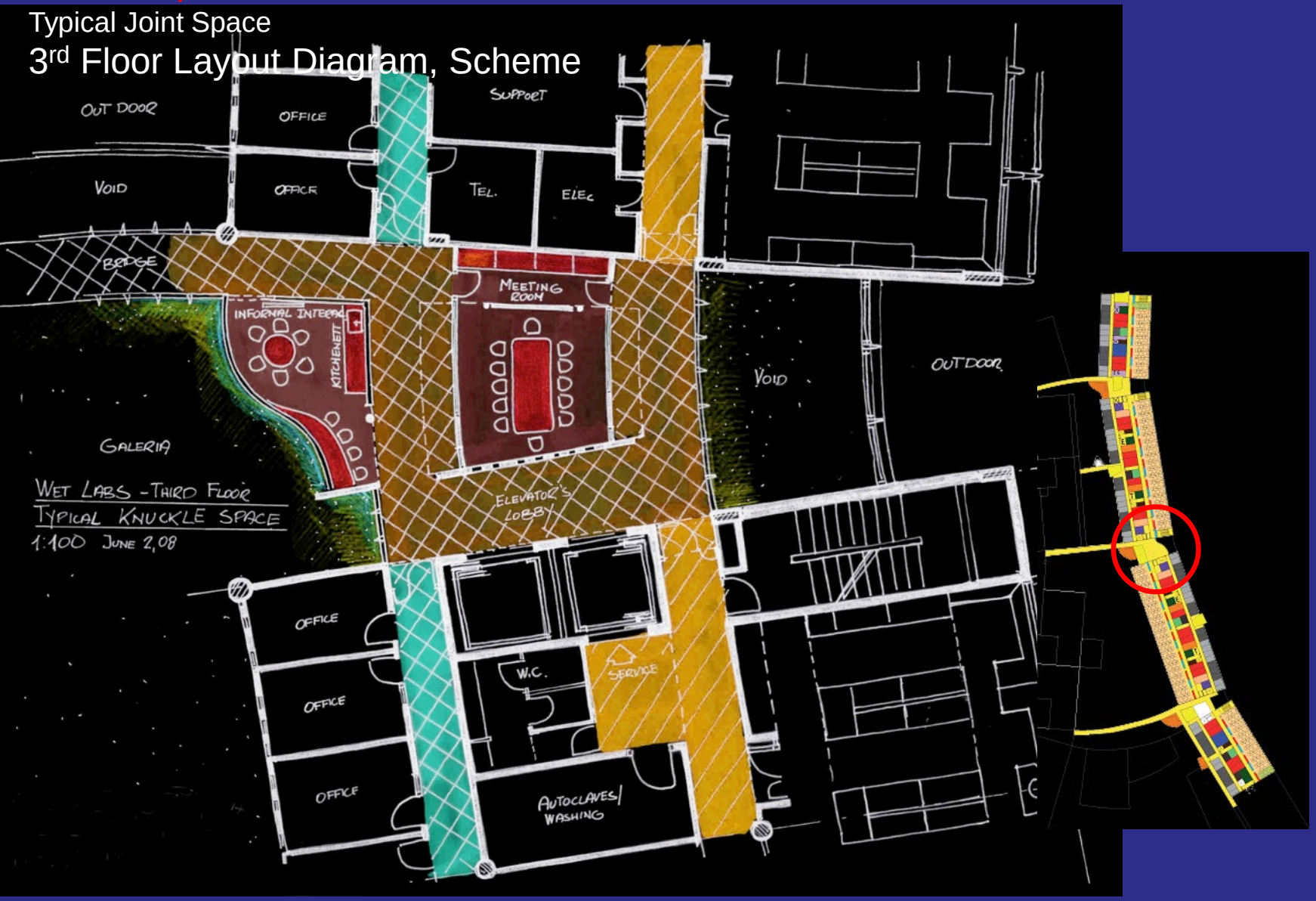
53 Histology Lab
54 Tissue Culture
55 Electrophysiology
56 Microscopy
57 Fume Hoods
58 Refrigerator Dairy Style
59 Standard Freezer
60 -80 C Freezer
61 Dark Room
62 Equipment Storage
63 Autoclave
64 Office PI
65 Office Mangers, Directors
66 Office Visitors
67 Office Research Staff
69 Office support
70 Research Meeting Room
71 Informal Interaction Space
73 Washroom
T Telephon
E Electrical

03 Schematic Layout

Theme 3, Wet Lab

Typical Joint Space

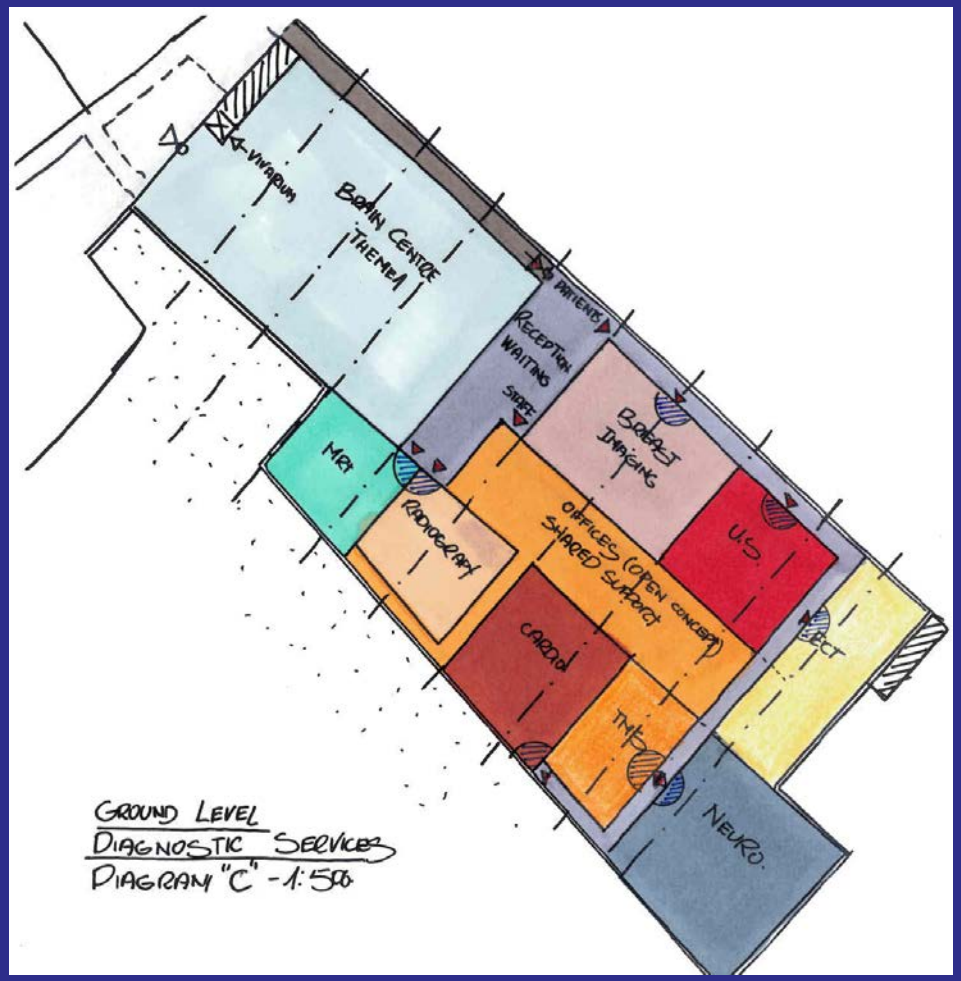
3rd Floor Layout Diagram, Scheme

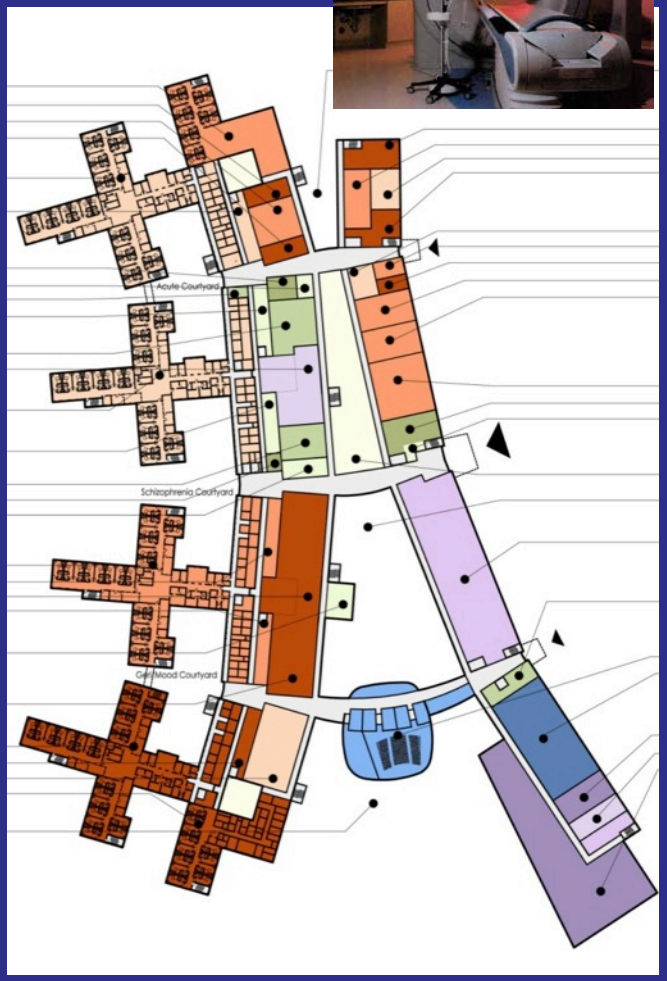


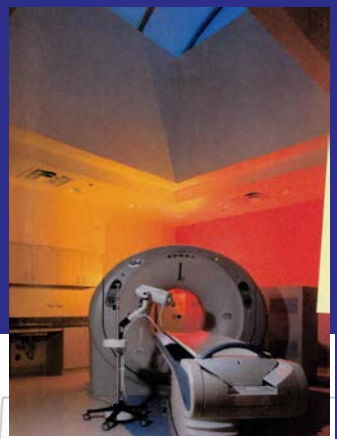
03 Schematic Layout

First Floor, Diagnostic Services

Diagram C

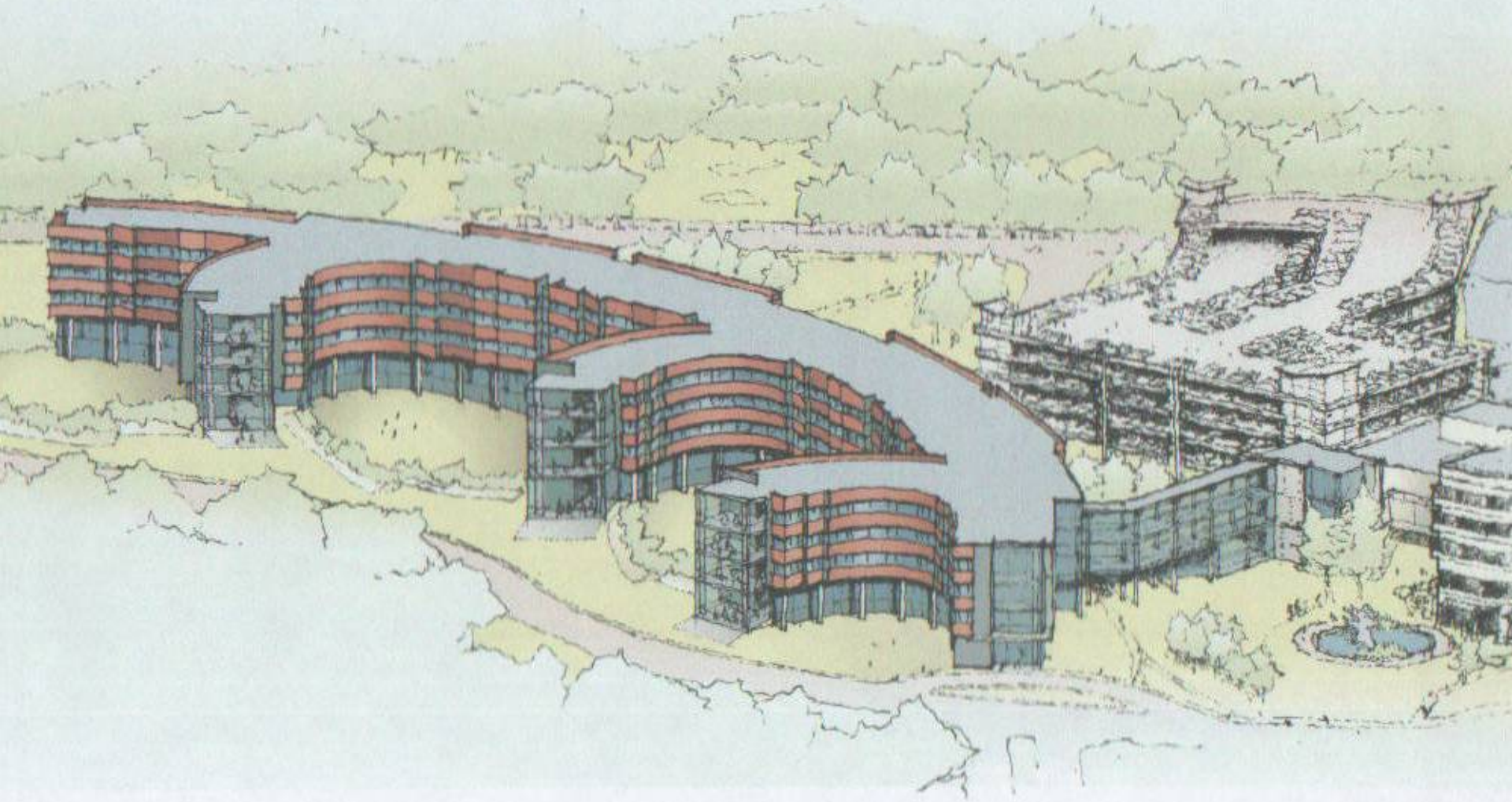


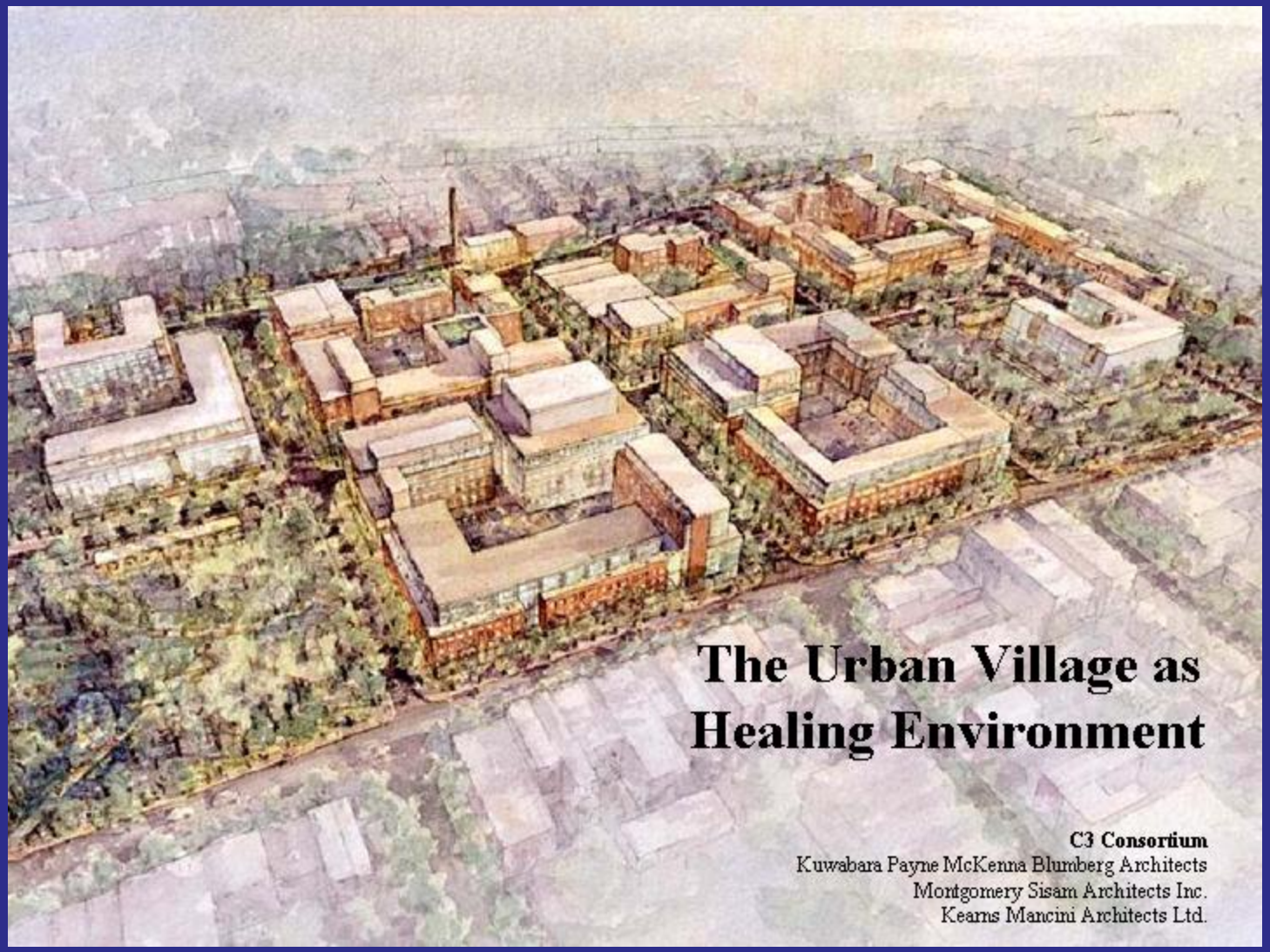




03 Diagnostic Services

birds-eye view looking north

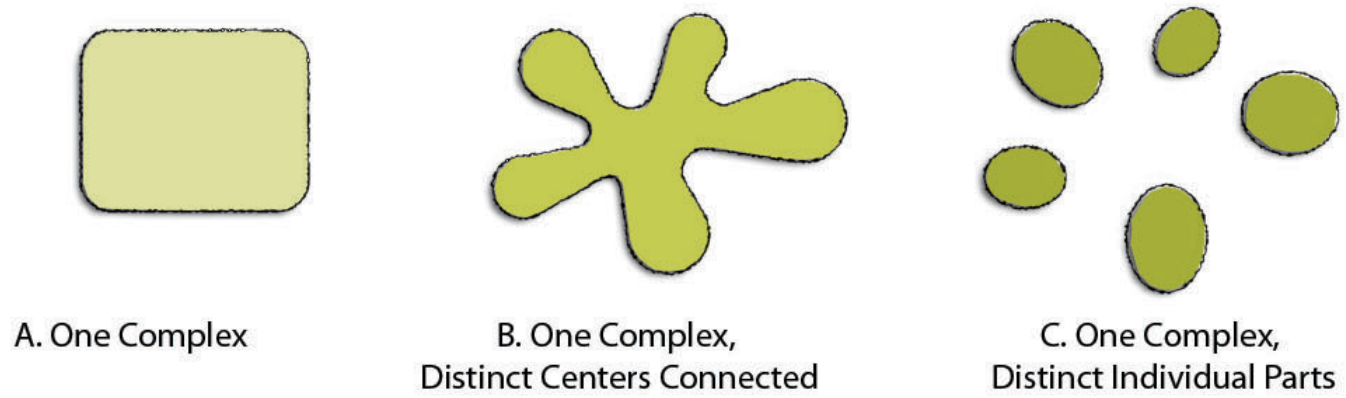



The Urban Village as
Healing Environment
C3 Consortium
Kuwabara Payne McKenna Blumberg Architects
Montgomery Sisam Architects Inc.
Kearns Mancini Architects Ltd.

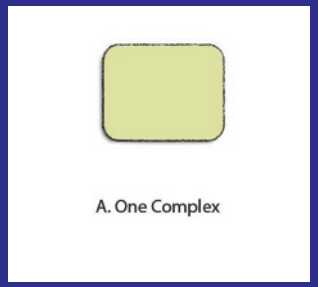
The
Parkin
Group

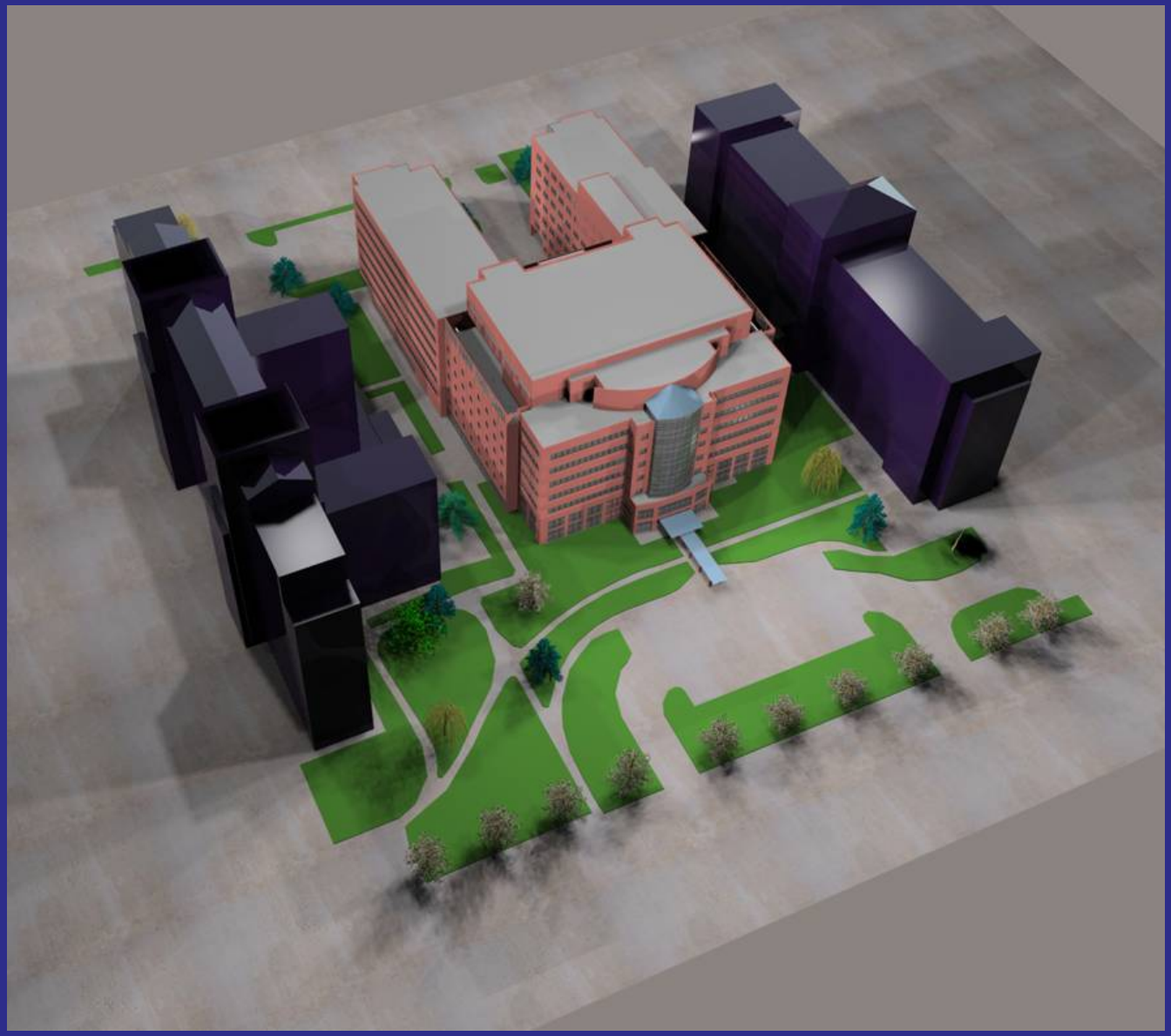
Q&A

Design Drivers: What is the most appropriate representation of the hospital as a whole?

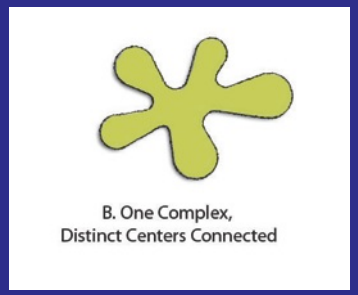


Design Drivers: What is the most appropriate representation of the hospital as a whole?

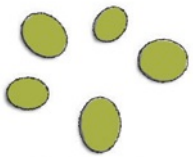




Design Drivers: What is the most appropriate representation of the hospital as a whole?

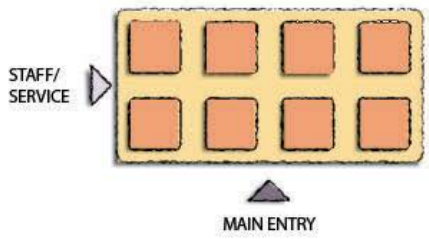


Design Drivers: What is the most appropriate representation of the hospital as a whole?

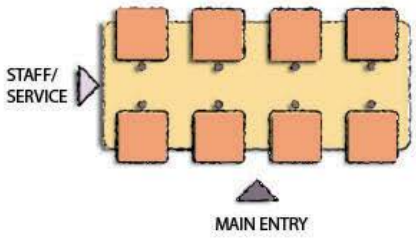


C. One Complex,
Distinct Individual Parts

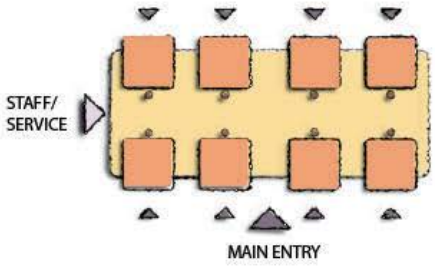
Design Drivers: Entry



A. Main Entry

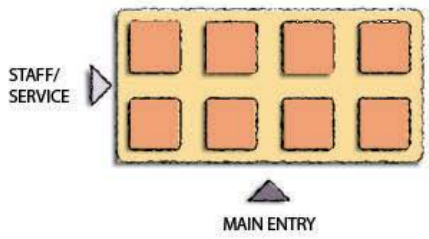


B. Main Entry & Internal Entries

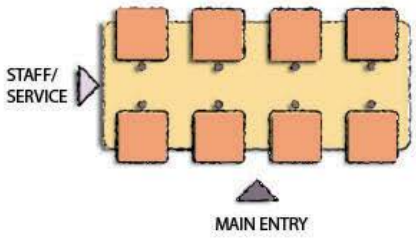


C. Main & Dedicated Entry

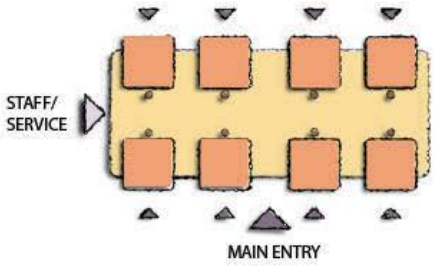
Design Drivers: Entry



A. Main Entry

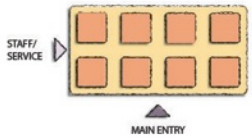


B. Main Entry & Internal Entries



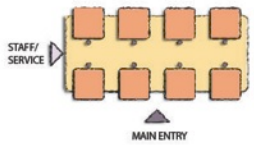
C. Main & Dedicated Entry

Design Drivers: Entry



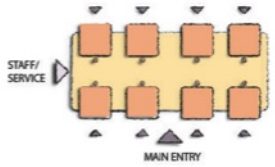
A. Main Entry

Design Drivers: Entry

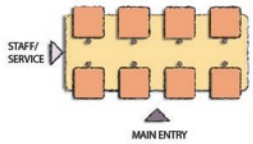


B. Main Entry & Internal Entries

Design Drivers: Entry

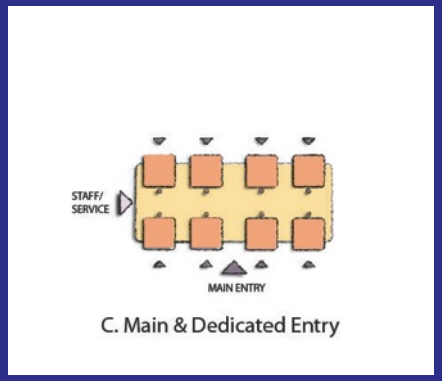


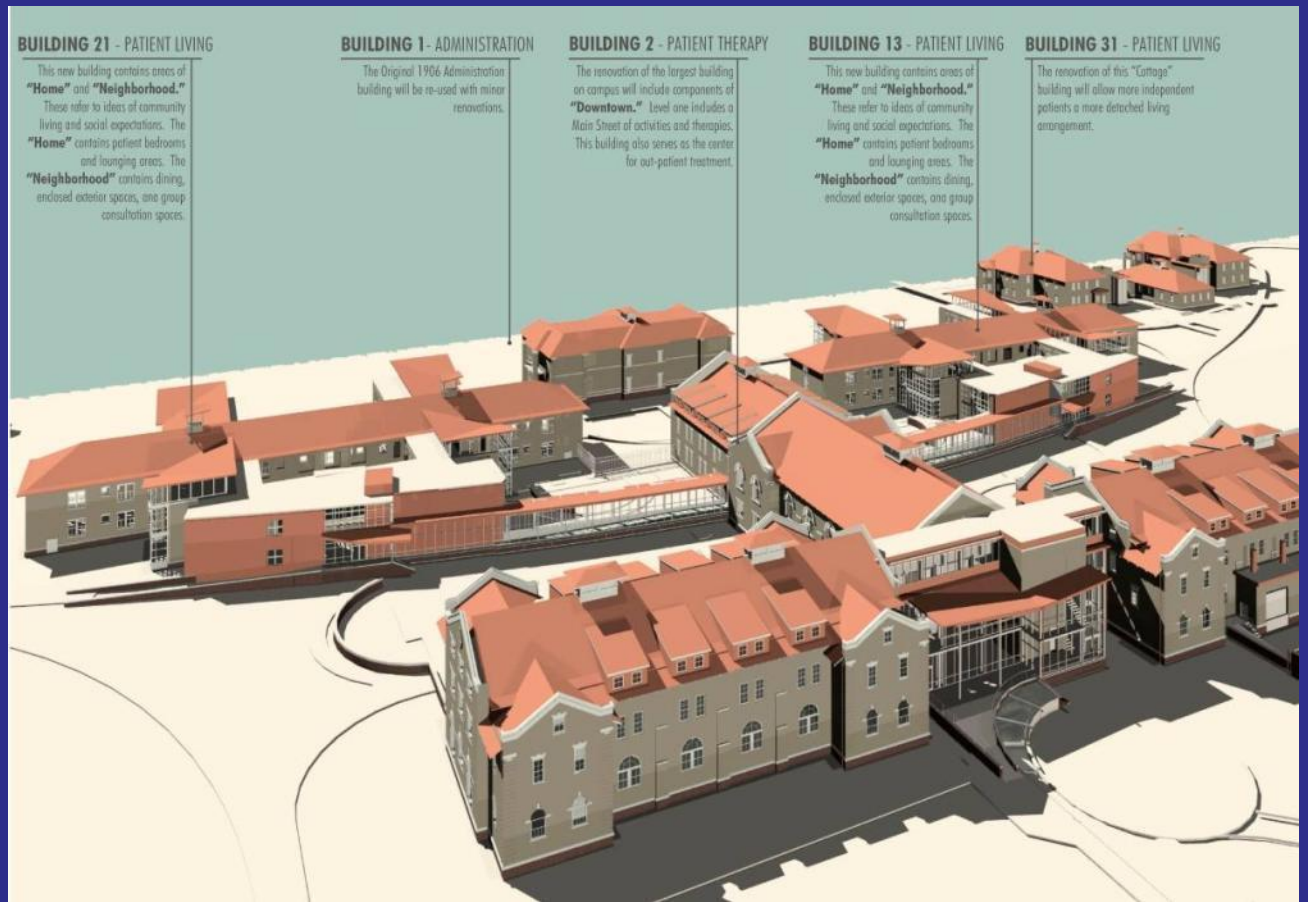
C. Main & Dedicated Entry

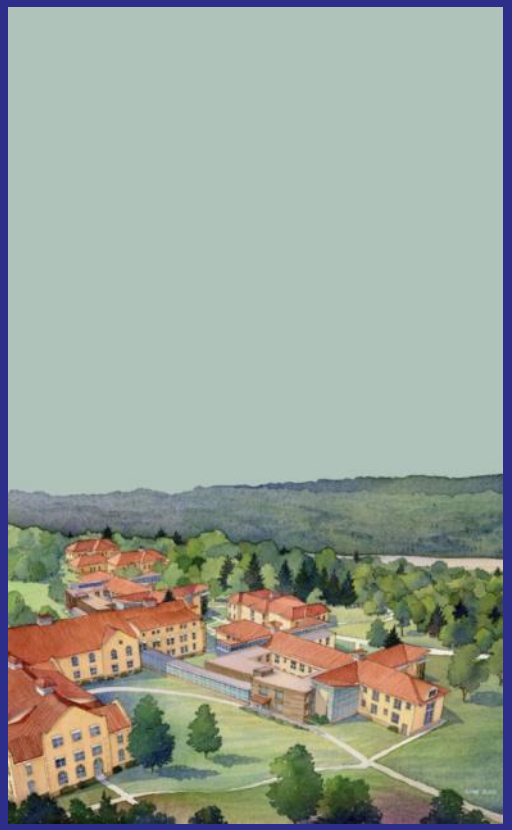


B. Main Entry & Internal Entries

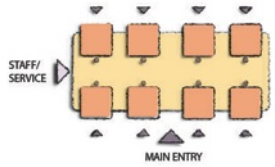
Design Drivers: Entry







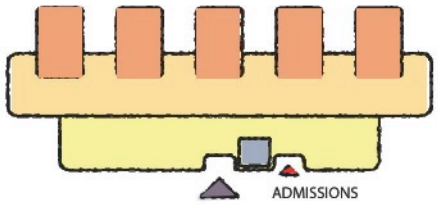
Design Drivers: Entry



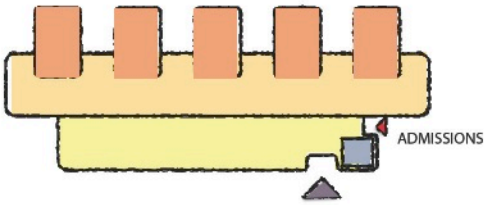
C. Main & Dedicated Entry

North Shore-Long Island Jewish Health System | Hillside Hospital ARCHITECTURE + Bohlin Cywinski Jackson | Associated Architects 04 April 2000

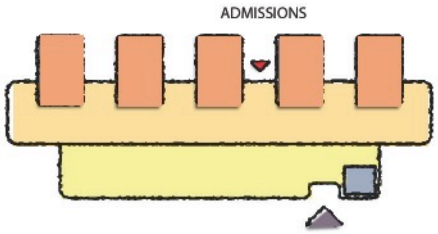
Design Drivers: Where should Admissions be located?



A. Adjacent to Main Entrance



B. Side Entrance



C. Adjacent to Units

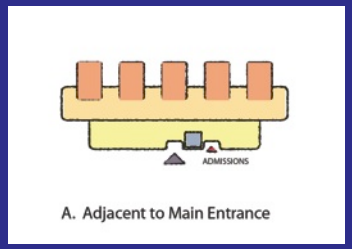
Design Drivers: Where should Admissions be located?

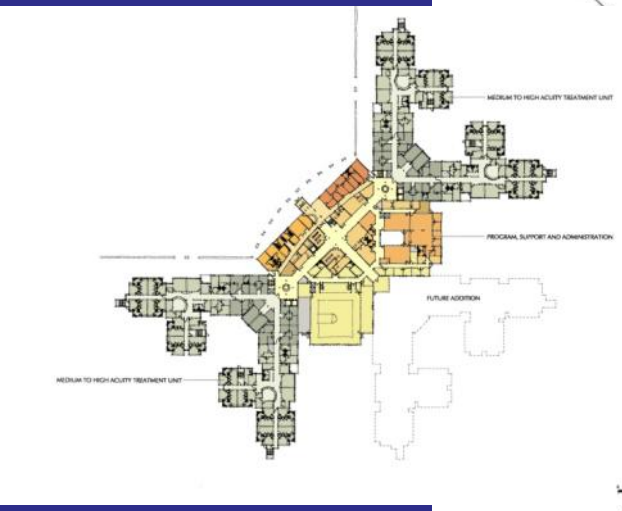
Design Drivers: Where should Admissions be located?

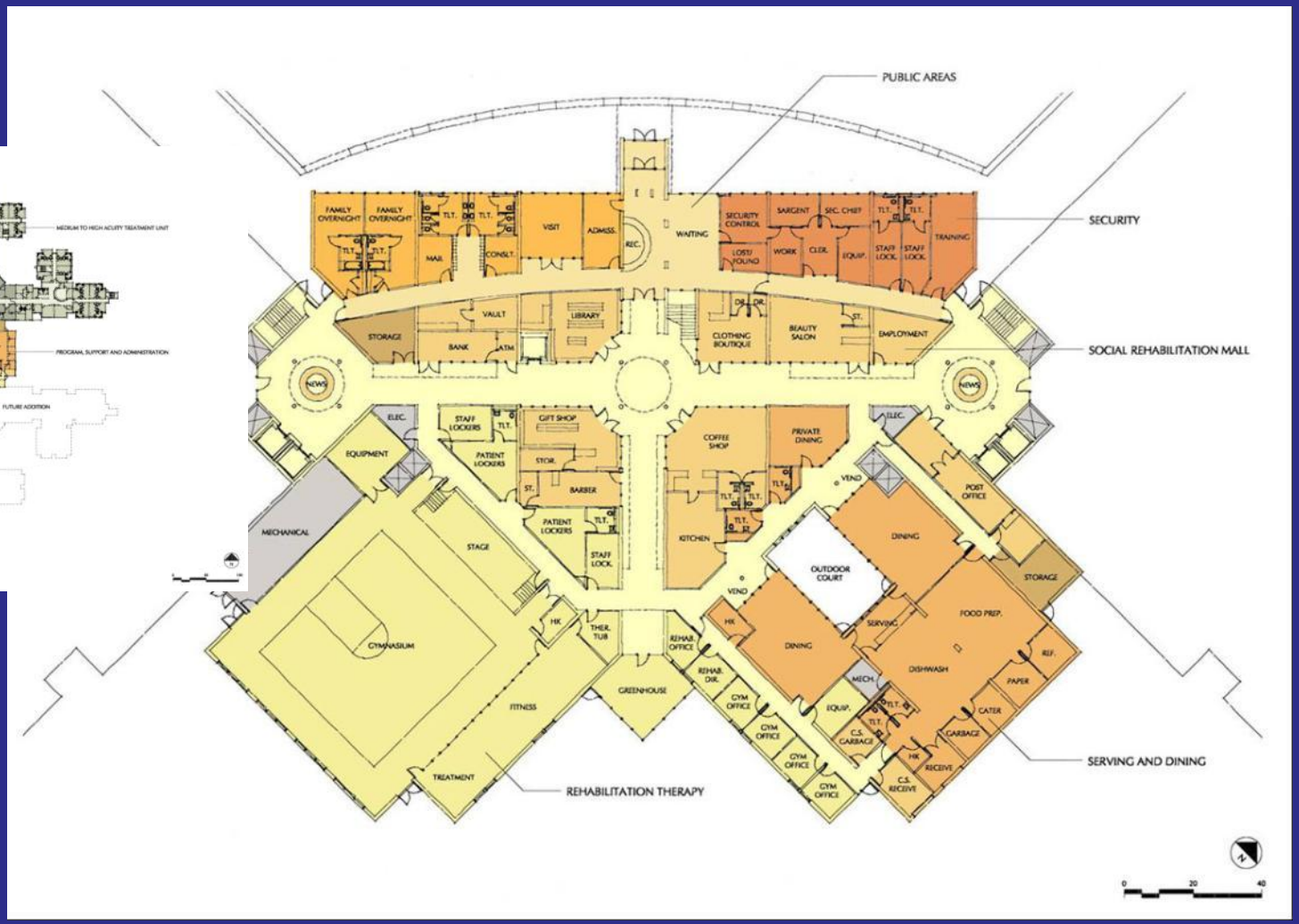
Design Drivers: Where should Admissions be located?

Beyond

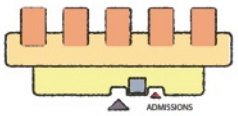
Design Drivers: Where should Admissions be located?



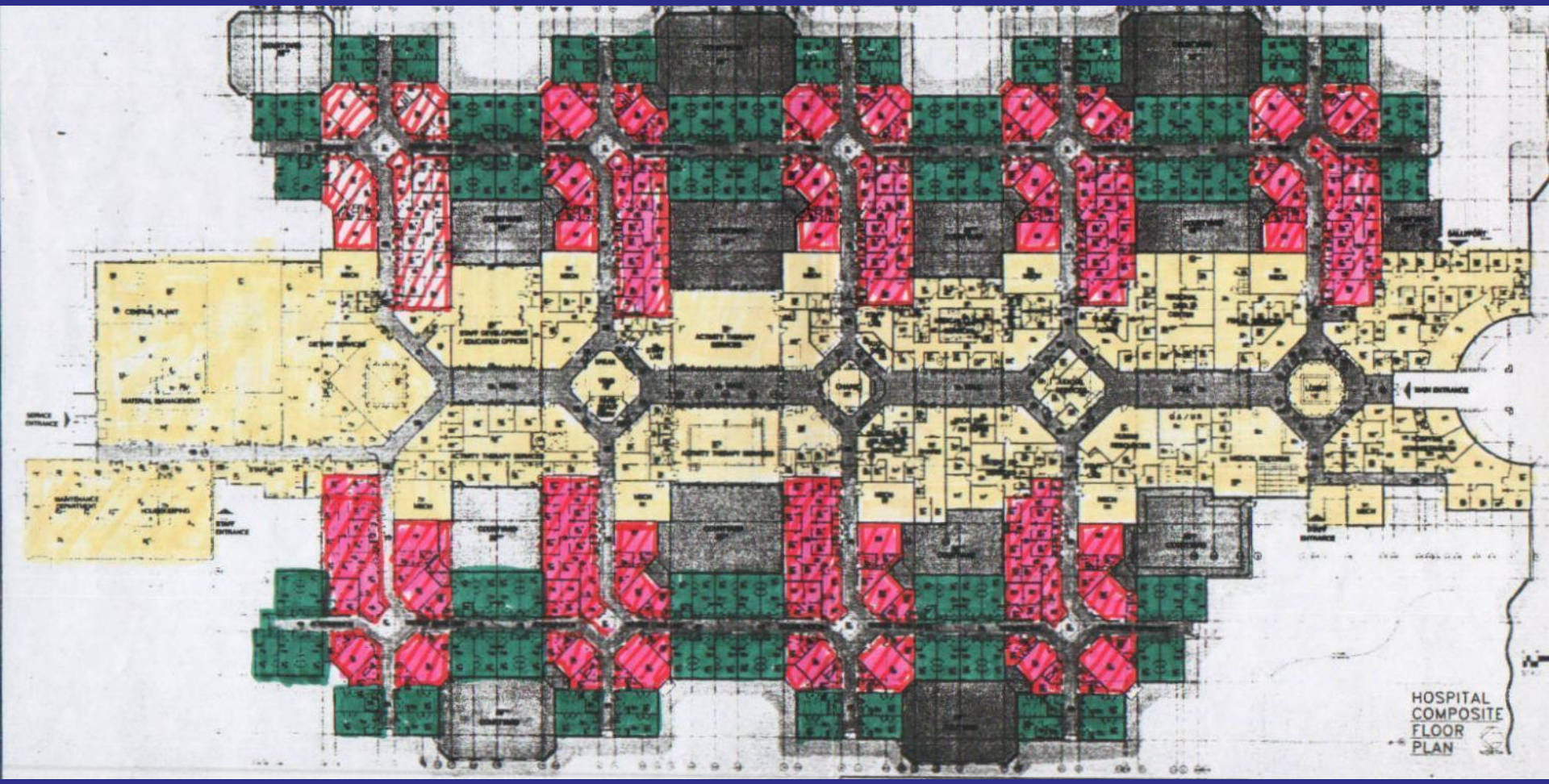




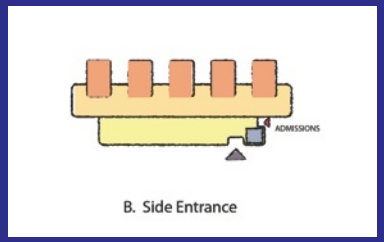
Design Drivers: Where should Admissions be located?

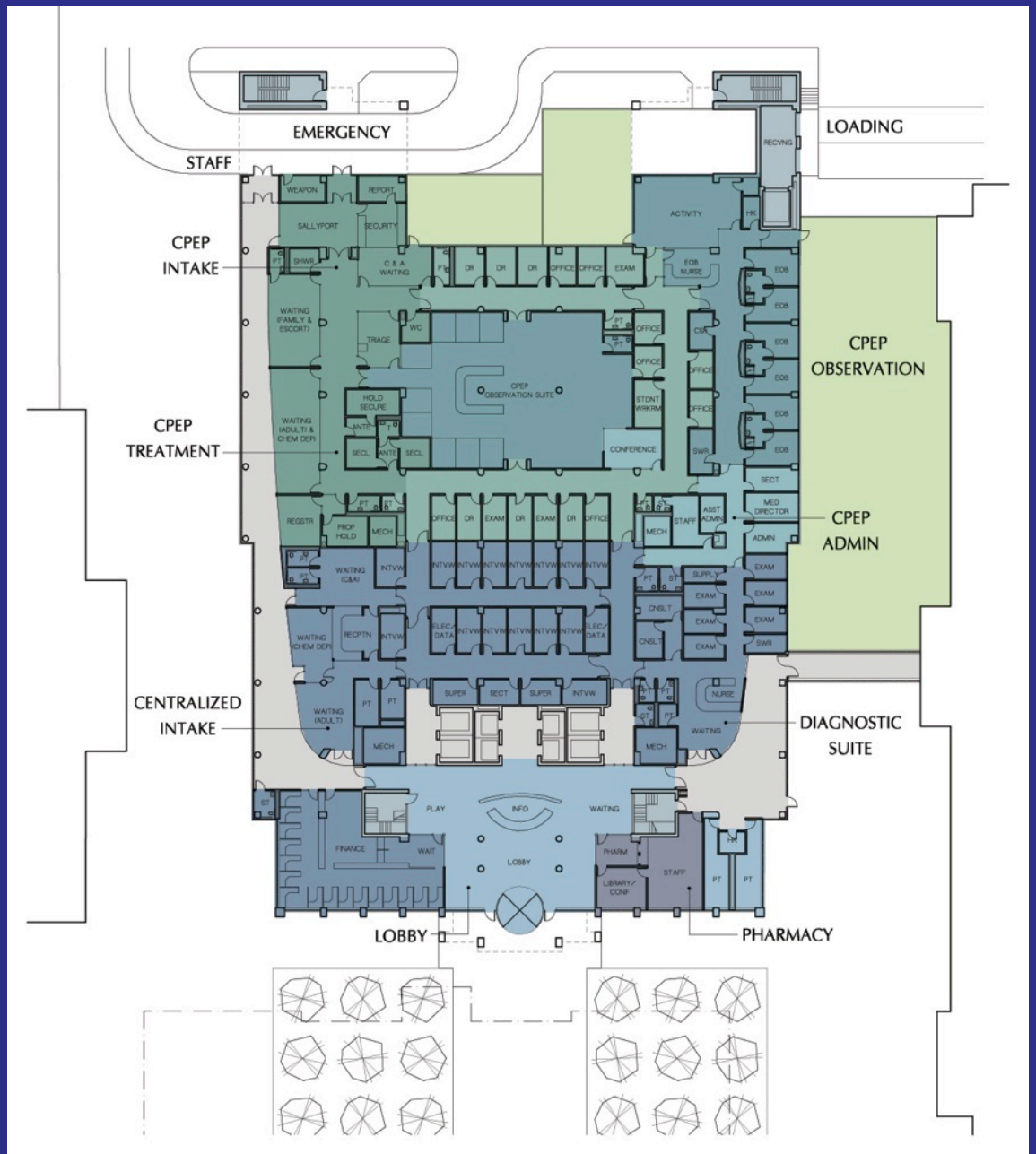


A. Adjacent to Main Entrance

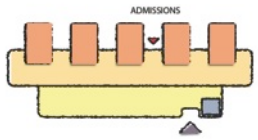


Design Drivers: Where should Admissions be located?

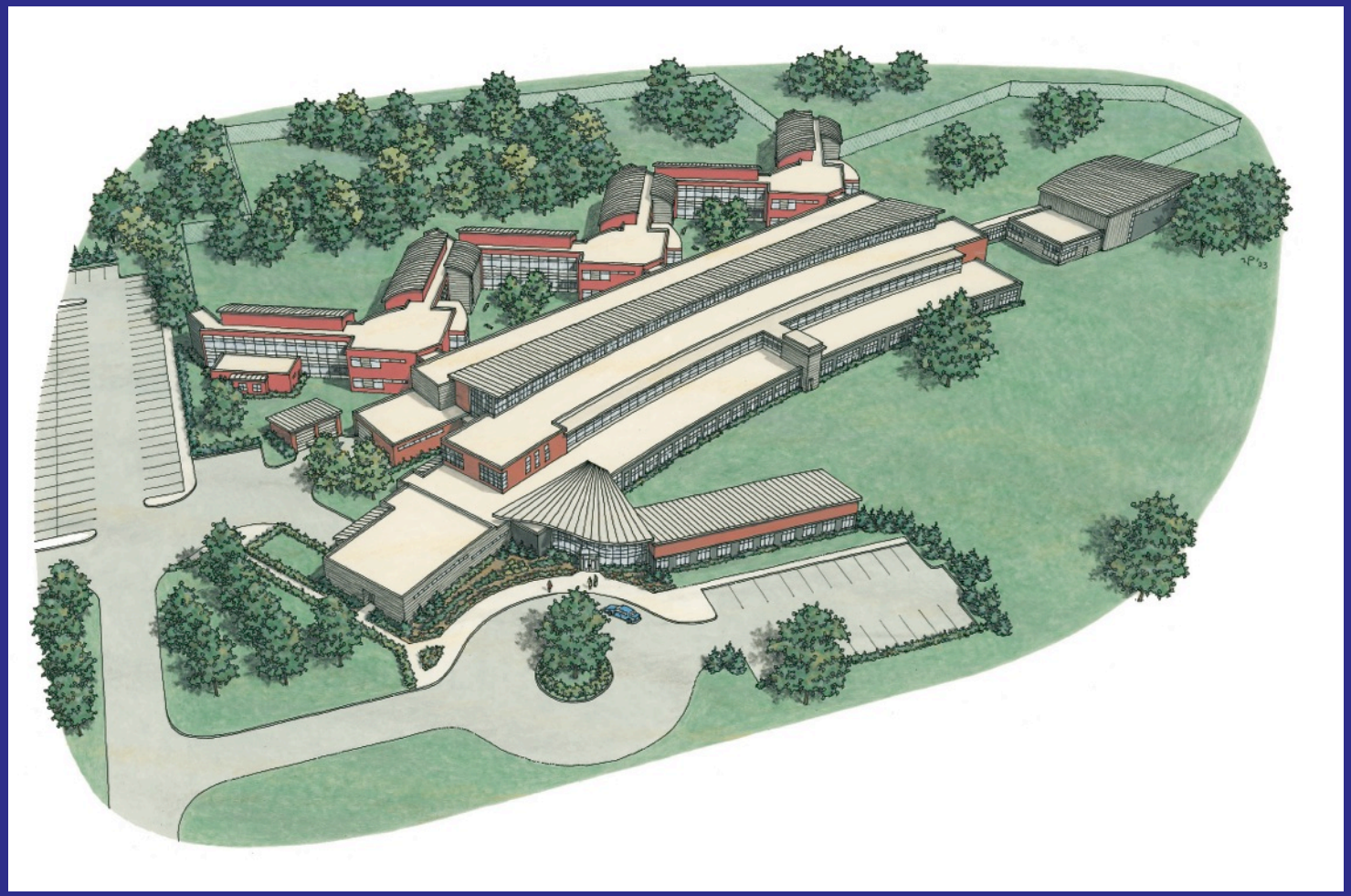




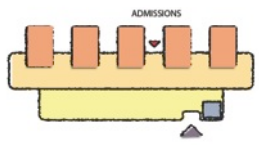
Design Drivers: Where should Admissions be located?



C. Adjacent to Units



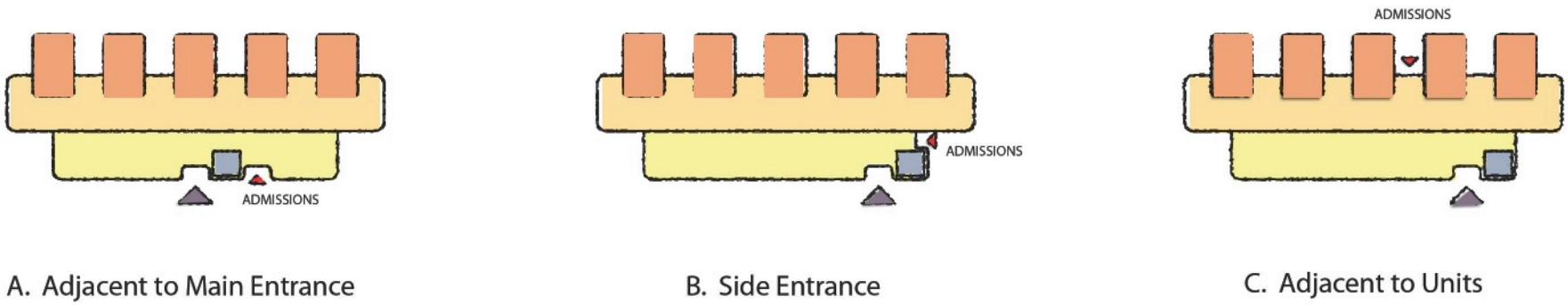
Design Drivers: Where should Admissions be located?



C. Adjacent to Units

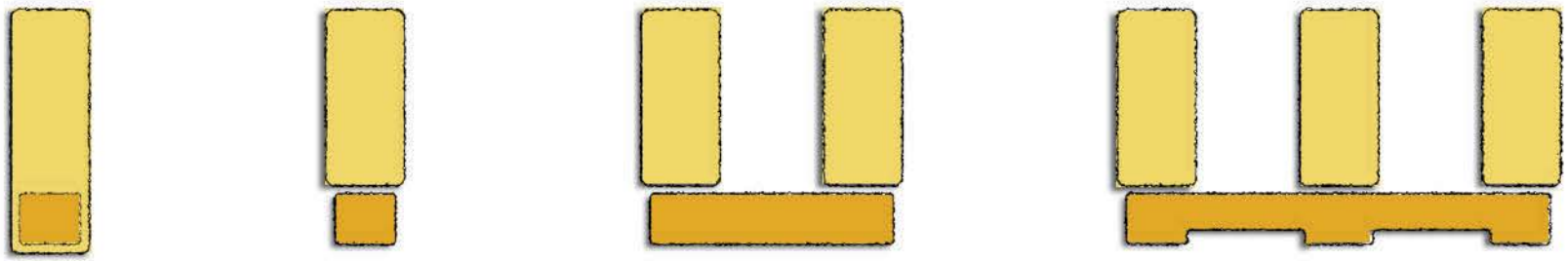
FIRST FLOOR

Design Drivers: Where should Admissions be located?



- What is security's role during admissions?
- What Units need to be closest to admissions?
- Under what circumstances can Forensics share admissions with other units?

Design Drivers: Locus of structured inpatient treatment programs



A. On-Unit Therapy

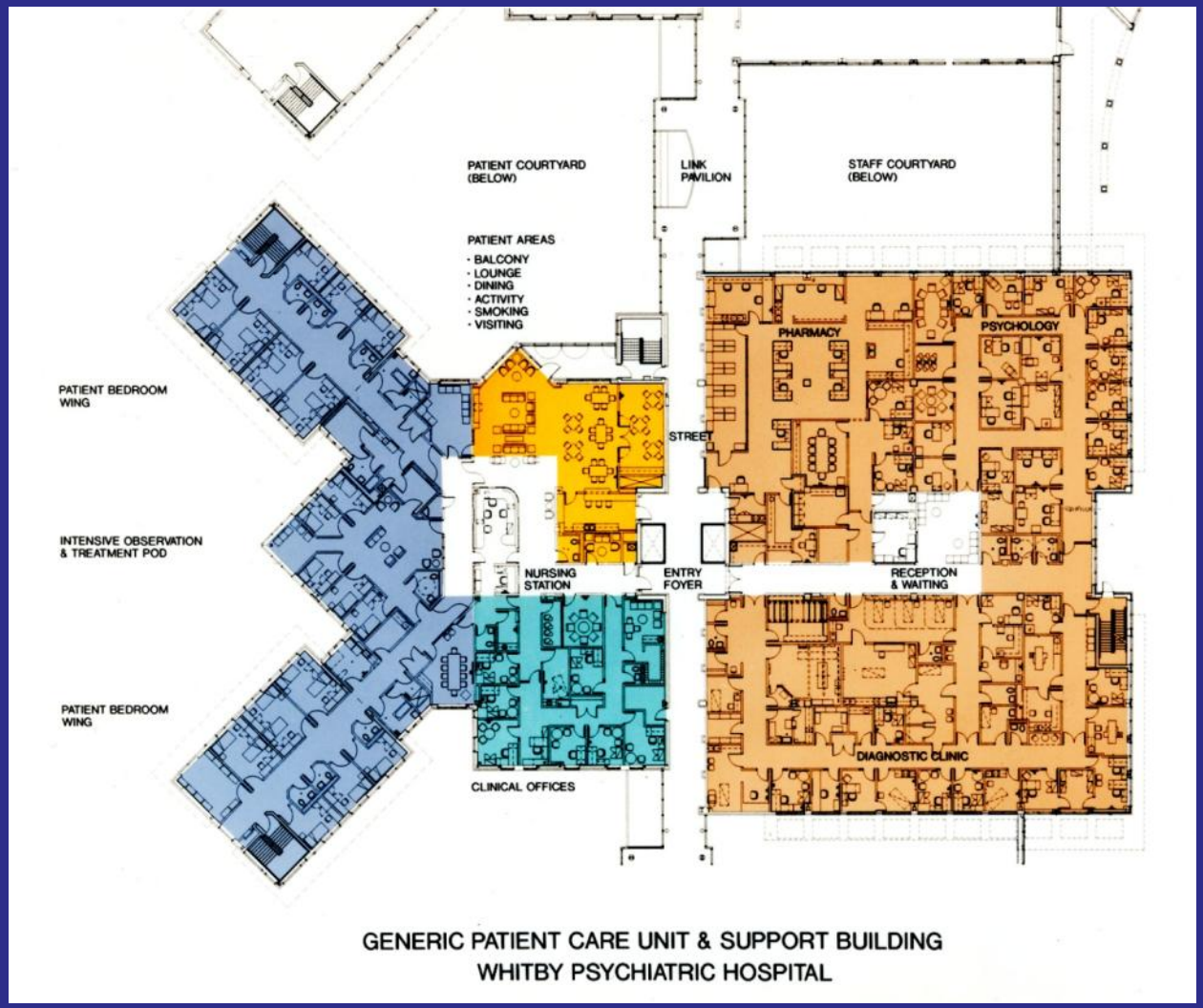
B. Off- Unit Therapy

C. Shared between Two Units

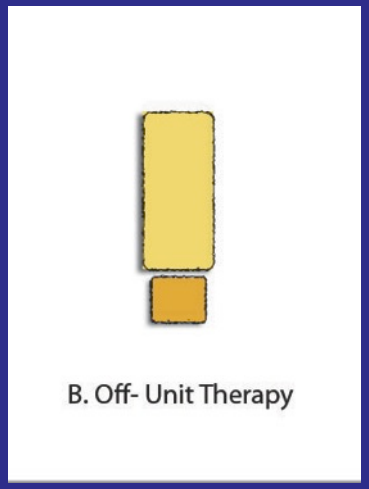
D. Shared between Multiple Units

Design Drivers: Locus of structured inpatient treatment programs

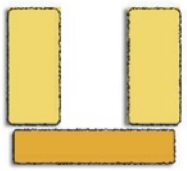
A. On-Unit Therapy



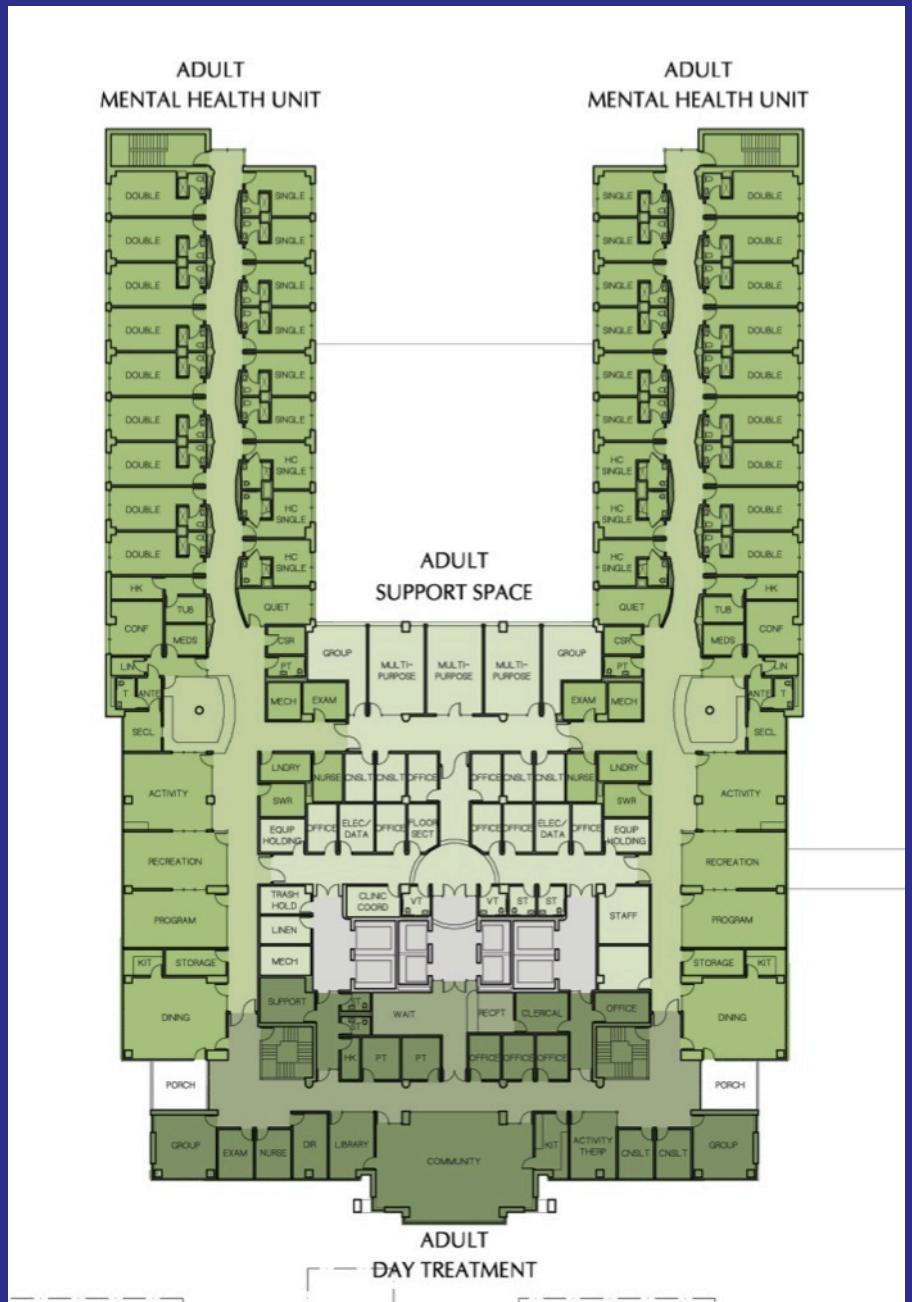
Design Drivers: Locus of structured inpatient treatment programs



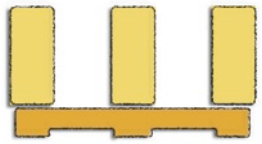
Design Drivers: Locus of structured inpatient treatment programs



C. Shared between Two Units

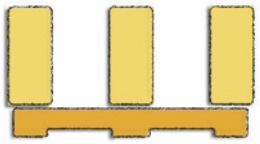


Design Drivers: Locus of structured inpatient treatment programs

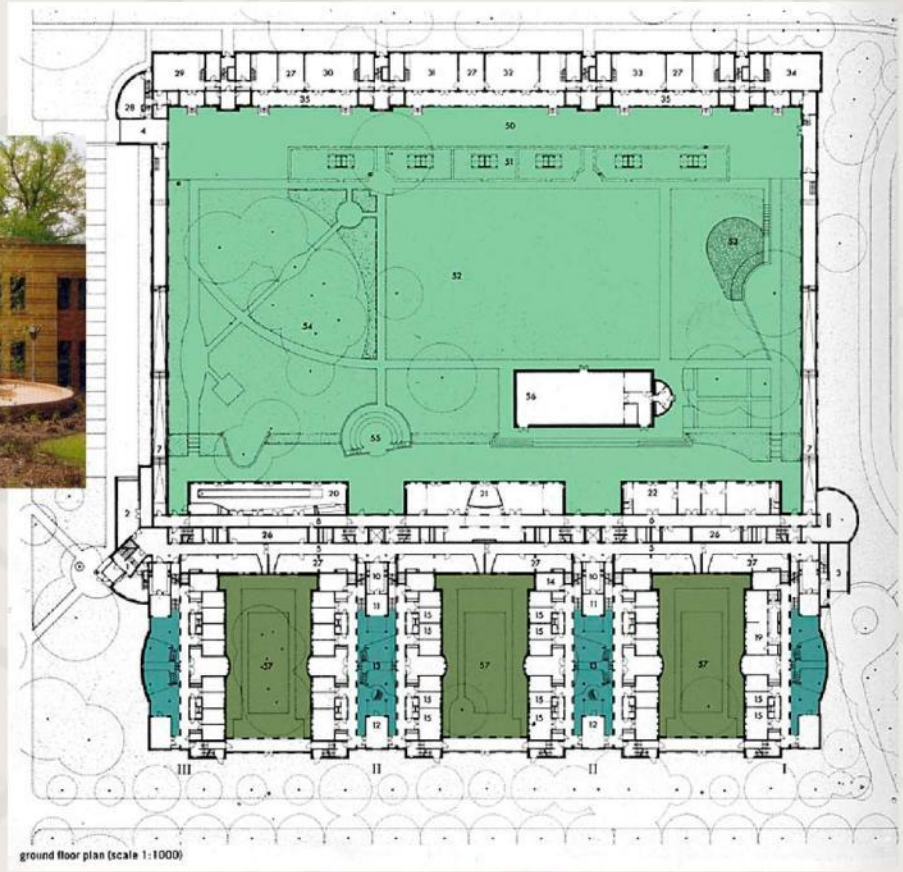


D. Shared between Multiple Units

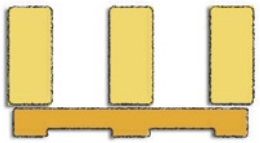
Design Drivers: Locus of structured inpatient treatment programs



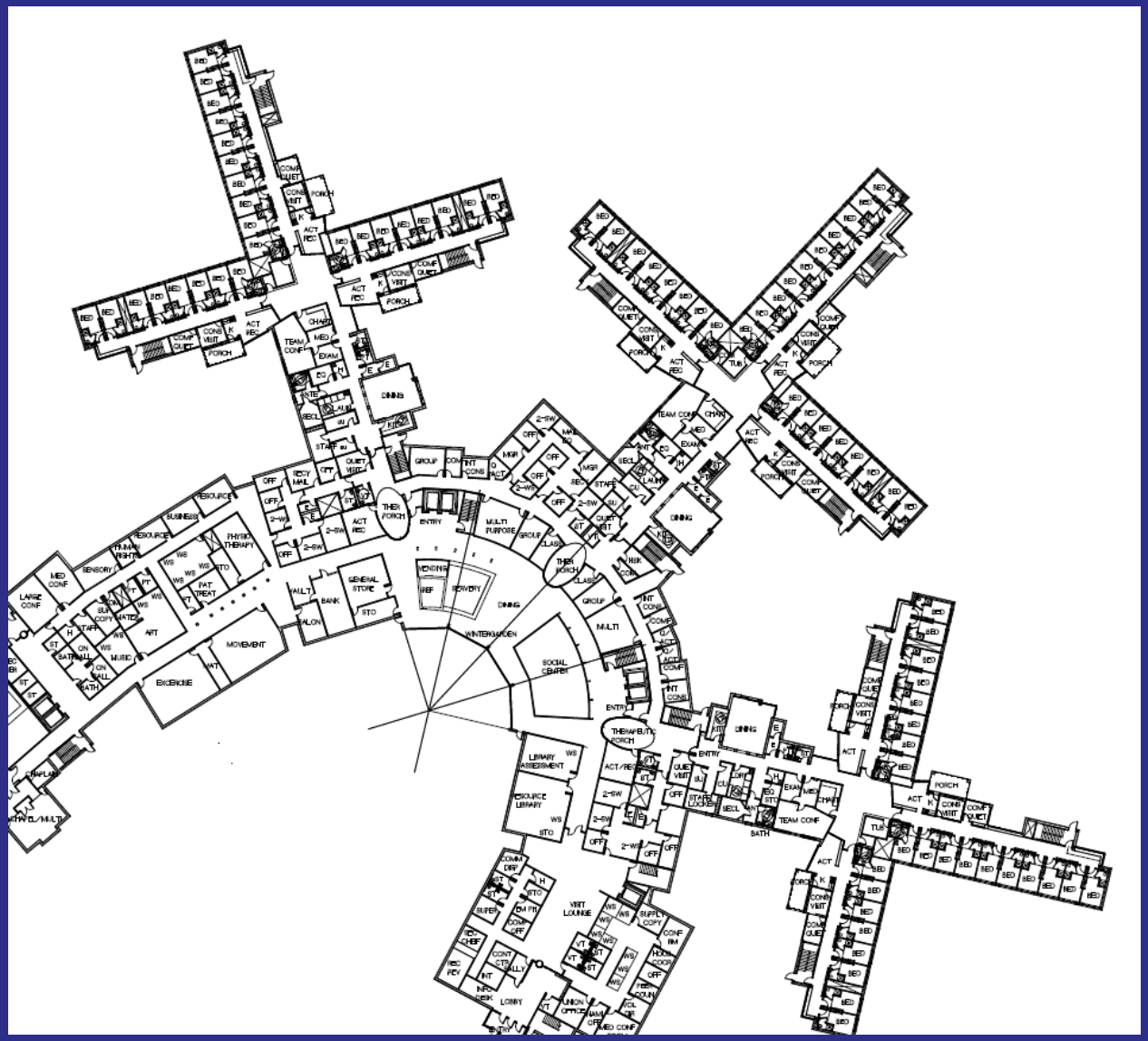
D. Shared between Multiple Units



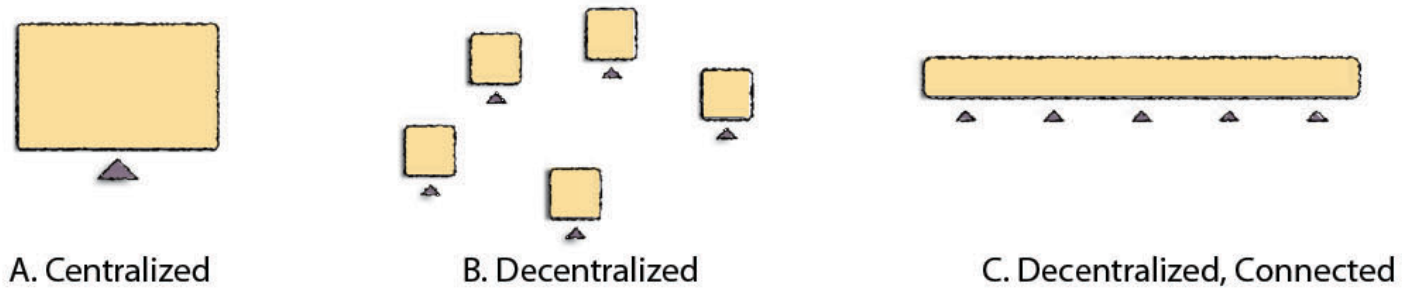
Design Drivers: Locus of structured inpatient treatment programs



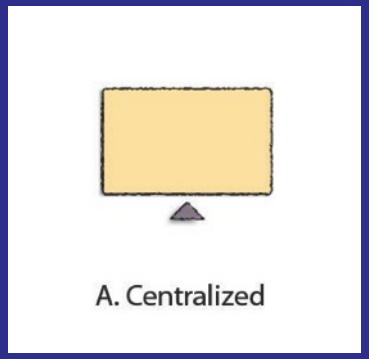
D. Shared between Multiple Units



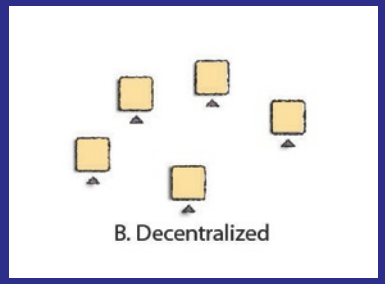
Design Drivers: Outpatient program identity, access and flexibility

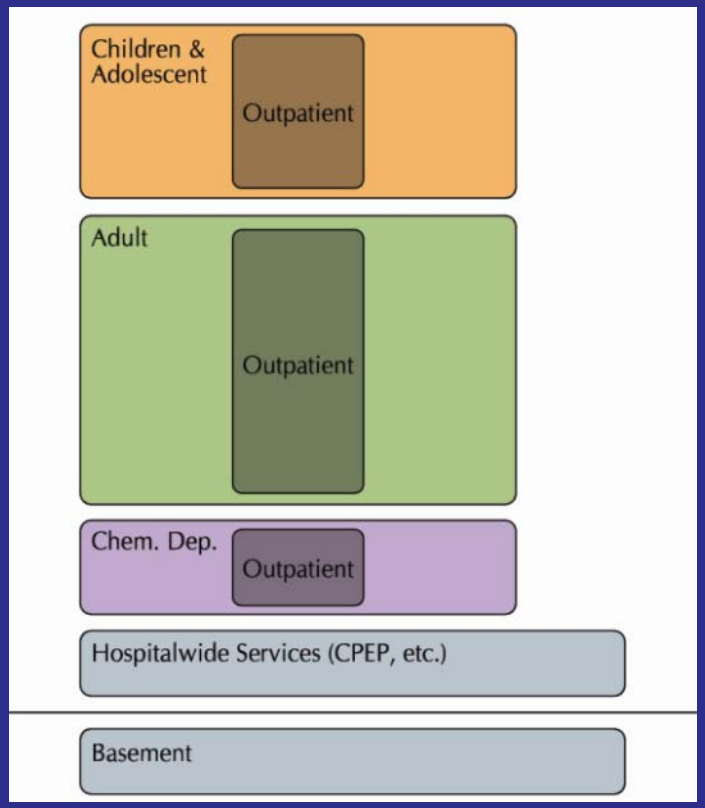


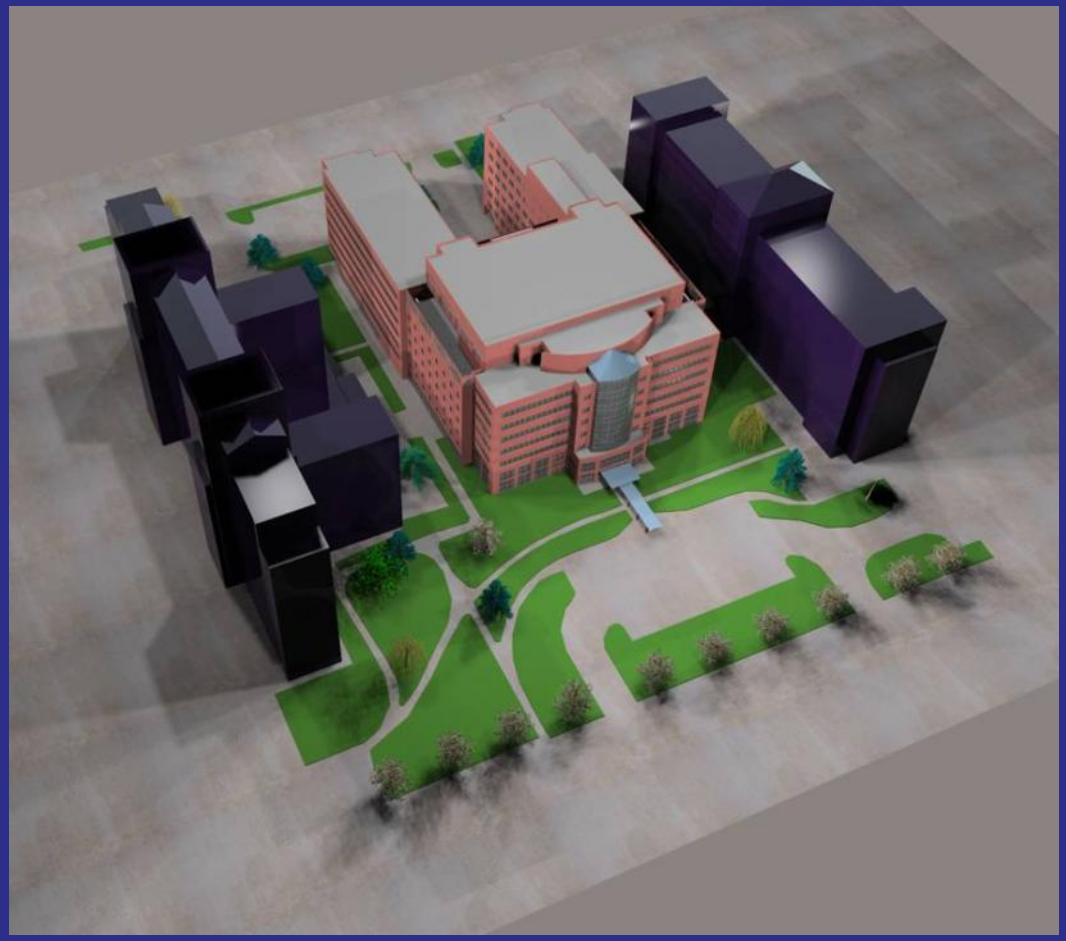
Design Drivers: Outpatient program identity, access and flexibility



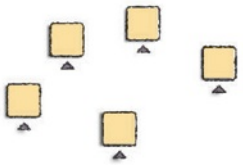
Design Drivers: Outpatient program identity, access and flexibility



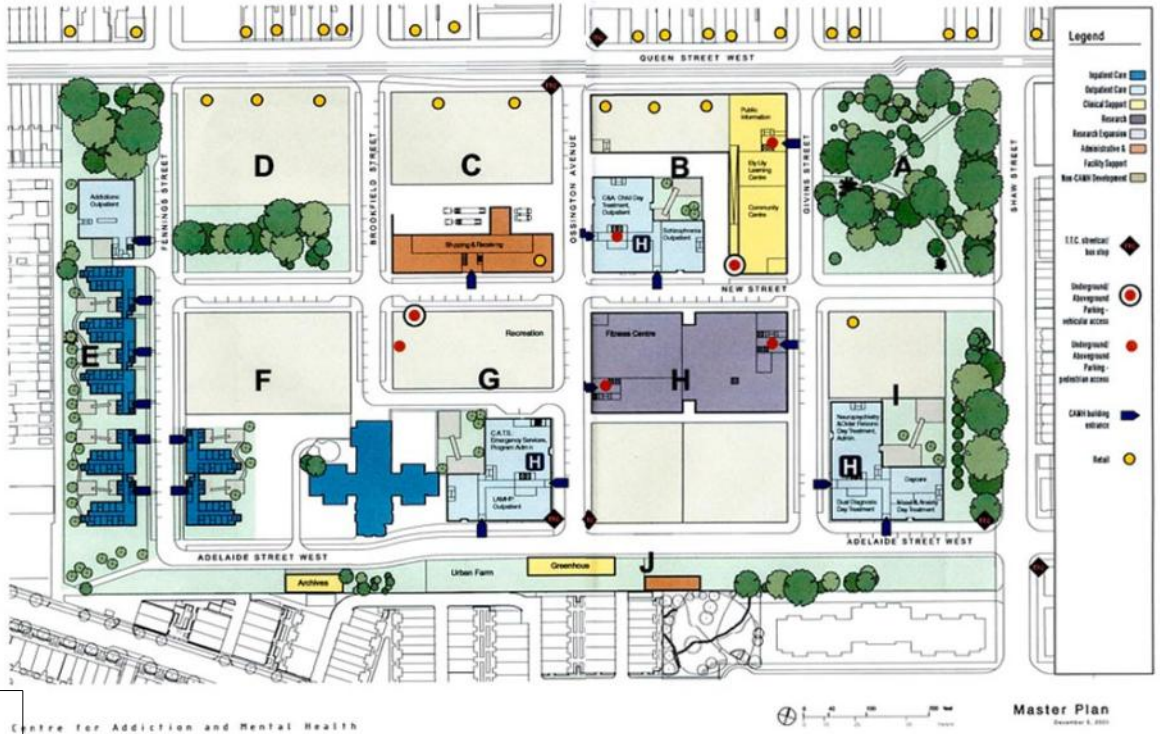




Design Drivers: Outpatient program identity, access and flexibility

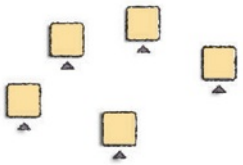


B. Decentralized

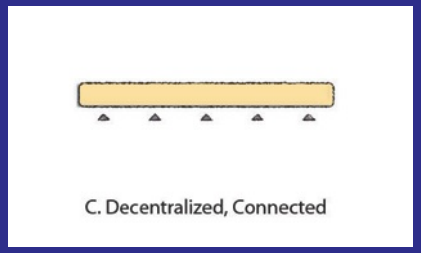


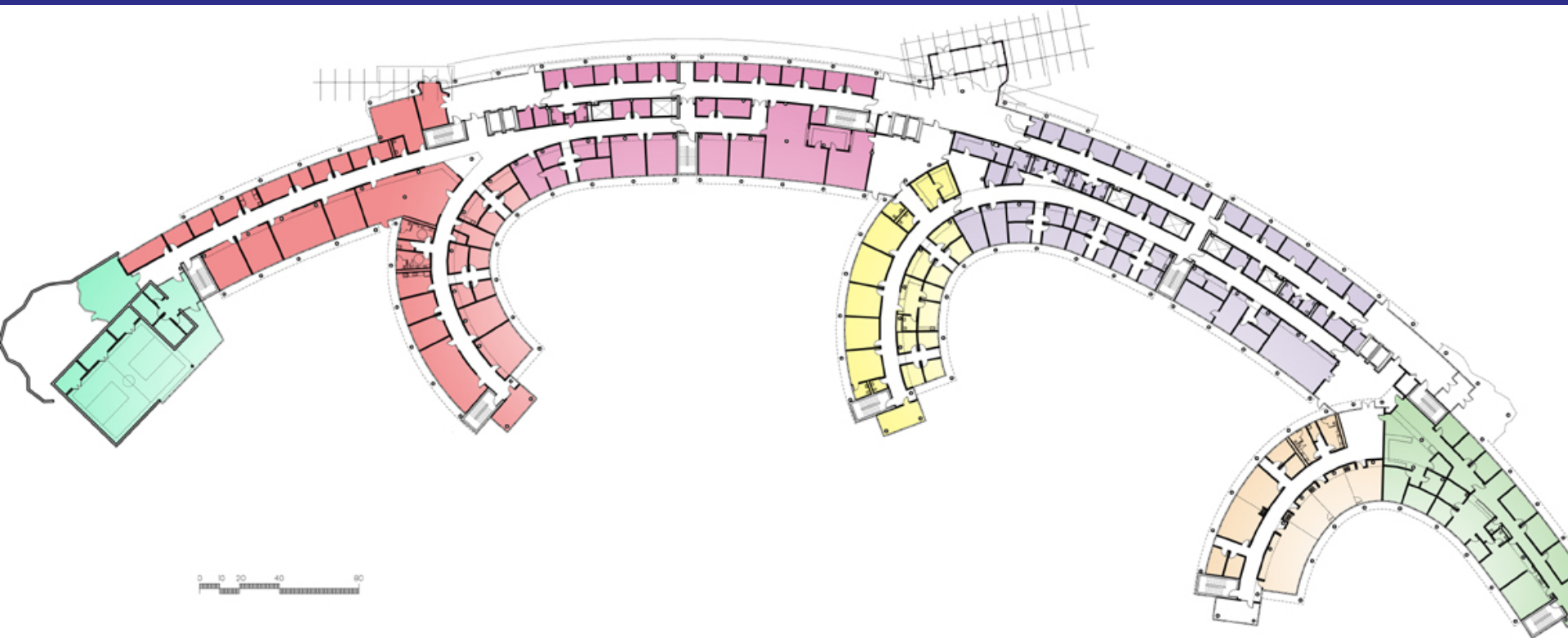
Centre for Addiction and Mental Health

Design Drivers: Outpatient program identity, access and flexibility

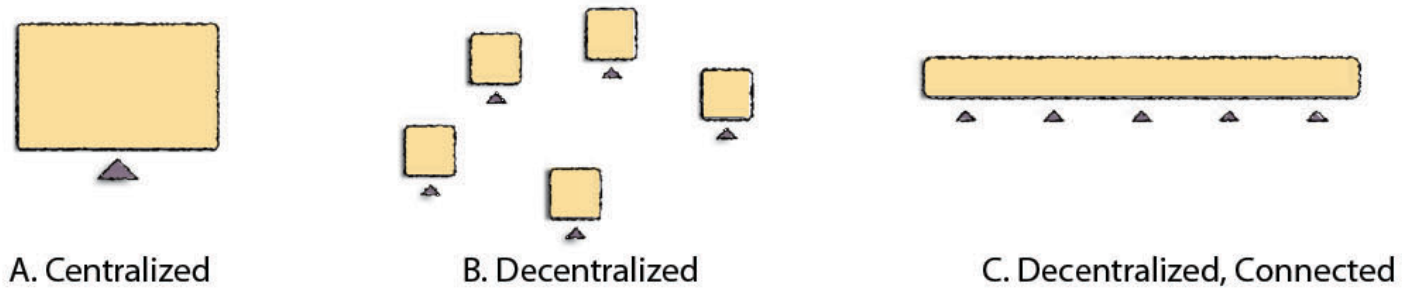


Design Drivers: Outpatient program identity, access and flexibility

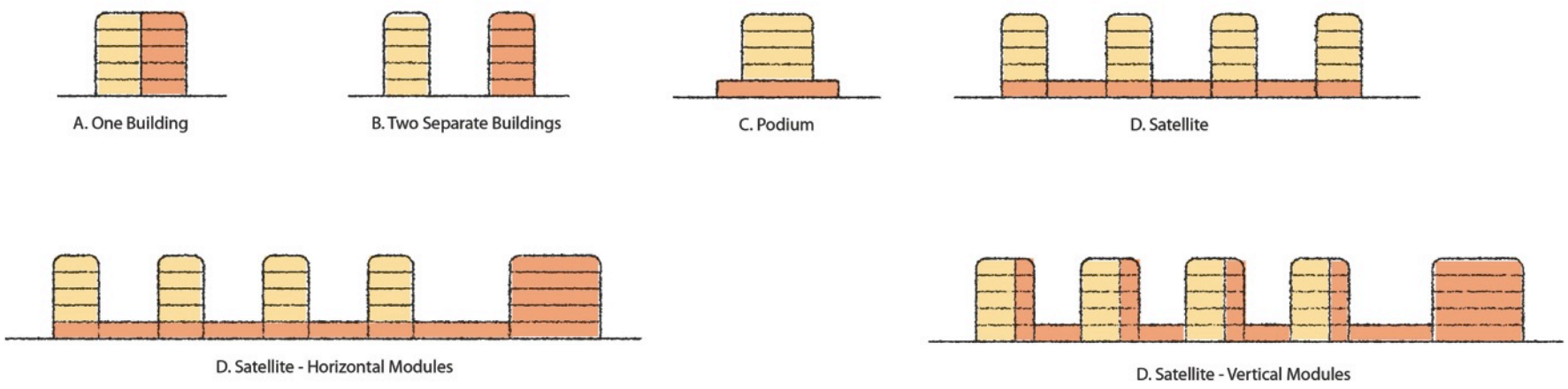




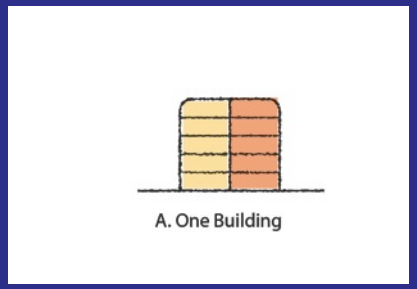
Design Drivers: Outpatient program identity, access and flexibility

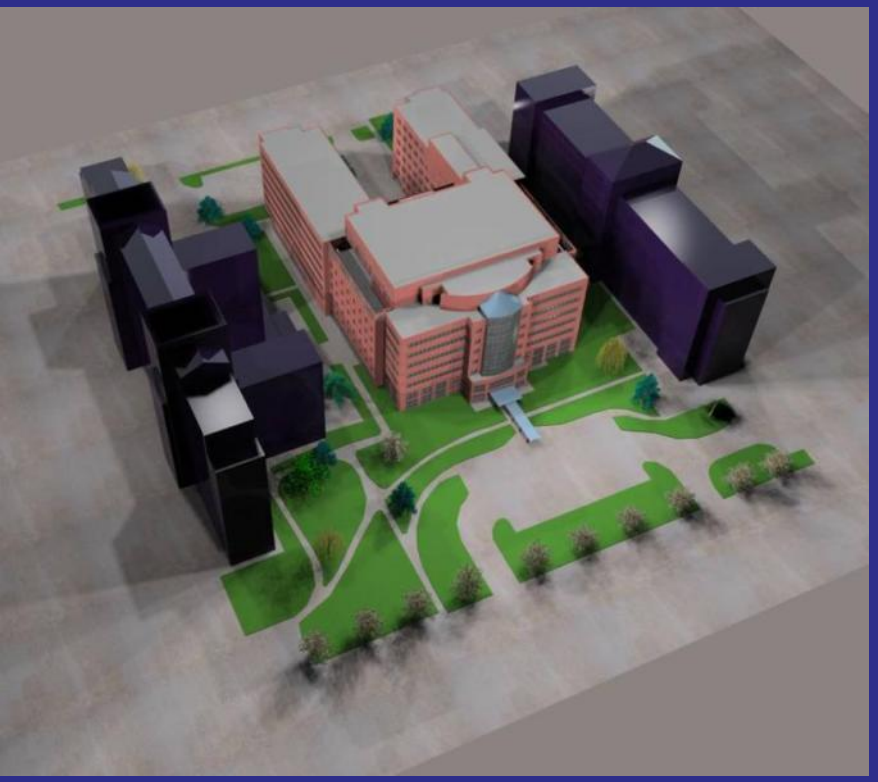


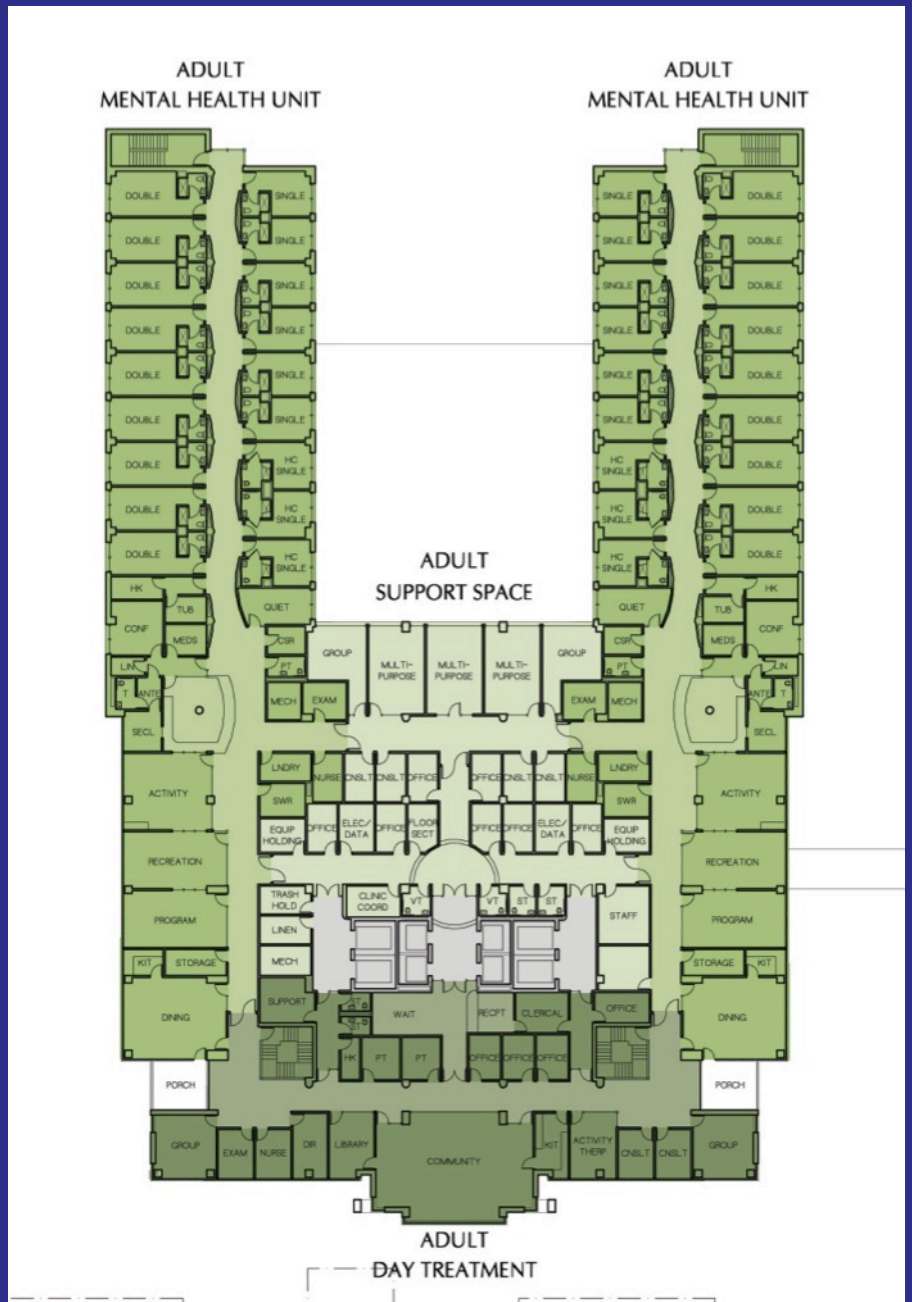
Design Drivers: Relationship between inpatient and outpatient programs



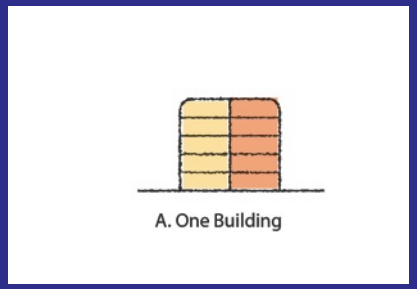
Design Drivers: Relationship between inpatient and outpatient programs

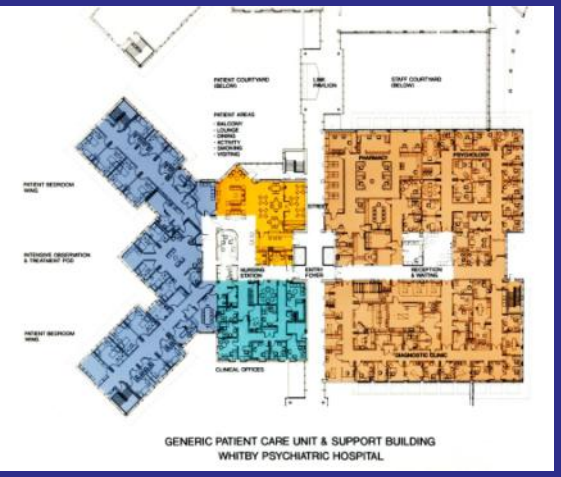




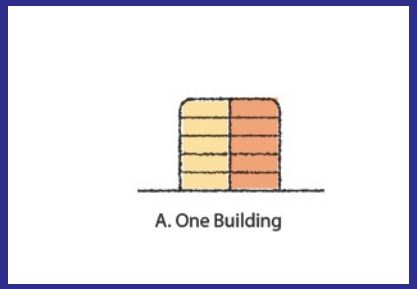


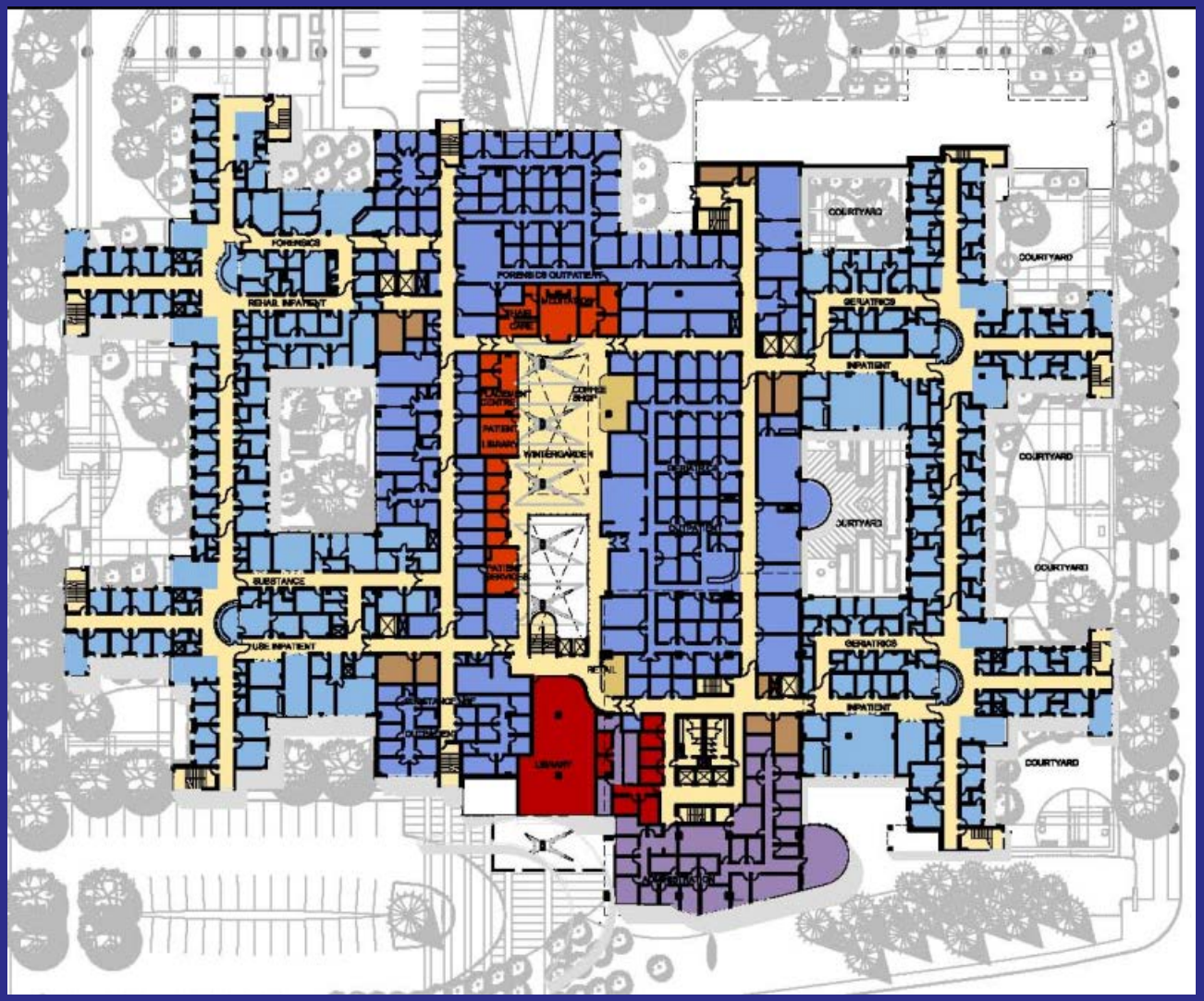
Design Drivers: Relationship between inpatient and outpatient programs



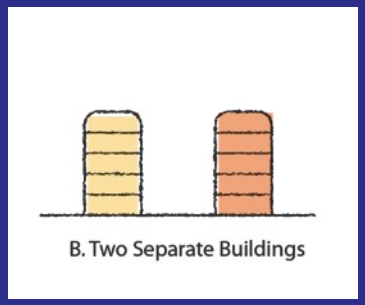


Design Drivers: Relationship between inpatient and outpatient programs

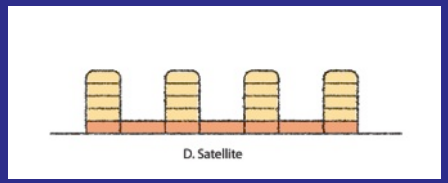


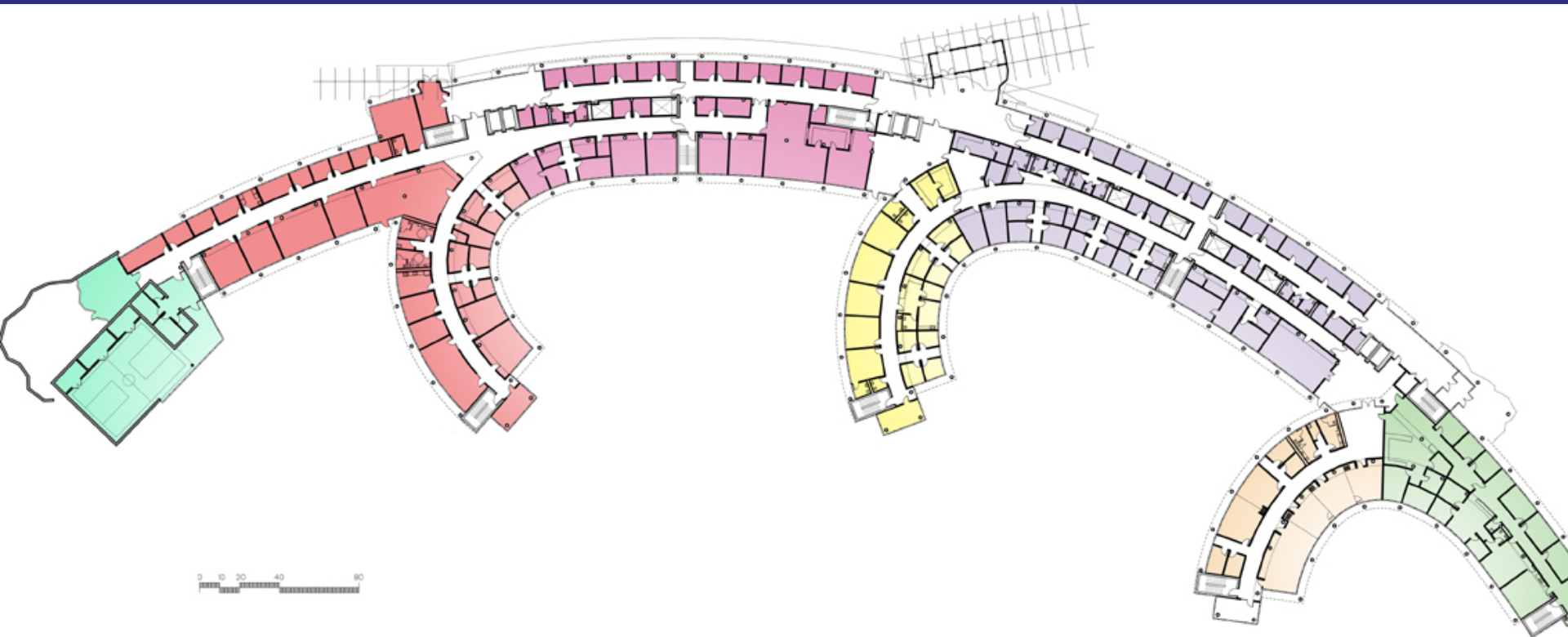


Design Drivers: Relationship between inpatient and outpatient programs

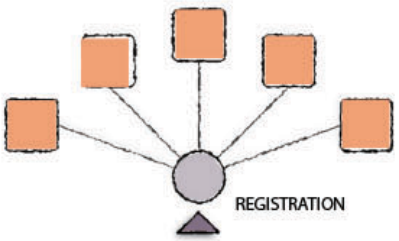


Design Drivers: Relationship between inpatient and outpatient programs



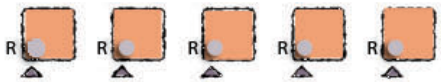


Design Drivers: What is the most appropriate location for clinics, registration and finance?



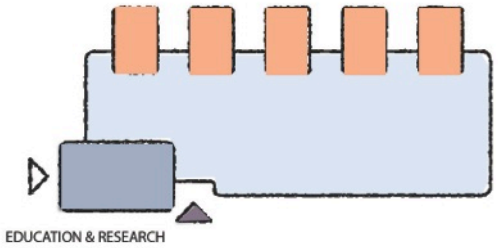
A. Centralized

B. Dedicated Entry, Central Support

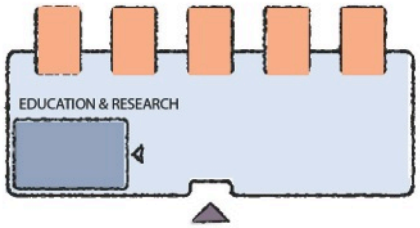


C. Distributed Registration

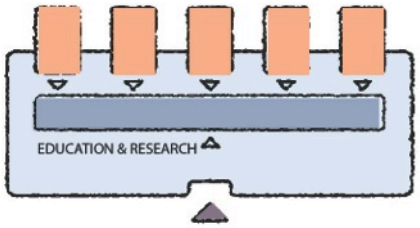
Design Drivers: Locus and nature of education and research.



A. Adjacent to Front Entrance

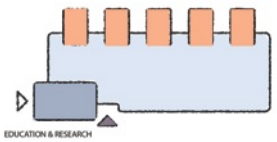


B. Embedded in Administration



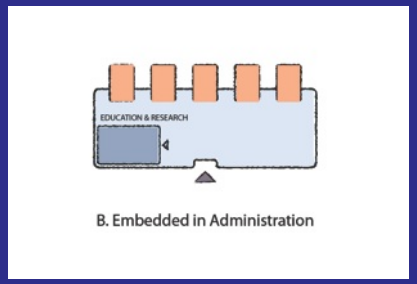
C. Accessible to Clinical Units

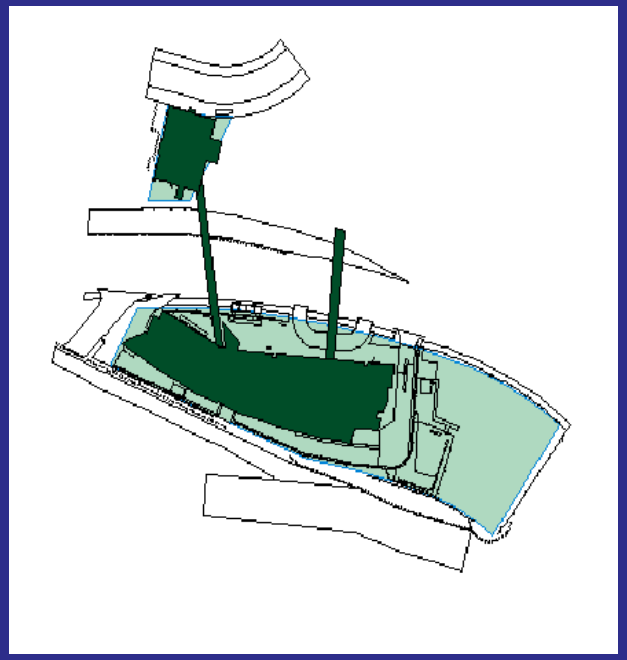
Design Drivers: Locus and nature of education and research.



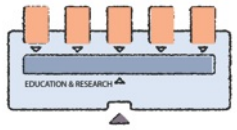
A. Adjacent to Front Entrance

Design Drivers: Locus and nature of education and research.



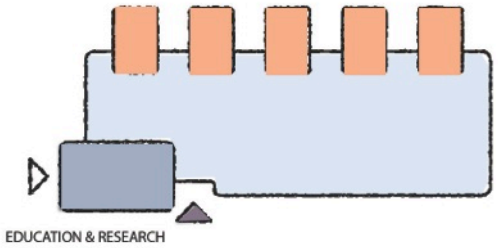


Design Drivers: Locus and nature of education and research.



C. Accessible to Clinical Units

Design Drivers: Locus and nature of education and research.



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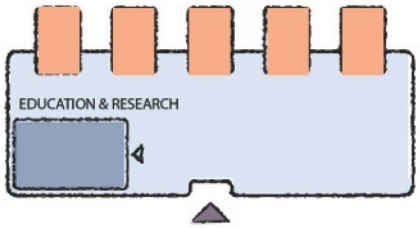
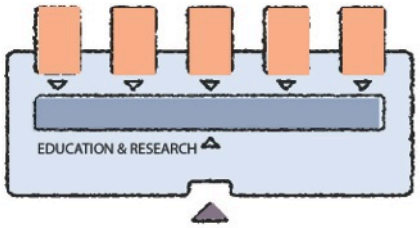


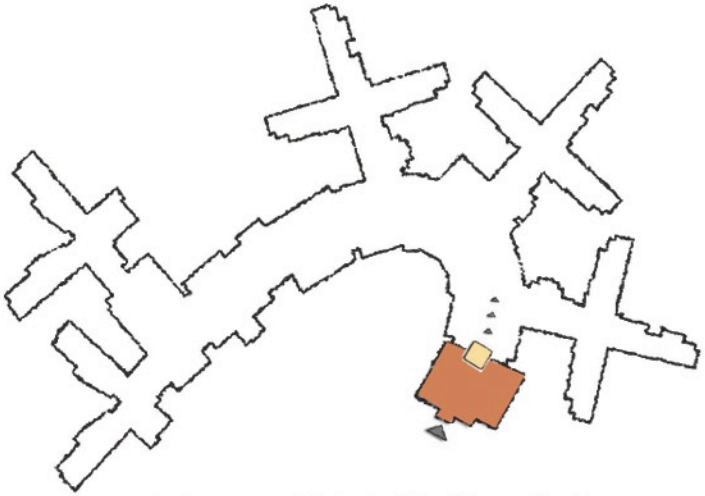
B. Embedded in Administration



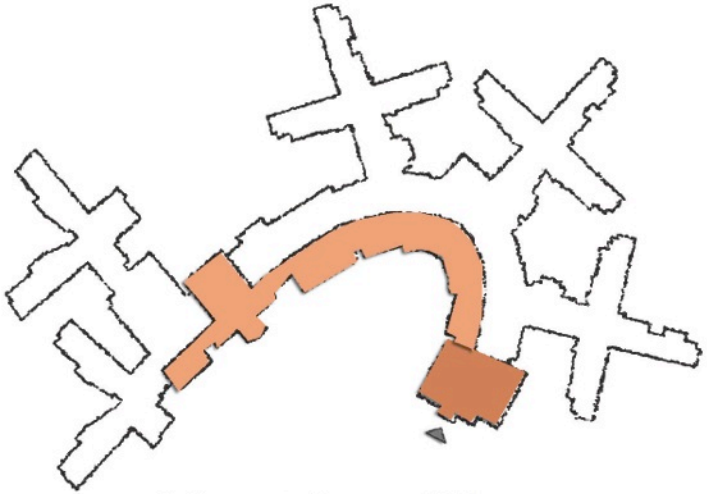
C. Accessible to Clinical Units

- Do both have the same answer?
- Are education and research co-located?
- If patient adjacency is desired., for which patient programs and research programs will this be most important?

Design Drivers: Range and control of public access



A. Access to Main Lobby (Front End)

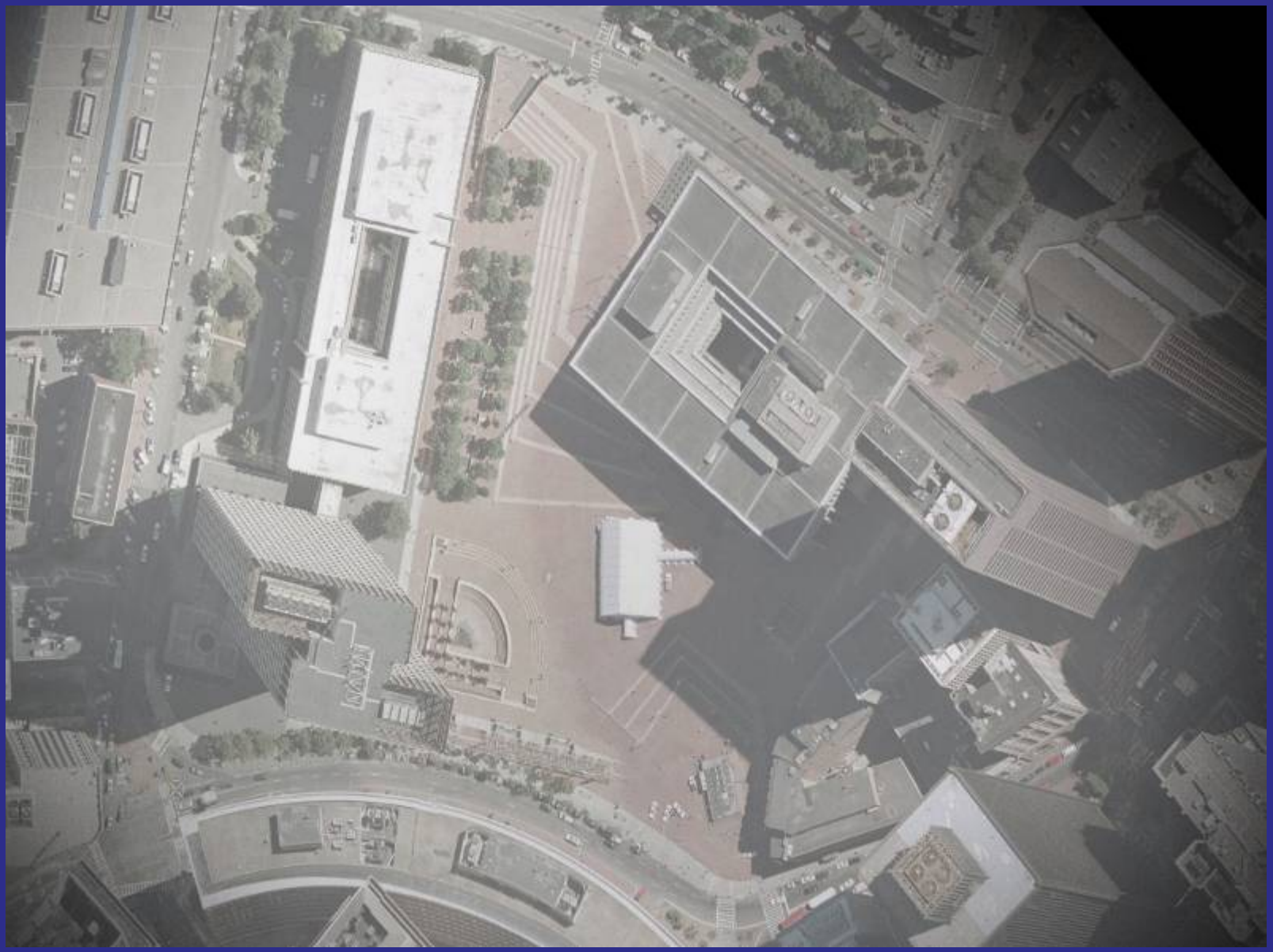


B. Access to Program Mall

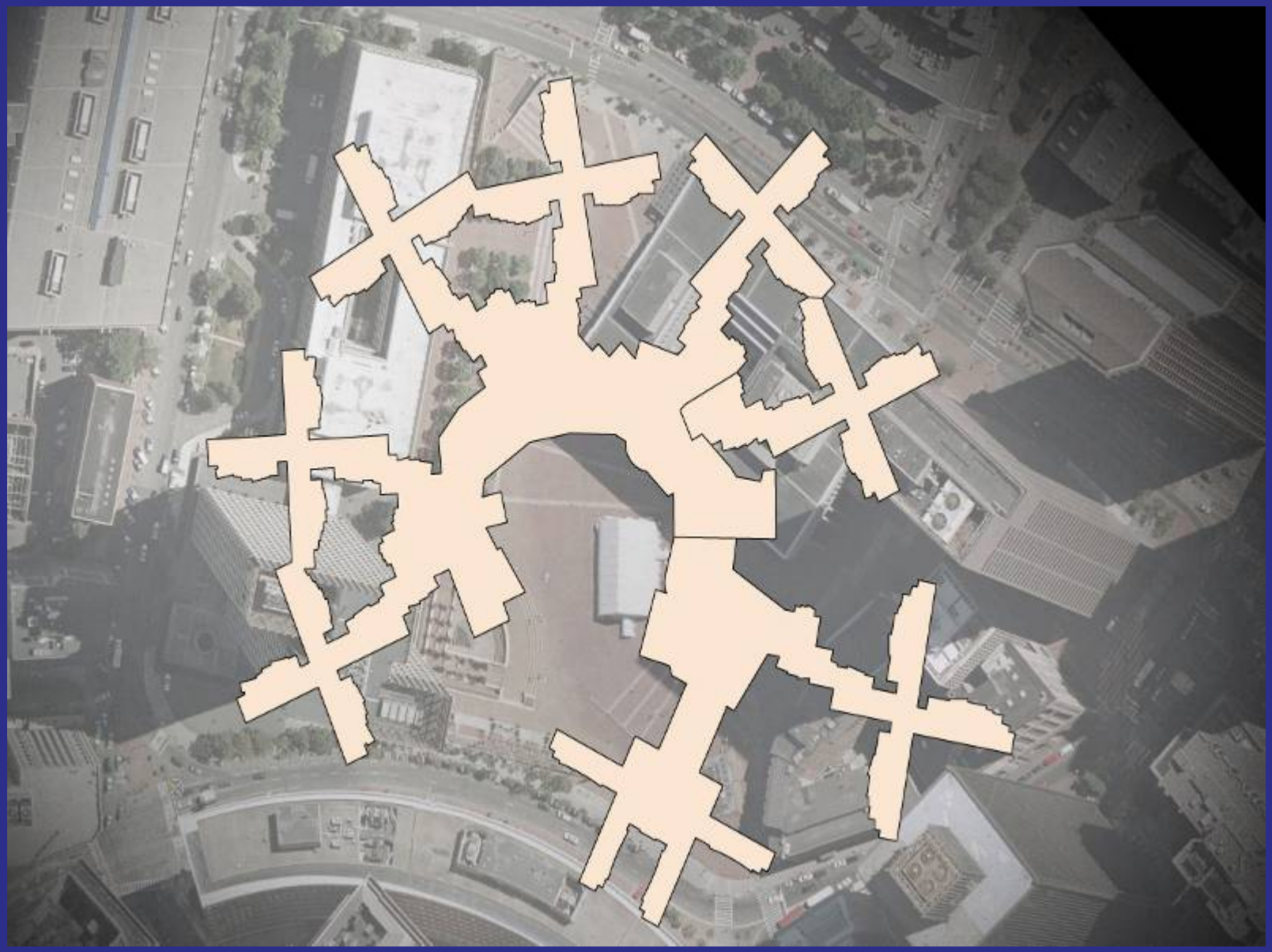
D. Access to Entire Centre,- Units

C. Access to Neighborhood (Therapy)

Design Drivers: Up or Out/ Bed Count, Height, & Program Access



Design Drivers: Up or Out/ Bed Count, Height, & Program Access



Q&A

Mental Health Design 101

AIA Academy of Architecture for Health

September 17, 2013

Thank you!

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