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New Codes and Standards 2023  
39<sup>th</sup> FPC Annual Seminar + Expo  
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# Exploration of Where Behavioral Health Intersects with Code Requirements in Healthcare Design

**Course Number:** AHCA 2023.07

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# 1

OBJECTIVE

Understand differences in 2018-2022 Guideline Code changes for behavioral health – real world application and comparison

# 2

OBJECTIVE

Discuss challenges with reconfiguring existing or older buildings to become code compliant with regards to security and access.

# 3

OBJECTIVE

Explore guideline and code required spaces vs. user preferred requirements, looking at how they do and do not align.

# 4

OBJECTIVE

Look at ways to create interiors and therapeutic behavioral health environments with products and finishes that comply with codes.

# Introductions



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# What is Behavioral Health?

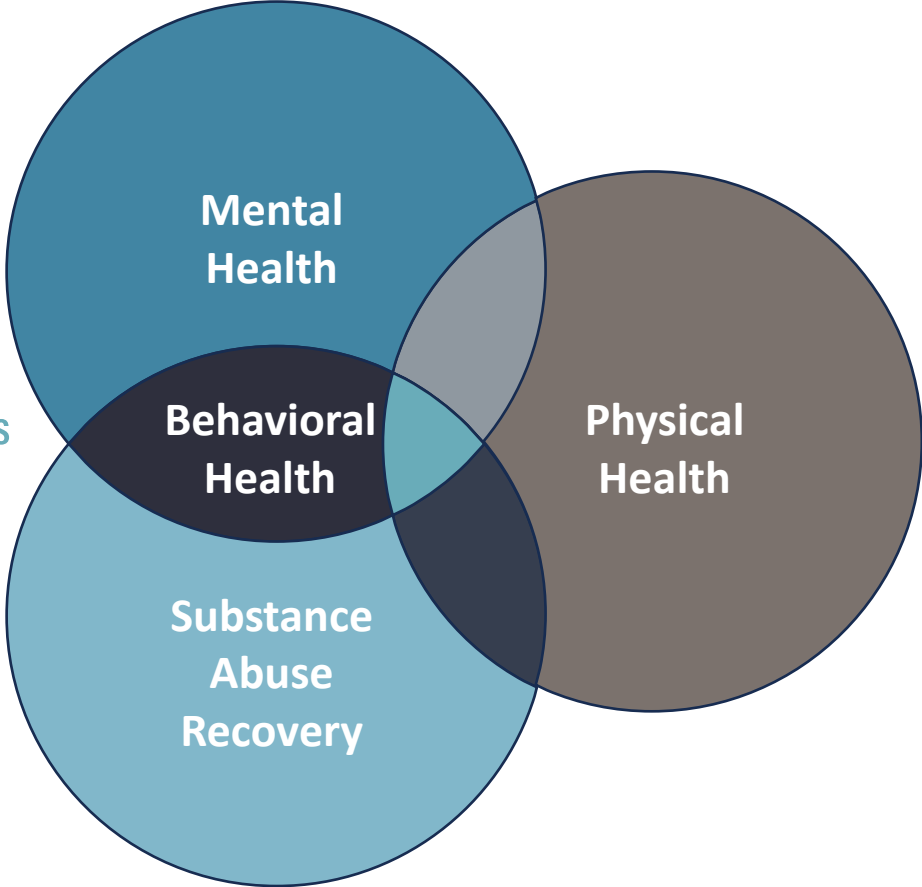
Behavioral health encompasses:

**Mental Health**

- Depression*
- Bipolar Disorder*
- Phobias*
- Schizophrenia*

**Addiction**

- Substance*
- Behavioral*



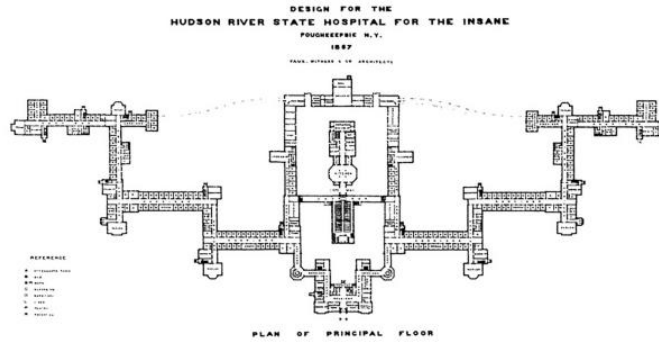
# Behavioral Health – A Brief Timeline



1622  
U.S. Public  
Almshouses



1809  
Dr Kirkbride



New Jersey Home for Feeble Minded Women, Vineland, NJ, ca. 1905

1905  
NJ Home for Feeble  
Minded Women

2000  
Focus shifts  
to Aesthetics

1802  
Dorothea Dix



1813  
Friends  
Asylum



1960-70's  
Attitudes  
Change



# Behavioral Health Statistics

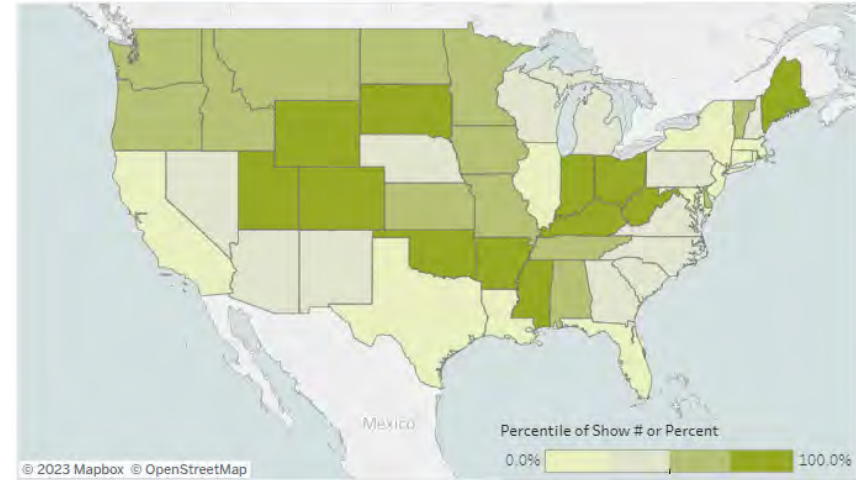
## Fast Facts

- **1 in 5** U.S. adults experience mental illness each year
- **1 in 20** U.S. adults experience serious mental illness each year
- **1 in 6** U.S. youth aged 6-17 experience a mental health disorder each year
- **50%** of all lifetime mental illness begins by age 14, and 75% by age 24
- Suicide is the **2nd leading** cause of death among people aged 10-14

Sources: "Mental Health by the Numbers." NAMI, [www.nami.org/mhstats](http://www.nami.org/mhstats). Accessed 15 Sept. 2023.; "County and State Data Map: Defining Mental Health Across Communities." Mental Health America, [mhanational.org/mhamapping/mha-state-county-data](http://mhanational.org/mhamapping/mha-state-county-data). Accessed 15 Sept. 2023.

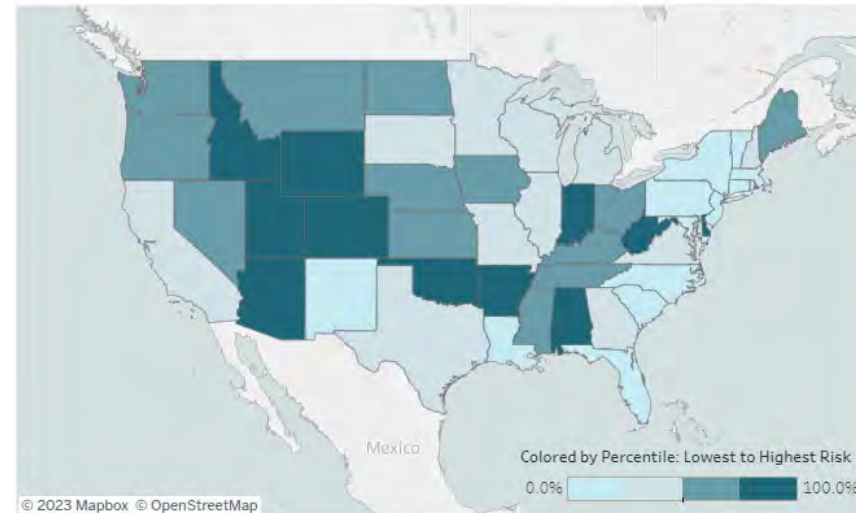
**PTSD Map | State**  
# of People At Risk per 100K of State Population

Hover over the states for more information. States are colored by percentile. Darker colors indicate greater risk.



**Depression Map | State**  
# of People At Risk per 100K of State Population

Hover over the states for more information. States are colored by percentile. Darker colors indicate greater risk.



# Approach

Acknowledge the Stigma Associated with Mental Health

**Stig•ma (n)**

The perception that a certain attribute makes a person unacceptably different from others, leading to prejudice and discrimination against them.

*Source: Mental Health Partners Colorado*



Source: AADA.org



# Approach

Focus is on patient experience and support of effective treatment management

## Safety



## Materials



## Access



## Respite



## Control



## Connection



# Type of Care



Inpatient	Outpatient	Other / Day Care
M/S Care Unit	M/S Care Unit	Crisis Call Centers
Behavioral & Mental Health Care Unit	Behavioral & Mental Health Care Unit	Mobile Crisis Intervention
Emergency Department	Emergency Department	Trauma Informed Care
Electric Conclusion Therapy (ECT)	Electric Conclusion Therapy (ECT)	Outpatient Drug & Alcohol
Behavioral Health Crisis Unit	Behavioral Health Crisis Unit Crisis Response Center (CRC) Crisis Stabilization Unit (CSU)	Residential Treatment Facility (RTF)
Transcranial Magnetic Stimulation (TMS)	Transcranial Magnetic Stimulation (TMS)	Forensic
Geriatric Patient Care Unit	Geriatric Patient Care Unit	EmPATH Unit
Intensive Outpatient (IOP) & Partial Hospitalization Program (PHP)	Intensive Outpatient (IOP) & Partial Hospitalization Program (PHP)	

# FGI Changes between 2018 and 2022

## 2022 GUIDELINES FOR DESIGN & CONSTRUCTION OF HOSPITALS

### SECTION

### CHANGES

### APPLICATION/CONSIDERATION

2.2-2.2.4.6- Medical Behavioral and Mental Health Room (Med/Surg)

No Major Change

2.2-2.13 Behavioral and Mental Health Patient Care Unit, 2.5-2.2.2 Patient Bedroom

- Appendix changes for Space requirements. – increase size as needed to accommodate larger beds.
- Patient Toilet Room directly accessible to patient room
- Patient Toilet Room door shall not create a positive latching condition to create a ligature condition
- SRA may replace toilet room door with other means of providing visual privacy
- Shower in patient toilet room, to be free of shower curtains
- Storage of personal effects provided in each patient bedroom > more general

2.2-2.13.4.1 (2.5-3.4.2) ECT

No Major Change

2.2-2.13.4.3 (2.1-2.4.3) Seclusion room

Minor change in dimension from 11' to 12'



# FGI Changes between 2018 and 2022

## 2022 GUIDELINES FOR DESIGN & CONSTRUCTION OF HOSPITALS

### SECTION

#### 2.2-3.1 Emergency Services 2.2-3.1.4.3 Rooms Serving behavioral and mental health patient

### CHANGES

- Minor Secure Holding Room language changes 11'-12' + view panel in wall adj to door or in door, glazing reqs
- Flexible Secure Treatment Room Added, meet secure holding room & single patient room reqs, handwash sinks, elec, med gases, and sim features permitted in the room where means of covering and securing them is provided, staff controlled., max wall length of 12'
- Behavioral and mental health treatment room, meet single-patient treatment room with reqs:
  - (a) All door hardware, sinks, finishes, light fixtures, sprinklers, and outlets shall be tamper- and ligature-resistant.
  - (b) Locks shall be provided on storage devices and cabinetry to prevent patient access.
  - (c) The room shall be provided with features to limit the patient's ability to convert architectural features or equipment into weapons, as follows:
    - (i) Cabinetry, or other means, shall be provided in the room to enclose or store treatment equipment when this room is used for a behavioral and mental health patient.
    - (ii) Rails, grab bars, closure devices, armatures, or similar devices shall be designed to prevent removal by providing tamper-resistant hardware and structural attachments to withstand forceable attempts at removal.
- Seclusion Room added and must meet reqs 2.1-2.4.3
- Sexual Assault Forensic exam room added to section must meet req 2.1-3.2.4

### APPLICATION/CONSIDERATION



# FGI Changes between 2018 and 2022

## 2022 GUIDELINES FOR DESIGN & CONSTRUCTION OF HOSPITALS

### SECTION

#### 2.2-3.2 Behavioral Health Crisis Unit

### CHANGES

- Readily accessible to ED, Reno permitted to be located elsewhere on hospital campus, separate building on campus it shall be permitted. Can have shared services if readily accessible to ED.
- Pare Care Stations: Exam/Treatment, Single Observation Room, Multiple-patient observation areas, quiet room, secure holding room.
- Support Areas: Nurse Station, Meds Safety Zone, Outdoor area
- Other Support Areas: Intake Room or area, Consultation Room, Shower Room, Nourishment area, Clean Workroom or Clean Supply Room, Soiled Workroom or Holding, Equipment & Supply Storage, EVS, Staff Support Areas: staff toilet
- Support Areas for Families, Patients and/or visitors

### APPLICATION/CONSIDERATION



# FGI Changes between 2018 and 2022

## 2022 GUIDELINES FOR DESIGN & CONSTRUCTION OF HOSPITALS

### SECTION

### CHANGES

### APPLICATION/CONSIDERATION

#### 2.5-2.2-4.4 Quiet room

80 sf min. and appendix language modifications

#### 2.5-2.2.10.6 Outdoor Areas

Fences and Walls min ht and angle position, lighting Lumineers accessible to patients tamper resistant, security cameras views of entire area preclude view into indoor privacy-sensitive areas, duress system provided

#### 2.5-2.5 Geriatric Patient Care Unit

Added section, patient toilet room considerations for assistance/mobility, bathing facility one bathtub minimum, doors openings, handrails, surfaces (flooring & base), wheelchair storage.

#### 2.5-3.4.1 Transcranial Magnetic Stimulation (TMS)

Added to guidelines

#### 2.5-3.4.3 Intensive Outpatient & Partial Hospitalization Program section

Added to guidelines.  
IOP/PHP treatment Areas: Quiet Room, Group Therapy Room, Activity Room, Consultation Room, TMS Room  
Support Areas (can Share): Nurse Station, Documentation Area, Meds Safety Zone, Nourishment area, Equipment & Supply Storage, EVS  
Staff Support: Lounge, Toilet, Storage of belongings  
Support Areas for Patients: Toilet Rooms & Storage for belongings



# FGI Changes between 2018 and 2022

## 2022 GUIDELINES FOR DESIGN & CONSTRUCTION OF OUTPATIENT FACILITIES

### SECTION

#### 2.1-3.2.2.3 Sexual Assault Forensic Exam Room

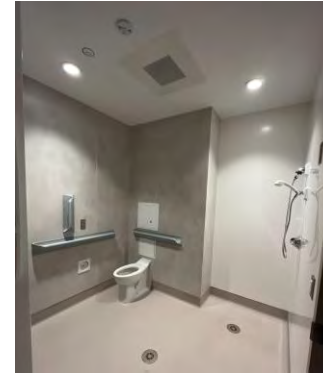
#### 2.8-3.5 Special Patient Care Areas

### CHANGES

Added to guidelines. Includes pelvic exam table/bed. Private toilet room with shower and storage space, lockable storage for forensic collection, a consult room readily accessible

- Secure Holding Room language changes 11'-12', ceiling height language changes to recognize renovation, doors to swing out, view panel in wall adj to door or in door, glazing reqs, and ligature resistant patient toilet room immediately accessible
- Flexible Secure Treatment Room Added, meet secure holding room & single patient room reqs, handwash sinks could be located outside the room if adjacent. Handwash, elec, med gases, and sim features permitted in the room where means of covering and securing them is provided under staff control.

### APPLICATION/CONSIDERATION



# FGI Changes between 2018 and 2022

## 2022 GUIDELINES FOR DESIGN & CONSTRUCTION OF OUTPATIENT FACILITIES

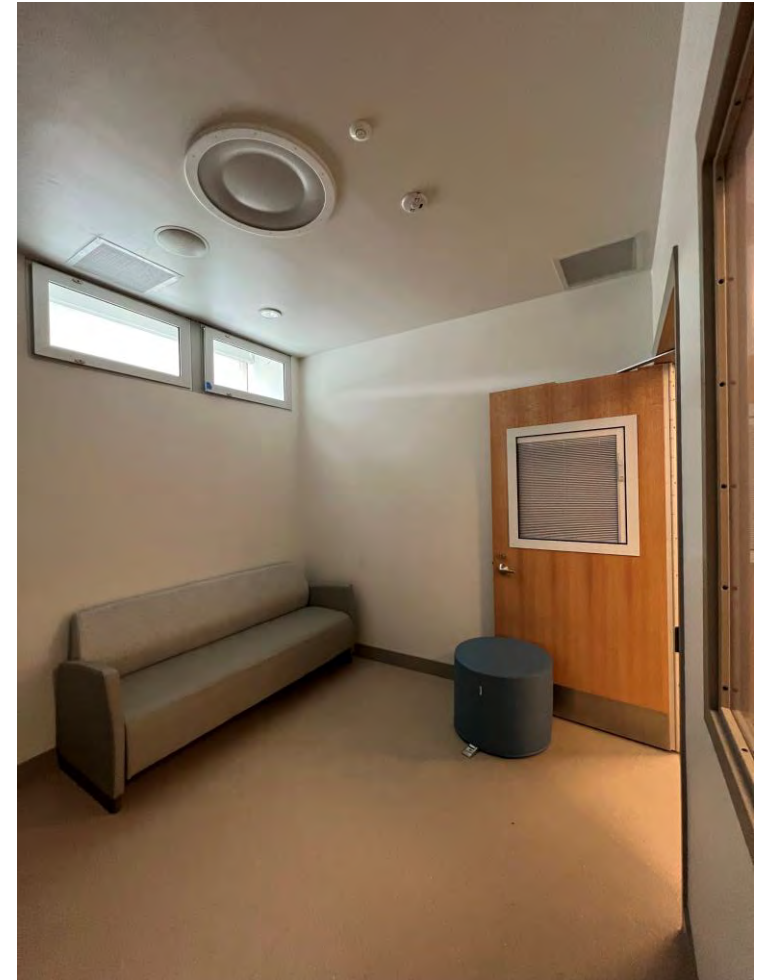
### SECTION

#### 2.8-3.5.7 Behavioral Health Crisis Unit

### CHANGES

- Readily accessible to FSED, Reno permitted to be located elsewhere on hospital campus, separate building on campus it shall be permitted. Can have shared services if readily accessible to FSED.
- Environment of Care: SRA, harm prevention considerations to architectural details and materials, hidden alcoves and blind corners avoided, visual observation electronic surveillance permitted.
- Security: perimeter security considerations, prevention of elopement, monitoring and controlling visitor access and egress, use of security cameras.
- Pare Care Areas: Exam/Treatment, Single Observation Room, Multiple-patient observation area, patient toilet room, shower room, quiet room, secure holding room.
- Support Areas: Nurse Station, Meds Safety Zone, Outdoor area
- Other Support Areas: Intake Room or area, Consultation Room, Nourishment area, Clean Workroom or Clean Supply Room, Soiled Workroom or Holding, Equipment & Supply Storage, EVS
- Staff Support Areas: staff toilet
- Support Areas for Families, Patients and/or visitors: waiting and/or lounge

### APPLICATION/CONSIDERATION





# FGI Changes between 2018 and 2022

## 2022 GUIDELINES FOR DESIGN & CONSTRUCTION OF OUTPATIENT FACILITIES

### SECTION

### CHANGES

### APPLICATION/CONSIDERATION

#### 2.11-3.2.9.1 Transcranial magnetic stimulation room

Added to guidelines. 80 sf min., documentation area, and handwashing station

#### 2.11-3.2.9.2 Electroconvulsive therapy facilities

Language edits and adds can be in a MOB or Outpatient surgery facility where procedure room & operating room requirements are met.

#### 2.11-3.3 Intensive Outpatient & Partial Hospitalization Program (IOP/PHP) Facilities

Added to guidelines.

- IOP/PHP treatment Areas: Quiet Room, Group Therapy Room, Activity Room, Counseling or Consultation Room, TMS room.
- Support Areas (can be share): Nurse Station, Documentation Area, Meds Safety Zone, Nourishment area, Equipment & Supply Storage, EVS
- Staff Support (can be shared): Lounge, Toilet, Storage of belongings
- Support Areas for Patients: Toilet Rooms & Storage for belongings

#### 2.11-6.2.1 Entrances

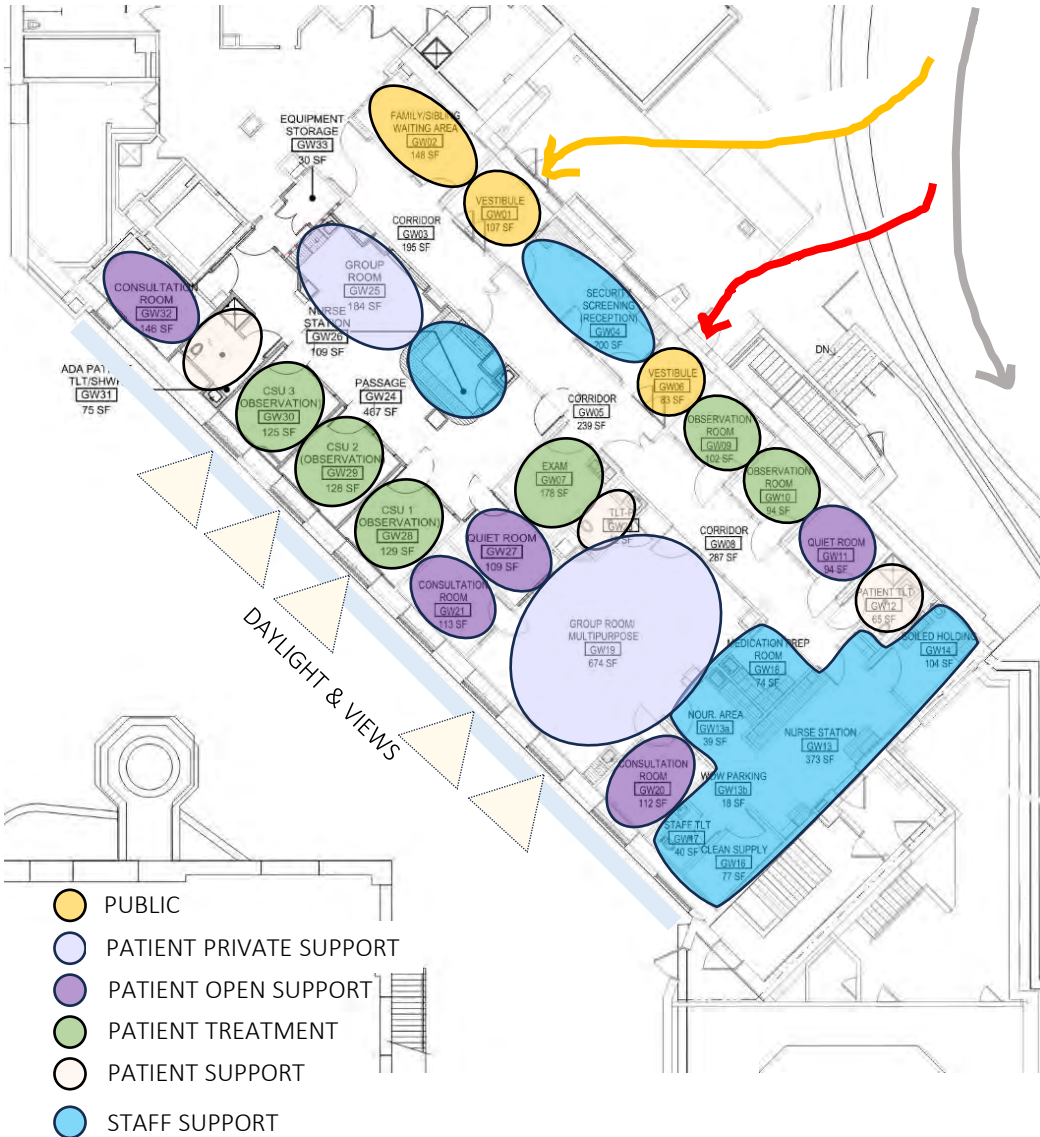
- Secured entrances when stand-alone facility
- Reception/information counter, desk, or kiosk located to provide staff with visual observation of entrance and be immediately visible from entrance.

#### 2.11-6.2.1 Waiting Area

- Direct visual control of reception.
- Separate, access-controlled waiting area for pediatrics



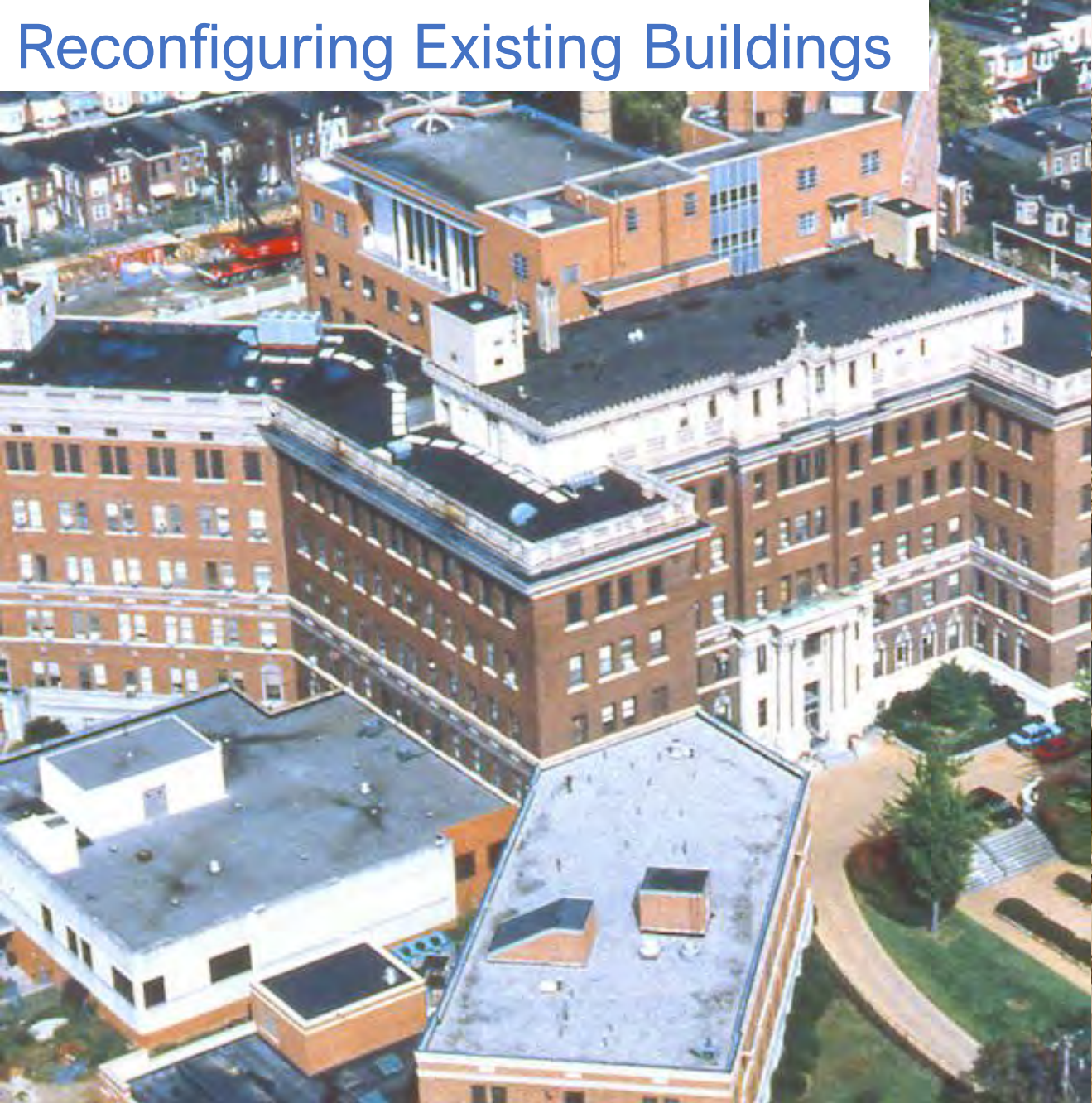
# Case Study Differences between 2018 and 2022



- 2018 Observation & ED references vs 2022 BH Crisis Unit
- Preliminary reviews with AHJ to discuss operational intent
- Submitted multiple waiver/ variance requests
- Renovation in a multi-tenant building



# Reconfiguring Existing Buildings



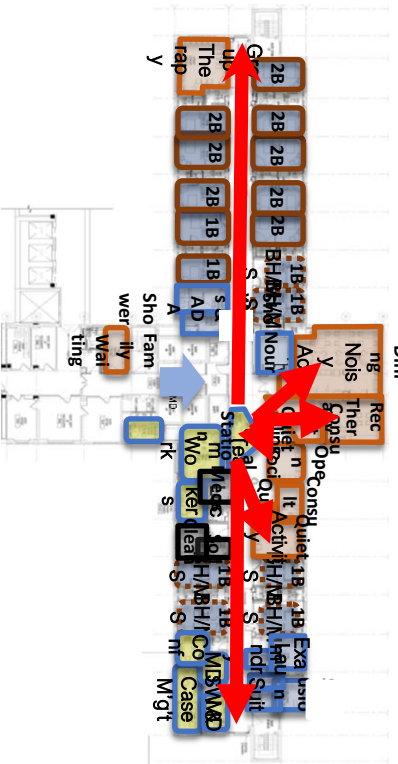
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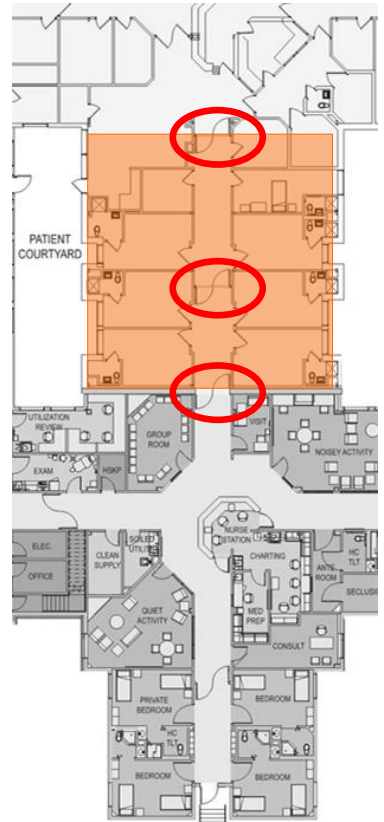
# Building Considerations

Reconfiguring existing or older buildings for code compliance

Reuse Assessment



Use & Classification



SRA



Life Safety



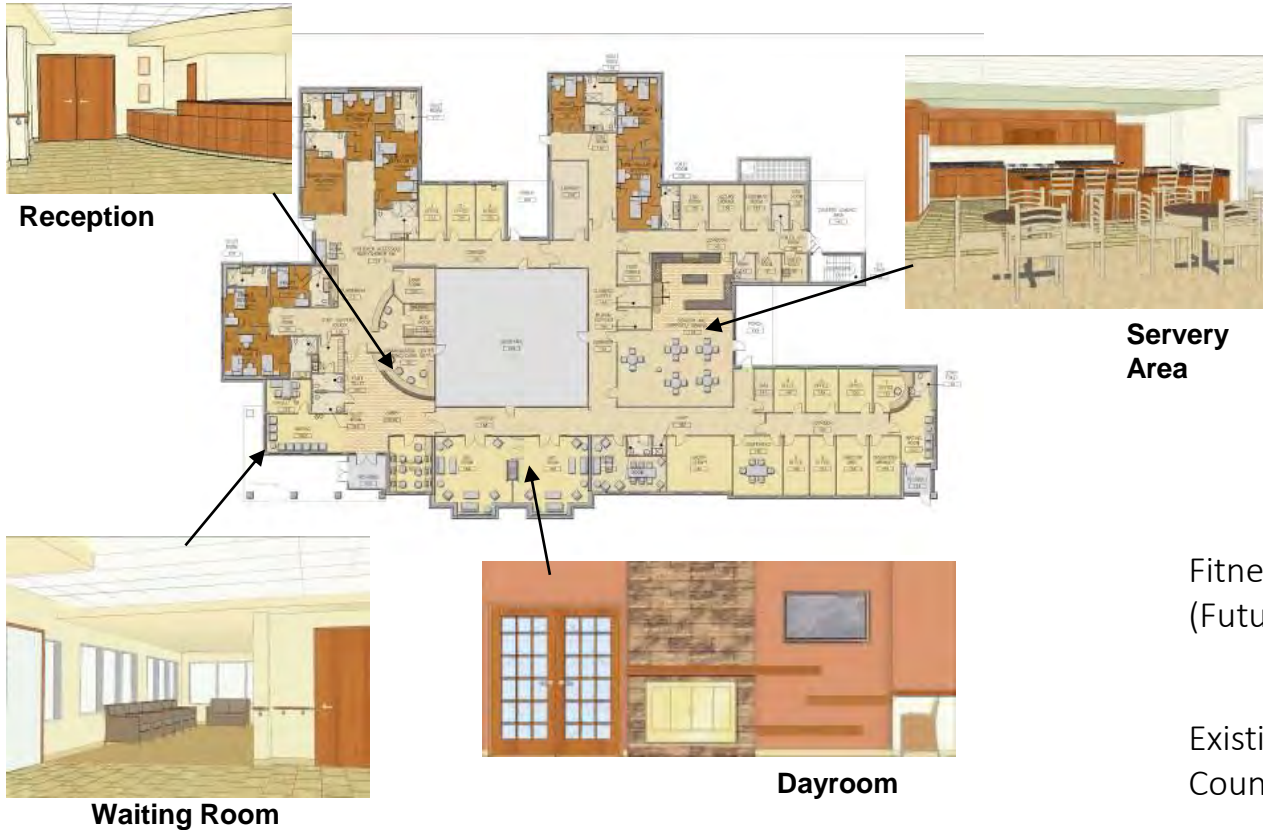
Resiliency



Shared Use



# Reuse Assessment



Fitness Center  
(Future)

Existing Outpatient  
Counseling Center

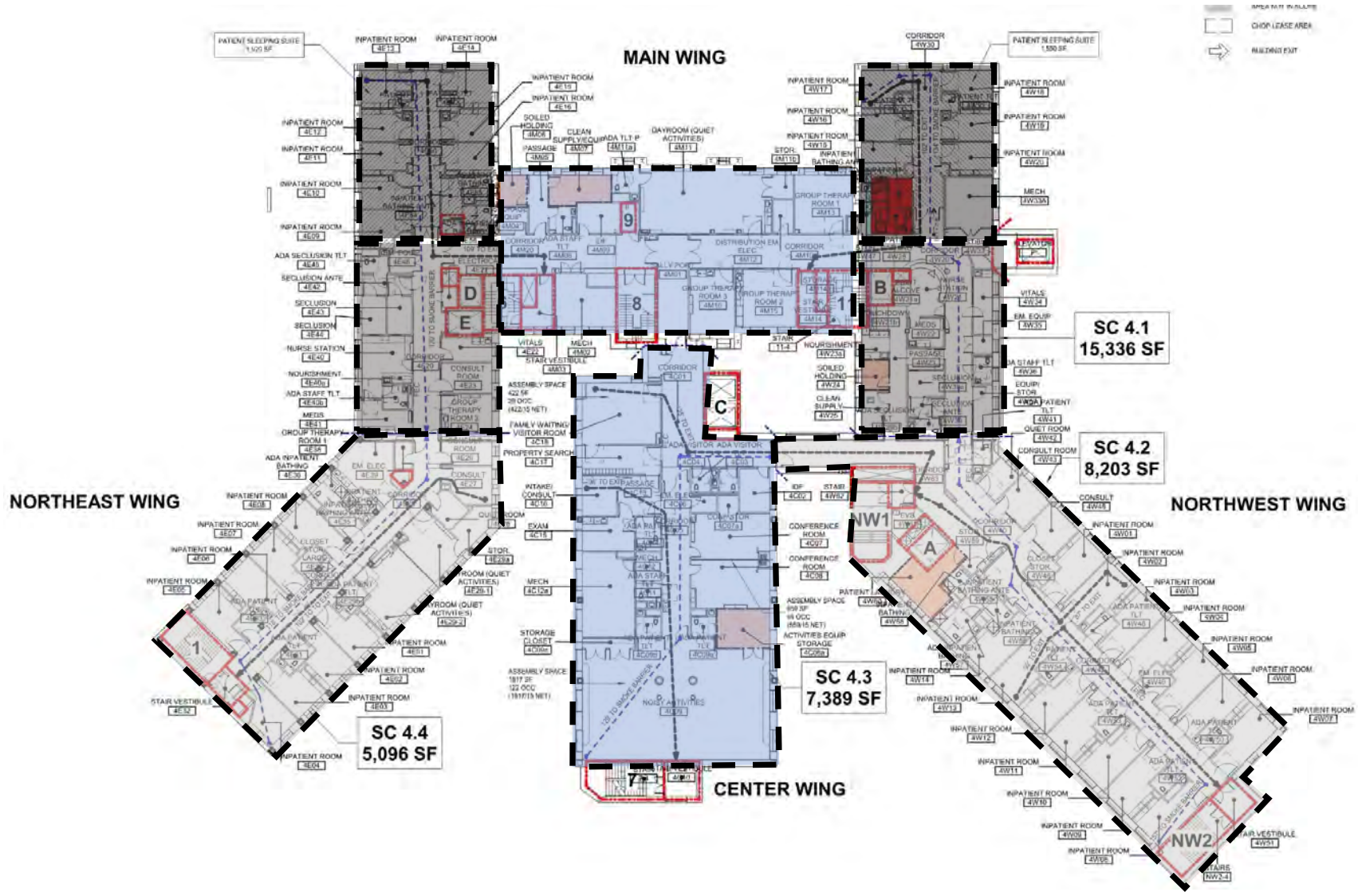
Building Site

Main Gate



- Site or Building Location
- Identify the need
- Location/building already defined and/or provided
- Early feasibility and test fits
- Building and MEP Assessment

# Use & Classification



- Evaluate the building Use and Classification
- Understand building use or classification and required infrastructure upgrades
- Department or Unit zoning and separation
- Room Layout
- Modernization efforts

# Safety Risk Assessment (SRA)



PATIENT SAFETY AND SECURITY MATRIX

Room Attributes	Risk Level High	Risk Level Medium	Risk Level Low	Comments
Signs to Patients	X			
Anti-Barricade	X			
Temper Resistant Electrical Outlets	X			
RF Protection	X			
Fire Alarm Protection	X			
Switched Electrical Outlet	X			
Security Windows	X			
Controlled Access	X			
Monitoring Camera	X	MED	LOW	
Impact Resistant Glass	X			
Water Shut-off Valve	X			
Impact Blinds	X			
Beam Suspended to Wall With Tamper Resistant Screws	X			
Anti-Ligature Door Hardware	X			
Temper Resistant Light Fixtures	X			
Temper Resistant Fallstrips	X			
Signature Resistant Plumbing Fixtures/Hardware	X			
Temper Resistant Receptacles and Area Alarm Systems	X			
TVs, Clocks, and Card Readers Located in Secure Enclosures or Corridor	X			
Pick Resistant Seals on Cuffs	X			

PATIENT SAFETY ZONE PLAN LEGEND

- HIGH RISK - PATIENT ACCESS WITHOUT SUPERVISION
- MEDIUM RISK - PATIENT ACCESS WITH SUPERVISION
- LOW RISK - NO PATIENT ACCESS

**Level 4 – High**

- Areas where patient acuity poses increased risk
- Patient Privacy Areas

**Level 3 – Moderate-High**

- Areas where patients interact with less direct supervision
- Private Patient Therapy & Activity

**Level 2 – Moderate-Low**

- Areas where patients are supervised and/or under direct observation
- Patient Activity & Therapy Space

**Level 1 – Moderate-Low**

- Staff support areas where patients are not allowed
- Staff support where patients can gain access

# Life Safety



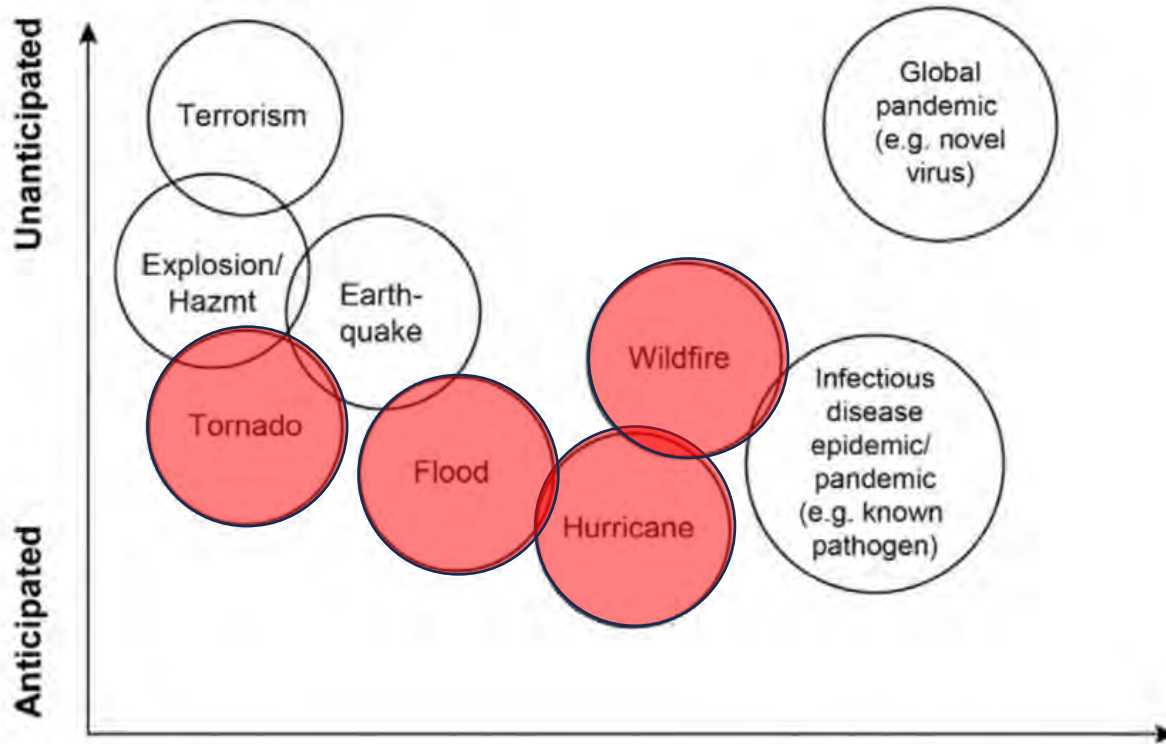
- Corridors and Circulation
- Door Hardware
- Safety & Security
- Anti-ligature fixtures
- Tamperproof
- Shatterproof
- Water & Electrical Shutoffs
- Avoid sharp corners or elements, or could easily be removed





# Resiliency

**Figure 1-1:** Examples of Hazard Anticipation and Effect



## “Big Bang”

Develops quickly, with immediate effects, limiting time available to consider options. Specific regions may be more likely to anticipate a big bang event (e.g., tornado, earthquake).

## “Rising Tide”

Emergency condition or incident that develops over a period of days, weeks, months. Impact may not be recognized early on.

**Table 1-1:** Sample Heat Map to Visually Illustrate Risk

Consequence	Catastrophic	Yellow	Orange	Red	Red	Red
	Major	Yellow	Orange	Orange	Red	Red
	Moderate	Green	Yellow	Orange	Orange	Red
	Minor	Green	Yellow	Yellow	Orange	Orange
	Negligible	Green	Green	Green	Yellow	Yellow
		Rare	Unlikely	Possible	Likely	Almost Certain
Likelihood						

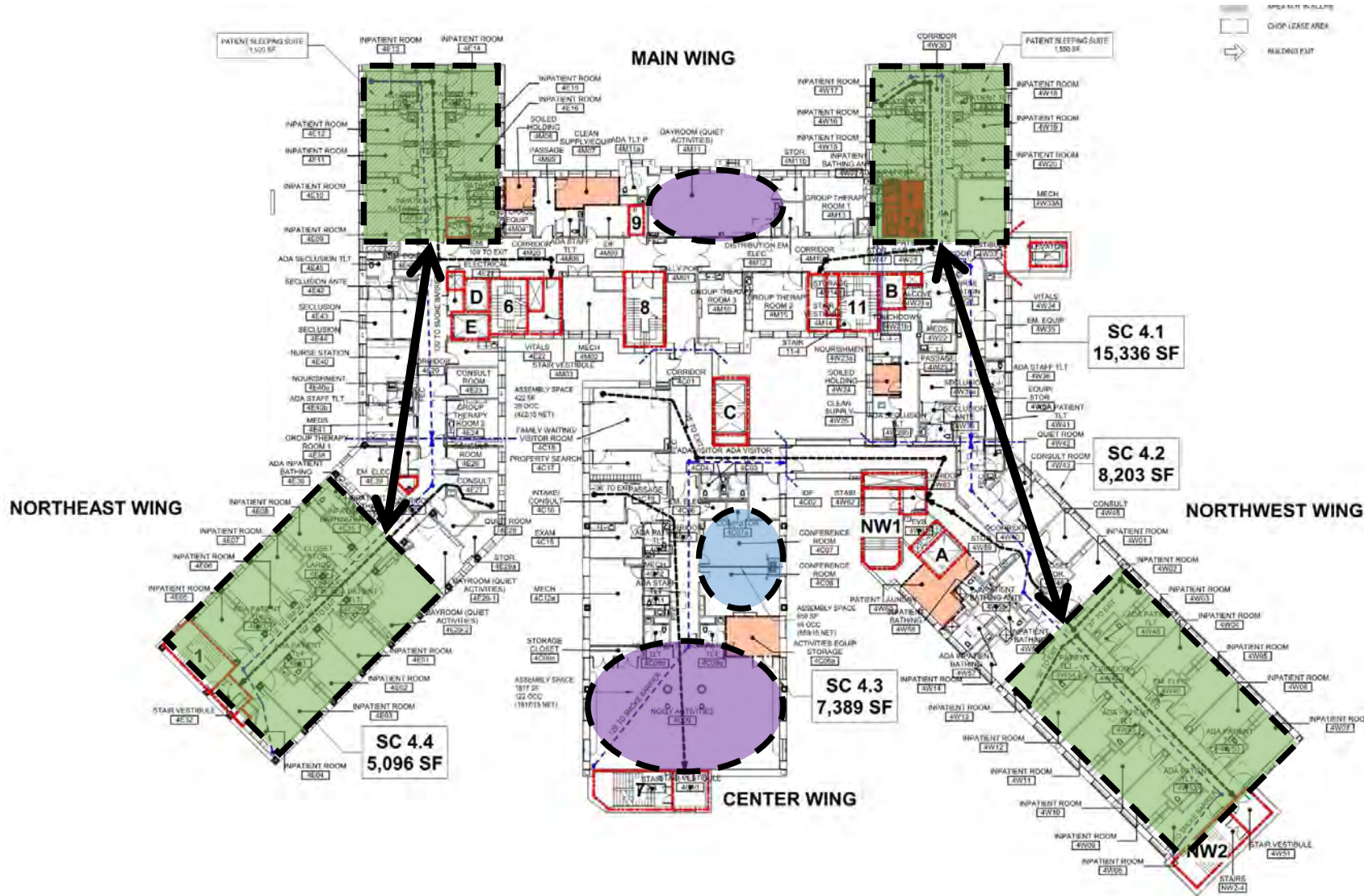
**Figure 1-4:** Sample HVA Tab that Calculates Risk Based on Probability, Severity, and Mitigation of Risks

Health System Example (not actual data)										
Emergency Management										
Hazards - Enter name of hospital										
Hazard Vulnerability Assessment Tool										
Emergent Occurring Events										
Event	PROBABILITY Likelihood this will occur	ALERTS Number of Alerts	ACTIVATIONS Number of Activations	SEVERITY = (MAGNITUDE - MITIGATION)						RISK *Relative threat
				HUMAN IMPACT Possibility of death or injury	PROPERTY IMPACT Physical losses and damages	BUSINESS IMPACT Interruption of services	PREPARED-NESS Preplanning	INTERNAL RESPONSE Time, effectiveness, resources	EXTERNAL RESPONSE Community staff and supplies	
SCORE	0 = N/A 1 = Low 2 = Moderate 3 = High			0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = Low 2 = Moderate 3 = High	0 = N/A 1 = High 2 = Moderate 3 = Low	0 = N/A 1 = High 2 = Moderate 3 = Low	0 = N/A 1 = High 2 = Moderate 3 = Low	0 - 100%
Active Shooter	2	1	0	3	1	3	2	2	2	36%
Acts of Intent	1	0	0	3	3	3	2	2	2	17%
Bomb Threat	2	0	0	3	3	3	2	2	2	33%
Building Move	2	0	0	1	2	1	2	2	2	22%
Chemical Exposure, External	1	0	0	2	2	1	2	2	2	12%
Civil Unrest	2	0	0	2	2	2	2	2	2	27%
Communication / Telephony Failure	3	0	0	1	1	2	2	2	2	33%
Dam Failure	0	0	0	2	3	2	3	3	3	0%
Drought	2	0	0	1	1	1	2	2	2	20%
Earthquake	3	10	6	3	3	3	1	1	1	60%
Epidemic	3	0	0	3	1	2	2	2	2	40%
Evacuation	2	12	8	1	1	2	2	2	2	49%
Explosion	2	2	2	2	3	2	2	2	2	48%

FGI Guidance for Design Health & Residential Care Facilities that Respond & Adapt to Emergency Conditions

# Resiliency

- DEVA & HVA
- Multiple Care Units
- Shifting Care Locations
- Smoke Compartments
- Large Open Spaces allow for temporary conversion & use
- Food & Water Storage
- Supply Storage
- Secure Outdoor space
- Building Construction



## Evacuation Plan



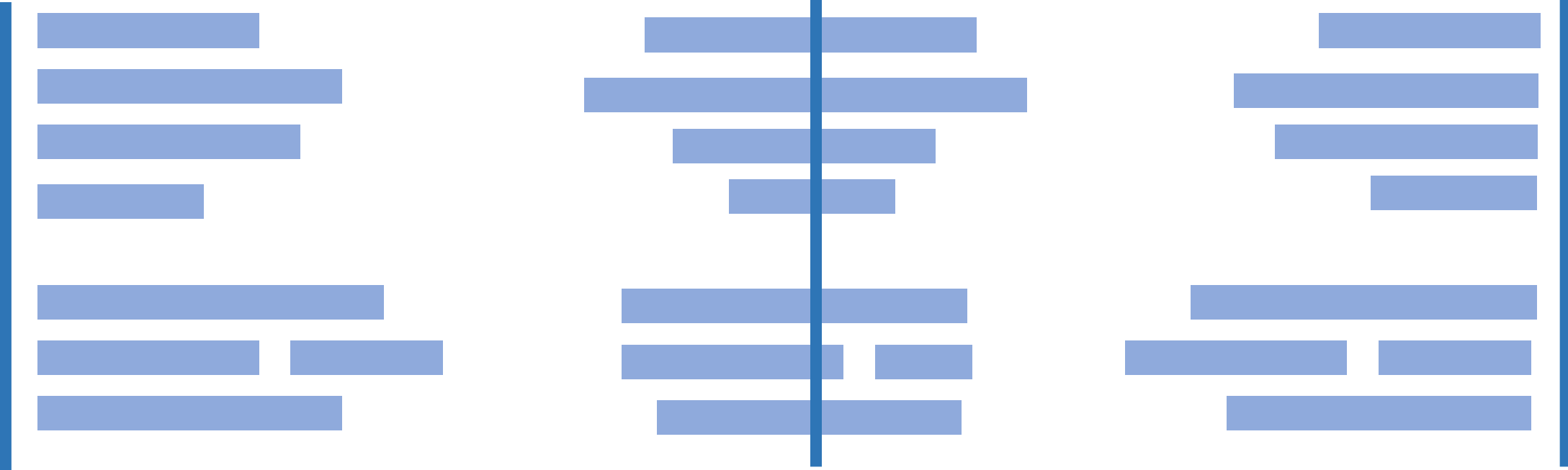
# Shared Use

- Consideration of Other Tenants
- Discretion
- Vertical Transportation
- Security
- Arrival & Egress
- Transport Services

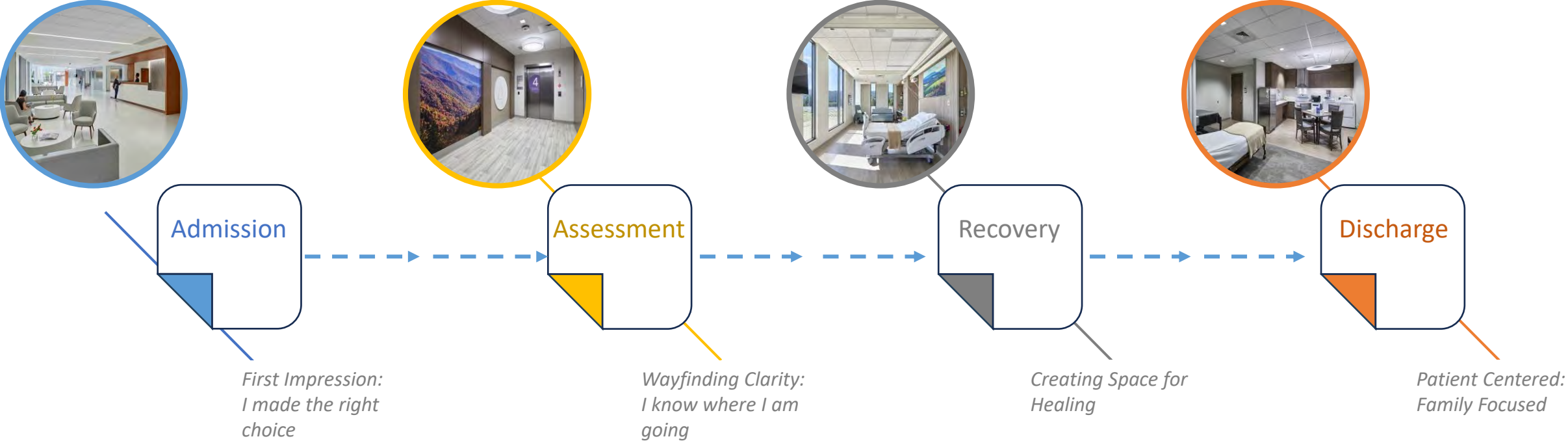


# Code Required vs. User Preferred

## Creating Alignment



# Operational Models – Mapping Process



# Operational Models – Mapping Process

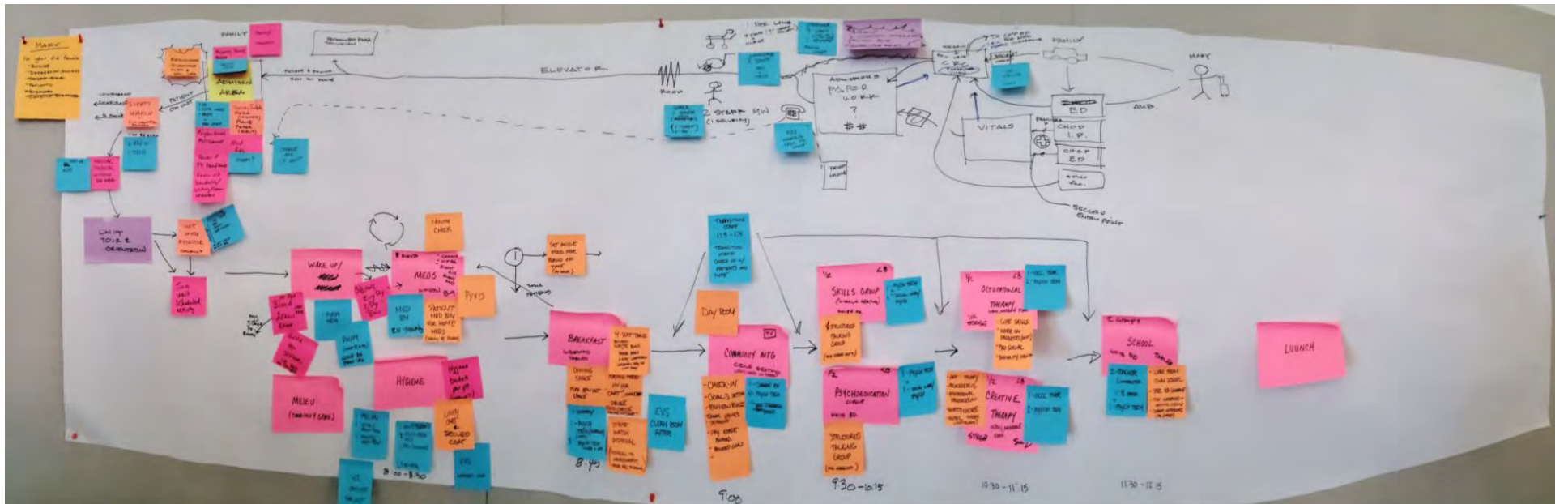
## Scenario Planning

- Example Patient
- Rules
- Incidents
- Parking Lot
- Clarification List

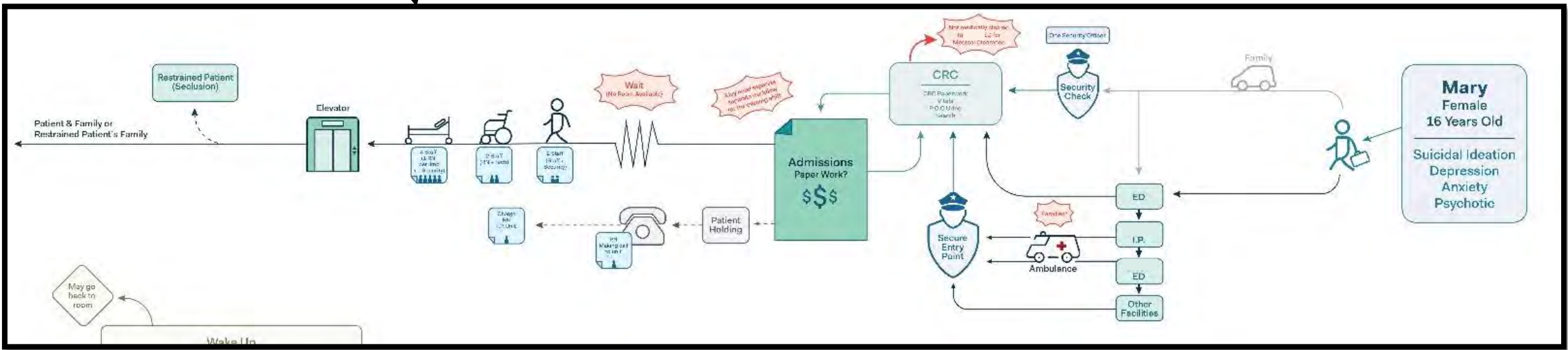
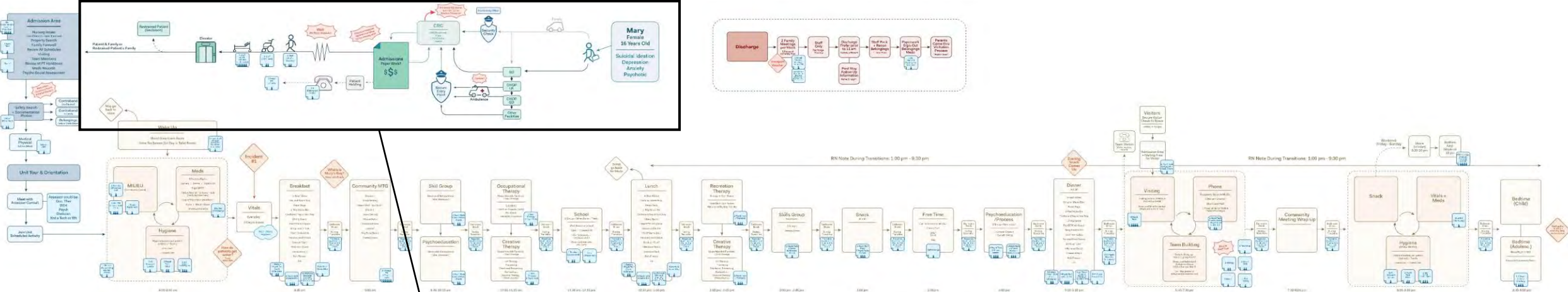


## Mary

- 16-year-old female
- Suicide
- Depression/Anxiety
- Psychotic



# Operational Models – Mapping Process



# Operational Models – Mapping Process

Emergency Department



Walk-in



Ambulance



Triage



Evaluation



Treatment



Temporary Holding



Discharge



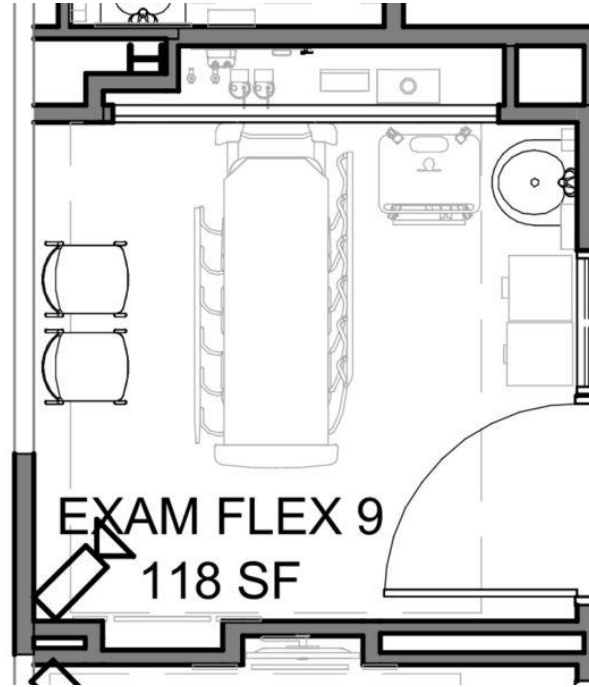
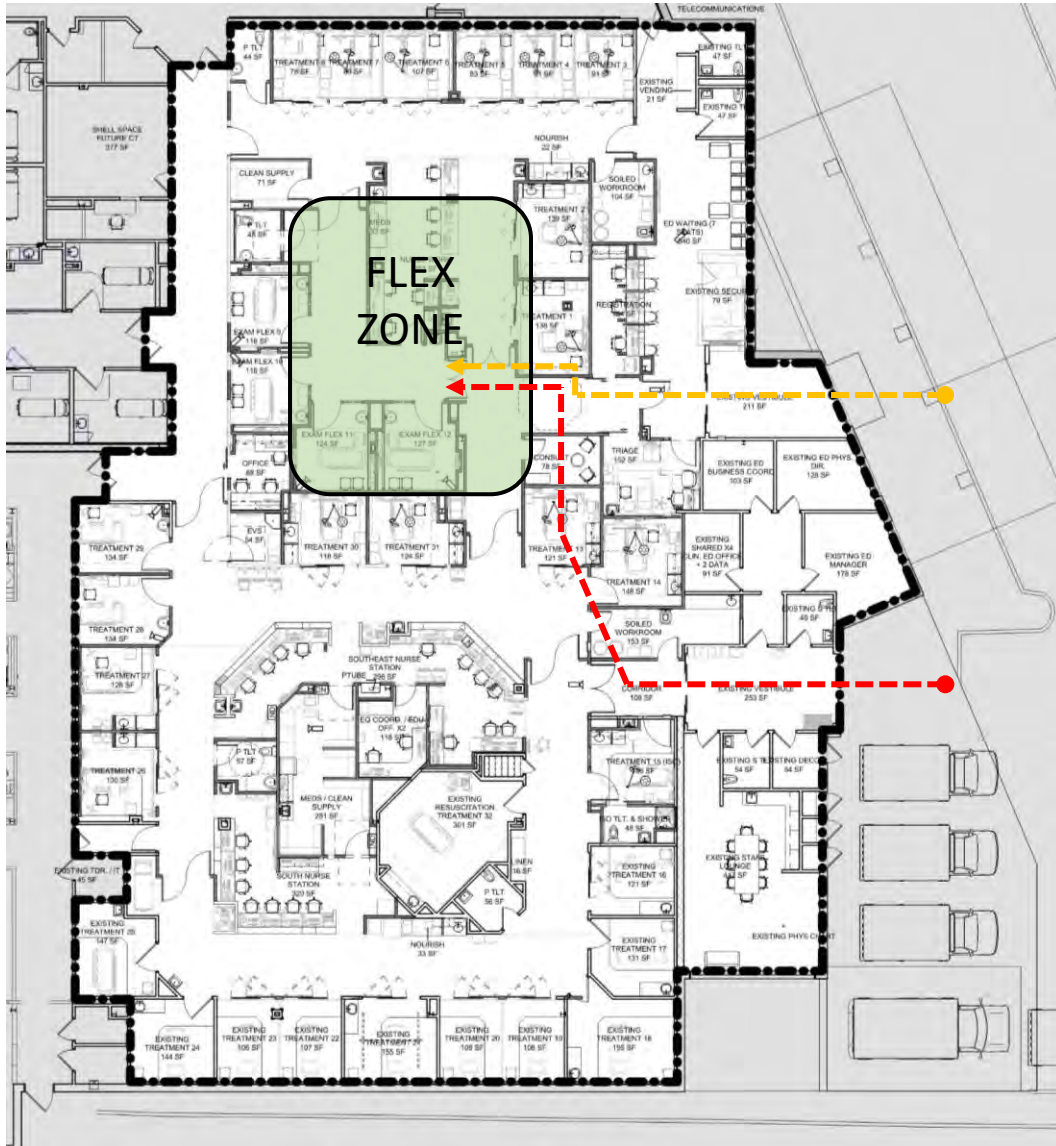
Transfer



Admit



# Operational Models – Emergency Department Case Study



## Design Considerations

- 2018 FGI
- Acute Care, higher geriatric population
- Flex Secure Rooms
- ED zoning, separation/isolation of areas
- Pandemic Response

# Licensing

- AHJ
- DOH
- Office of Mental Health Addiction Services
- AHCA
- JACO

# Therapeutic Environments



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# Creating Therapeutic Interiors

## Principles of Design

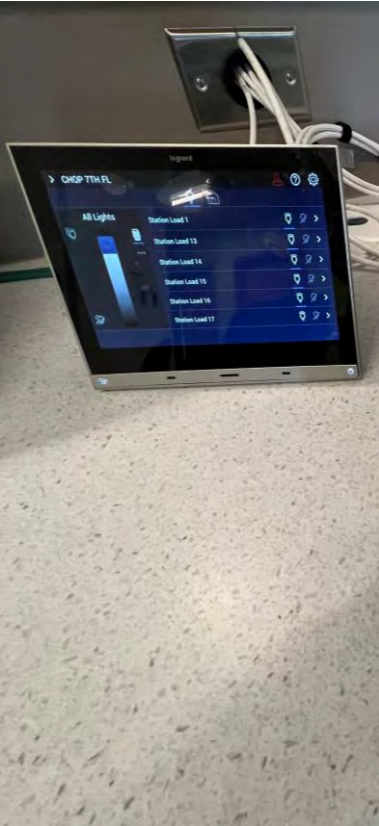
Biophilia



Sense of Place



User Control



Product Guidelines



Materiality



Mockups



# Biophilia



Entrance



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Nature as inspiration for design

PATTERNS

### Nature of the Space *(size constraints, heights, circulation)*

- Refuge & Prospect*
- Mystery & Discovery*
- Risk & Excitement*

### Nature Analogues *(imagery or symbols associated with nature)*

- Biomorphic Forms & Patterns*
- Material Connection to Nature*
- Complexity & Order*

### Nature in the Space *(design that implies natural elements)*

- Visual & Non-Visual Connection*
- Non-Rhythmic Sensory Stimuli*
- Access to Thermal & Airflow Variability*
- Presence of water*
- Dynamic & Diffused Light*
- Connection with Natural Systems*

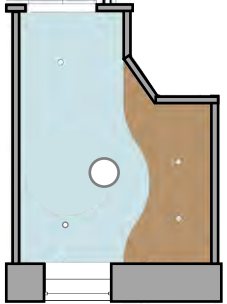
# Biophilia-Application Case Study



Patient Room View Upon Entry



Patient Room Millwork



Ceiling Design



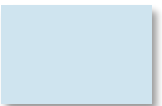
Patient Room Graphic Wall



New Age Oak Phenolic Panel



Morning Ice S.S.



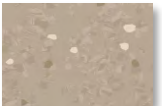
Diamond Blue



Lettuce Alone



Pie Contest



Summer Camp

# Sense of Place



# Product Guidelines

April 2017

Edition 7.2



## Design Guide for the Built Environment of Behavioral Health Facilities

James M. Hunt, AIA, NCARB

David M. Sine, DrBE, CSP, ARM, CPHRM

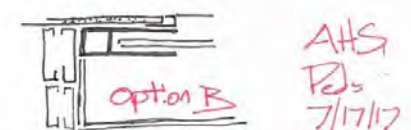
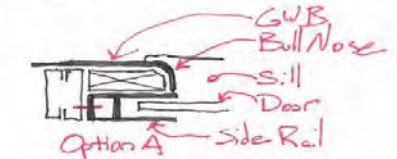
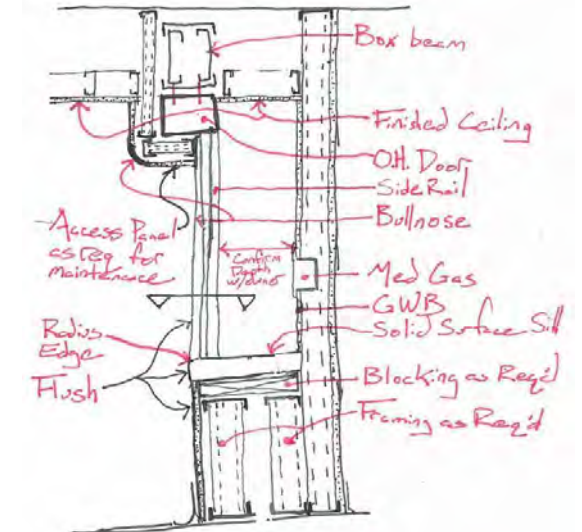
*Includes a  
Patient Safety Risk Assessment Tool*

**The Facility Guidelines Institute**

### Patient Safety Standards, Materials and Systems Guidelines

Recommended by the  
New York State Office of Mental Health

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.





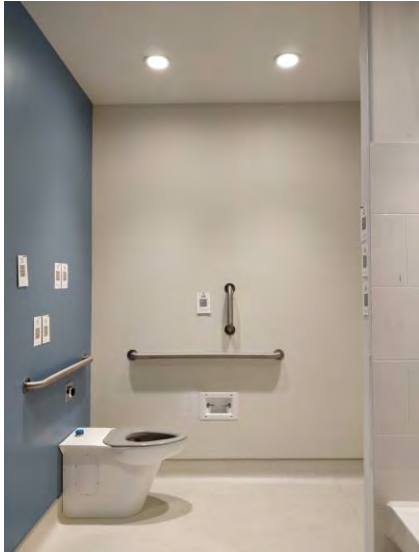
# Materiality



# Mockups



- Nurse Stations
- Patient Bathrooms
- Patient Rooms
- Patient Interaction Areas
- Product Testing
- Materials Testing
- Constructability & Details
- Perform Early in Design Process

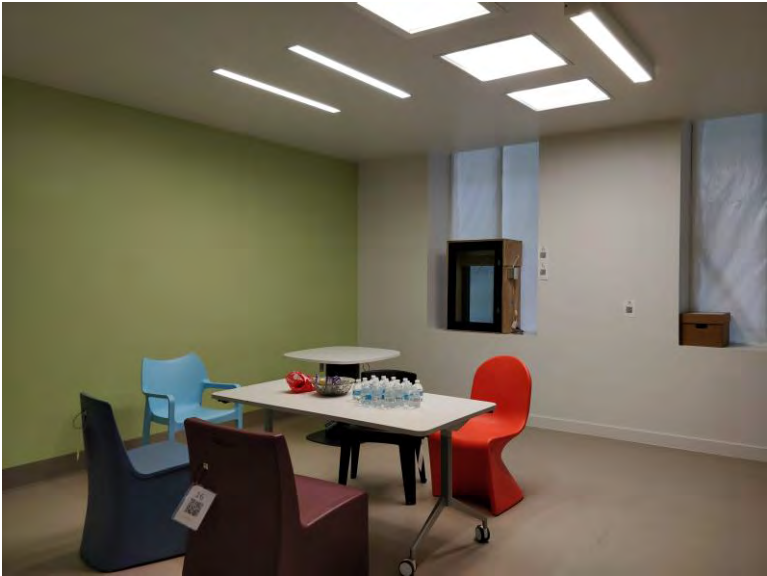
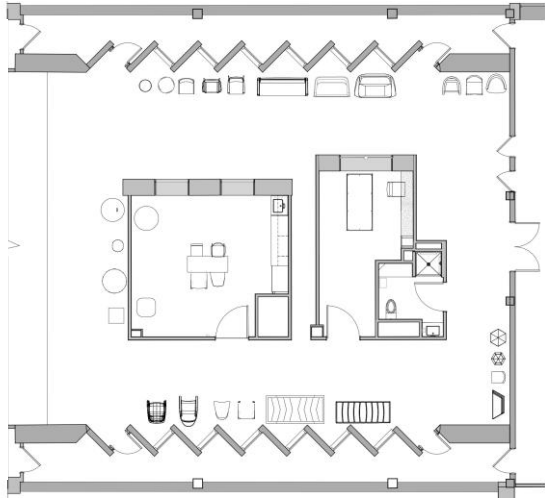


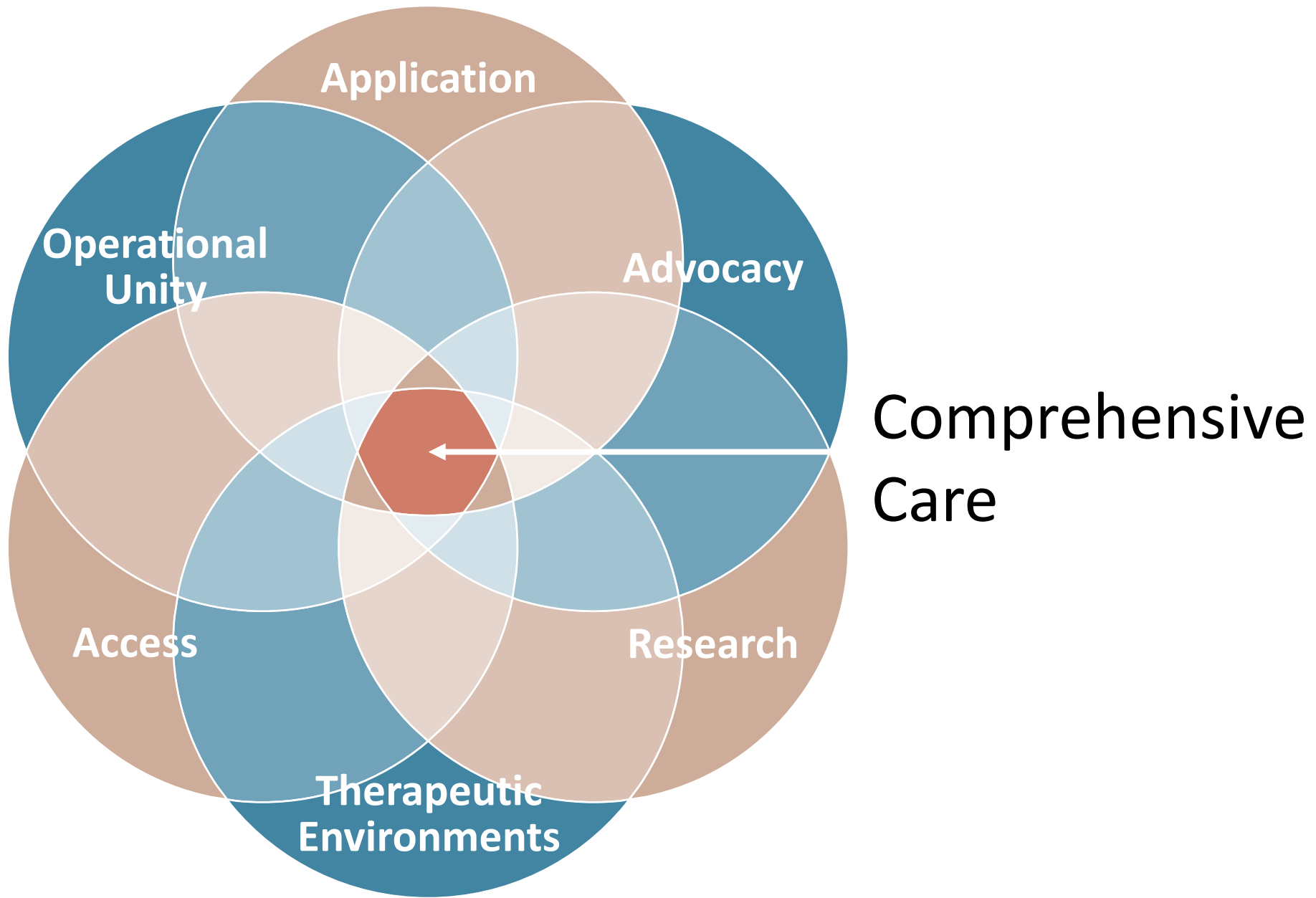
# Mockups

81



Pineapple – Ryno Dining





# Final Q&A

**Thank you for your attention!**

