

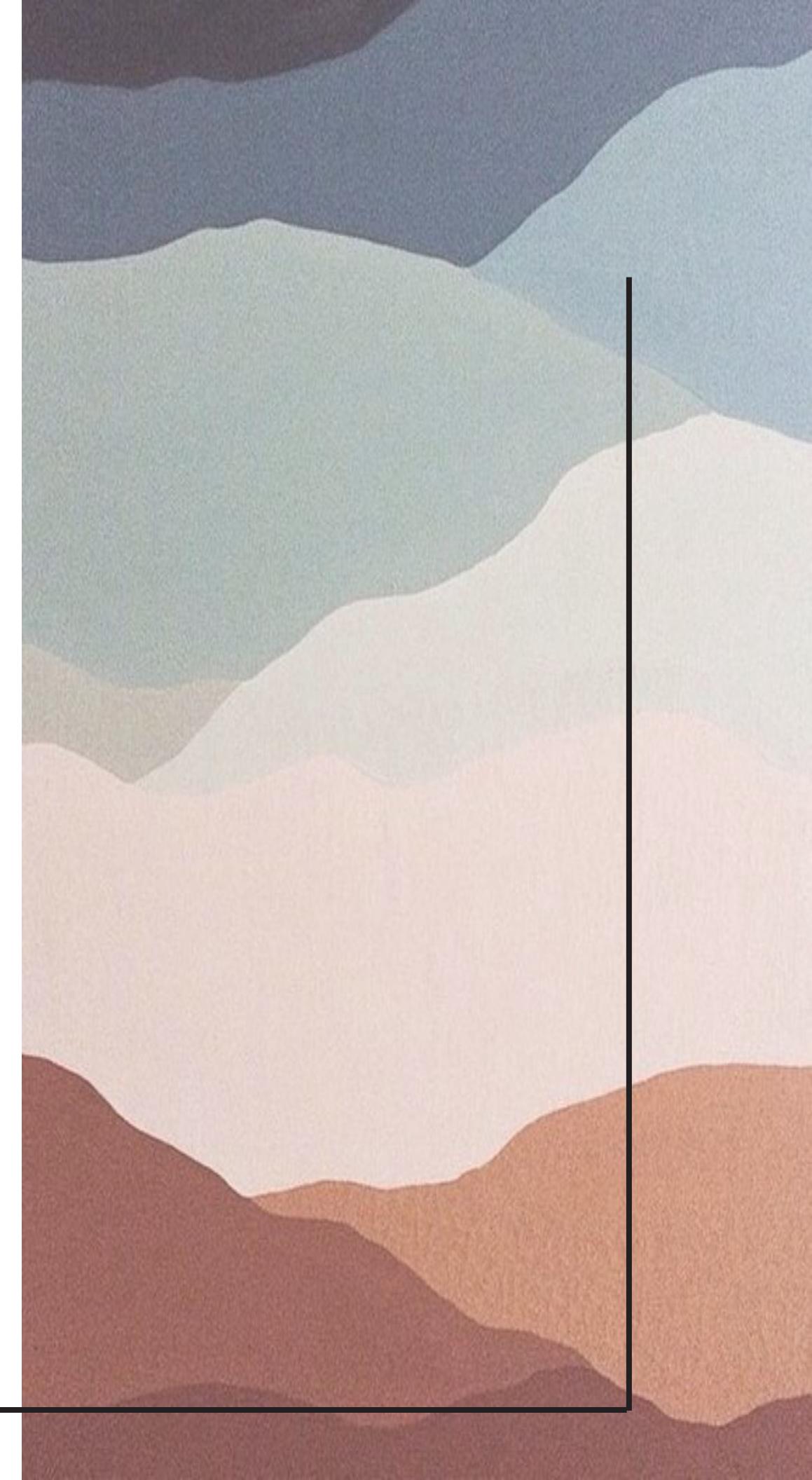
GUIDE TO STANDARDIZING —

UNIVERSAL
DESIGN

— WITHIN HEALTHCARE —

FINAL PROJECT

ARCHONTOULA V. GITTAS DSN4083_010
THURSDAY, APRIL 16, 2020 PROFESIONAL PRACTICE & ETHICS II



abstract

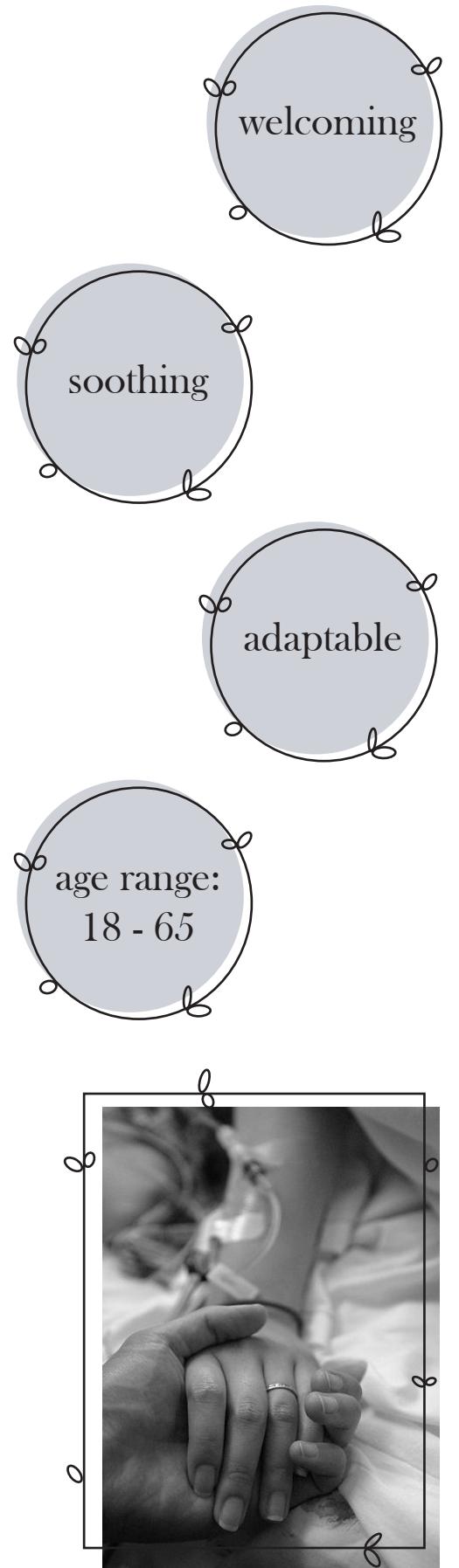
Healthcare design is a sector that requires critical and high-risk considerations for the wellbeing of the patients, visitors and staff. Patient floors can evoke many emotions as this location is often where important and impactful events can happen in a person's life. Therefore, professionals within the built environment community have strategized to meet the needs, considerations and comfort of users within a space. This project consists of a guidebook and case study to provide interior designers with the necessary principles of universal design within inpatient acute care hospital floors. Finally, the 7 principles of universal design will be presented within a case study to allow a visual understanding to the readers.



research summary

Inpatient acute care alone requires thoughtful design decisions and the application of universal design components. As the project design goals included designing a rewarding layout for patients and workers, the research needed to be specifically detailed.

Furthermore, to successfully design a space that is sustainable, innovative in technology and resourceful to the users, this sector of design required evidence-based design (EBD) research. Consequently, my research came from a case study analysis of care facilities similar in nature to this project (inpatient, acute care). Also, readings, texts and articles allowed me to expand my knowledge and understanding of successful healthcare design.



Focus topics that were relevant to the design research consisted of environmental psychology, including colour psychology. Other key factors included:

- analyzing short-term patient rooms
- comparing universal design to standard accessibility
- familiarizing myself with the seven elements of universal design
- discovering present and future trends with healthcare design and the built environment
- finding methods and designs in wayfinding, and
- considering methods of sustainability for large sites and major consumers

Another method of collecting research was by conducting two interviews with healthcare professionals. In both situations, it appeared that the administrative portion of the design was lacking space and comfort. A necessary component for workers to be productive, is the functionality of the spaces surrounding them. A better workspace simultaneously creates a better experience for the workers and a peaceful and healing environment for the patients. An appealing environment encourages guests to visit and support the patients.

My recommendations for future planning strategies based upon my EBD research will be applied to the design include:

- create single-patient rooms with a small family space for visitors
- display artwork and use daylight for natural healing powers
- enhance worker and patient adjacencies
- improve circulation flow, interactions, wayfinding
- use current and innovative technology
- incorporate modern lighting elements
- design solutions that reduce stress, anxiety and depression
- create a friendly and welcoming environment
- source materials locally and include recycled content, and
- improve indoor environmental quality

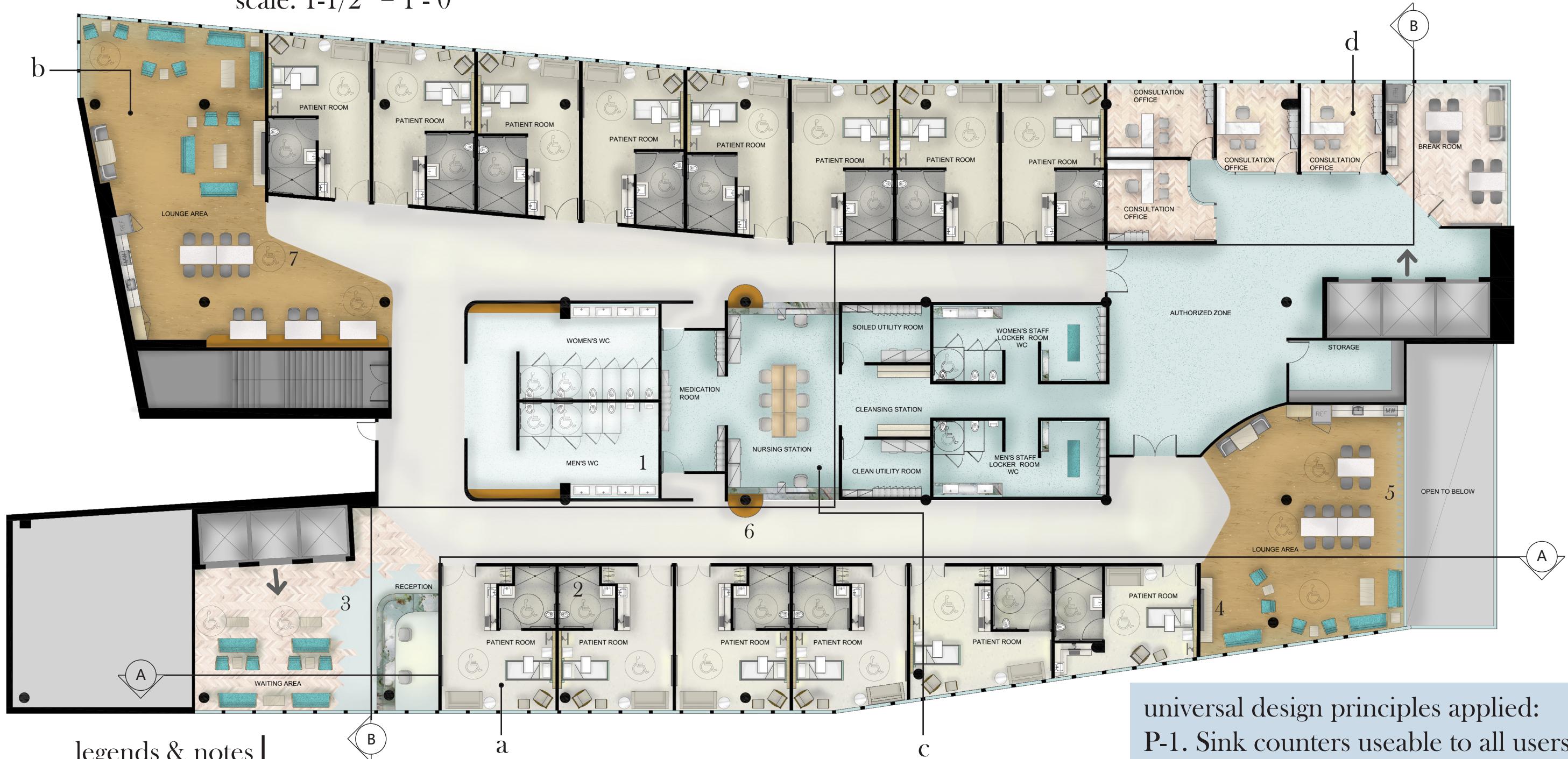
In conclusion, this research developed my EBD research solutions, which influenced my design decisions within a patient floor setting. By creating a guide which standardizes universal design, this can be utilized in multiple forms of healthcare facilities to create a welcoming and safe space for patients, visitors and staff.

7 principles of universal design:

1. equitable use
2. flexibility in use
3. simple & intuitive use
4. perceptible information
5. tolerance for error
6. low physical effort
7. size & space for approach & use

inpatient acute care hospital floor plan

scale: 1-1/2" = 1'- 0"



developed spaces:

a - patient room

b - lounge

c - nursing station

d - consultation office

legend:

→ entry points

visual space sizing

section elevation A

section elevation B

floor finishes:

(approved for healthcare environment)



- vinyl herringbone planks



- rubber 48" x 48" tiles



- vinyl emulated wood planks

universal design principles applied:

P-1. Sink counters useable to all users.

P-2. No shower restrictions from flooring.

P-3. Visual indication of reception area.

P-4. Monitors allow language/subtext pref.

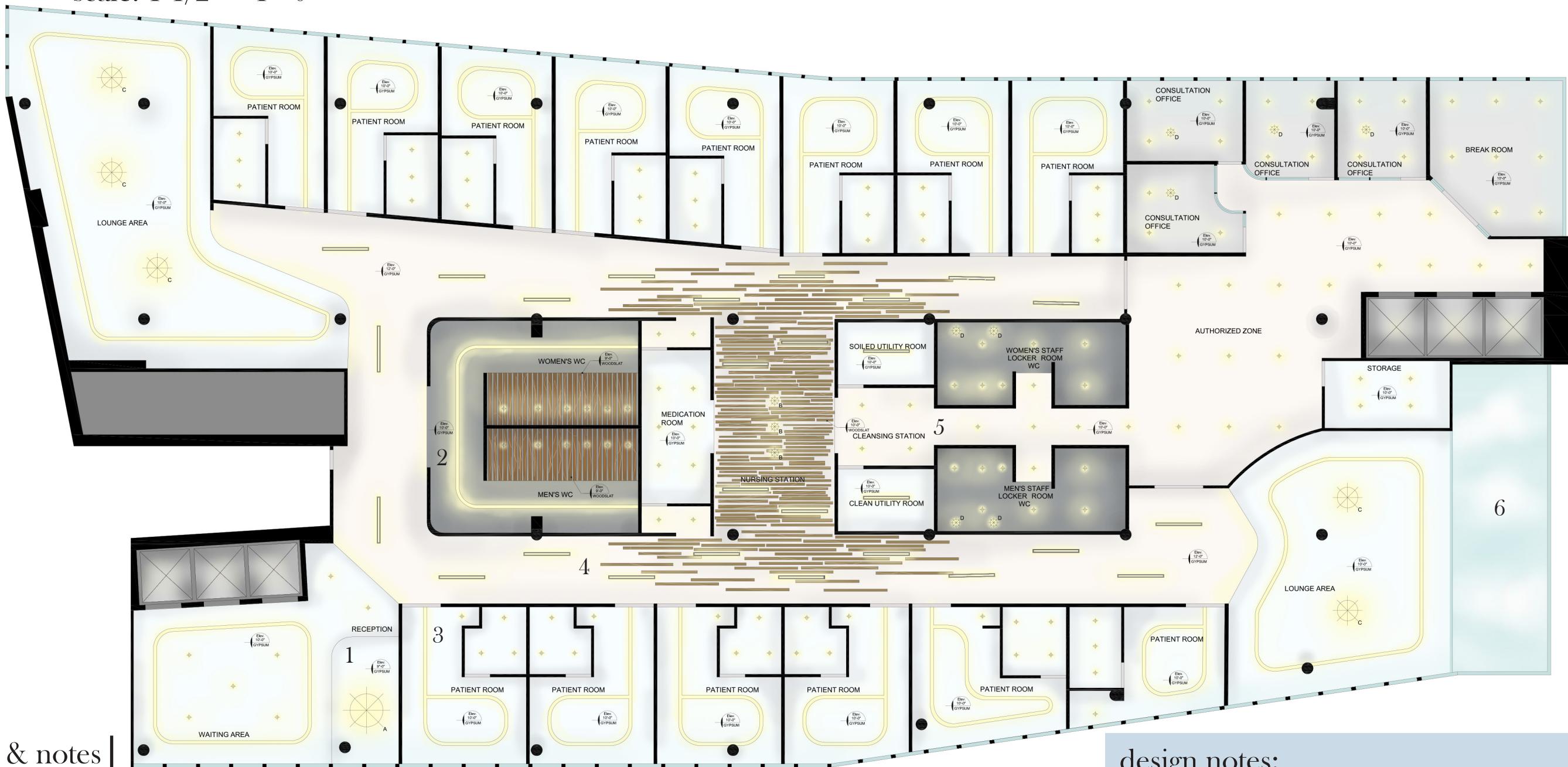
P-5. Indication in flooring of barrier ahead.

P-6. Seats allow rest while travelling distances.

P-7. Ample space for users to move through.

reflected ceiling plan

scale: 1-1/2" = 1' - 0"



legends & notes

symbol:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

image:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

description:

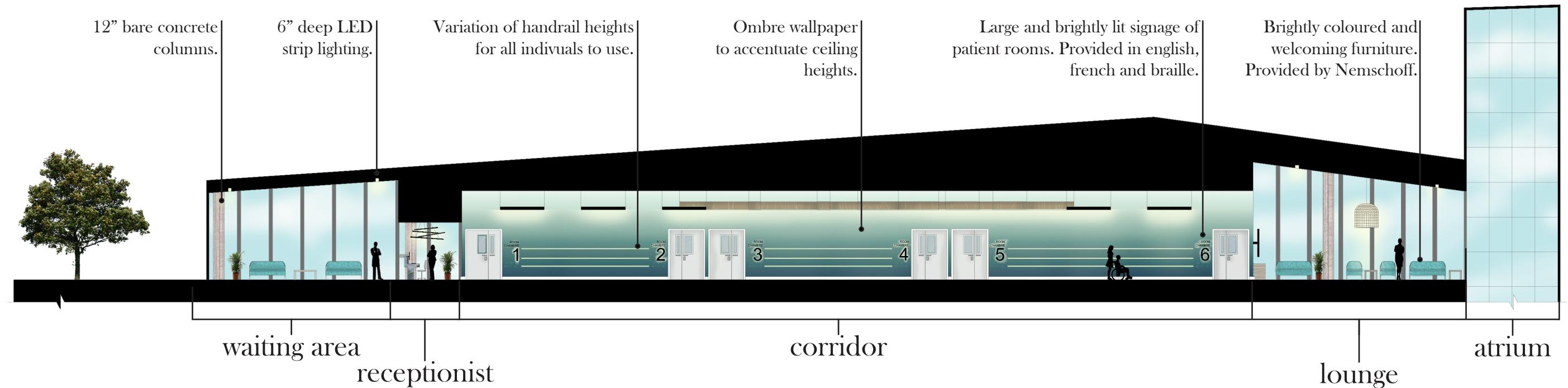
1. 9" radius recessed lighting.
2. Custom circular LED pendant.
3. Suspended LED strip fixture.
4. Suspended 24" weaved basket fixture.
5. Suspended 9" dome fixture.
6. 48" suspended LED strip fixture.
7. 6" wide LED strip, installed into gypsum.
8. Suspended 48" wood slats.

design notes:

1. 12" bulkheads indicate change of zones.
2. Dark hue to create sense of higher ceiling.
3. LED strip used to for visual circulation.
4. Scattered wood slates to visually represent distance from nursing station.
5. Consistency in height for corridor.
6. Glass atrium that doubles ceiling height.

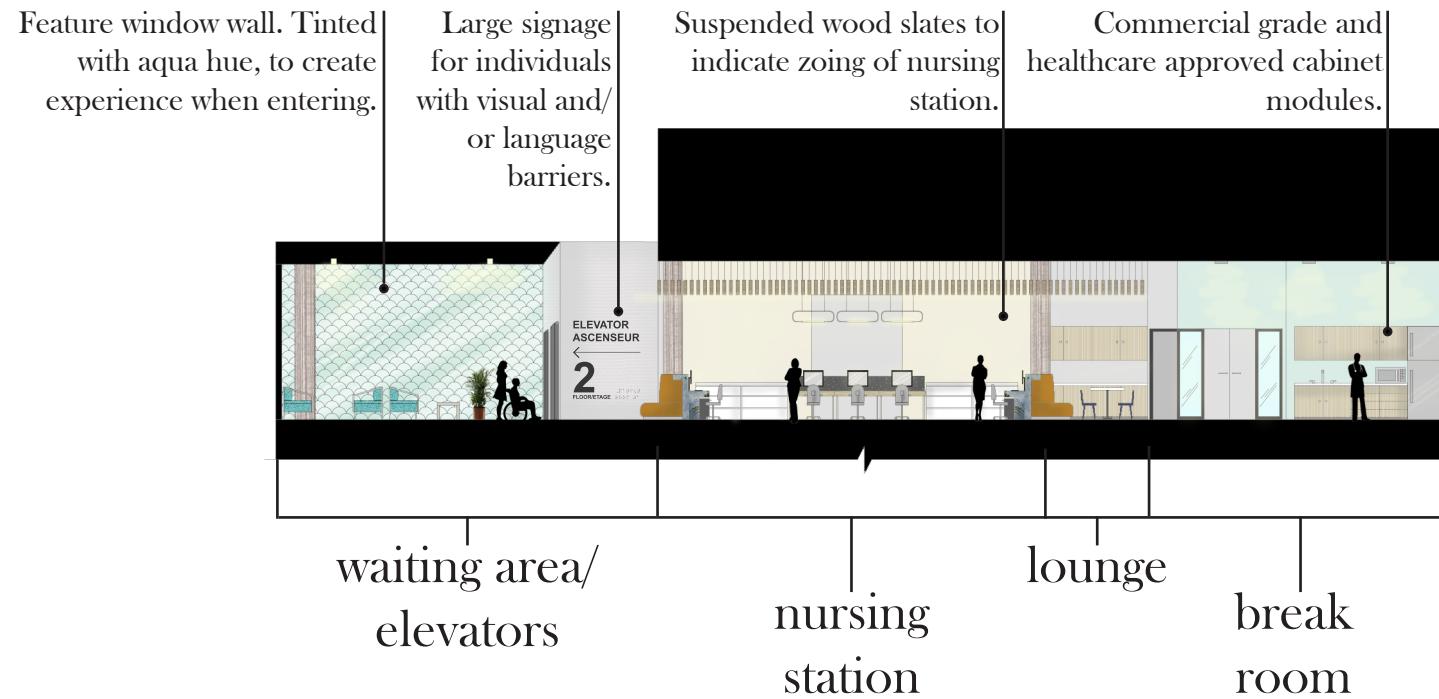
section elevation A

scale: 1-1/2" = 1'- 0"



section elevation B

scale: 1-1/2" = 1'- 0"



reception / waiting area perspective



perspectives of developed spaces

a - patient room



c - nursing station



b - lounge



d - consultation offices

