

Bipolar Equinox

Community Hub

Bipolar disorder is an incurable mental health condition characterised by extreme depressive episodes and emotional instability. Within the UK 1:50 people have Bipolar disorder, however, upon diagnosis only 28% of people knew another sharing the condition. Additionally, 67% of people received no self-management advice after diagnosis; with the NHS there is a lack of early intervention provided in the case of an upcoming episode. Addressing the gap in current healthcare through interior architecture and design is in the creation of accessible spaces to receive immediate assistance by medical professionals before hospitalisation is necessary. This project will contain teaching facilities, therapy spaces and areas for people to come together to support each other. With the fragile nature of this disorder, spatial surroundings can significantly impact the emotional stability and wellness of a user, making detailed design decisions vital in producing an inclusive and stigma-free mental health focused facility.

User



Gender Neutral



Those affected by Bipolar disorder, Friends and Family



18 years - 40 years

Understanding the users condition

Understanding the user is essential to designing a space that offers equal care and provides maximal therapeutic benefits. Identifying common triggers and treatments for Bipolar disorder aids the decision behind which physical needs can be thoughtfully translated into spatial and material design strategies.

What is Bipolar disorder?

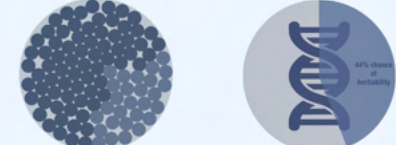
Bipolar disorder is a common disorder affecting mood and behaviour, manifested by repeated episodes of mania/ hypomania and depression. An individual is the most likely to have their first episode occur when a teenager/ young adult. On average it takes 9.5 years to get a correct Bipolar diagnosis.

Sleep response



Those with Bipolar disorder experience sleep fluctuation between feeling a decreased need for sleep and being tired with no energy. This is due to the irregularity Bipolar disorder causes with the Circadian Rhythm.

Project Justification



72% of people knew no one else with the disorder upon initial diagnosis.

44% Heritability



67% of people with Bipolar disorder received no self-management advice when diagnosed.

Triggers



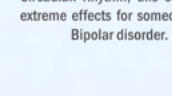
Genetics, heritability is estimated to be 44% and effect first-degree relatives.



Social Rhythm Disruption was found to effect 25% to 65% of individuals with Bipolar disorder before a manic episode.



Perimenstrual, Postnatal, alongside Menopausal periods were shown to increase moods in 77% of women.



Lighting can affect the bodies Circadian Rhythm, this can have extreme effects for someone with Bipolar disorder.

Proposed client – Bipolar UK

Bipolar UK is the only national charity dedicated to empowering individuals and families affected by Bipolar disorder.



Follow the QR code for more information about Bipolar UK.

Common treatments



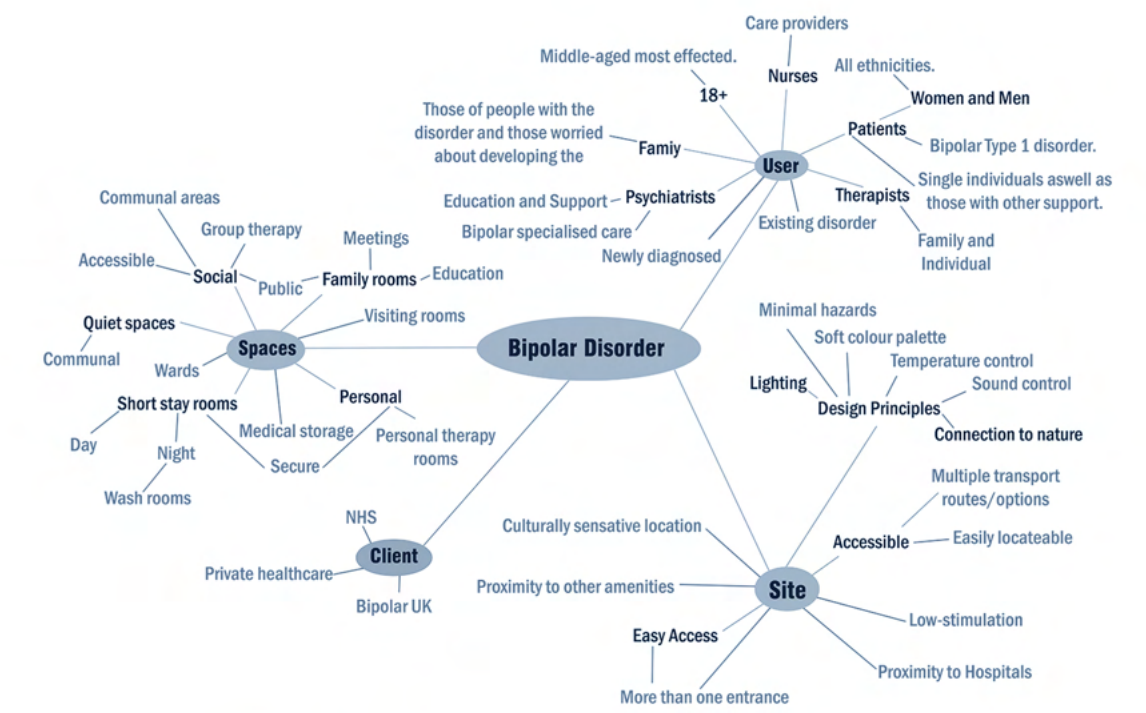
Mood stabilisers can act as a long term treatment when taken daily.



Psychological treatment such as talking therapies and group therapy.



Psychoeducation in order to recognise the signs and symptoms of a manic or depressive episode.



Incorporating friends and family

By supporting not only individuals with Bipolar disorder but also their friends and family, this design reinforces the overall support network for the users in this project. Just as there is limited support for those living with the condition, their loved ones often face similar struggles. Providing space for family therapy sessions encourages mutual understanding and healing, benefiting both the individual and their support network.

Location

Laxton Square, Peterborough, Cambridgeshire, PE1 1UQ



Site map (Not to scale)

The City Centre location offers vast access to public transport, it is in a walking distance from the bus and train station. This is vital in the consideration for those with Bipolar disorder due to the condition limiting those who can drive.



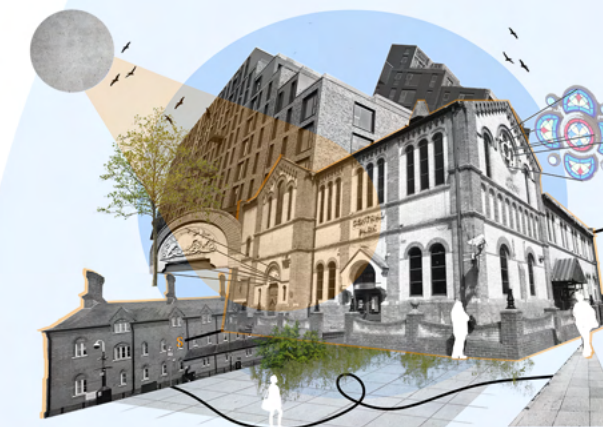
Ranked 70th out of 317 for poor physical or mental health. The score for "access to services" was lower than England as a whole. Peterborough is in the 30% most deprived.



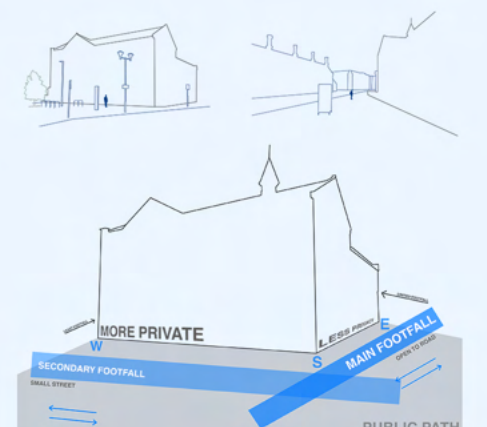
- Site
- Bus stops
- Commercial
- Education
- Religious
- Residential
- Retail



The existing architecture of this building uses an Italianate style with yellow and red brick façades. These façades house arched windows allowing natural light into the space, additionally, the triangular skylight opens up the building to ample light.



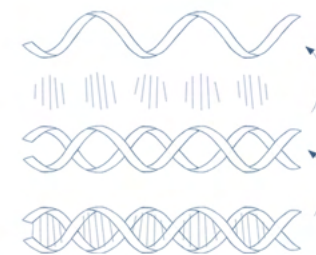
The history of this building holds a metaphoric significance to the proposed use. The juxtaposed transition of this site from an orthodox, controlled county court to a liberated, lively nightclub, holds a compelling comparison to Bipolar and the extreme positive and negative mood variations one with the disorder experiences.



The waiting areas are designed to support smooth circulation while serving as the heart of the building. Circular forms are used to create a sense of unity amongst users. At the centre, a circular atrium with biophilic elements acts as both a visual focal point and a gentle divider, offering comfort and reducing anxiety through natural, calming stimuli.

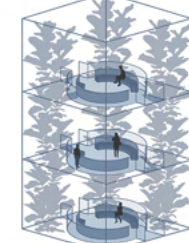


Form experimentation



The connection between Bipolar disorder and DNA initiated the inspection of the forms within a DNA strand, particularly how these curved forms intersect. The mirrored non-linear shapes produce a balance between openness and enclosure.

Spatial Interactions



Experimenting with the spatial interaction between floors lead to a deeper exploration into the benefits of Biophilic architecture for those with Bipolar disorder.

Incorporating Biophilia



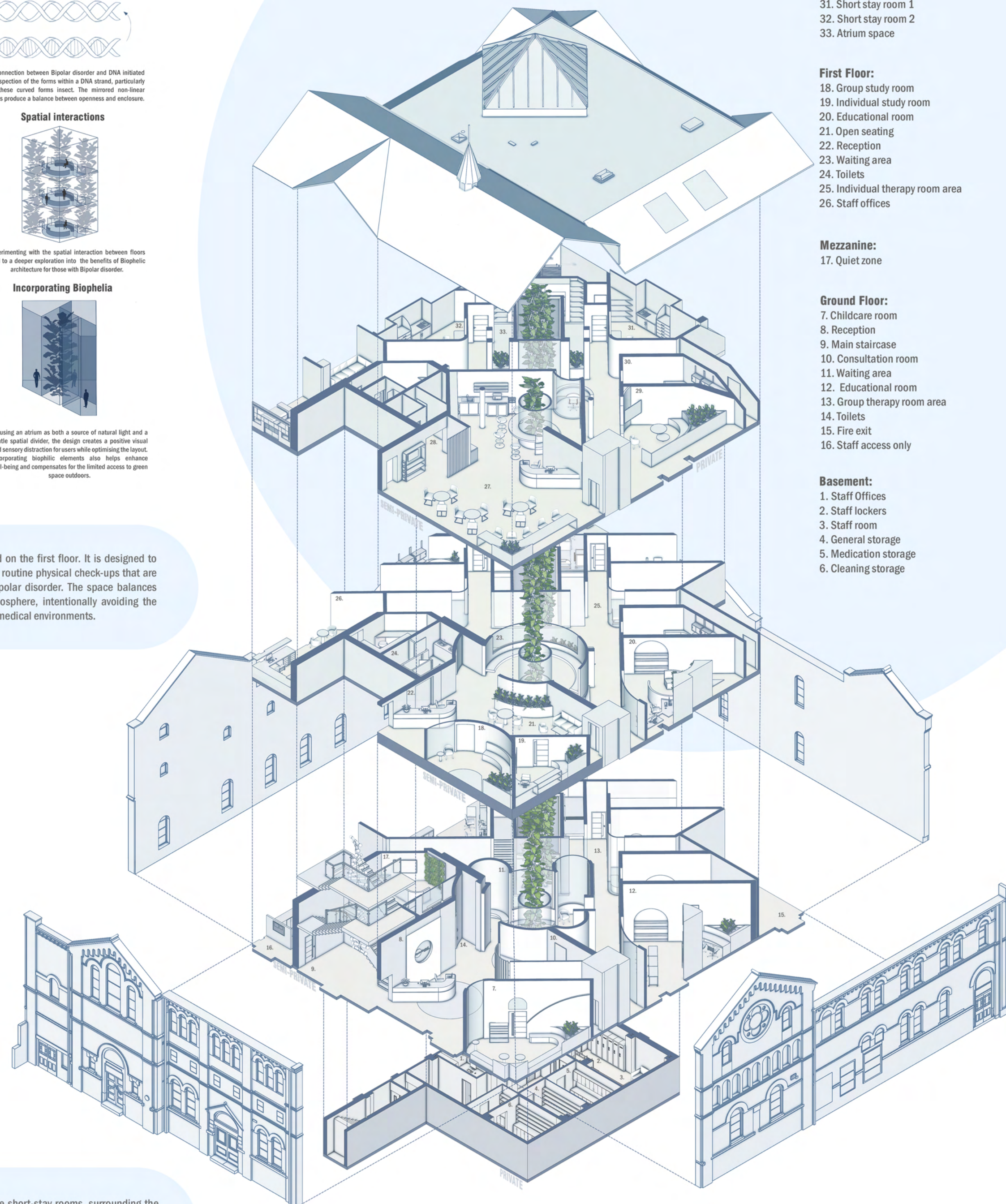
By using an atrium as both a source of natural light and a gentle spatial divider, the design creates a positive visual and sensory distraction for users while optimising the layout. Incorporating biophilic elements also helps enhance well-being and compensates for the limited access to green space outdoors.

This individual therapy room is located on the first floor. It is designed to support both therapeutic sessions and routine physical check-ups that are often essential for individuals with Bipolar disorder. The space balances clinical efficiency with a calming atmosphere, intentionally avoiding the sterile feel of traditional medical environments.



A relaxed communal area between the short-stay rooms, surrounding the central atrium, supports both recovery and circadian rhythm alignment of the users. Integrated circadian lighting dynamically adjusts throughout the day, enhancing the therapeutic environment and reinforcing natural sleep-wake cycles.

This axonometric breaks down the design to clearly show the relationship between each floor, demonstrating the use of biophilic design elements like internal plants and organic forms carried throughout the building. Although each level has a distinct function, they're all connected through a shared spatial language, creating harmony and a unified identity across the entire design.



Second Floor:

- 27. Cafe
- 28. Toilets
- 29. Communal living area
- 30. Therapy room
- 31. Short stay room 1
- 32. Short stay room 2
- 33. Atrium space

First Floor:

- 18. Group study room
- 19. Individual study room
- 20. Educational room
- 21. Open seating
- 22. Reception
- 23. Waiting area
- 24. Toilets
- 25. Individual therapy room area
- 26. Staff offices

Mezzanine:

- 17. Quiet zone

Ground Floor:

- 7. Childcare room
- 8. Reception
- 9. Main staircase
- 10. Consultation room
- 11. Waiting area
- 12. Educational room
- 13. Group therapy room area
- 14. Toilets
- 15. Fire exit
- 16. Staff access only

Basement:

- 1. Staff Offices
- 2. Staff lockers
- 3. Staff room
- 4. General storage
- 5. Medication storage
- 6. Cleaning storage



The integration of Circadian lighting is seamlessly embedded into the design, allowing therapeutic lighting to become an integral part of the spatial experience. This not only reinforces the holistic nature of the environment but also supports emotional regulation, key elements in the management of Bipolar disorder. This works in harmony with the psychotherapeutic care provided throughout the space.



Vital design considerations

- Individual spaces for people to compose themselves or have alone time when overwhelmed
- The atrium being the main incorporation of Biophilic architecture as research supports its involvement being positive for mental well-being. It can provide better community engagement and a sense of belonging
- Waiting area has some sort of division
- Equal hierarchy within the rooms
- Calming colours and materials as suggested by research
- Safety comes first
- Cafe area to prompt community and socialisation
- Spaces should provoke a feeling of unity and prompt conversations (Circular waiting areas)
- Respecting the structure of the current building to produce a good adaptive reuse project, maintaining on the existing atrium
- Does not reflect a typical medical setting
- Ensuring staff have an equal quality of space
- Circadian lighting, smart lighting and artificial sky lights in order to counteract seasonal depression (present in those with Bipolar disorder)
- Short stay rooms allow the user to be self-managing and have a sense of familiarity
- Provide education in order to prompt better knowledge about the disorder
- Suitable for both families and individuals with Bipolar disorder
- Each room should have some sort of visual distinction as found by my research (atrium)
- Quiet area - A space for when a person is overstimulated due to the building being in a city centre and monitoring issues further help is needed, also provides research opportunities

Lighting features

Artificial LED sky panels are present throughout the space to aid the Circadian cycle and counteract Seasonal affective disorder found in those with Bipolar disorder.

Circadian Lighting

Those with Bipolar disorder have an irregular Melatonin secretion, meaning their whole Circadian Rhythm is thrown off balance. This can have physical implications, especially for those with Bipolar.

Increased white light in the morning to mid-day has been linked to decreased depressive states and reduced Seasonal Affective Disorder.

High awareness
Low awareness

2700K
4600K
6500K
4600K
2700K

6:00AM
12:00PM
6:00PM

Circadian Rhythm → Cycle → Constant methods of management → This disorder can feel like a continuous journey.

Sharp corners → Abrupt changes → Instant changes in mood and behaviour → Bipolar Disorder is unpredictable and could change at any time.

Obstructed pathway → The calm between a change in circumstance → Bipolar is not a straight forward path, it faces many obstacles.

What is Circadian lighting?

Circadian lighting is a dynamic system that adjusts color temperature and light intensity to replicate natural daylight patterns, supporting the body's Circadian Rhythm. By shifting from cool, high-intensity light in the morning to warm, low-intensity light in the evening, it regulates melatonin production and helps maintain healthy sleep-wake cycles.

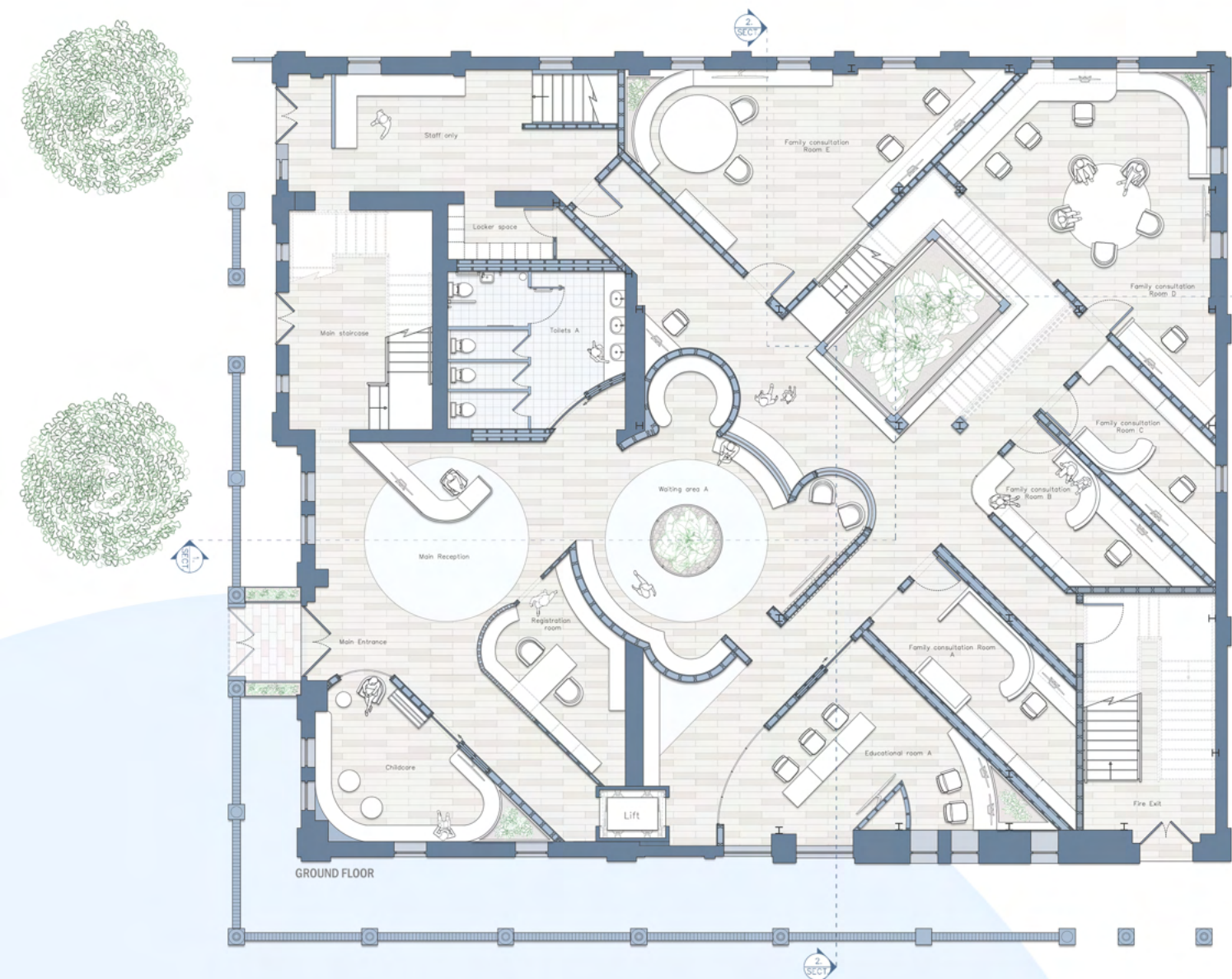
Early warning signs of mania in bipolar disorder

Adapted from 'Mania: A History of Madness' by K. Jungberg and V. Jankovic

- Socializing more with others
- Being discouraged
- Joking more
- Overconfidence
- Feeling less
- Forgetting to eat
- Losing your balance
- Thinking more about God
- Thinking quicker
- Having a lot of energy
- Stating a lot of ideas
- Feeling nervous easily
- Seeing many possibilities
- Not sleeping

The mental health hub | www.bipolaruk.org.uk

Bipolar Equinox Community Hub



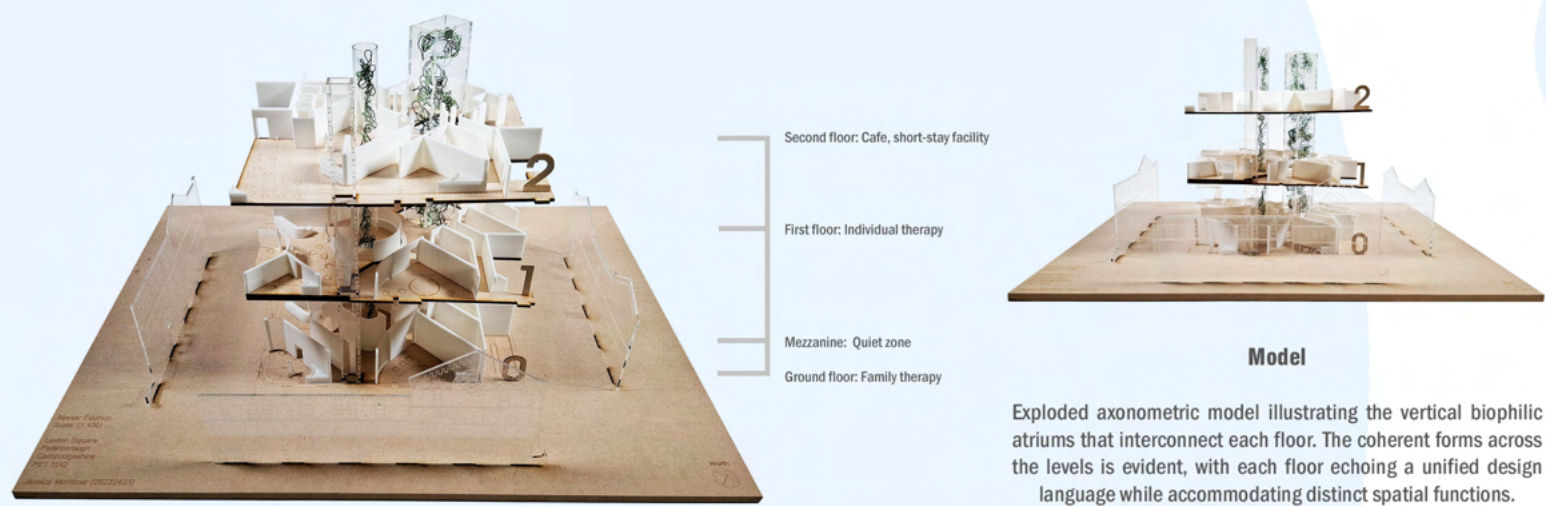
The ground floor houses functional areas dedicated to childcare, family therapy sessions, and educational facilities for both direct users and visitors. These spaces are designed to foster a supportive environment where families can engage in therapeutic work together while young children are cared for nearby, ensuring accessibility and convenience.



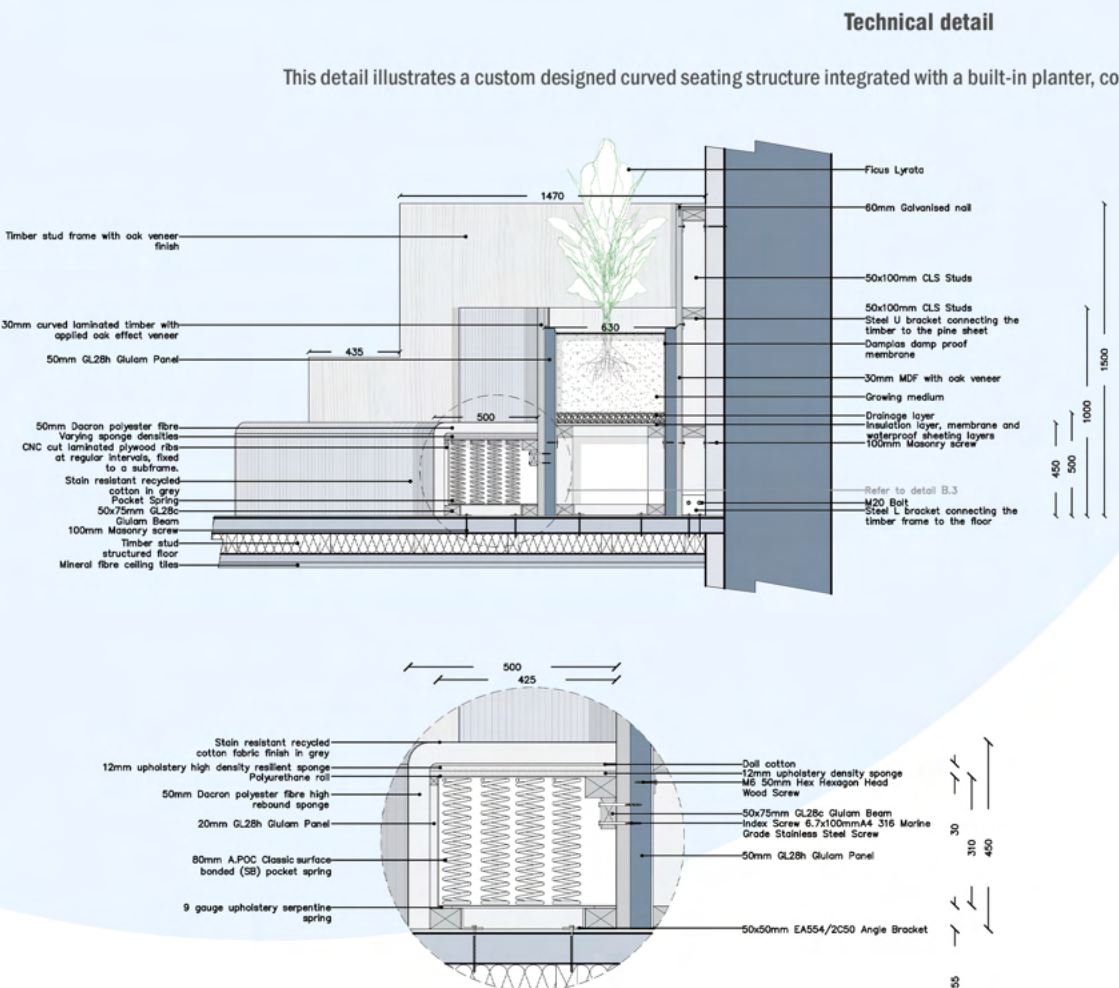
On the first floor, spaces are allocated for learning opportunities, social engagement, and independent study. Individual therapy rooms are equipped for psychotherapy as well as necessary physical examinations depending on the specific patient requirements.



The second floor houses the main café and dining area which is accessible to all users and intended as a communal social space. This level also includes private short-stay facilities specifically designed to support the treatment of disrupted circadian rhythms.



Exploded axonometric model illustrating the vertical biophilic atriums that interconnect each floor. The coherent forms across the levels is evident, with each floor echoing a unified design language while accommodating distinct spatial functions.



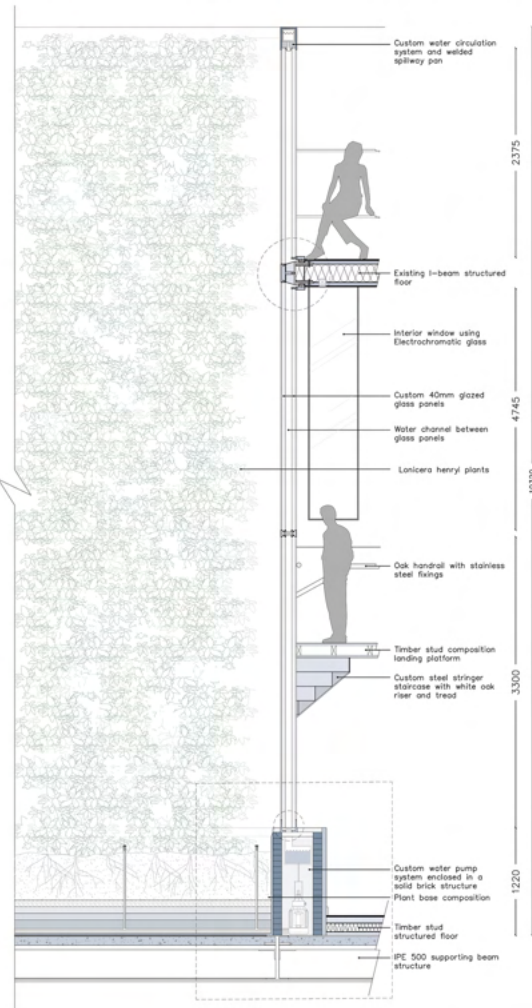
This detail illustrates a custom designed curved seating structure integrated with a built-in planter, combining functionality with biophilic design elements.

Sectional view showcasing the bench's internal construction, with a focus on the seamless integration of the planter as a biophilic element.

Close-up detail exploring the tactile layering of the seating, revealing the thoughtful selection of foam densities and box spring integration. Showcasing the prioritised user comfort during a therapy session.

Incorporation of water features

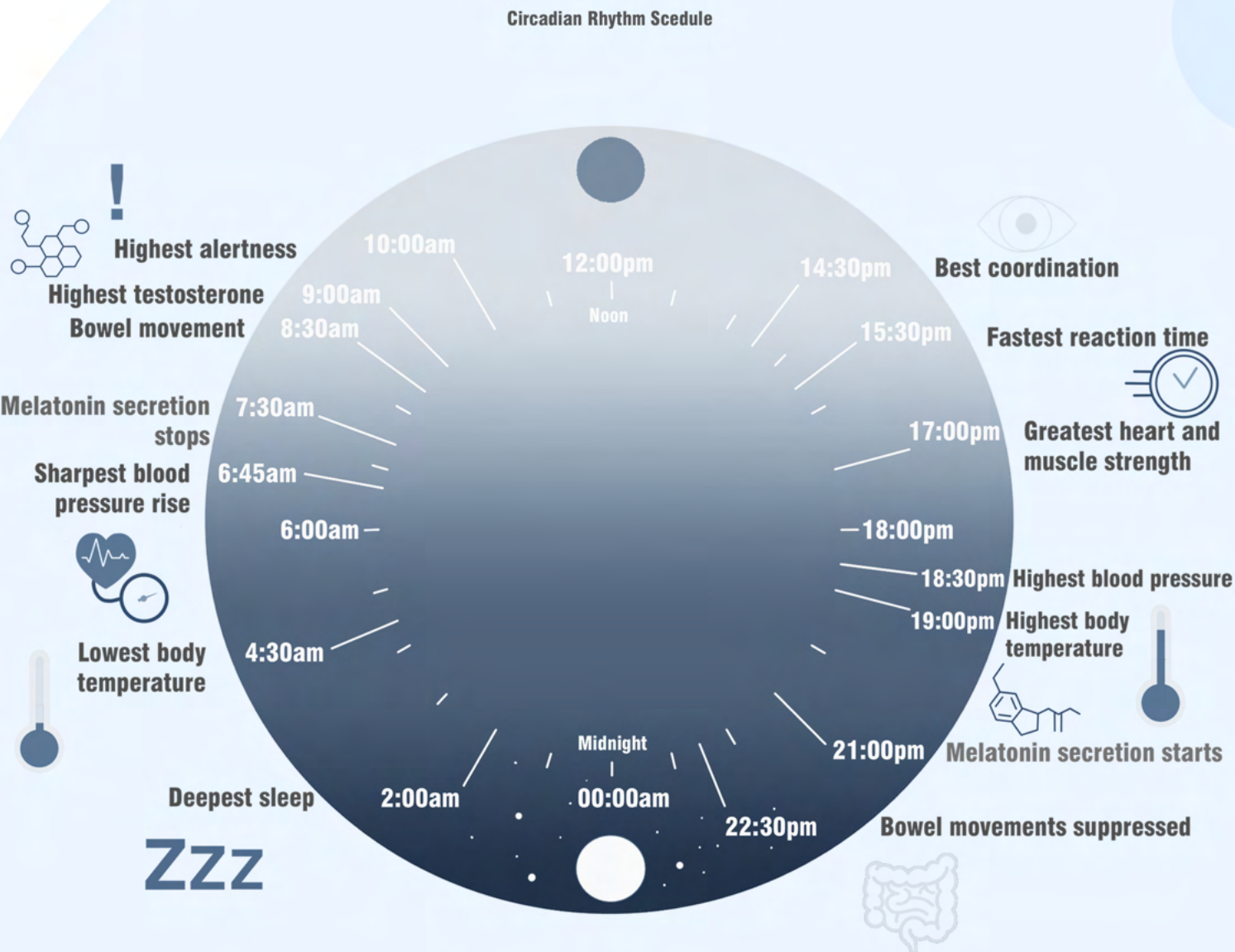
Located within the main atrium, the sound of flowing water introduces a layer of white noise which helps mask disruptive external sounds, promoting a sense of calm. This sensory experience supports emotional regulation and contributes to a tranquil atmosphere conducive to healing. In combination with the plants the water feature acts as watering system to the main atrium.



Technical detail of the main atrium assembly, illustrating the structural framework and key connections. There is a custom-engineered steel curtain wall system anchoring glazed panels to the existing floor slab, additionally there is a frameless channel system securing the glass panels at the base. Also shown is the atrium's load-bearing base, enclosing the integrated water circulation system and associated plant infrastructure.



The short-stay rooms are created for individuals experiencing challenges with their mental well-being. These spaces offer a calm, supportive environment for overnight stays, providing early intervention and monitoring before hospitalisation becomes necessary. Integrated circadian lighting supports natural sleep cycles, promoting restfulness and aiding the recovery process through subtle environmental regulation.



Understanding Circadian rhythm is essential in designing spaces that support health and well-being. The Circadian rhythm governs the body's internal clock, influencing sleep patterns, hormone levels, mood, and energy throughout the day. By aligning spatial elements, such as lighting and colour with this natural cycle, the users environment can reinforce the body's Circadian rhythm. This is essential for someone with Bipolar disorder where even slight misalignment can have detrimental effects.



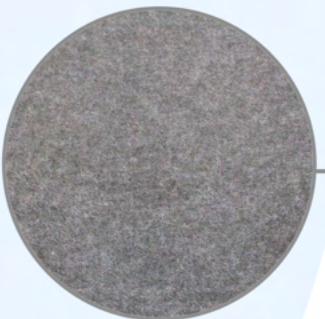
Follow the QR code for a full proposed technical pack.



Follow the QR code for a full material booklet.



Valspar X89 Deep Pacific



Autex acoustic paneling



Materiality

Material selection plays a crucial role in shaping a therapeutic and healing environment. In this project, materiality supports Circadian rhythm alignment while enriching the sensory experience, particularly for individuals with Bipolar disorder. Thoughtful use of texture, colour, and lighting enhances the overall impact of the space.

Material board

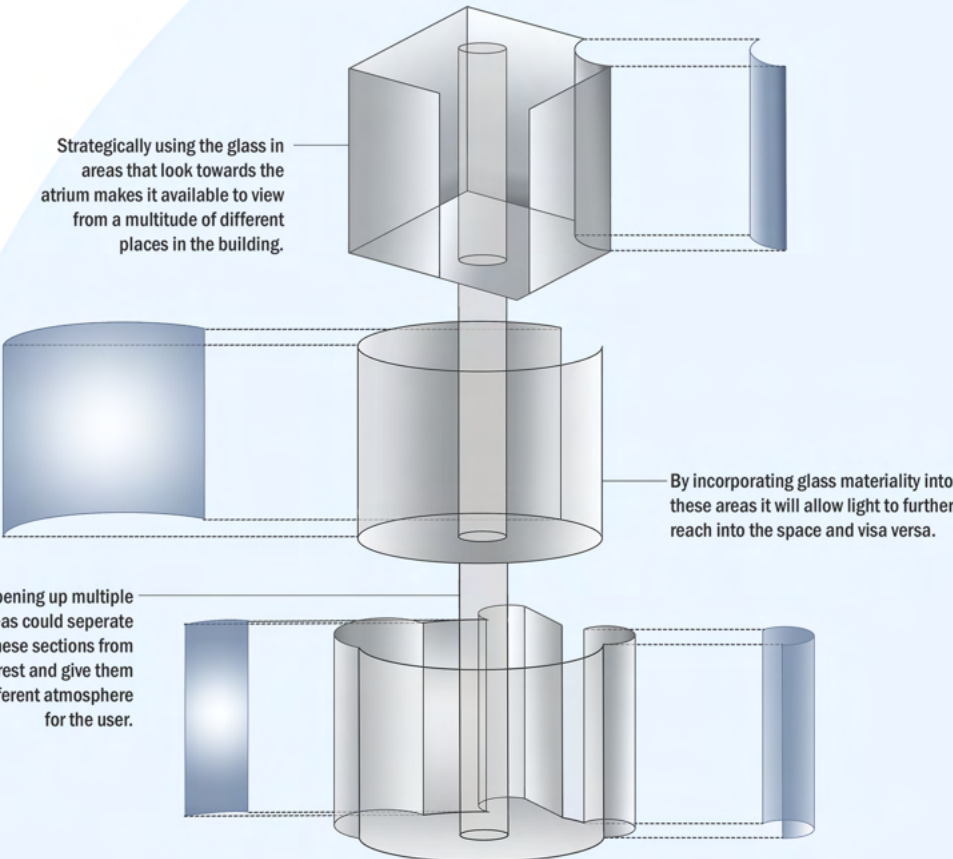


- | | |
|------------------------------|---|
| 1. 'Arteney' Composite MDF | 12. Deep Pacific paint |
| 2. LC Smart Glass | 13. Tikkurila Sade paint |
| 3. 'White on White' Acoustic | 14. Tikkurila Prinssi paint |
| 4. 'Bayonne' Composite MDF | 15. 'Azure Diamond' Tile |
| 5. 'Brienne' Solid Venner | 16. 'Jute' Composite MDF |
| 6. 'Antique Limestone' Tile | 17. 'Motif Twist Carpet, Marine' |
| 7. Cladding | 18. Stain resistant recycled cotton 'Mink' |
| 8. 'Taize' Solid Venner | 19. Easy clean recycled velvet 'Nordic Sky' |
| 9. 'Cloudy White Oak' | 20. Stain resistant velvet 'Navy' |
| 10. Blank Canvas paint | 21. 'Atlas White Zellige' Ceramic tile |
| 11. Steele Blue paint | 22. 'Casa Pearl' Tile |

Texture influences how users interact with a space. A balanced combination of soft materials and hard surfaces enhances restorative qualities. Integrating soft textiles with hard natural wood supports the project's biophilic aims. This can be achieved sustainably through recycled laminates and fabrics.

Colour selection is equally impactful. Colour is a powerful tool for influencing mood. Blue and green have been prioritised for their calming and restorative qualities, blue evoking serenity and hope, and green representing growth and protection. These tones are applied through soft furnishings and wall finishes to complement the wider material palette.

The way in which the circular forms on the bottom get more linear as you transcend up represents the security within each space. With family therapy on the ground floor, being unpredictable, it contrasts with the second floor and the scheduled circadian sleep cycle therapy present on this floor.



The connection between the main atrium and the materiality works harmoniously to create a calming and supportive environment tailored for therapeutic conditions. The openness of the atrium allows natural light to fill the interior, reinforcing a connection to the outside world.

