Synchronising Space: How interior architecture and design can be utilised for emotional balance and stability through Circadian-Inspired design on account of Bipolar wellness within a community hub environment.

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Bipolar Equinox: Bipolar Community Hub

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Abstract

Bipolar disorder is an incurable mental health condition characterised by extreme depressive episodes and emotional instability in the form of manic to hypomanic episodes. Those with the disorder are often reliant on different coping strategies to control their condition, these are often in the form of medication, therapy and lifestyle adjustments. In the care of Bipolar disorder there is a significant lack of dedicated facilities offering early supportive intervention in the case of an upcoming episode. This exegesis aims to answer the statement 'Synchronising Space: How interior architecture and design can be utilised for emotional balance and stability through Circadian-Inspired design on account of Bipolar wellness within a community hub environment.' The use of extensive research will support the design decisions made in this project.

A literature review with a focus on spatial considerations sets the foundation for the design process. The review highlights the possible contributions of Circadian design in the rehabilitation of those with Bipolar disorder. Research of the chosen location will be presented to support the necessity for this project, further justification for the building selection strengthens the ideas behind the project. A comprehensive understanding of the direct and indirect users support the efforts to produce an inclusive and responsive space. The use of specific design techniques brings together the main concepts spoken to in this document. Precedent studies demonstrate how a wider scope of research can effectively contribute ideas in an unrelated topic. Unpacking the trials faced throughout the design process, strengthens the effectivity of this mental health focused project. Self-reflection also provides a useful tool for development. This study covers a range of avenues in the hope to understand how the built environment contributes emotional balance and stability through specific design strategy. Bipolar Equinox aims to provide therapy resources, education and social opportunities for individuals facing dismay toward their current support routes.

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1. Introduction

Bipolar Equinox is a comprehensive project that aims to manage the extensive difficulties experienced by those with Bipolar disorder (BD) and their loved ones. It is motivated by the lack of support presented to those with the disorder, and surrounding it. The project focuses on providing therapeutic resources through Circadian design related methods, in order to cater towards emotional balance and stability. Current design obstacles lie around the inconsideration of user experience and well-being benefits. Healthcare architecture has been known to focus solely on efficiency over user engagement (CP Design Architecture, 2024). This enhances the necessity for this project.

My design exploration will be focused around the following research question: 'Synchronising Space: How can interior architecture and design be utilised for emotional balance and stability through Circadian-Inspired design on account of Bipolar wellness within a community hub environment?'. The resolution to this question should provide valuable insight into the future of Bipolar disorder and mental health inspired design within the interior architecture field.

2. Literature Review

This literature review explores the intersection between interior architecture, Circadian-inspired design, and mental health. Focusing on how these elements can support those with Bipolar disorder. The examination of the following sources will assist the crucial considerations necessary to design an environment for a sensitive disorder such as Bipolar.

The lack of spatial consideration and usage can affect the medical outcome and quality of care. In a medical journal, Constantina Papoulias et al. (2014, p.171-176) highlighted the issues of research studies when describing the design provisions of a psychiatric environment. Some studies omit any mention of patient characteristics, neither that of where certain activities happen, impacting the length of stay. This suggests that user-spatial ratio and space hierarchy are vital factors to consider when creating a therapeutic environment to aid the recovery of someone with Bipolar. This relationship between user and space is important because space acts as a form of therapy and not just an area to house medical interventions. For example, Chrysikou (2014, p.7-8) emphasises that environments bearing the least resemblance to a hospital setting were considered the prime conditions to take care of the mentally unstable. Therefore, these spaces must encourage safety, comfort, and a sense of normality. Considerations into materiality and lighting can align contemporary healthcare architecture and psychologically beneficial design.

It follows that spatial consideration can also be taken when allowing for the creation of larger spaces in order to address medical necessities but also mental well-being. Research by Neogi et al. (2016, p.431) noted: “Needs in the areas of…information, company, daytime activities and physical health-care were largely unmet according to patients and relatives”. This emphasises the fact that current healthcare architecture focuses on practical aspects over patient experience giving my concept the opportunity to advance current Bipolar care.

A positive patient experience can also be the result of company and daytime activities as previously mentioned; the reduction in the feeling of isolation can promote an efficient recovery. Social interaction between those with Bipolar challenges negative thoughts and prevents the development of distressing mood episodes. Lack of social interaction can trigger extreme depression or mania as a result of emotional control wavering (Owen et al., 2016, p.911-918). Connective spaces can significantly encourage social interaction, improving emotional stability by encouraging those to share conversations over similar experiences creating a safe environment.

Reflecting on patient well-being and emotional stability, spatially accounting for the consideration of the Circadian rhythm is necessary for someone with Bipolar disorder. The Circadian rhythm is the body’s biological clock that regulates actions such as sleeping and eating (Basics of sleep, 2020). As stated by Pierre A. Geoffroy (2018, p.775-777) “Circadian rhythm abnormalities are observed in individuals before the emergence of BD onset as well as in BD cases during acute episodes and during interepisode periods”. This strengthens the argument in the importance of incorporating Circadian supporting design elements. This is supported by the statement “…maintaining health and balance is dependent on the correct adaptation to the environment around us...” (Abreu and Bragança, 2015, p.219-229). A form of Circadian design is artificial Circadian lighting where natural points of daylight are replicated. Providing control over the integration of natural and artificial lighting can have immense influence over a person’s Circadian rhythm even when chemical factors are at play.

Difficulty sleeping due to an irregular Circadian rhythm is high in those with Bipolar disorder. This issue alone does not warrant hospitalisation, however sleep deprivation can trigger severe episodes in which hospitalisation is necessary. Lack of sleep is the leading cause of manic phases. In a Bipolar guide created to educate those unfamiliar with the disorder, it claims “According to participants on bipolar recovery courses, the most commonly reported warning sign for mania is a reduction in the amount of hours slept” (Walsh and Smith, 2012, p.23). The existence of an accessible space where individuals could visit and receive sleep intervention could reduce the Bipolar patient admission rates caused by sleep related issues.

By addressing the environmental factors that affect the psychological wellness of an individual with Bipolar, it can be incorporated into my design to create an optimally beneficial space. Each source gives supporting information and corresponded with one another to form a clear design picture.

3. Client and User

3.1 Client

Figure 1 – Bipolar UK logo
(Bipolar UK, n.d.)

The Bipolar Equinox project is commissioned by Bipolar UK who proclaim to be "…the only national charity dedicated to empowering individuals and families affected by bipolar" (Bipolar UK, 2024). They provide online and in-person support groups, access to an eCommunity, peer support, provide resources and work to improve the lives of those with and surrounding the disorder (Bipolar UK, 2024). This community hub project will provide crucial support in the form of accessible educational awareness and therapy services to catalyst improved national care for those with the disorder.

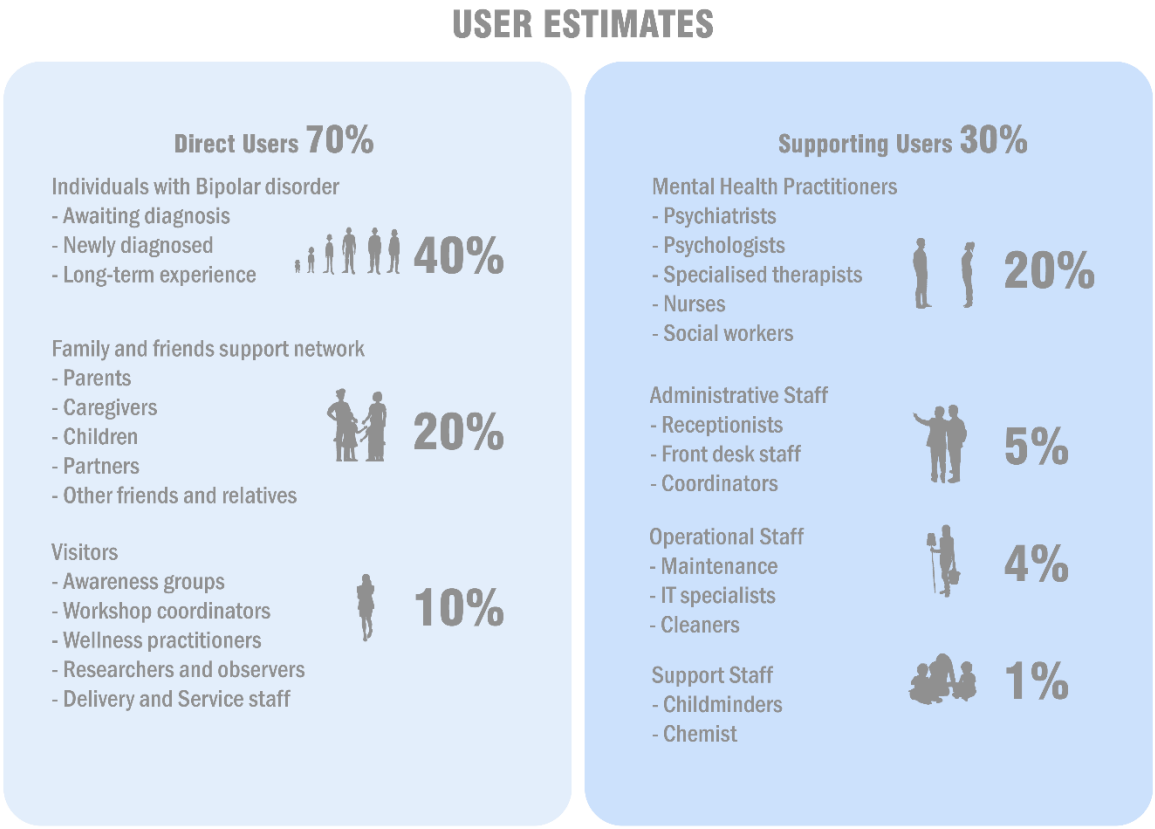

Figure 2 – User table
(Mortimer, 2024)

3.2 Direct user 1

Demographic	Behaviour	Needs/Challenges
Men and women with Bipolar disorder primarily aged 18 – 45 years. - An individual is the most likely to have their first episode occur when a teenager/ young adult, with a correct diagnosis of Bipolar taking 9.5 years (Bipolar UK, n.d.). This prolonged diagnosis can cause dysphoria and emotional disconnection due to uncertainty over their mental state fluctuation. - This disorder is equally prevalent between men and women.	- Those with Bipolar experience extreme behavioural fluctuations from extreme depressive episodes to manic, elevated phases. - Energy level variations are also prominent. **Project benefits** - Areas specifically catered to Bipolar disorder through Circadian lighting and spatial understanding. - Provide a hub for individuals to share similar challenges and receive mutual support. - Facilitates access to therapy and support resources.	- Accounting for the diverse variation in mood sensitivity. - Allowing for adaptive spaces to cater to over stimulation or under stimulation. - Balancing functionality with aesthetics. - Creating a community environment while still prioritising the feeling of safety and security. - Offer numerous support opportunities.

Goals

The goal of this project is to establish a community hub that supports those with Bipolar disorder by offering varied support, therapies and resources in a single accessible location.

3.3 Direct user 2

Demographic	Behaviour	Needs/Challenges
The immediate support network of those with Bipolar disorder such as friends and family. - Over 5 million friends and family are affected by a loved one having Bipolar disorder (Bipolar UK, 2023). These loved ones often have no support themselves.	- When discussing their loved one individuals may be unpredictable, afraid, uncomfortable, confused, troubled or even detached. **Project benefits** - Support for friends and family. - Education on how to support their loved one with Bipolar disorder. - Strengthen relationships, benefitting every party.	- Cater to all ages and backgrounds. - Provide small and large group spaces. - Consider non-virtual and virtual sessions. - Educate individuals on Bipolar disorder. - Prepare for a range of family/friend dynamics.

Goals

The goal should reflect on the relationships strengthened and created with an emphasis on improved communication and support for those in correspondence with Bipolar Equinox.

4. Site Analysis

4.1 Location

The Bipolar Equinox community hub is located in Cambridgeshire, Peterborough UK. Peterborough is 76 miles from London with efficient transport links via car, bus and train. The population of Peterborough is well-suited to the user requirement of this project, with 63% being ages 16 – 64 years and the sex ratio being 97.6 men to every 100 women (Varbes, 2024). There is not a known statistic on the population of Peterborough with Bipolar disorder, however the city is ranked 70th out of 317 for quality of life through poor physical or mental health (Peterborough City Council, 2019). This creates a convincing argument for Peterborough being the prime location for this Bipolar community hub.

The selected site, Laxton Square, Peterborough, Cambridgeshire, PE1 1UQ is located central to the city with accessible public transport links necessary for those with Bipolar disorder. This location is also surrounded by 3 hospitals that provide psychiatric services within a 10 mile radius, ensuring emergency assistance can be accessed quickly if needed.

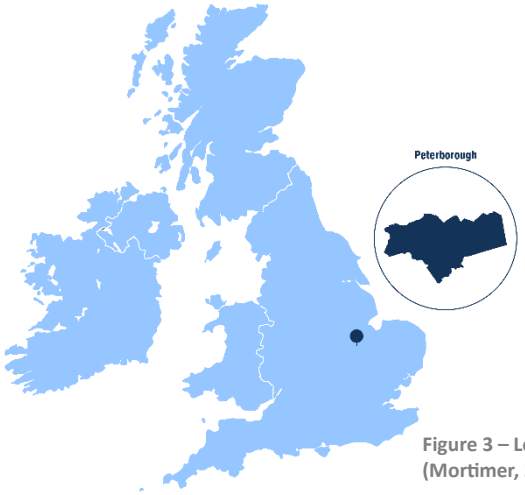

Figure 3 – Location, Peterborough (Mortimer, 2024)

4.2 Site context

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 retaining architectural aesthetic remains prominent in this building, the exterior of this building has an Italianate style with yellow bricks and complimenting red brick details that house the arched windows. The roof is constructed of slate with a triangular sky light/atrium. The building is not listed however falls in the city centre conservation area, it is considered a heritage asset (Falco, 2020).

Figure 4 – Rendered elevation
(Mortimer, 2024)

The building was constructed in 1873 as a county court for Magistrate of the Liberty of Soke and remained so until 1986 (Falco, 2020). Between 1992 - 2002 this building was transformed into an entertainment club and venue (Barnes, 2021). Alterations to the interior were made such as the addition of mezzanines and changing floor levels. The building has remained abandoned allowing this project to be a prime example of adaptive reuse, showcasing how historic buildings can be preserved and incorporated into evolving urban areas.

Figure 5 – Interior visuals
(Mortimer, 2025)

The life of this building holds valuable guidance for spatial development within this project. The structural layout and remaining features hold the key to assuring efficient adaptive reuse. Originally designed with a focus on linearity and control, the large courtroom and office chambers spoke to the administrative use of the space. The transformation undertaken for the nightclub created liberated dance floors and flexible spaces within these once confined areas. Combining both formal and informal language within this project will speak to both past uses. The grand atrium geometry and circular stained glass window are examples of retained historical features that maintain the design integrity while producing new design pathways to follow. Integrating intimate, dynamic elements taken from the nightclub characteristics, creates a rich layered canvas of which to base this design project. Respecting the historical identity for this building in the design will honour the historical value of the site while making it relevant for contemporary times and requirements.

Figure 6 – Surroundings collage
(Mortimer, 2024)

4.3 Sun path

In this location, the existing front façade of the building faces South-East, resulting in a mass of sunlight hitting the back North-West façade. This North-West façade does not house any windows, incorporating them in will maximise natural light exposure in this location. It follows that shadows influence the interaction between light and space, analysing the shadows created by surrounding structures will aid the spatial arrangement and positioning of artificial lighting. Buildings on the South-West and North-West of site marginally disrupt the stream of light. With the prominence of Circadian lighting in this project, the integration of natural light stands vital in the spatial organisation and design considerations. Strategically designing for optimal natural light will positively impact the alignment of Circadian rhythms in the target audience, promoting better mental stability and well-being. Refer to Figures 7 and 8.

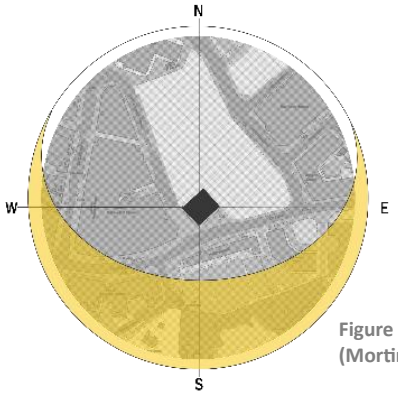

Figure 7 – Sun path (Mortimer, 2024)

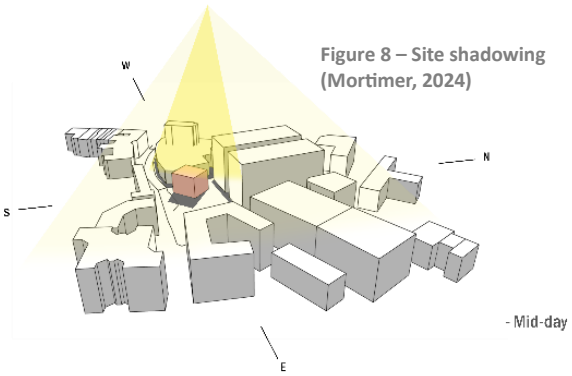

Figure 8 – Site shadowing (Mortimer, 2024)

4.4 Soundscape

It is crucial to consider the surrounding noise pollution when developing a space that promotes calming atmospheres and stress reduction. Excessive sound for an individual with a disorder such as Bipolar can cause extreme discomfort and irritation. This is spoken on in a 2016 Bphope article “Anecdotal evidence suggests that noise sensitivity is a common symptom of bipolar disorder, especially during mood episodes — usually mania”(Stephens, 2016). The majority of sound in this area originates from the South-West in the direction of a mass of shops and a populated road. This indicates that the North West and North East sides of the building are the most suitable. This makes them the prime location for specially tailored zoning, contributing to a quiet environment. Focused zones that require the most acoustic consideration include potential therapy areas which require minimised exterior disturbances, such as city noise. Prioritising acoustic control will promote an efficient environment for user focus and engagement. Additionally, the consideration towards sound mitigating materiality is necessary in a city centre location to have optimum therapeutic conditions. Sound-absorbing materiality will counteract the residual noise on these sides of the building, adhering to the desired user experience. Refer to Figure 9.

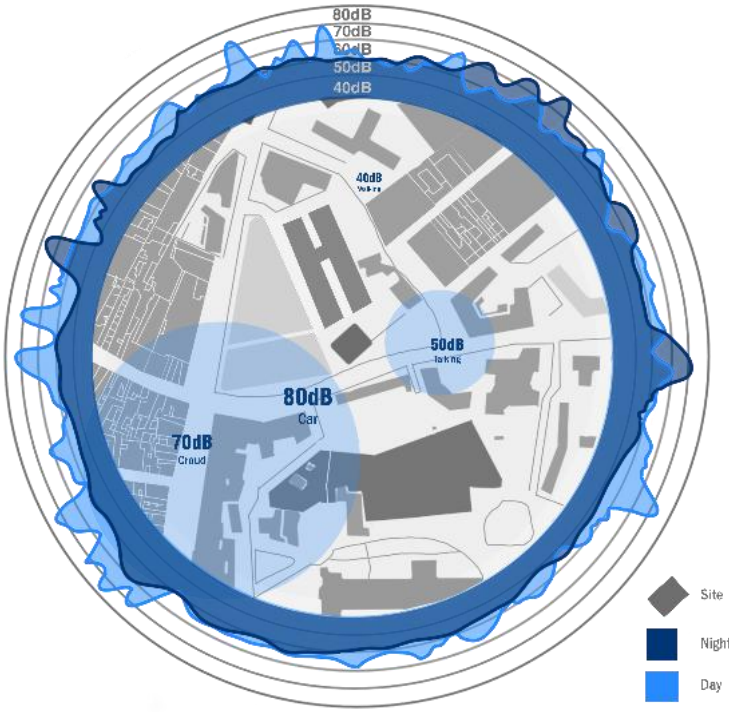

Figure 9 – Surrounding sound (Mortimer, 2024)

4.5 Conclusion

When designing for individuals with Bipolar disorder, circumstances surrounding the site such as lighting, sound, and privacy are essential. Minor changes to the environment can significantly affect those with Bipolar. Ensuring factors of safety and accessibility increasingly depends on the surrounding context, this building stands in a prime location for design intervention while retaining the location context. In depth consideration against the site analysis and combined information will play a crucial role in the success of the project outcome and affectability for this Bipolar community hub.

5. Design Problem and Objectives

5.1 Design motivations

Bipolar Equinox aims to improve the lives of individuals with Bipolar disorder simultaneously with their friends and family. Bipolar disorder is an extreme depressive disorder that effects a person's mood, energy and activity, it is characterised by manic or hypomanic episodes (World Health Organization, 2024). This community hub project aims to empower those who live with the disorder and those surrounded by it. By providing emotional and medical reassurance, this project rejects the norms of current medical facilities. Understanding the unique nature of Bipolar disorder is key in the success of this design intervention. Focussing on the user experience to provoke a positive mental well-being is fundamental for this project.

5.2 Current support and resources

Those with Bipolar disorder currently lack the necessary access to support in managing such a prevalent and commanding condition. On average an accurate Bipolar diagnosis can take 9.5 years (Bipolar UK, n.d.). Additionally, using information from Statista (2023) it was found that an estimated 13,000 psychiatrists were employed in the UK as of 2022. Compared to the statistic from Bipolar UK (n.d.) 1.3 million people in the UK have Bipolar disorder. Using these statistics it can be approximated that there is a ratio of 1:100 psychiatrists to individuals with Bipolar, highlighting the requirement for additional support resources.

Moreover, the support provided falls short of the required standard, upon diagnosis 67% of individuals received no self-management advice for the disorder with 72% having no correspondence with another with Bipolar disorder upon diagnosis (Bipolar UK, 2020). "More than five million friends and family are significantly affected by a loved one's bipolar" (Bipolar UK, 2023), this statement demonstrates the extensive group of people needing support. Friends and family often have no outlet to express their own struggles, prioritising the emotions of their loved one with the disorder. Consideration for both sets of individuals can create a secure support system.

The support offered by Bipolar UK is valuable, however the impact is restrained due to a lack of dedicated premises for those with Bipolar to visit in order to seek help when in a vulnerable situation. Currently, there are no architectural projects in the UK specifically designed for this disorder, making this project unprecedented.

5.3 Circadian rhythm

Within the many trademarks of Bipolar disorder, Circadian rhythm remains prominent and a key consideration in the creation of this project. Circadian rhythm dysfunction can cause irregular sleep-wake rhythm, abnormal melatonin secretion and poor social cues (Takaesu, 2018, p.673–682). These factors hold the greatest impact on a person's life, making it the foremost consideration in this project.

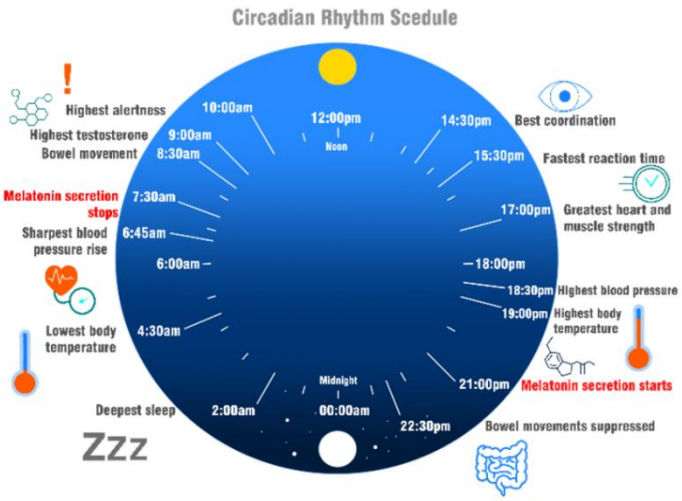

Figure 10 – Circadian Rhythm Schedule (Mortimer, 2024)

A comparable project that uses the Circadian rhythm as a key motivator for the design is the Swedish Medical Centre-Ballard. The Behavioural Health Unit within the Swedish Medical Center-Ballard's uses Circadian lighting in order to control patient behaviour, safety and healing using the physical environment. As a result "69 percent of the staff reported being satisfied with the lighting comfort and that the lighting's sleep and wake cycles were consistent" (Morgan, 2018).

The basis of this project lies within the Circadian lighting principles incorporated into the design elements. The involvement of LED tuneable lighting, counteracts the limited natural light within the main waiting area. This implemented lighting, changes to reflect the natural stages of the day using different cool and warm colour temperatures in varying brightnesses. By using this lighting strategy the limited interaction between the exterior environment and interior spaces does not negatively impact the patient well-being. The dynamic use of lighting speaks to the strong commitment of patient care within the design, ZGF Architects (2018) quoted "…primary drivers were to promote patient healing and safety, while providing a safe and calming work environment for staff".

Materiality holds equal importance and consideration towards patient wellbeing, natural colour schemes and textures are integrated with those that have acoustic properties. Maintaining a bright interior with limited dark tones allows the lighting to become the key focus in each space. The use of natural textures strengthens the connection to the outdoors, creating a relaxed environment. Providing acoustic solutions via thoughtful materiality enhances the user experience without visually dominating the space. The immersive nature of this project is fed by the equal combination of Circadian lighting and strategic materiality.

This project uses a magnitude of methods to provide the best possible environment for the psychiatric patients within the unit. The ability to influence user behaviour through thoughtful design strengthens the practicality of the project. Providing a space that prioritises the user is essential in considering my key design motivations. My primary focus on Bipolar disorder allows my design choices to be focused, in the same way this behavioural unit demonstrates. Incorporating Circadian lighting and purposeful materiality will provide the same benefits to the users of my project.

Figure 11 – Medical Centre Ballard
(ZGF Architects, n.d.)

5.4 Coping methods

The stabilisation of the Circadian rhythm can be used to cope with Bipolar disorder, requiring a diverse range of support mechanisms and therapy types to reinforce emotional stability and overall well-being. These therapies can be categorised into physical interventions (effecting one's biological process) and emotional approaches, strengthening psychological resilience.

Bright light therapy is a prime example of physical intervention. It is a non-invasive treatment that uses light wavelengths to address physical, mental, and emotional health conditions (Cassidy, 2024). Another example is sleep rhythm therapy. This involves regulating all sleep hours and controlling day/night schedule (Phelps, 2014). The combination of these therapy types encompass the irregular sleep-wake rhythm characteristic present in an irregular Circadian cycle, contributing to a better well-being.

Emotional approaches include methods such as Family therapy and Support groups. Both of these methods involve the individual with Bipolar disorder demonstrating communication of their emotions to another in a supportive environment. Family therapy has been found to speed recovery and reduce the severity of an individual's condition more efficiently than some medications (Miklowitz and Chung, 2016, p.483–499). The same can be said for support groups, they induce feelings of safety, connection and validation between the participating parties (Levine, 2023).

These collective methods address a diverse range of characteristics faced by those with Bipolar disorder. These solutions will be largely considered in the design process of this project to ensure maximum efficiency.

5.5 Key focus areas

Key considerations will follow from the previously mentioned. These are therapy spaces, group areas, short stay rooms and psychoeducation facilities to promote awareness and further knowledge for those visiting this community hub (Refer to Figure 12).

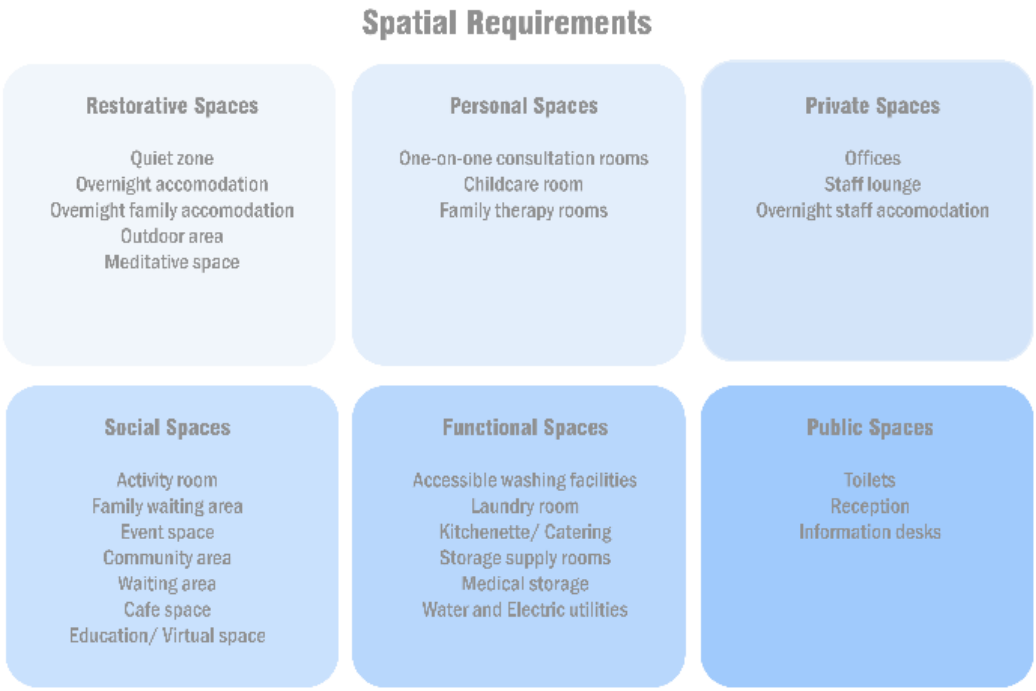

Figure 12 – Spatial requirements (Mortimer, 2024)

6. Precedent Studies

6.1 Introduction

When producing a project with significant dependency on the design, it is vital to examine a variety of precedent studies that speak to a similar concept. Although designing for Bipolar disorder is a largely unprecedented topic, following projects with relating design principles and techniques will strengthen the decisions made within the design strategy.

List of Precedent Studies:

6.2 ACUTE Mental Health Inpatient Centre

6.3 The Centro Psicogeriátrico San Francisco Javier

6.4 The BARLO MS Centre

6.5 PhD student design for Therapeutic Environments

6.6 Nuuk psychiatric clinic

6.2 ACUTE Mental Health Inpatient Centre

Location: Belfast, Northern Ireland

Year: 2019

Architects: Richard Murphy Architects

Figure 13 – Mental Inpatient Centre (Mckee, n.d.)

6.2.1 Introduction

The ACUTE Mental Health Inpatient Centre is a mental health facility located within Belfast City Hospital. The project aims to rehabilitate those in need of mental health support in an accessible and non-institutional way (Robinson, 2020).

6.2.2 Project Analysis

The non-institutional direction of this project can be found in the open spaces and the connection to nature. The central radial garden is the key to connectivity and spatial navigation, with each area of the facility surrounding it. Natural lighting and Biophilia is fed into each space equally, making these elements accessible for all users. Building upon the garden are the private areas, the personal nature within these spaces fight institutional norms by relying on user preferences. This is found in the lighting, heating and sound controls as it gives each person the influence over their own environment and aides building identity (Robinson, 2020). The combination of practical and aesthetic design strategies fit harmoniously within the spaces; an example being the exposed glass circulation, surrounding the centre of the building it opens up views for the staff from a multitude of points.

Providing a range of other facilities within this centre, such as the gym and activity areas, promote a sense of normality for the patients within the centre. The balance portrayed between psychiatric care and user experience is strategically built into the spatial layout and design features to seamlessly create a unique rehabilitating experience.

6.2.3 Evaluation

As a precedent study, this project holds value in the relationship between the communal spaces and the independence that can be found in the private rooms. It demonstrates how a medical facility can depict informal design methods while retaining efficiency and safety standards.

6.2.4 Application

The incorporation of natural and artificial lighting within my own design will play a vital role in the project's success. Maximising on existing windows, alongside new additions throughout all facades, will increase the involvement of natural lighting in my building.

Figure 14 – Mental Inpatient Centre garden (McCann, n.d.)

6.3 The Centro Psicogeriátrico San Francisco Javier

Location: Pamplona, Spain

Year: 2017

Architects: Vaillo+Irigaray Architects

Figure 15 – Centro Psicogeriátrico San Francisco Javier (Bescós, n.d.)

6.3.1 Introduction

The Centro Psicogeriátrico San Francisco Javier is a psychiatric facility that provides accommodation and in-patient care. This government led project sees the renovation of a 19th Century psychiatric centre using existing building forms and geometry (Griffiths, 2017).

6.3.2 Project Analysis

This design intervention holds a strong balance between the architectural preservation and surrounding environment. The respective approach towards the built environment and landscape is evident in the visual experience. The introduction of simplistic intervention strategies such as material replication compliments the existing structure, while successfully suiting the requirements necessary in a psychiatric facility. This material technique can be found in the dyed concrete that was made to replicate the cement mortar within the original 19th Century brick walls (Griffiths, 2017).

The interior language replicates that of the exterior, with the bright, simplistic forms, ample light reaches every corner of the space. By strategically echoing the historical window shape in the new design, sun light beaming through creates a unique spatial interaction that complements the building forms. The limited materiality aids the medical, hygienic tone throughout this project. Handrails that trail the walkways seamlessly blend into the walls suiting usability and aesthetics. The simplicity of the design ensures a smooth transition between the old and new structures, avoiding overstimulation and confusion for the users of this psychiatric facility.

6.3.3 Evaluation

The renovation of a 19th Century building into a modern healthcare facility is a prime example of how adaptive reuse of structures can face contemporary requirements within a range of circumstances. The combination of existing and new structures is a great precedent to show how something can become perfectly suitable for its intended use.

6.3.4 Application

Using similar intervention strategies in my own 19th Century building will demonstrate efficient adaptive reuse in order to meet specific design requirements. Creating new structural additions that conform to the existing forms will aid a streamlined design.

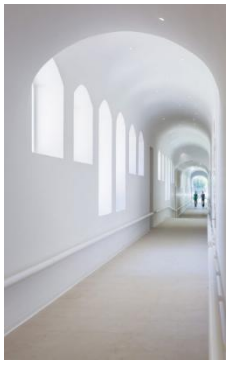

Figure 16 – Centro Psicogeriátrico San Francisco Javier hallway (Bescós, n.d.)

6.4 The BARLO MS Centre

Location: Toronto, Canada

Year: 2021

Architects: Hariri Pontarini

Figure 17 – Barlo MS Centre (A-Frame, n.d.)

6.4.1 Introduction

The focus of this project is to break the current rigidity of healthcare architecture through the design of this Autoimmune disease (MS) centre (Hariri Pontarini Architects, 2025). Through the calculated implementation of curved forms and natural materials, patient experience is prioritised without compromising on functionality and accessibility.

6.4.2 Project Analysis

By embracing the use of curvilinear forms and a connection to nature, the centre avoids the conventional norms demonstrated in current healthcare facilities. Curved elements are utilised throughout the design, creating transitional spaces leading off the central circulation routes. As a result, the access by those with limited mobility is made easier. This is supported by the use of strategic materiality chosen to reflect the natural environment. Materials selected both visually contribute to the design while being practical for infection control and upkeep (Bozikovic, 2022). A masterful use of wood types and surface finishes aid the way finding and spatial separation between areas, making the user experience smoother and more compatible for those with MS. The corrugated wood panelling located in the consultation areas is a prime example of spatial differentiation in an open, high traffic space. Further speaking to the spatial connectivity is the inclusion of natural lighting, the central atrium distributes sunlight equally throughout the floors. The combination of these design factors, support patient care and satisfaction.

6.4.3 Evaluation

Placing focus on the curved forms throughout the project supports the concept that efficient healthcare architecture does not have to be clinical to aid systematic rehabilitation. The incorporation of curvilinear elements, materiality and natural lighting in this project is a lead precedent to the future of healthcare design.

6.4.4 Application

The balance maintained between irregular design and practicality is a factor of great importance in this centre. Successfully producing a medical facility divergent to current health-focused design will be the standout in my own project, evidencing both my own creative ability and use of research application.

Figure 18 – Barlo MS Centre walkway (A-Frame, n.d.)

6.5 PhD student design for Therapeutic Environments (University of Melbourne)

Location: Melbourne, Australia

Year: 2017

Architects: Stephanie Liddicoat

Figure 19 – PHD student Therapeutic environment (Liddicoat, n.d.)

6.5.1 Introduction

The foundation of this project is in the understanding of current therapeutic spaces and the multitude of inappropriate design features (Reilly, 2017). Understanding these shortcomings is essential in the design process of future therapeutic environments.

6.5.2 Project Analysis

An attention to lighting, materials and spatial hierarchy is prominent in this design. The application of large, open windows is highlighted throughout each room, providing ample visual aid for the users of the space. Incorporating abundant natural light opens the design to the surrounding elements, alleviating feelings of confinement and discomfort. Using soft furnishings and lenient textures ensures the presence of previous users does not intrude on the next session (Reilly, 2017). These soft furnishings are incorporated equally for both the patient and clinicians, this sets an equal premise to start a therapy session. Allowing spatial hierarchy to control the user dynamic is an unconventional but senseful concept.

6.5.3 Evaluation

The application of user feedback within a design, ensures that the space provides the support necessary in such a vulnerable environment. Combining knowledge with stylised design produces a well-rounded project.

6.5.4 Application

The use of research and precedents will strengthen the decisions made in my own project. By observing past and present projects, I can determine both effective and ineffective design strategies.

Figure 20 – PHD student Therapeutic environment other (Liddicoat, n.d.)

6.6 Nuuk psychiatric clinic

Location: Nuuk, Greenland

Year: Ongoing as of 2025

Architects: White Arkitekter

Figure 21 – Nuuk psychiatric clinic (Luxigon, n.d.)

6.6.1 Introduction

This psychiatric clinic sits within Greenland's natural landscape, making the incorporation of nature key in this medical facility. By analysing the effects of architecture on patient wellbeing, this project aims to create a healing environment for the users (Duddy, 2018).

6.6.2 Project Analysis

The consideration placed on the patient and staff experience is focused on the involvement of the natural environment, without compromising safety and security. The vast array of towering windows allow an immense amount of natural light to penetrate the interior spaces. Located throughout the designs perimeter, lighting and views can be experienced from all angles. In addition to windows, the inclusion of a controlled atrium provides the patients with safe interaction between the natural environment. Light diffusing screens are utilised in the more privatised areas which allow for the involvement of natural lighting without sacrificing privacy. The insertion of biophilia within the interior spaces greater opens up the connectivity to the exterior landscapes. These design strategies harbour a warm and airy design, contrary to a stereotypical psychiatric facility.

The projects materiality reflects that of the surrounding landscape with an emphasis on wood, due to its proven effects on stress-relief and general mental health (Duddy, 2018). The wood additions provide tactile qualities that can aid patient satisfaction. The neutral colour palette accompanying the wood materiality promotes the relaxing and therapeutic effect this project aims to produce.

6.6.3 Evaluation

The scope of design methods used in order to connect the architecture with the natural environment makes this precedent a great example of how the two can work simultaneously together to achieve optimal health benefits. The consideration behind safety for both the users and staff is also to be noted with the design choices made, allowing for a practical psychiatric facility.

6.6.4 Application

The consideration towards the medical benefits of biophilia in a design project is important in achieving optimal conditions for promoting good mental health. Involving a variety of plants and natural materials will increase the connection to nature, which is beneficial in the therapeutic properties of my project.

Figure 22 – Nukk psychiatric clinic interior (Luxigon, n.d.)

6.7 Conclusion

The selected precedent studies demonstrate the diversified design methods used within the industry to produce a positive user experience across different therapeutic environments. Using the gathered strategies will contribute to the success of Bipolar Equinox, both spatially and functionally. Therefore, producing a project tailored in the care for those with Bipolar disorder.

7. Design Proposal

Proposing a solution to the design objectives is held in the focus on creating a therapeutic and supportive environment with a detailed consideration into those with Bipolar disorder. Influences such as environmental stimuli, lighting, sound and spatial dynamics are paramount in the design process, addressing the unique challenges faced by individuals with Bipolar disorder. Understanding the design effects of the environmental factors is key in the Bipolar Equinox project.

Uncontrolled lighting can disrupt the Circadian rhythm. Those with Bipolar disorder experience sleep and mood irregularity when the hormonal secretions due to the Circadian rhythm are inconsistent (McClung, 2013). There are two methods that will be incorporated into the design: Circadian lighting and Façade considerations.

7.1 Circadian lighting

Circadian lighting is designed in order to biologically impact a person's Circadian rhythm (BIOS Lighting, 2024). There are three different methods in which to create Circadian lighting: intensity tuning, colour tuning, and stimulus tuning (The Lighting Practice, 2024).

Colour tuning – This involves the adjustment of light intensity and correlated colour temperature (CCT) to mimic day or night conditions. Higher CCTs (4000K–10000K) are utilised to promote focus and alertness, while lower CCTs (<2700K – 3500K) replicate the hues of the rising and setting of the sun (The Lighting Practice, 2024). Refer to figure 23.

Intensity tuning – This is the most common and cost-effective option; with this approach the CCT remains constant while the lighting intensity varies. A dimming system is used to mimic the intensity of the sun, with the highest intensity peaking at mid-day and its lowest in the evening (The Lighting Practice, 2024).

Stimulus tuning – This approach used lighting technology to replace harmful blue light wavelengths with suitable blue light wavelengths. It better mimics natural daylight, while in the evening it is reduced to encourage melatonin production without altering the CCT (The Lighting Practice, 2024).

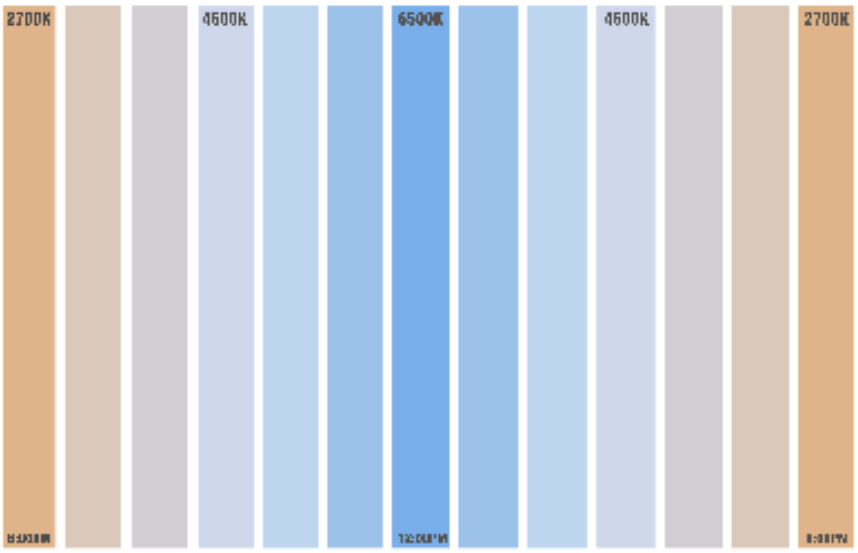

Figure 23 – Colour temperature (Mortimer, 2024)

7.1.1 Application

Strategically applying Circadian lighting into the key areas of my design will best support the Circadian alignment properties for the users of this project. Implementing the above methods throughout the public and private areas, such as the therapy rooms, will optimise the benefits lighting can provide. The use of colour tuning in the selected areas will provide the most accurate replication of the exterior environment, assisting both Circadian rhythm and the mitigation of Seasonal Affective Disorder. Integrated lighting design which display colour tuned light will be embedded into the ceilings, walls and structural column casings to create a fluid design.

Additionally, Stimulus tuning will be the most effective in the short-stay bedrooms, this is due to its ability to encourage melatonin production. This attribute will prove the most effective in the residential areas, where it can most proficiently impact Circadian alignment. Inserting this lighting strategy into the design features will ensure that the patients are directly influenced. This lighting will be incorporated largely into the bed structures of the short-stay rooms to have maximum spatial impact. The combination of these lighting methods ensures a variety of techniques are utilised, providing the best possible chance at provoking Circadian realignment for the users in this project.

7.2 Façade considerations

Making allowance for the sun orientation and the existing facades is crucial for the design process to maximise natural sunlight. Existing windows and the skylight let in ample light, these will work in conjunction with new additional windows along the North-West and North-East façades. Designing areas within the North-East and North-West horizons will provide users with abundant natural lighting to support ones Circadian rhythm.

7.3 Sound

Sound sensitivity is common in Bipolar disorder, often a result of a diagnosis called Hyperacusis "…characterized by an increased sensitivity to ranges of sound, which leads to difficulty in tolerating everyday noise" (Baker, 2016). Strategically designed soundscapes can enhance well-being and reduce stress (Fierro-Newton, 2024). The following methods can be used:

Noise zoning – The acoustic separation of loud and quiet areas can sustain a balanced environment. For example, keeping collaborative spaces separate from focused workspaces (Fierro-Newton, 2024). This can be achieved using distance or a physical form of separation such as a wall.

Silent zoning – Creating nominated quiet zoning or rooms for individuals to escape to during an episode of over stimulation is essential in a care facility to reduce stress and anxiety (Fierro-Newton, 2024). The strategies used for noise zoning are applicable in this technique.

Sound Absorbing Materials – The use of soft furnishings, acoustic panelling, and carpets can reduce sound reverberations (Fierro-Newton, 2024). This creates a calm, serene atmosphere with limited acoustic distractions.

7.3.1 Application

The utilisation of spatial zoning and acoustic materiality is key in the control over the building soundscape. Considering the function and characteristics of each space in the spatial layout can aid the prediction if they will produce more or less audible distractions. For instance, waiting areas and communal spaces will produce the highest presence of sound. In comparison, therapy spaces and the residential facilities will foster a quiet, calm environment. The insertion of sound absorbing materiality in the walls and floor compositions will localise the sound within each space. This approach will benefit the privacy within each room. In line with this approach, white noise will be introduced in the effort to promote a relaxed environment. This will be achieved through a cascading water feature travelling through every floor, harmonising them with a tranquil ambiance.

For individuals with Hyperacusis, a strategically designed room will be provided in the event of an overstimulated episode. The immersive space will feature sound absorbing materiality, with a separate entrance from the rest of the foot traffic to reduce reverberated sound. The use of the remaining mezzanine serves as an optimal space for the location of this quiet zone, providing tailored conditions for individuals with a sensitive nature towards noise disruption. The ability to control acoustics within this project will be vital in creating an adapted, calm environment, ideal for promoting a balanced mental-wellbeing.

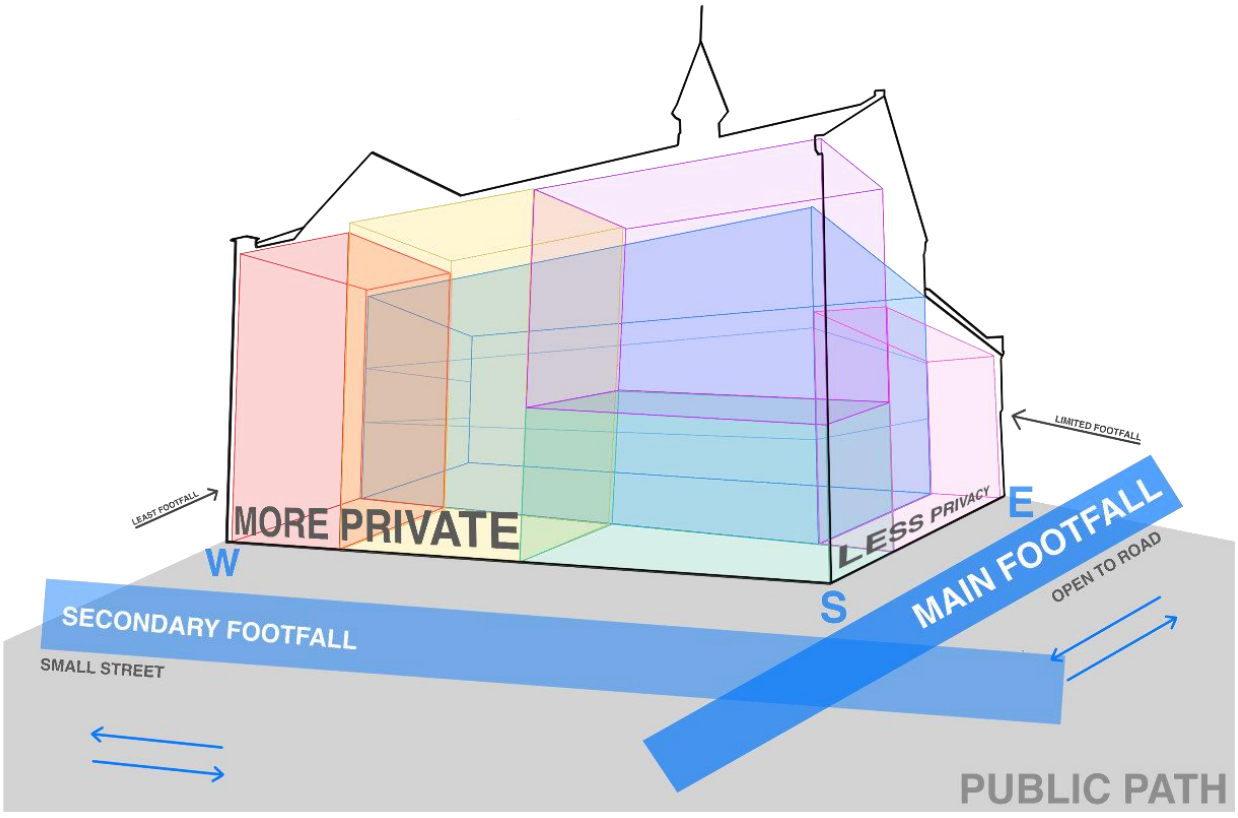

Figure 24 – Current building zones (Mortimer, 2024)

7.4 Spatial dynamics

The consideration into the spatial requirements of this project can be categorised in order to create the optimum spatial flow appropriate for individuals with Bipolar disorder (Refer to figure 25). This will allow the curation of an efficient design response for the project in question.

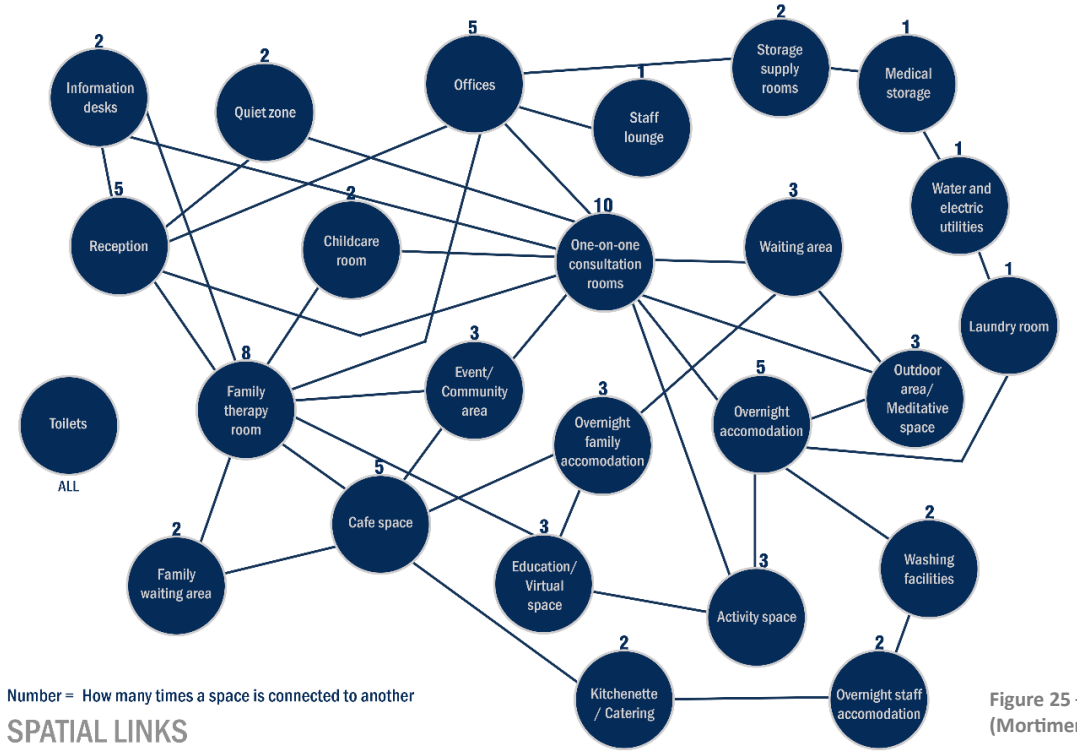

Figure 25 – Spatial links (Mortimer, 2024)

In the process of producing spatial links, it felt pertinent to predict the user-spatial interactions (Refer to figure 26). As a result it can be determined that spaces such as the café and education rooms require a larger allocated area.

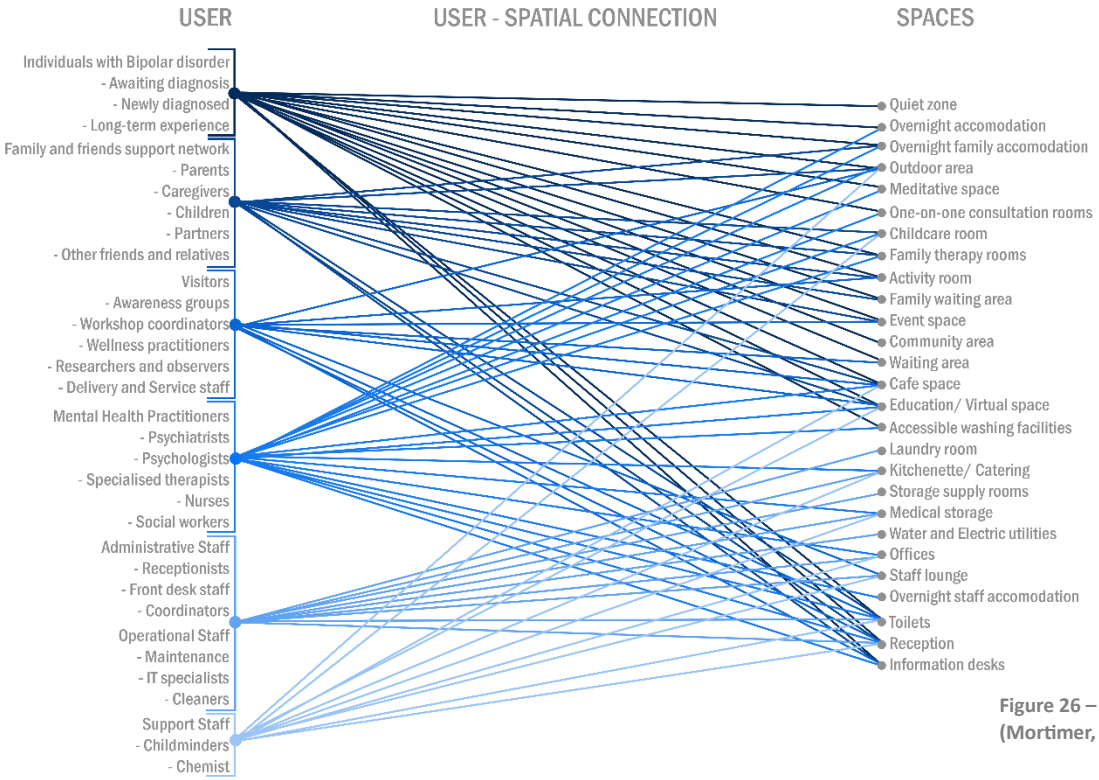

Figure 26 – Spatial connection (Mortimer, 2024)

7.5 Biophilic architecture

Biophilic architecture has the ability to promote a positive mental well-being through the connection of nature. While research on the relationship between Bipolar disorder and biophilic architecture is limited, I can draw from broader research into the effects against generalised mental health. Incorporating natural elements such as plants and water can reduce depression, anxiety and promote improved cognitive clarity (Maladkar, 2024). In conjunction, public spaces that incorporate biophilic elements encourage increased community engagement (Maladkar, 2024). Promoting a community connection is at the corner stone of this project.

Key considerations to involve biophilic architecture within this project will be implemented throughout the core areas. The involvement of biophilia within the central atrium will aid anxiety reduction and overall emotional balance while simultaneously providing a visual distractive aid from each therapy space; “some good distractions can help a client by allowing him or her to rest from discussing some emotionally uncomfortable topics” (Davies, 2018). Smaller green elements will be executed throughout the design to harmonise with the atrium. Additionally, the air-purifying properties will contribute to the overall health benefits within the building, particularly given its location in a city center, it is surrounded by pollutants. The integration of biophilic architecture in my design will provide numerous benefits. Enhancing the well-being of users is a primary focus of this project, biophilia plays a key role in achieving this. By reducing stress and alleviating depressive symptoms, the design will offer significant aid for individuals with bipolar disorder.

Figure 27 – Second floor atrium visual (Mortimer, 2025)

Figure 28 –Mezzanine silent zone visual (Mortimer, 2025)

7.6 Conclusion

This design aims to support those living with Bipolar disorder through numerous design methods. Strategically managed lighting, soundscapes and spatial placement support the development of this therapeutic community hub and the emotional path followed to achieve balance and stability.

8. Materiality

8.1 Introduction

An in-depth consideration behind material selection in a therapeutic and healing environment is essential in harbouring feelings of safety and content. The materiality incorporated within this project must support the Circadian rhythm alignment of users while enforcing emotional balance and stability. The use of textures, colours and lighting application will enrich the design and enhance the impact the space holds on those with Bipolar disorder.

8.2 Texture

Understanding texture is key in perceiving how a user will interact with a space. An ill-guided use of texture and material finishes can sever the vital relationship between the user and the therapeutic environment. Introducing a balanced texture profile using soft materials, such as textiles and smooth finishes, and hard materials, like wood and concrete, ensures the design effectively demonstrates restorative properties. In an article by Kennedy et al. (2024) soft materials were described to have positive connotations like comfort and relaxation, while hard materials produced feelings of discomfort. The negative perception of hard materials varies across the design industry. Treniq (2018) suggest hard materials are representative of strength, durability and speak to the natural earth. On this foundation, the use of soft textiles integrated into natural wood finishes will speak to the biophilic elements throughout the space. Figure 29 demonstrates the application of the mentioned materials. It can be highlighted that the use of these rich textures can be achieved through recycled wood laminate and fabrics, without compromising on cost and sustainability.

Figure 29 – Material Application (Mortimer, 2024)

8.3 Colour

The colour selections in this project hold the same significance as the textural elements. As stated by Cherry (2024) colour can be a 'powerful communication tool', influencing moods and behaviours. Utilising the psychological effects of colour will further include the environment as part of the therapeutic process. The colours prioritised must contribute to the conditions necessary for rehabilitation, these colours are blue and green. The colour blue is symbolic of serenity, peacefulness and hope while green symbolises environmental protection and growth (Yang and Shen, 2022, p.4). The technical application of these colours can be achieved through soft furnishings and wall finishes to compliment the flooring and textile choices previously mentioned. This ensures an efficient inclusion of colour in the space. Refer to Figures 28 and 29.

8.4 Lighting application

The integration of Circadian lighting is an integral part of the design strategy. Seamlessly incorporating tunable lighting will ensure the whole design will speak to Circadian rhythm realignment using lighting. The use of tunable recessed spotlights, strip lights and panels will seamlessly blend into the structure of the building while efficiently distributing the light. Figure 30 shows how unique LED panelling can be used to replicate the phases of the day while contributing to the design. This simplified application strategy ensures that lighting remains unobstructed by decorative fixtures, retaining the simplicity of the design.

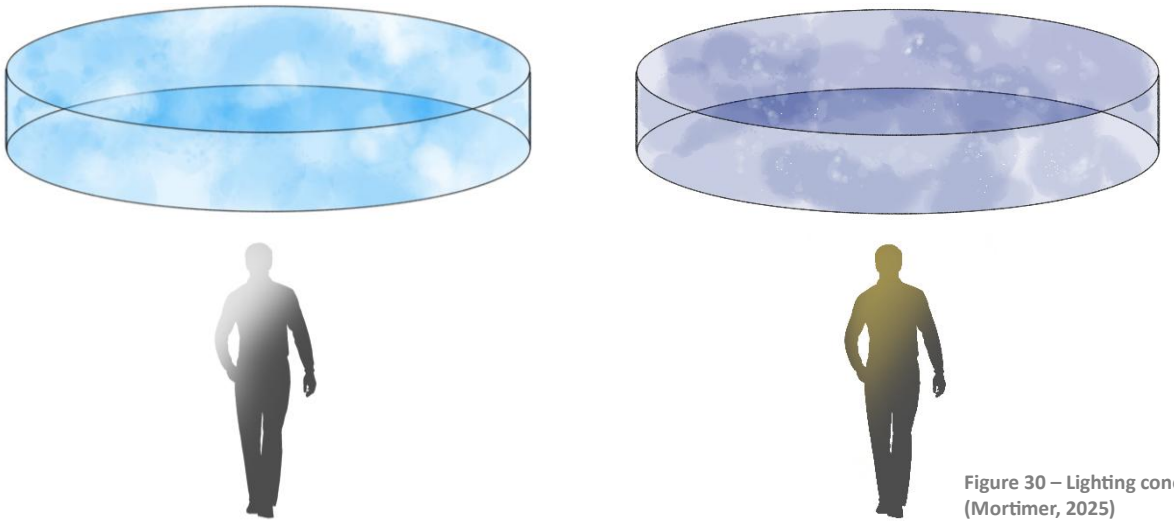

Figure 30 – Lighting concept drawing (Mortimer, 2025)

8.5 Conclusion

Encompassing a range of necessary research towards materiality is vital in this project. Attaining a relaxed therapeutic environment for those with Bipolar disorder requires immense consideration into all design aspects, including materiality. Considering the texture, colour and lighting components in the space will ensure the design is unified.

9. Project Delimitations

9.1 Challenges in contemporary healthcare architecture

Modern healthcare architecture primarily focuses on flexibility, efficiency and minimal contact to be at the forefront of the design (Roberts, 2020). These factors are considered of higher priority than patient, user experience. As mentioned within the literature review, individuals with Bipolar disorder do not thrive in institutional and overwhelming environments. This project will consciously avoid typical elements associated with healthcare architecture within the features and layouts of the design. The design inspiration will be drawn from the therapeutic methods linked to Bipolar disorder, this approach focuses on achieving the optimal outcome for promoting emotional balance and stability.

9.2 Design accuracy

Bipolar disorder has a broad variety of characteristics, effecting each individual differently. Presuming which treatments and design elements will benefit the mass of individuals holds margin for error. Components deemed beneficial to one user may have an adverse reaction from another. However, with vast research into Bipolar disorder and an analysis of the information available, a justifiable hypothesis supports the design process.

9.3 User sensitivity

Accommodating for those with additional physical disabilities, sensory sensitivities and intersecting mental health conditions besides Bipolar disorder, holds challenges. The lighting, sound considerations and materiality will accommodate for a range of psychological needs, benefitting other mental difficulties besides Bipolar disorder. However, these are not specific to any other mental health condition apart from Bipolar, meaning some conditions may go unresolved. The environment can also pose challenges for those with physical disabilities. Within this project the original floor levels were equalised, with exterior doors following. Although, located on the First floor, there remains level variation. A lift is strategically positioned between this variation for those unable to use stairs. It is acknowledged that the spatial journey of a wheelchair user on the First floor remains divergent to a more abled user. This issue stands unavoidable, yet still offers more accessibility over the space than the previous spatial orientation. Understanding how the spatial experience may differentiate depending on the users circumstances will strengthen this project.

9.4 Research guidance

Expanding upon the research process, it provided a significant challenge due to the lack of precedents obtainable within designing for Bipolar disorder. The basis of this project relied firmly on attributes and triggers of the disorder. The combination of separate research studies allowed for a number of wide-reaching perspectives. This reduced any bias that could have arisen with referencing previous Bipolar oriented hubs.

9.5 Site conflict

Conflict can be underpinned within the historical significance and public conceptions surrounding the site. The cultural significance surrounding this location could give rise to debate and controversy over the remaining heritage aspects and the symbolic role this building may hold in the local community. This controversy may be driven by the stigma surrounding Bipolar disorder as a result of public misconception and limited information on said disorder. Applying a sensitive approach to both the project narrative and adaptive reuse of the existing structure will allow the project to surpass the conventions placed on a psychiatric support hub in a city centre location.

10. Determining Success

When determining the success of the community hub, one must look at the emotional well-being demonstrated by the users within the space. Although, it must be considered that exterior factors may be at play when observing user success. The project aims to inspire the integration of methods demonstrated within the community hub, into the personal lives of users; when this is unsuccessful the results achieved in the facility are minimised. Bipolar Equinox cannot change this result, nevertheless, it can harbour supportive facilities to counteract the external factors that threaten emotional balance and stability.

Beyond determining success through the emotional well-being of users, there is possibility to use quantitative and qualitative data for the evaluation of Circadian rhythm alignment in this project. Data can be taken and analysed using interview techniques and digital monitoring within the short-stay bedrooms to gather information such as sleep quality and duration. Additionally, expanding on this research may include examining mood responses and energy levels within selected patients. A study can then be made into the possible implications sleep disruption has towards behavioural responses and disorder specific symptoms. This approach offers a more comprehensive result over the effectiveness of the Circadian rhythm alignment qualities in this project. A conclusion can then be determined towards the Circadian rhythm in those with Bipolar disorder.

11. Reflective Practice

Personal development and education are interlinked within reflective practice, as suggested by King (2005) it is recognised that the educational process causes an emotional awakening. Mezirow et al. (2009) describes the basis of reflection to be the consideration of new perspectives, Figure 31 demonstrates the outlined action plan created by this author. Using elements of this strategy, I will reflect on the project at hand through a personal and analytical lens. I will discuss my decisions behind the cornerstones of this project, while narrating the emotional sentiments I experienced.

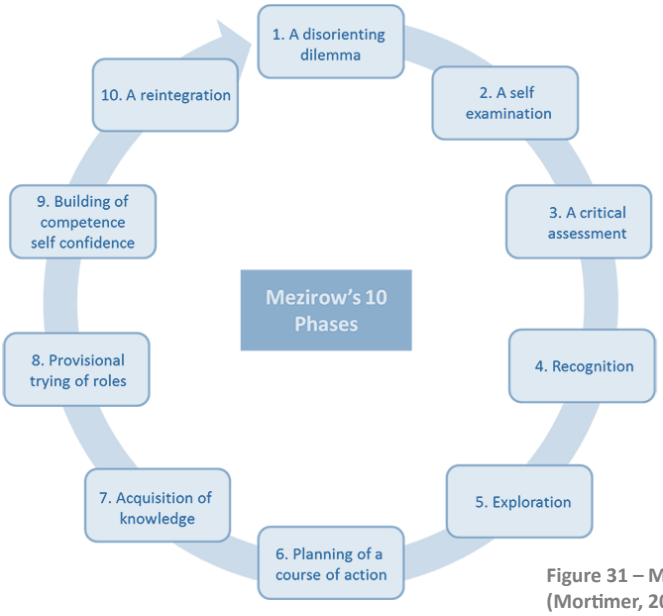

Figure 31 – Mezirow's 10 phases of reflection (Mortimer, 2025)

From the moment third year came into view, I knew the topic I wanted to focus on. Growing up, I beheld the internal strength demonstrated by my mum on a daily basis, her ongoing fight with Bipolar disorder constantly brings undeserved tribulations to her and my family. The observation of my mums current care showed inadequacies in treatment and support, fuelling this project. Having a personal connection to a research topic significantly informed my design. This insight streamlined the key focus areas implemented into my research and design concepts. With this, came a price, paid in the form of guilt and sadness tied to both past and present. The motivation to produce a precedent for future healthcare architecture and Bipolar care allowed me to overcome the emotional weight placed on the project. I found that deeply connecting to a project establishes a richness within the design that I had not achieved previously in my academic life. I will use this understanding to thrive past producing just technical outcomes but to produce my own set of design philosophies.

Given the background of this project, selecting a building in my home city, Peterborough, felt right. Having seen firsthand the city's lack of mental health support, this location was both relevant and necessary. Selecting a specific building did not pose as an easy endeavour, the sheer mass of usable buildings posed an overwhelming task of elimination. To refine the parameters of my search, I consulted both local friends and family, inquiring if they had knowledge of underutilised spaces. From there Laxton Square, Peterborough, became the canvas for Bipolar Equinox. With the progression of this project, it became clear that my ambitions exceeded the buildings boundaries, metaphorically and literally. The limited floor area placed constraint on my design concepts, applying multiple large interventions overcomplicated the space. Moving forward, a deeper analysis of my

existing floor plans will provide perspective into the available area, assisting a more efficient design process.

Since the early stages of research, it became apparent to me that there was little available design precedents and existing literature connecting Bipolar disorder with the built environment. This gap highlighted the untapped potential for design motivated treatments in the care of this disorder. Through the expansion of my research scope I was able to gather extensive design strategies to incorporate into my project. As an emerging designer I aim to participate in the progression of disorder specific design, advocating for those more vulnerable to their surrounding environments.

Talk of my future self and career brings me both excitement and a rooted fear for the unknown. My educational journey has always come with self-anguish and confidence issues, whether this be based around social interaction or my quality of work. The current year has been a rollercoaster of ups and downs, I began to crumble under the self-applied pressure to achieve perfection. Only through disassociating myself from my work for a period of time, did a pathway of stronger self-worth and respect emerge. By having acceptance in myself my social speaking, presentation skills, writing development and research skills have jumped milestones. In the completion of my undergraduate degree, I have belief in my capability to demonstrate my determination and work ethic to both myself and employers in the industry.

Reflection combines experience with intention, if this project can speak to the hard work and time put into it, then I am proud to have it be the end to this degree. This final year has highlighted the importance of integrated self-care and organisation in the design process. Advancing on my current strengths in the interior architecture and design industry is the next step of my personal development journey.

12. Conclusion

Located in a city centre, Bipolar Equinox offers convenient access for users seeking retreat in the overwhelming difficulties brought on by Bipolar disorder. Supporting not just these individuals, but their friends and family, meeting the current demand in the healthcare sector.

This exegesis underpins the conceptualisation behind this project in response to the research question. An argument has been created for the relevance interior architecture can have on an individual's mental health. I have spoken on the considerations necessary in the care for Bipolar disorder, specifically how Circadian rhythm has such a prominent impact. The incorporation of relatives is suggestive of the inclusive nature of the project.

Transcending conventional boundaries within healthcare architecture demonstrates the unique properties incorporated into the design proposal, despite having limited precedented guidance. This emphasises the therapeutic identity of the spaces and user-focused elements chosen in response to selected design problems. By undertaking both the physical and psychological aspects of Bipolar disorder, emotional balance and stability can be attained with efficient management within everyday life. It can be hoped that the foundations of the design stand to be an inspiration for others designing for such a diverse, life altering condition.

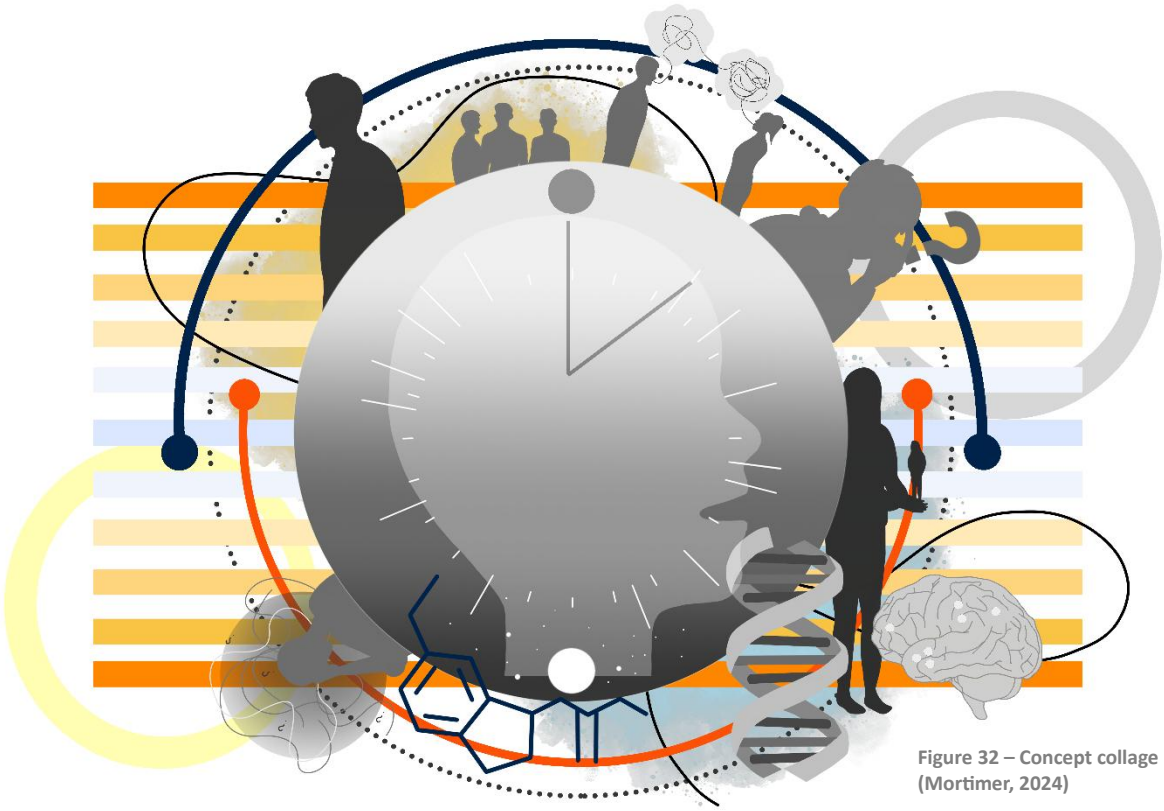

Figure 32 – Concept collage (Mortimer, 2024)

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15. Glossary

Bipolar disorder	A mental health condition consisting of extreme depression and mood swings with emotional highs and lows.
Circadian rhythm	The bodies internal process that regulates the sleep-wake cycle, repeating every 24 hours.
Correlated colour temperature (CCT)	A measurement of light colour appearance, units in Kelvin (K).
Equinox	A time occurring twice a year when the day and night are of equal length.
Hard materials	Categorically consists of wood, stone and concrete, usually rough or cold to the touch.
Hyperacusis	A condition causing increased sensitivity to sound, causing discomfort.
Hypomanic	A mild elevated mood accompanied by increased energy levels and productivity.
Manic	An extreme irritable mood with increased energy, decreased sleep and impulsive behaviour.
Melatonin	The hormone that regulates sleep and wakefulness produced in the pineal gland.
Psychoeducation	Providing education about mental health conditions.
Reverberation	The reflection of sound waves off a surface caused by a previous source of sound.
Soft materials	Largely consists of textiles and smooth finishes, usually soft and warm to the touch.

16. Appendix A

1. OVERVIEW

Complete the table to delineate the design problem

	TYPE	PURPOSE	ENVIRONMENT / CONTEXT Type of environment & venue	CONTENT topic	AUDIENCE / USER Motivation & general character
	Healthcare	*Provide support those with Bipolar disorder.*	*Community Hub*	*Bipolar Disorder*	*Those with Bipolar disorder alongside their friends and family.*

2. DESIGN PROBLEM

Contextualise the project and describe the:

- TYPE
  (project purpose, type & name of the client)
- ENVIRONMENT
- CONTENT
- AUDIENCE

(approximately 250 words)

Bipolar is a common mood and behaviour disorder characterised by mania/hypomania and extreme depressive episodes.
Within the UK 1:50 people have Bipolar disorder, however, upon diagnosis only 28% of people knew someone else with the disorder. With this 67% of people received no form of self-management advice on how to handle the disorder. In the UK there is approximately 1 psychiatrist for every 1000 people with this disorder. This project will create an accessible space to receive immediate assistance by medical professionals before hospitalisation is necessary.
This design that rejects the norms of usual medical facilities. It will be a Community Hub for people living with Bipolar disorder(18ys - 40yrs) and their immediate support systems. It will contain teaching facilities for families living with someone with bipolar, therapy space, short stay rooms alongside spaces for people to come together to support each other. These areas will be carefully considered using Circadian lighting in order for the design to assist recovery and aid the therapeutic process. Light can massively impact the sleep patterns and energy levels, especially for those with Bipolar making light consideration vital.
The status of NHS means care and support for mental health issues is limited, due to this the mental health facilities reflect this story. With the fragile nature of a mental illness the generalised cold, prison like architecture hospitals portray could be better catered to specific needs. The design will use ideas from light therapy, sensitivity to sound and colour theory to cater a space for people with Bipolar.
The client 'Bipolar UK' is a national charity focused on supporting those with Bipolar disorder and the families affected.
The location of site lies in Peterborough city centre, as a city Peterborough in the 30% most deprived for healthcare and ranks 70th out of 317 for poor physical and mental health. This location can positively benefit from a specialised mental health facility.

3. COMMUNICATION OBJECTIVES

Describe the main aspects that the exhibition should communicate to the audience:

What should the audience KNOW / FEEL / DO?

The user should know the intricate connection between Bipolar disorder and everyday surrounding contributors. The space should evoke the feelings of safety, security and hope in how this space can transform their lives. By applying the principles into their own spaces it will improve the mental well-being for many people and families within everyday life.

4. POSSIBLE DESIGN ISSUES

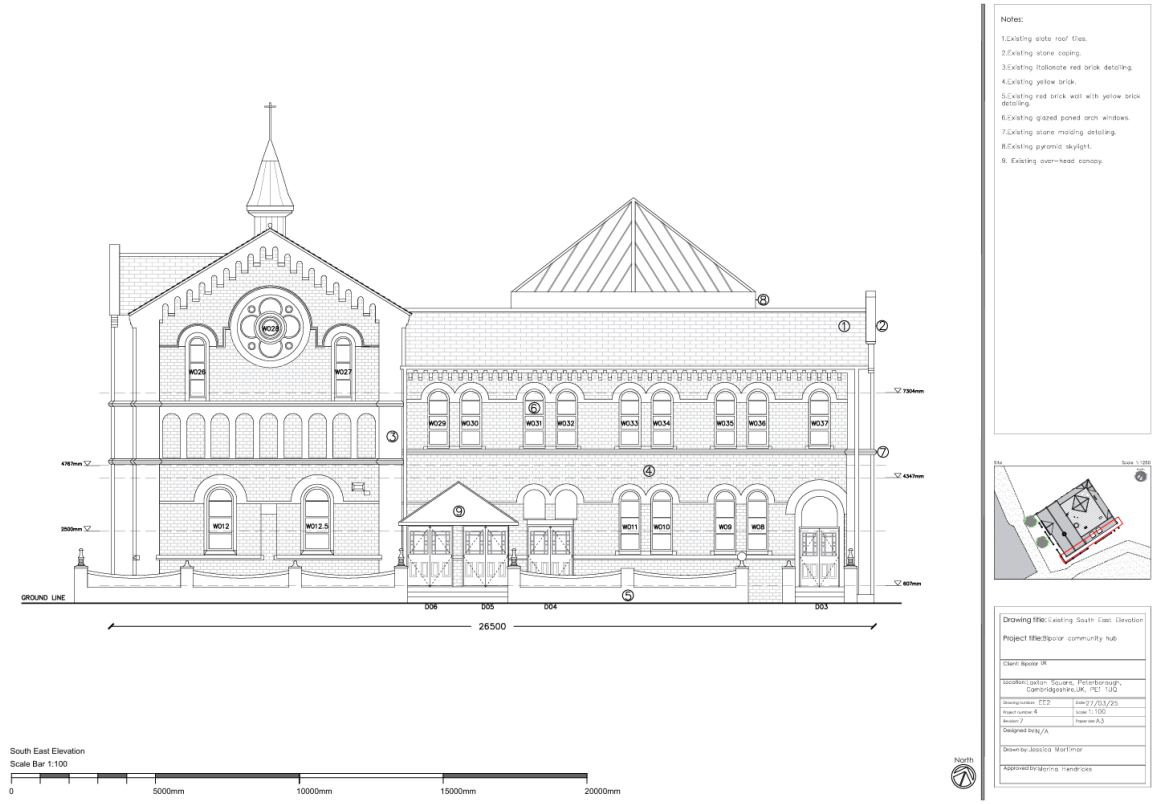
Identify 3 to 5 issues that may apply to your project, with a text that you intend to study.

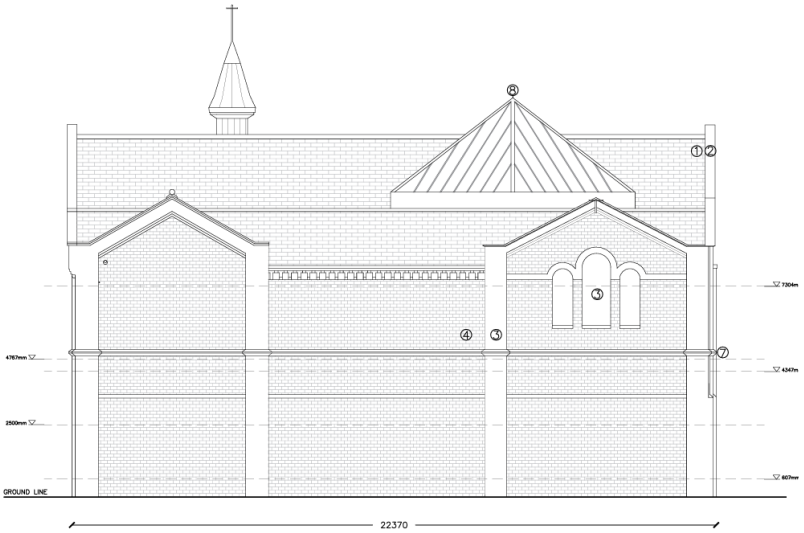
- *The unpredictable nature of Bipolar disorder and how it can effect people to interact with the people and spaces around them.*
- *The security within the interior and exterior of the building in terms of keeping people out with a negative intent towards the people and space.*
- *Space to user ratio, if this space was to gain popularity there us limited space for expansion.*
- *No existing Bipolar facilities to reference making it difficult for comparison and research for my design process.*
- *Limited precedent studies to use a guideline in my design.*

17. Appendix B

AutoCAD drawings (Not to scale), produced by myself.

17.1 Existing Plans



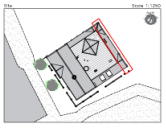


North East Elevation
Scale Bar 1:100

0 5000mm 10000mm 15000mm 20000mm

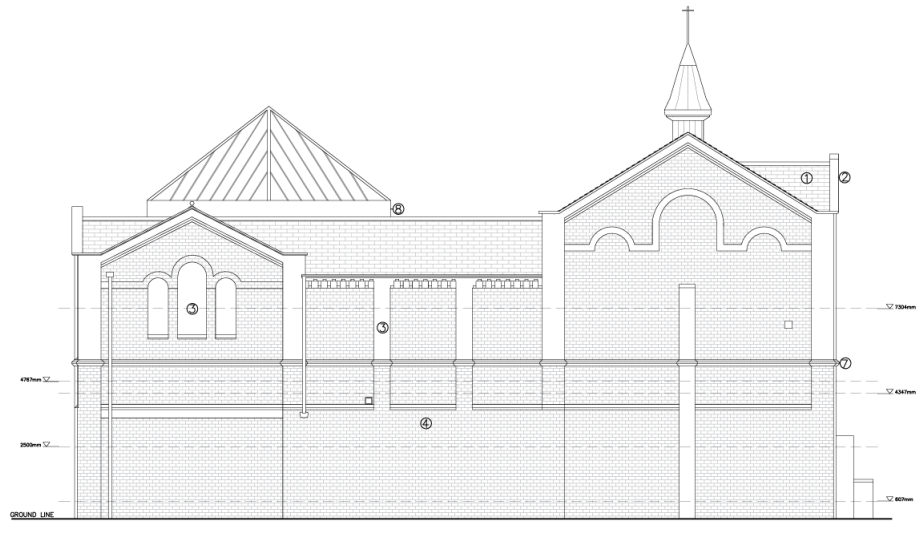
Notes:

1.Existing slate roof tiles.
2.Existing stone coping.
3.Existing Italianate red brick detailing.
4.Existing yellow brick.
5.Existing red brick wall with yellow brick detailing.
6.Existing glazed paned arch windows.
7.Existing stone molding detailing.
8.Existing pyramid skylight.



Drawing title: Existing North East Elevation
Project title: Bipolar community hub
Client: Bipolar UK
Location: Laxton Square, Peterborough, Cambridgeshire,UK, PE1 1UQ
Drawing number: EE3 Date: 27/03/25
Project number: 4 Scale: 1:100
Revision: 7 Paper size: A3
Designed by: N/A
Drawn by: Jessica Mortimer
Approved by: Marina Hendricks

North

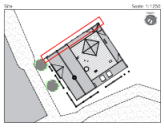


North East Elevation
Scale Bar 1:100

0 5000mm 10000mm 15000mm 20000mm

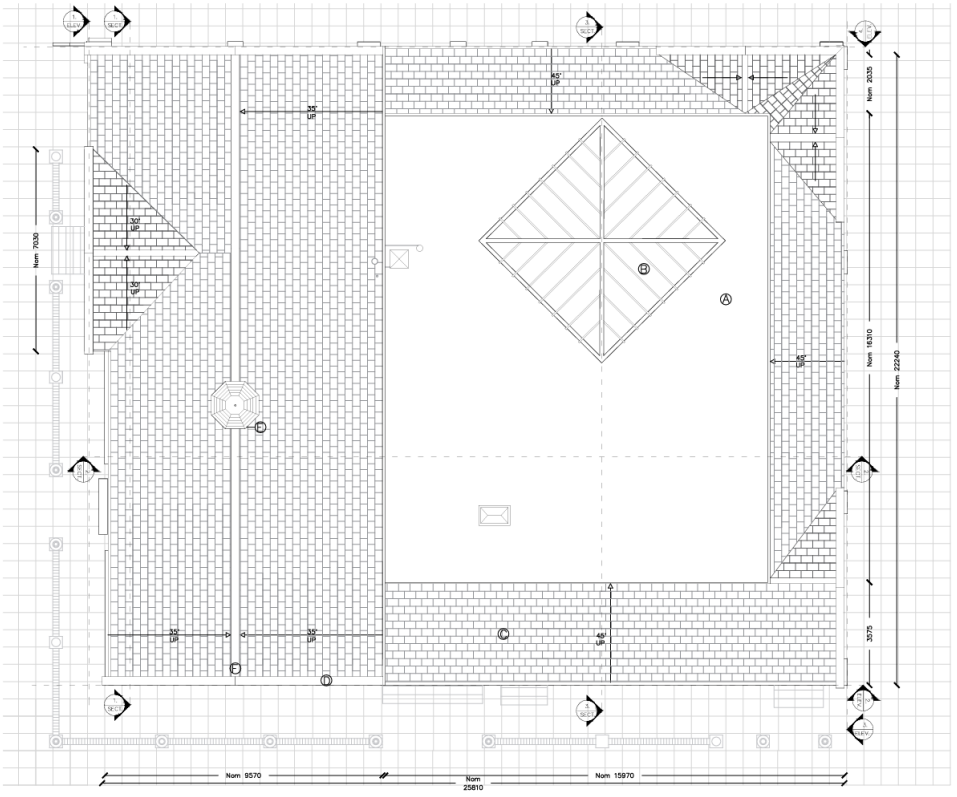
Notes:

1.Existing slate roof tiles.
2.Existing stone coping.
3.Existing Italianate red brick detailing.
4.Existing yellow brick.
5.Existing red brick wall with yellow brick detailing.
6.Existing glazed paned arch windows.
7.Existing stone molding detailing.
8.Existing pyramid skylight.



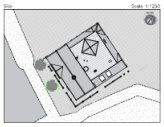
Drawing title: Existing North West Elevation
Project title: Bipolar community hub
Client: Bipolar UK
Location: Laxton Square, Peterborough, Cambridgeshire,UK, PE1 1UQ
Drawing number: EE4 Date: 27/03/25
Project number: 4 Scale: 1:100
Revision: 7 Paper size: A3
Designed by: N/A
Drawn by: Jessica Mortimer
Approved by: Marina Hendricks

North



Notes:

A. Existing asphalt flat roof
B. Existing pyramid skylight
C. Existing slate roof tiles
D. Existing cast stone coping
E. Existing rafter
F. Existing ridge detail



Drawing title: Roof plan

Project title: Bipolar community hub

Client: Bipolar UK

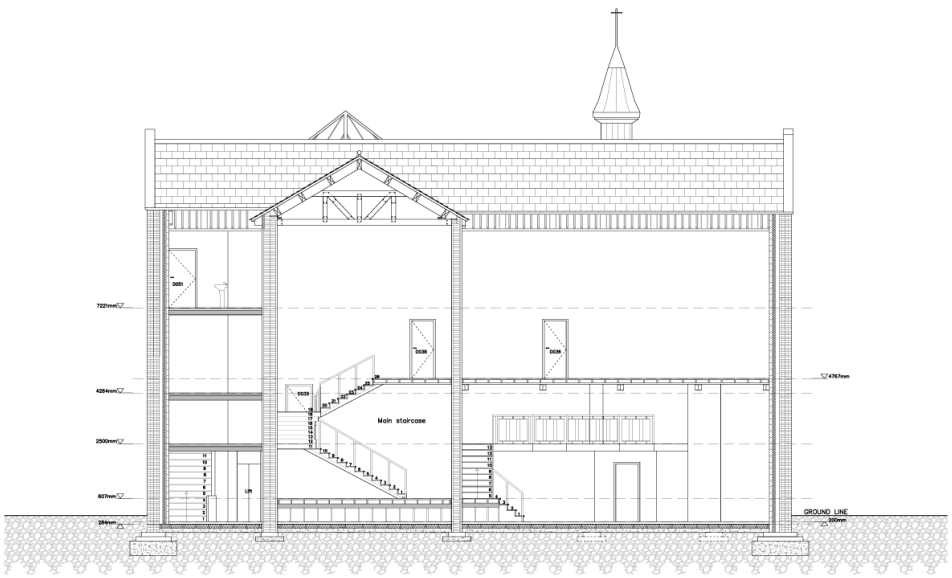
Location: Loxton Square, Peterborough, Cambridgeshire, UK, PE1 1UQ

Drawing number: ES5	Date: 27/03/25
Project number: 4	Scale: 1:100
Revision: 6	Paper size: A3

Designed by: N/A

Drawn by: Jessica Mortimer

Approved by: Marina Hendricks



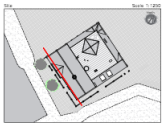
Notes:

-Walls: Existing exterior and interior brick structures supported by concrete with later stud wall additions added.

-Floors: Existing floor levels can be found on the Ground Floor and First Floor with later additional floor levels.

-Structural elements: I-beams throughout the building.

-Existing arched ceiling and wooden wall panelling found in the group room on the first floor.



Drawing title: Section 1

Project title: Bipolar community hub

Client: Bipolar UK

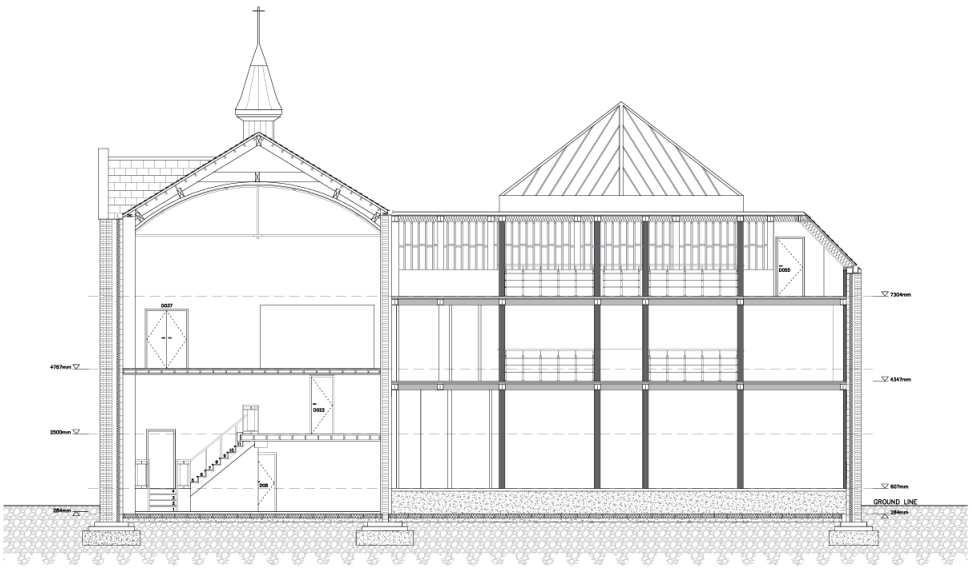
Location: Loxton Square, Peterborough, Cambridgeshire, UK, PE1 1UQ

Drawing number: ES1	Date: 27/03/25
Project number: 4	Scale: 1:100
Revision: 7	Paper size: A3

Designed by: N/A

Drawn by: Jessica Mortimer

Approved by: Marina Hendricks



Section 2
Scale Bar 1:100

0 5000mm 10000mm 15000mm 20000mm

Notes:
-Walls: Original exterior and interior brick structures supported by concrete with later stud wall additions added.

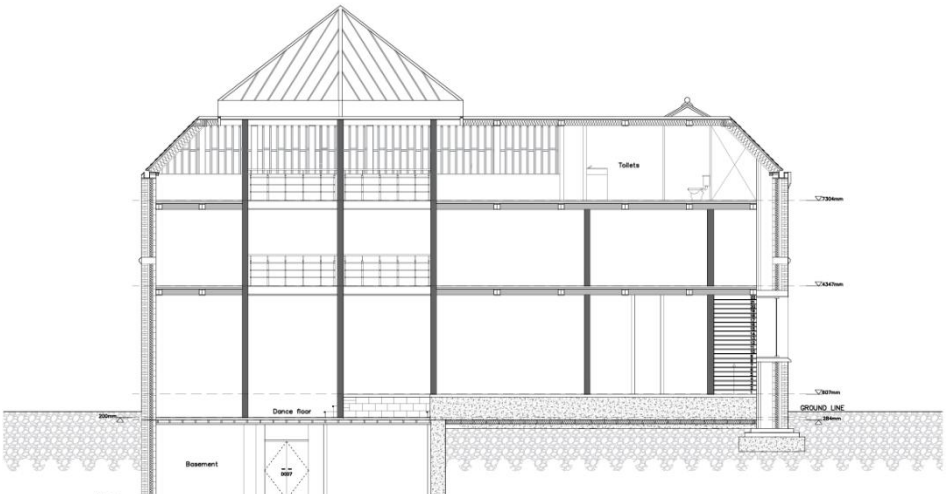
-Floors: Original floor levels can be found on the Ground floor and First floor with later additional floor levels.

-Structural elements:I-beams throughout the building.

-Original arched ceiling and wooden wall panelling found in the group room on the First floor.

Drawing title: Section 2
Project title: Bipolar community hub
Client: Bipolar UK
Location: Laxton Square, Peterborough, Cambridgeshire,UK, PE1 1UQ
Drawing number: ES2 | Date: 27/03/25
Project number: 4 | Scale: 1:100
Revision: 7 | Paper size: A3
Designed by: s/a
Drawn by: Jessica Mortimer
Approved by: Marina Hendricks

North



Section 3
Scale Bar 1:100

0 5000mm 10000mm 15000mm 20000mm

Notes:
-Walls: Original exterior and interior brick structures supported by concrete with later stud wall additions added.

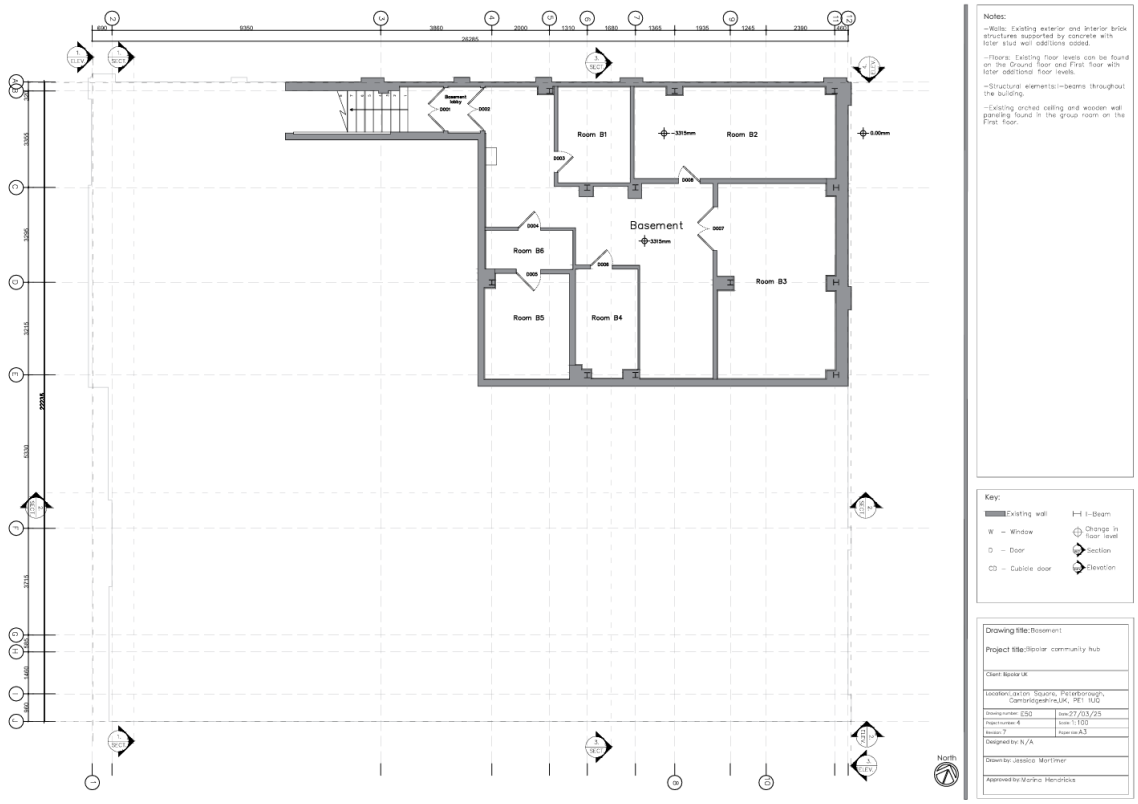
-Floors: Original floor levels can be found on the Ground floor and First floor with later additional floor levels.

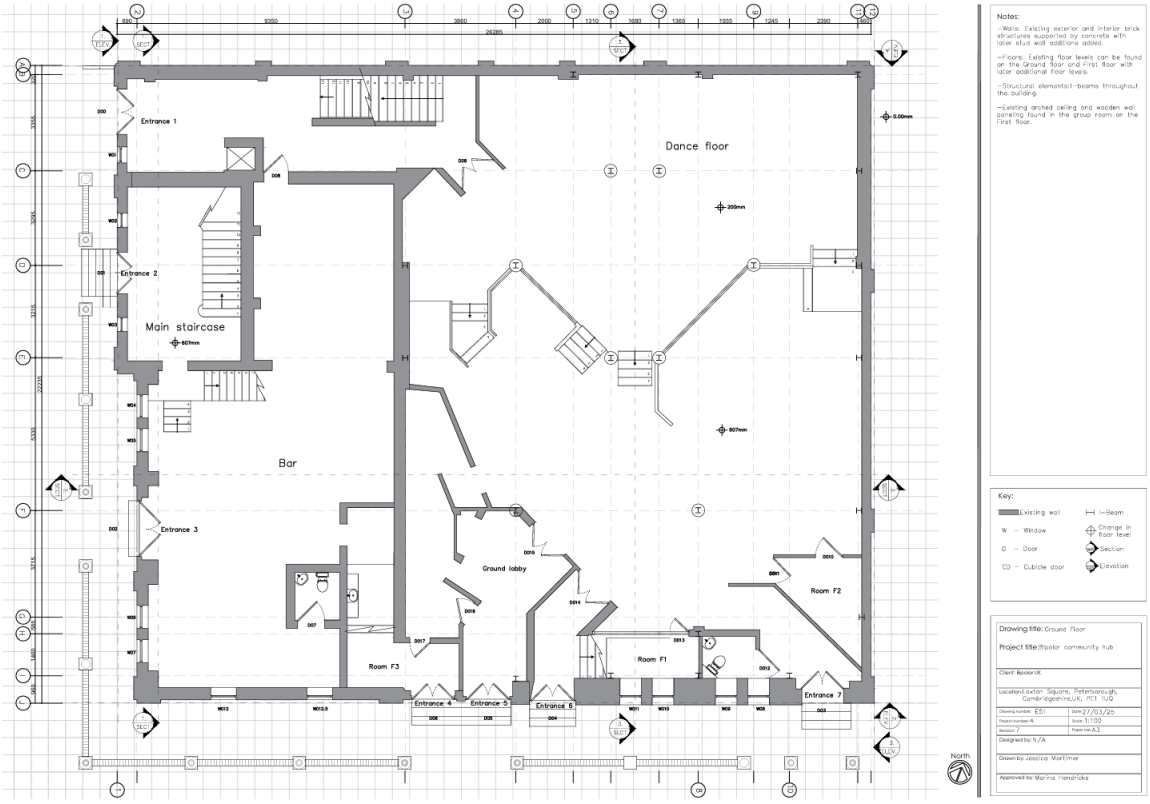
-Structural elements:I-beams throughout the building.

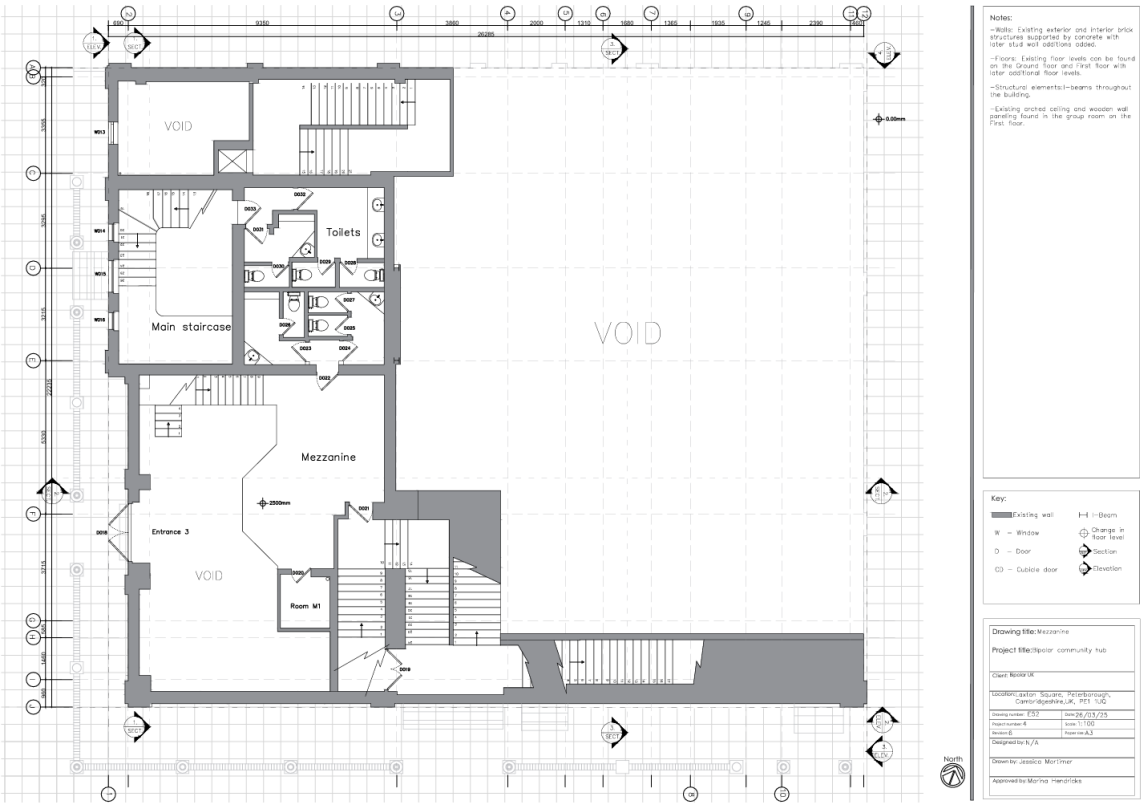
-Original arched ceiling and wooden wall panelling found in the group room on the First floor.

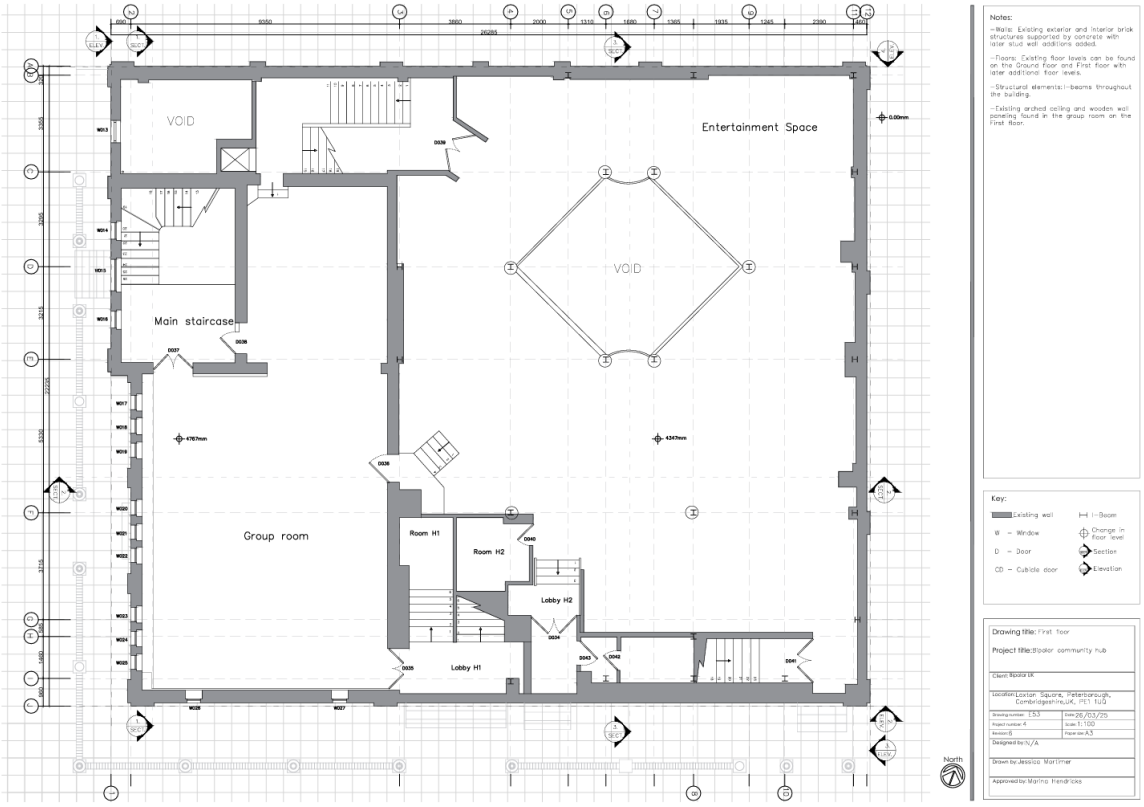
Drawing title: Section 3
Project title: Bipolar community hub
Client: Bipolar UK
Location: Laxton Square, Peterborough, Cambridgeshire,UK, PE1 1UQ
Drawing number: ES3 | Date: 27/03/25
Project number: 4 | Scale: 1:100
Revision: 7 | Paper size: A3
Designed by: s/a
Drawn by: Jessica Mortimer
Approved by: Marina Hendricks

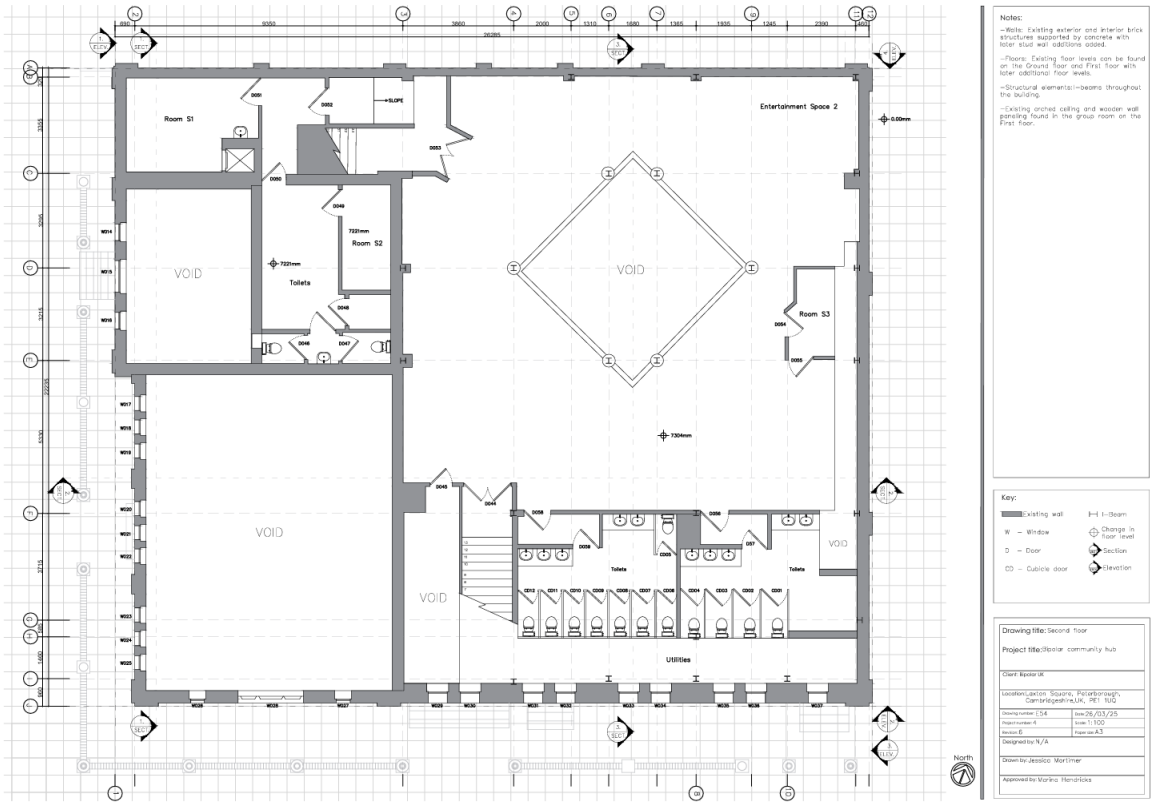
North


Basement
Room B1
Room B2
Room B3
Room B4
Room B5
Room B6
Notes:
Key:
Existing wall
I-Beam
W – Window
Change in floor level
D – Door
Section
CD – Cubicle door
Elevation
Drawing title: Basement
Project title: Bipolar community hub
Client: Bipolar UK
Location: Laxton Square, Peterborough, Cambridgeshire,UK, PE1 1UQ
Designed by: N/A
Drawn by: Jessica Mortimer
Approved by: Marina Hendricks
North


Entrance 1
Entrance 2
Entrance 3
Entrance 4
Entrance 5
Entrance 6
Entrance 7
Dance floor
Main staircase
Bar
Ground lobby
Room F1
Room F2
Room F3
Notes:
Key:
Existing wall
I-Beam
W – Window
Change in floor level
D – Door
Section
CD – Cubicle door
Elevation
Drawing title: Ground Floor
Project title: Bipolar community hub
Client: Bipolar UK
Location: Laxton Square, Peterborough, Cambridgeshire,UK, PE1 1UQ
Designed by: N/A
Drawn by: Jessica Mortimer
Approved by: Marina Hendricks
North

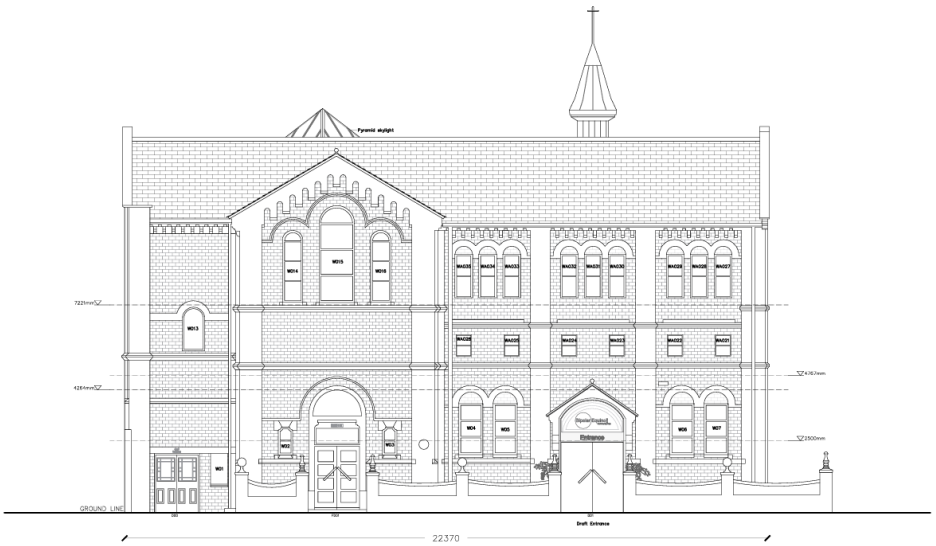

VOID
Toilets
Main staircase
VOID
Mezzanine
Entrance 3
VOID
Room M1
North
Notes:
–Walls: Existing exterior and interior brick structures supported by concrete with later stud wall additions added.
–Floors: Existing floor levels can be found on the Ground floor and First floor with later additional floor levels.
–Structural elements:I–beams throughout the building.
–Existing arched ceiling and wooden wall panelling found in the group room on the First floor.
Key:
Existing wall
I–Beam
W – Window
Change in floor level
D – Door
Section
CD – Cubicle door
Elevation
Drawing title: Mezzanine
Project title: Bipolar community hub
Client: Bipolar UK
Location: Loxton Square, Peterborough, Cambridgeshire,UK, PE1 1UQ
Drawing number: E.52
Date: 26/03/25
Project number: 4
Scale: 1:100
Revision: E
Paper size: A3
Designed by: N/A
Drawn by: Jessica Mortimer
Approved by: Marina Hendricks

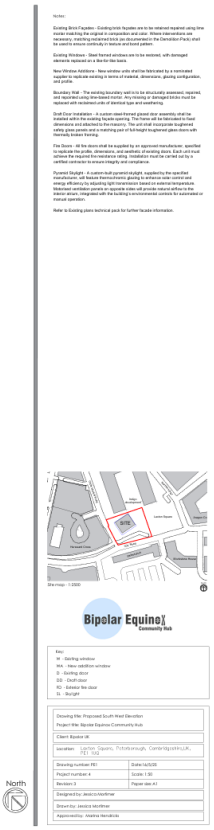

VOID
Entertainment Space
VOID
Main staircase
Group room
Room H1
Room H2
Lobby H2
Lobby H1
North
Notes:
–Walls: Existing exterior and interior brick structures supported by concrete with later stud wall additions added.
–Floors: Existing floor levels can be found on the Ground floor and First floor with later additional floor levels.
–Structural elements:I–beams throughout the building.
–Existing arched ceiling and wooden wall panelling found in the group room on the First floor.
Key:
Existing wall
I–Beam
W – Window
Change in floor level
D – Door
Section
CD – Cubicle door
Elevation
Drawing title: First floor
Project title: Bipolar community hub
Client: Bipolar UK
Location: Loxton Square, Peterborough, Cambridgeshire,UK, PE1 1UQ
Drawing number: E.53
Date: 26/03/25
Project number: 4
Scale: 1:100
Revision: E
Paper size: A3
Designed by: N/A
Drawn by: Jessica Mortimer
Approved by: Marina Hendricks

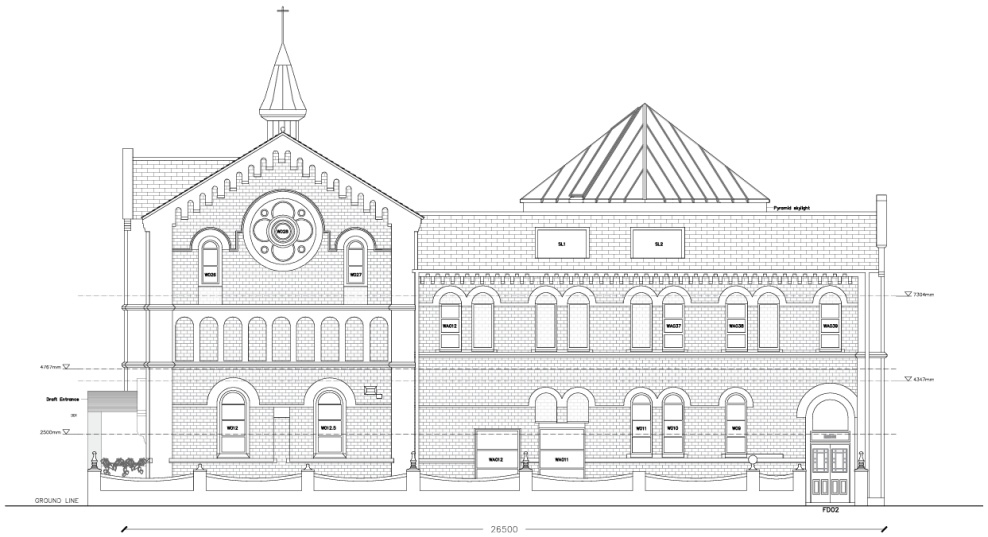

Room S1
Entertainment Space 2
Room S2
Toilets
Room S3
VOID
VOID
VOID
VOID
Toilets
Toilets
Utilities
North
Notes:
Key:
Existing wall
Window
Door
Cubicle door
I-Beam
Change in floor level
Section
Elevation
Drawing title: Second floor
Project title: Bipolar community hub
Client: Bipolar UK
Location: Laxton Square, Peterborough, Cambridgeshire,UK, PE1 1UQ
Designed by: N/A
Drawn by: Jessica Mortimer
Approved by: Marina Hendricks

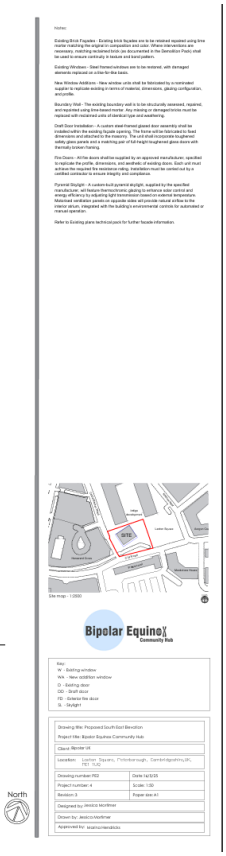

Bayard Place
Club
Earlham House
Indigo development
Laxton Square
Aragon Court
SITE
Hereward Cross
City Road
Peterscourt
Monkstone House
Toul Hill
The Garden House
SCALE BAR 1:250
0 10m 20m 30m 40m 50m
Indigo development
Laxton Square
SITE
Pavement
Cattle Market Road
Hereward Cross
City Road
Pavement
Peterscourt
Car Park
SCALE BAR 1:500
0 10m 50m
North
Site boundary
Site development area
Green space
Drawing title: Proposed Site and Location plan
Project title: Bipolar community hub
Client: Bipolar UK
Location: Laxton Square, Peterborough, Cambridgeshire,UK, PE1 1UQ
Designed by: N/A
Drawn by: Jessica Mortimer
Approved by: Marina Hendricks

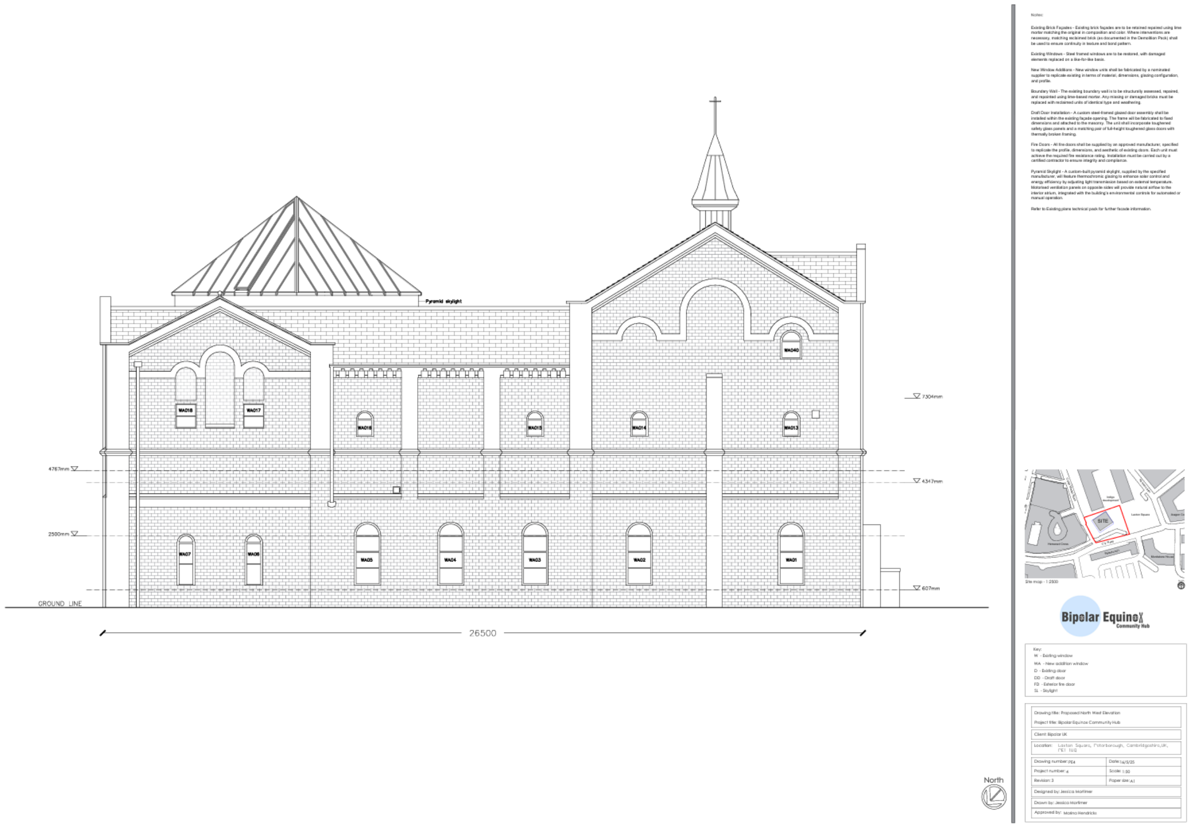
17.2 Proposed Plans

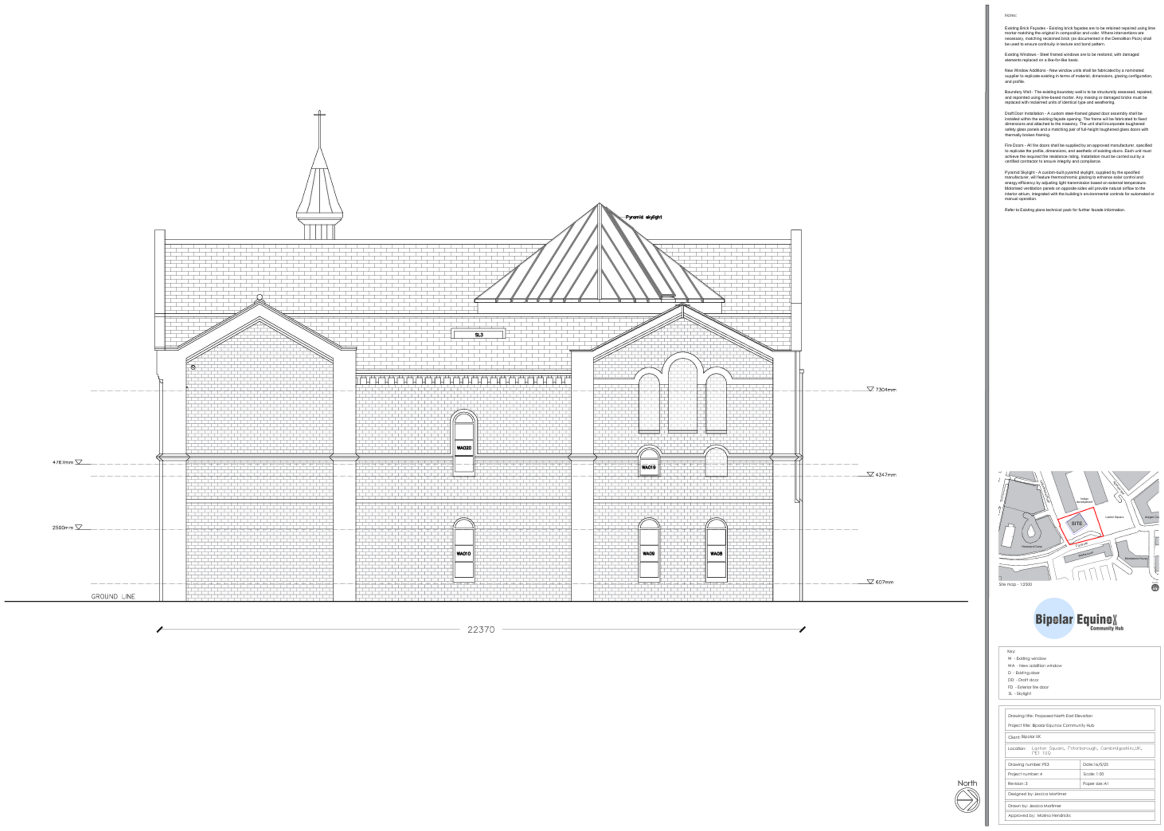


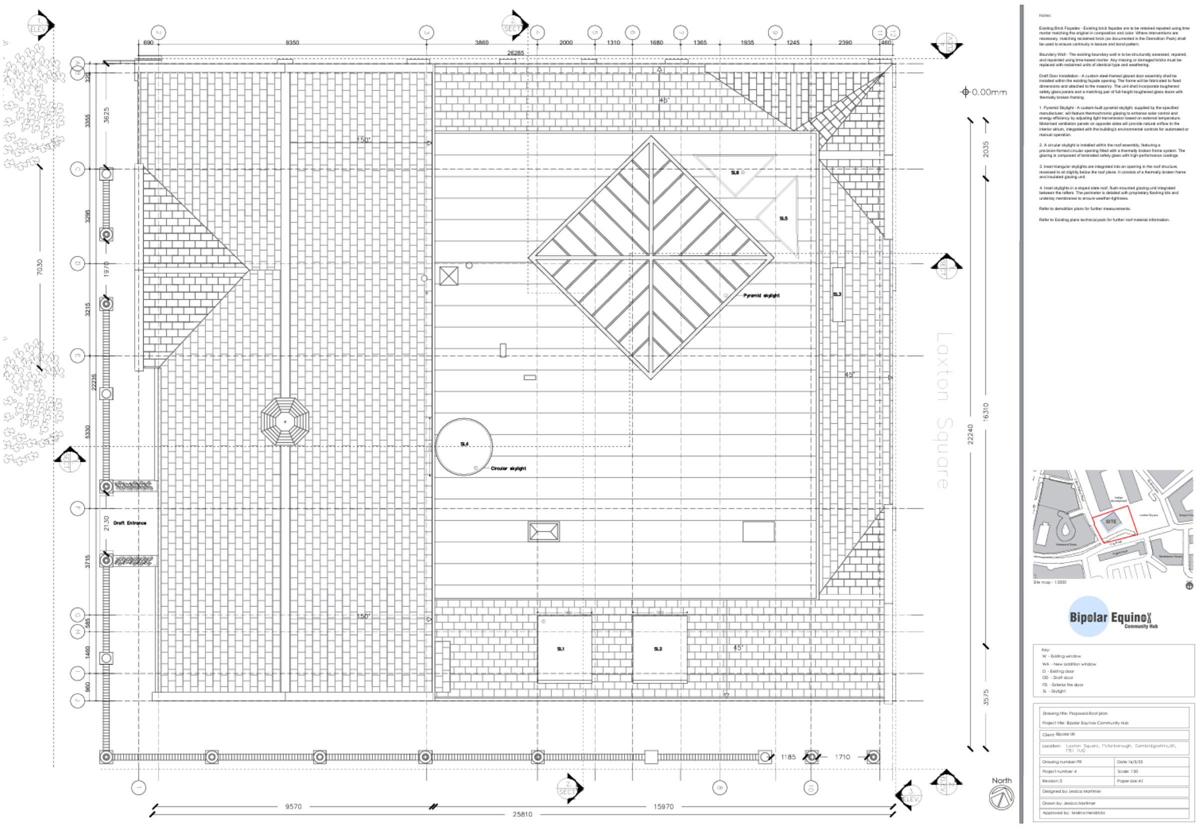


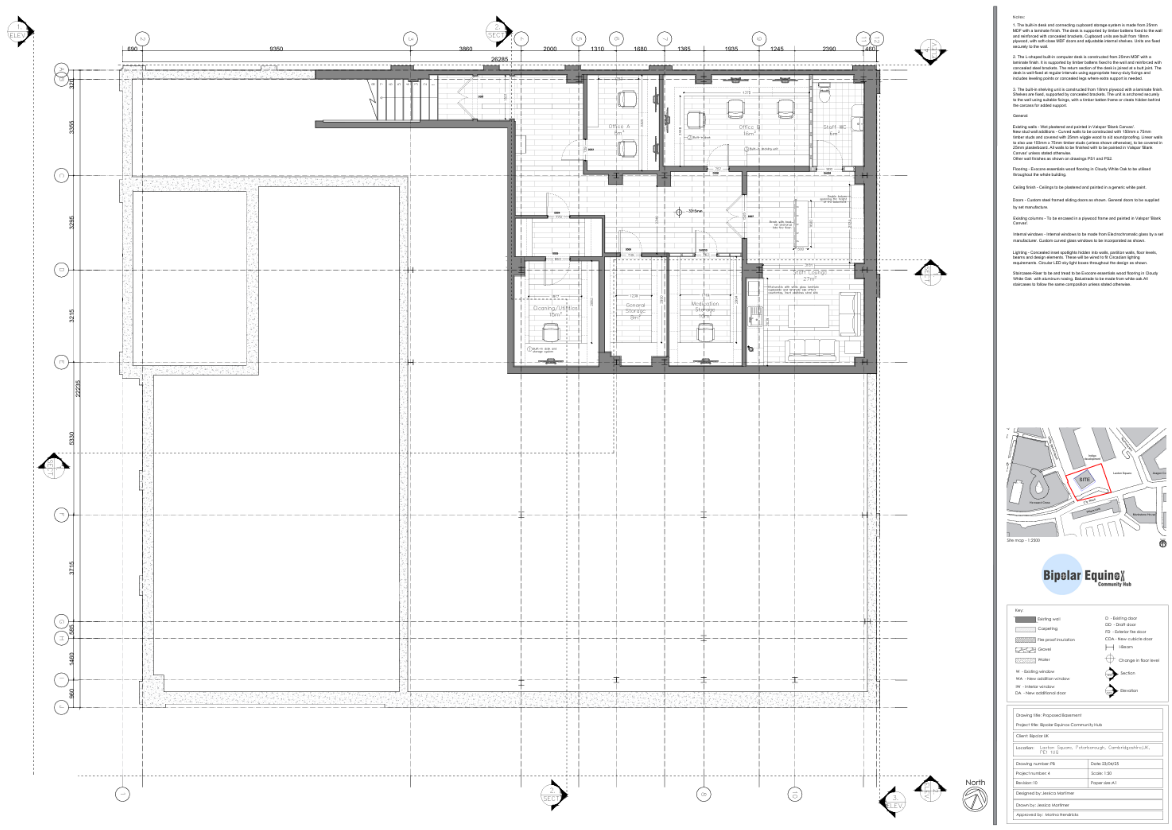


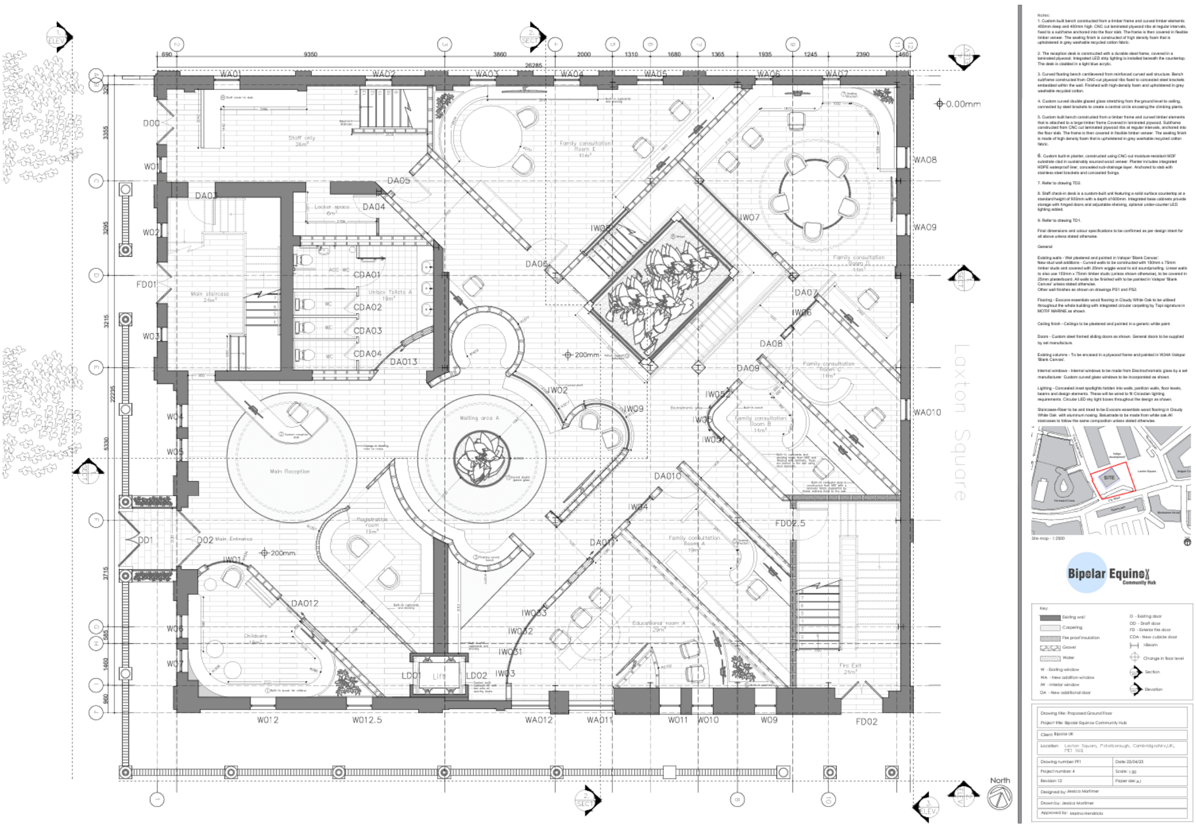



Pyramid skylight
7304mm
4787mm
4347mm
2500mm
607mm
GROUND LINE
26500
Notes:
Existing Brick Façades - Existing brick façades are to be retained repaired using lime mortar matching the original in composition and color. Where interventions are necessary, matching reclaimed brick (as documented in the Demolition Pack) shall be used to ensure continuity in texture and bond pattern.
Existing Windows - Steel framed windows are to be restored, with damaged elements replaced on a like-for-like basis.
New Window Additions - New window units shall be fabricated by a nominated supplier to replicate existing in terms of material, dimensions, glazing configuration, and profile.
Boundary Wall - The existing boundary wall is to be structurally assessed, repaired, and repointed using lime-based mortar. Any missing or damaged bricks must be replaced with reclaimed units of identical type and weathering.
Draft Door Installation - A custom steel-framed glazed door assembly shall be installed within the existing façade opening. The frame will be fabricated to fixed dimensions and attached to the masonry. The unit shall incorporate toughened safety glass panels and a matching pair of full-height toughened glass doors with thermally broken framing.
Fire Doors - All fire doors shall be supplied by an approved manufacturer, specified to replicate the profile, dimensions, and aesthetic of existing doors. Each unit must achieve the required fire resistance rating. Installation must be carried out by a certified contractor to ensure integrity and compliance.
Pyramid Skylight - A custom-built pyramid skylight, supplied by the specified manufacturer, will feature thermochromic glazing to enhance solar control and energy efficiency by adjusting light transmission based on external temperature. Motorised ventilation panels on opposite sides will provide natural airflow to the interior atrium, integrated with the building's environmental controls for automated or manual operation.
Refer to Existing plans technical pack for further facade information.
Site map - 1:2500
Bipolar Equinox
Community Hub
Key:
W - Existing window
WA - New addition window
D - Existing door
DD - Draft door
FD - Exterior fire door
SL - Skylight
Drawing title: Proposed North West Elevation
Project title: Bipolar Equinox Community Hub
Client: Bipolar UK
Location: Laxton Square, Peterborough, Cambridgeshire, UK, PE1 1UQ
Drawing number: PE4
Date: 16/5/25
Project number: 4
Scale: 1:50
Revision: 3
Paper size: A1
Designed by: Jessica Mortimer
Drawn by: Jessica Mortimer
Approved by: Malina Hendricks
North

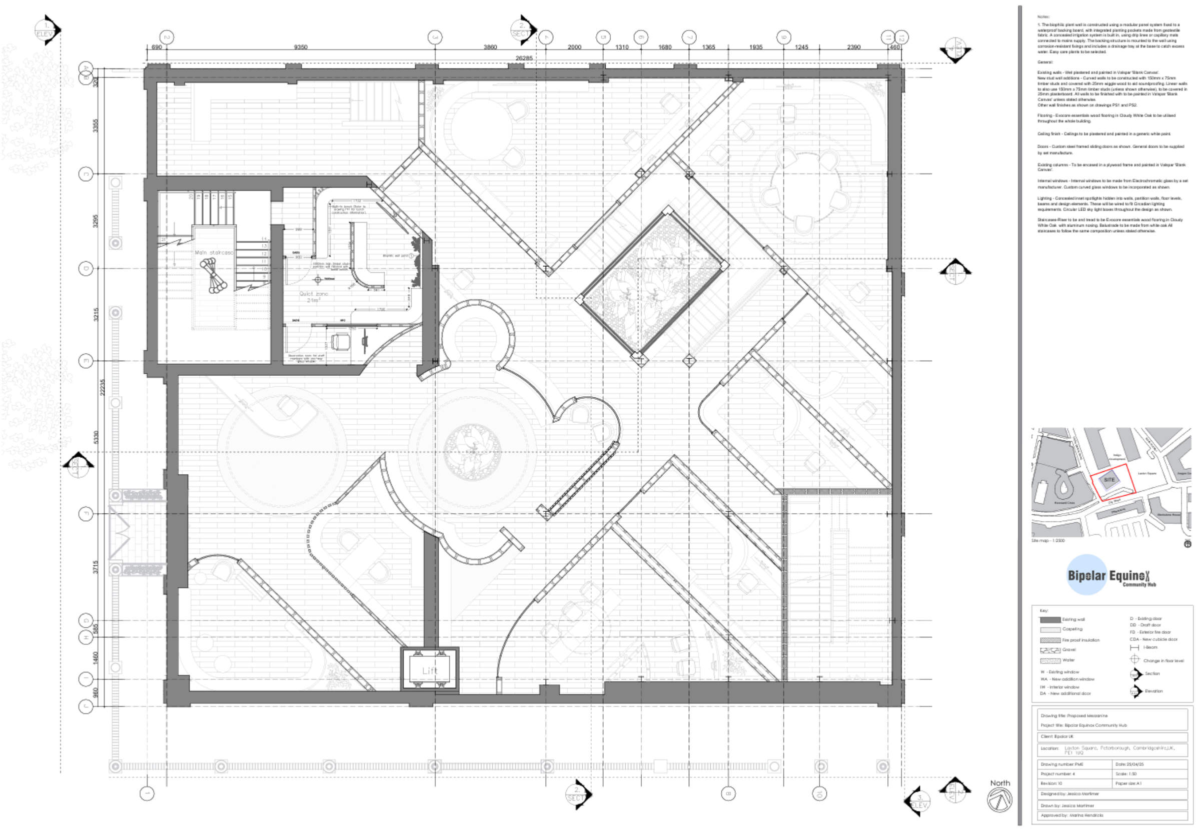

Pyramid skylight
SL3
7304mm
4787mm
4347mm
2500mm
607mm
GROUND LINE
22370
Notes:
Existing Brick Façades - Existing brick façades are to be retained repaired using lime mortar matching the original in composition and color. Where interventions are necessary, matching reclaimed brick (as documented in the Demolition Pack) shall be used to ensure continuity in texture and bond pattern.
Existing Windows - Steel framed windows are to be restored, with damaged elements replaced on a like-for-like basis.
New Window Additions - New window units shall be fabricated by a nominated supplier to replicate existing in terms of material, dimensions, glazing configuration, and profile.
Boundary Wall - The existing boundary wall is to be structurally assessed, repaired, and repointed using lime-based mortar. Any missing or damaged bricks must be replaced with reclaimed units of identical type and weathering.
Draft Door Installation - A custom steel-framed glazed door assembly shall be installed within the existing façade opening. The frame will be fabricated to fixed dimensions and attached to the masonry. The unit shall incorporate toughened safety glass panels and a matching pair of full-height toughened glass doors with thermally broken framing.
Fire Doors - All fire doors shall be supplied by an approved manufacturer, specified to replicate the profile, dimensions, and aesthetic of existing doors. Each unit must achieve the required fire resistance rating. Installation must be carried out by a certified contractor to ensure integrity and compliance.
Pyramid Skylight - A custom-built pyramid skylight, supplied by the specified manufacturer, will feature thermochromic glazing to enhance solar control and energy efficiency by adjusting light transmission based on external temperature. Motorised ventilation panels on opposite sides will provide natural airflow to the interior atrium, integrated with the building's environmental controls for automated or manual operation.
Refer to Existing plans technical pack for further facade information.
Site map - 1:2500
Bipolar Equinox
Community Hub
Key:
W - Existing window
WA - New addition window
D - Existing door
DD - Draft door
FD - Exterior fire door
SL - Skylight
Drawing title: Proposed North East Elevation
Project title: Bipolar Equinox Community Hub
Client: Bipolar UK
Location: Laxton Square, Peterborough, Cambridgeshire, UK, PE1 1UQ
Drawing number: PE3
Date: 16/5/25
Project number: 4
Scale: 1:50
Revision: 3
Paper size: A1
Designed by: Jessica Mortimer
Drawn by: Jessica Mortimer
Approved by: Malina Hendricks
North


Laxton Square
Pyramid skylight
Circular skylight
Draft Entrance
Bipolar Equinox
Community Hub
North

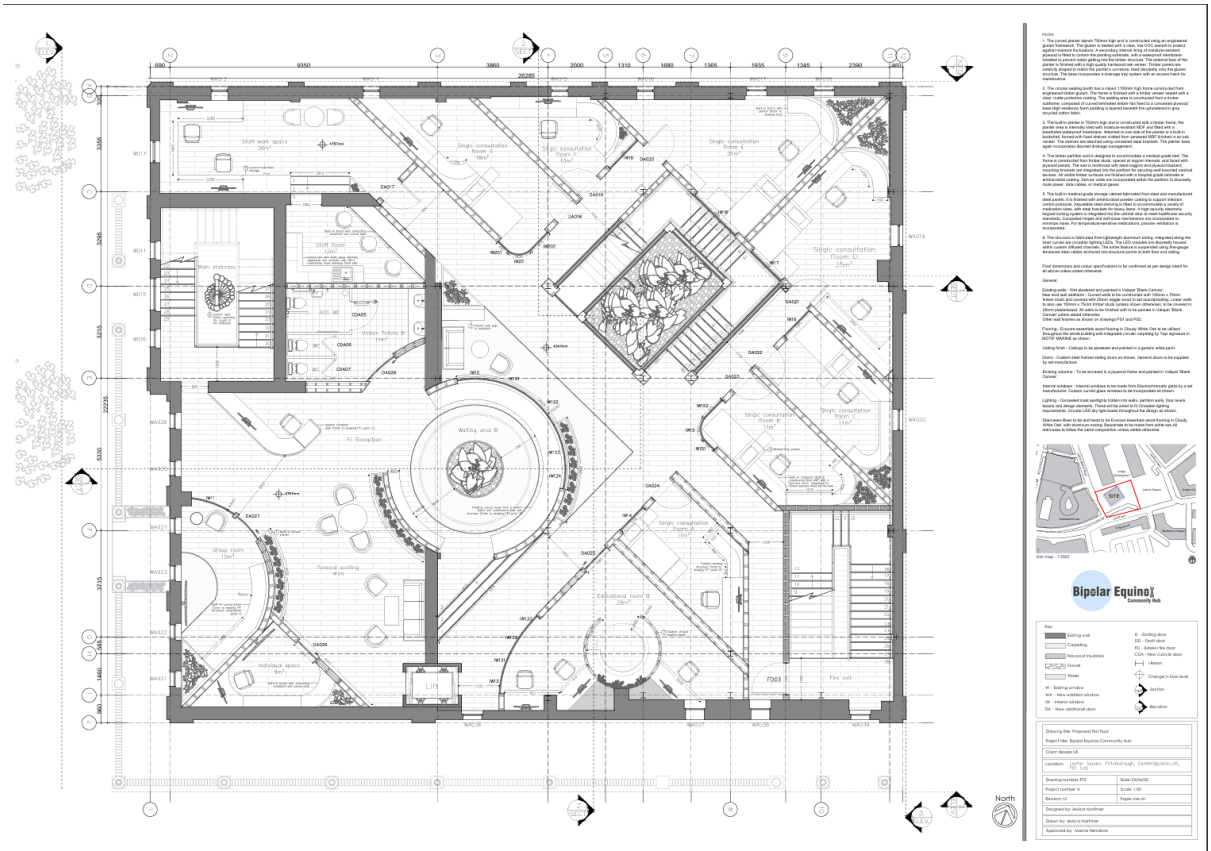

Bipolar Equinox
Community Hub
North

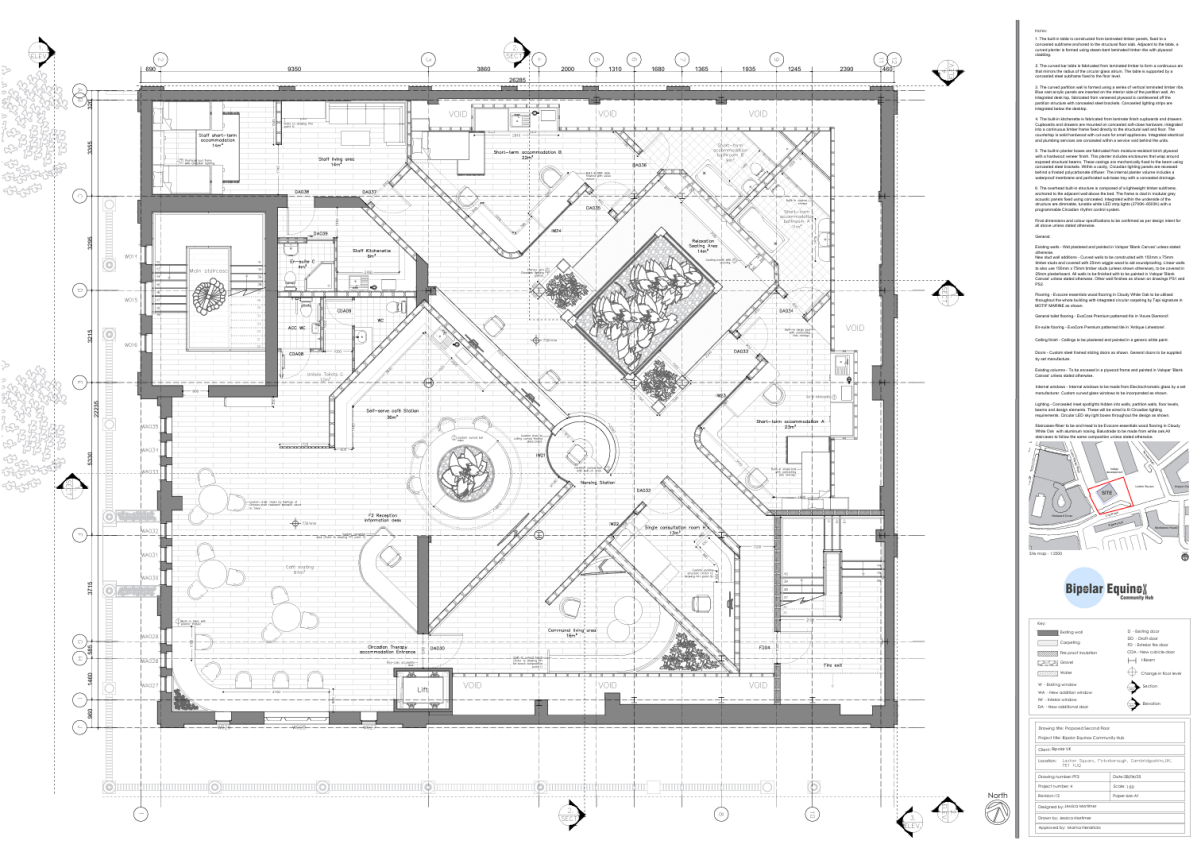


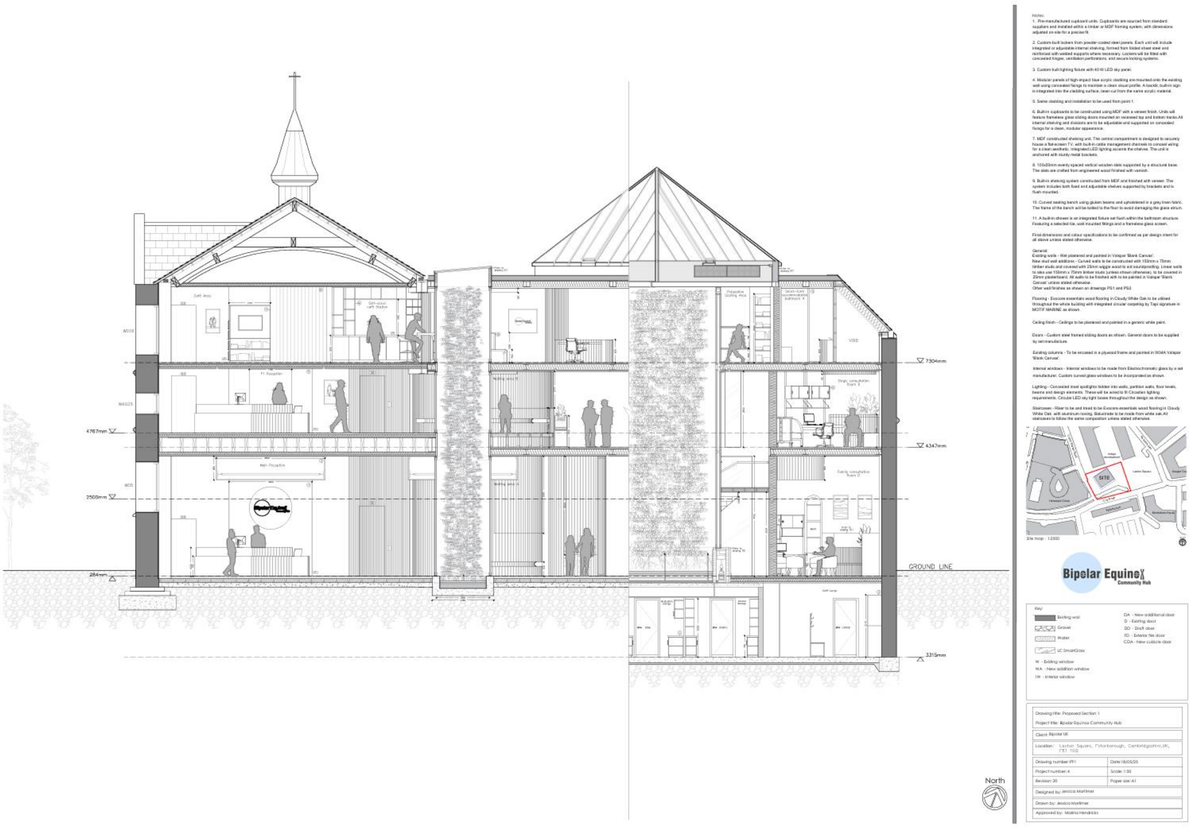
Laxton Square
Main Reception
Waiting area A
Main staircase
Staff only
Unisex Toilets
Family consultation Room C
Family consultation Room A
Family consultation Room B
Educational room A
Childcare
Lift
Fire Exit
North
Bipolar Equinox
Community Hub
Key:
Existing wall
Carpeting
Fire proof insulation
Gravel
Water
W - Existing window
WA - New addition window
IW - Interior window
DA - New additional door
D - Existing door
DD - Draft door
FD - Exterior fire door
CDA - New cubicle door
I-Beam
Change in floor level
Section
Elevation
Drawing title: Proposed Ground Floor
Project title: Bipolar Equinox Community Hub
Client: Bipolar UK
Location: Laxton Square, Peterborough, Cambridgeshire,UK, PE1 1UQ
Drawing number: PF1
Date: 23/04/25
Project number: 4
Scale: 1:50
Revision: 12
Paper size: A1
Designed by: Jessica Mortimer
Drawn by: Jessica Mortimer
Approved by: Marina Hendricks



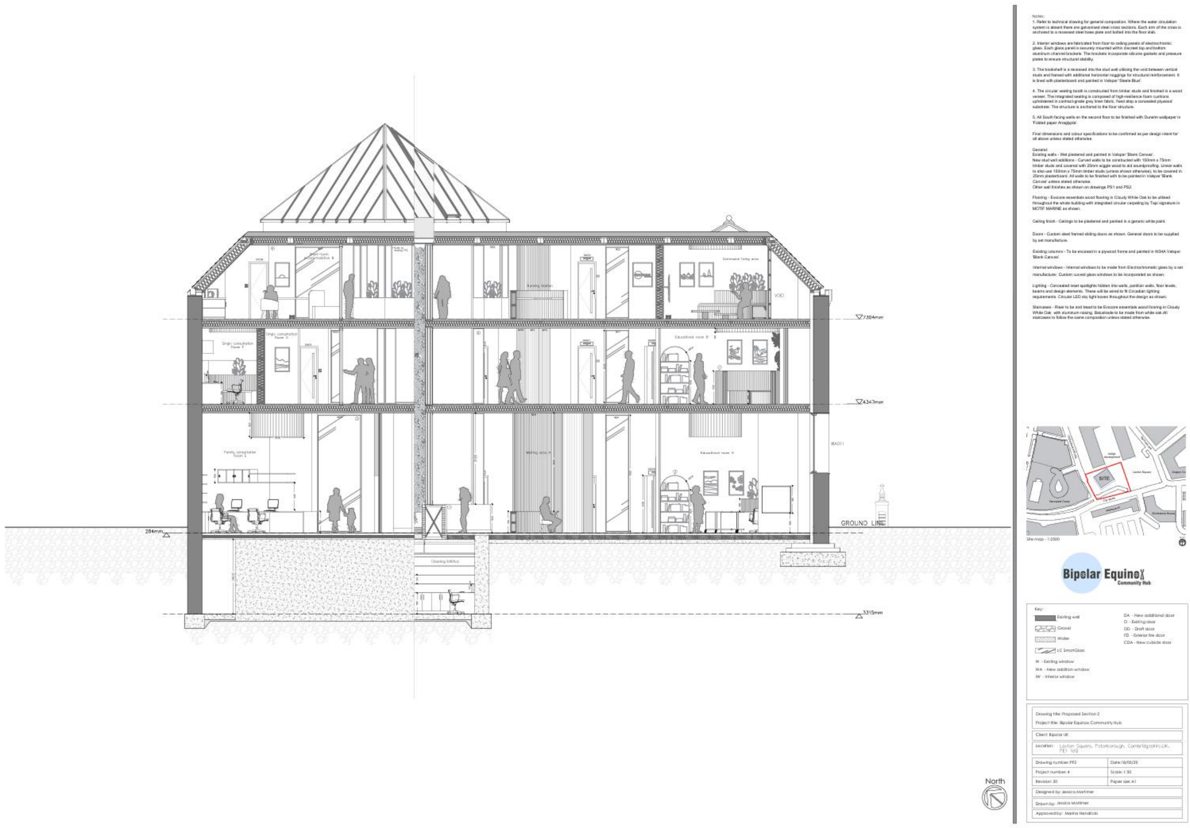
Main staircase
Quiet zone
Lift
North
Bipolar Equinox
Community Hub
Key:
Existing wall
Carpeting
Fire proof insulation
Gravel
Water
W - Existing window
WA - New addition window
IW - Interior window
DA - New additional door
D - Existing door
DD - Draft door
FD - Exterior fire door
CDA - New cubicle door
I-Beam
Change in floor level
Section
Elevation
Drawing title: Proposed Mezzanine
Project title: Bipolar Equinox Community Hub
Client: Bipolar UK
Location: Laxton Square, Peterborough, Cambridgeshire,UK, PE1 1UQ
Drawing number: PME
Date: 25/04/25
Project number: 4
Scale: 1:50
Revision: 10
Paper size: A1
Designed by: Jessica Mortimer
Drawn by: Jessica Mortimer
Approved by: Marina Hendricks



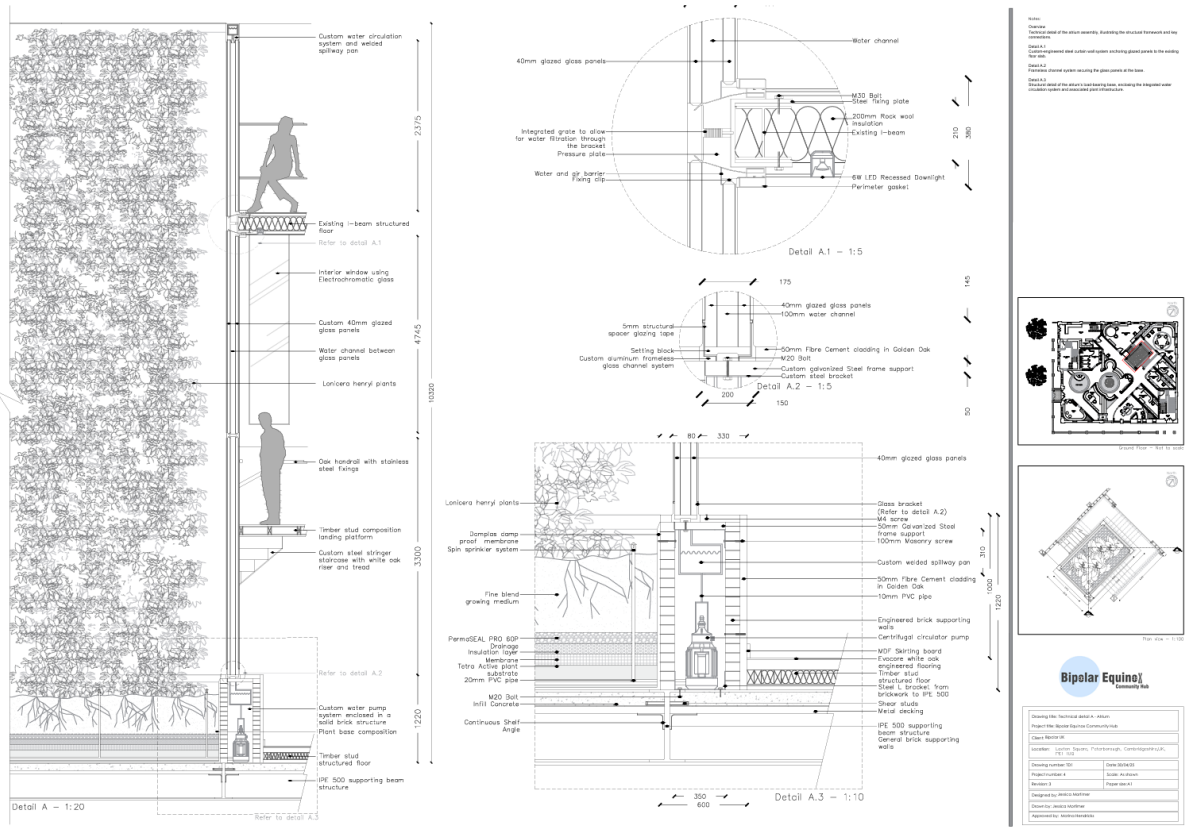


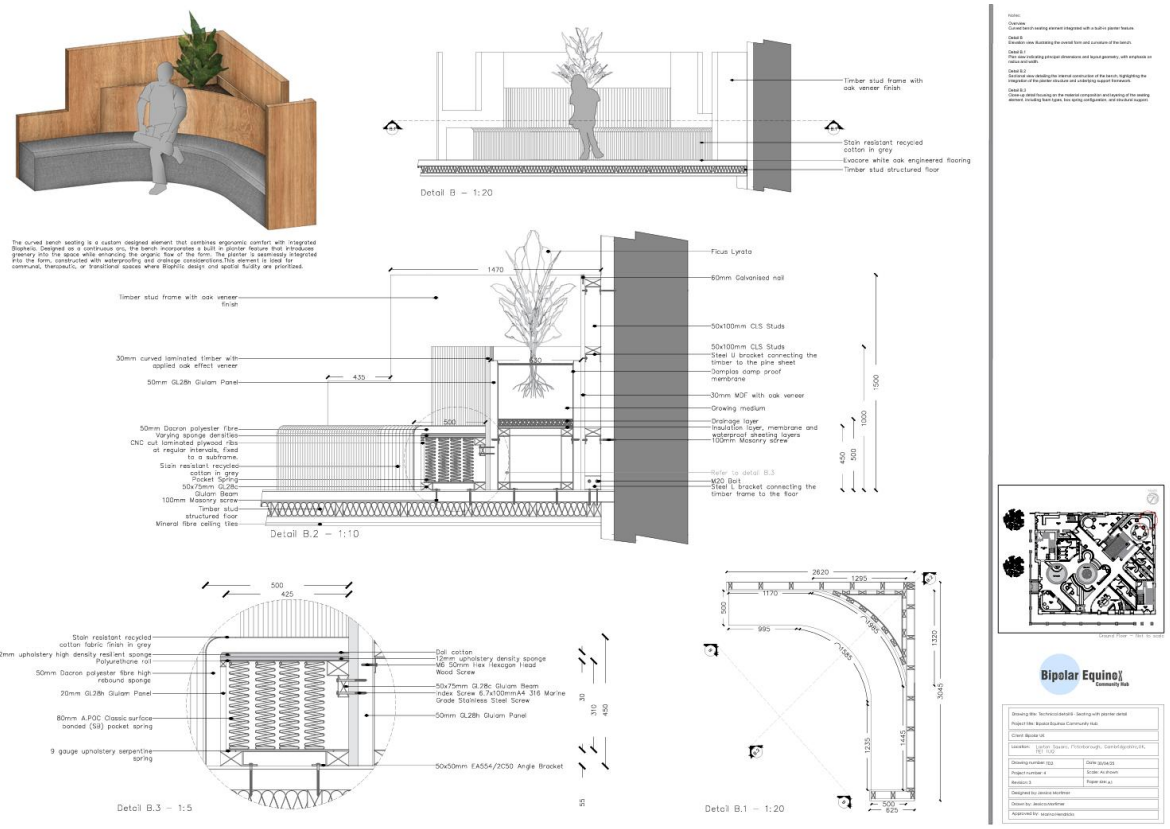


4767mm
2500mm
284mm
7304mm
4347mm
3315mm
GROUND LINE
Bipolar Equinox
Community Hub
Key:
Existing wall
Gravel
Water
LC SmartGlass
W - Existing window
WA - New addition window
IW - Interior window
DA - New additional door
D - Existing door
DD - Draft door
FD - Exterior fire door
CDA - New cubicle door
Drawing title: Proposed Section 1
Project title: Bipolar Equinox Community Hub
Client: Bipolar UK
Location: Laxton Square, Peterborough, Cambridgeshire,UK, PE1 1UQ
Drawing number: PF1
Date: 18/05/25
Project number: 4
Scale: 1:50
Revision: 20
Paper size: A1
Designed by: Jessica Mortimer
Drawn by: Jessica Mortimer
Approved by: Marina Hendricks
North



7304mm
4347mm
284mm
3315mm
GROUND LINE
Bipolar Equinox
Community Hub
Key:
Existing wall
Gravel
Water
LC SmartGlass
W - Existing window
WA - New addition window
IW - Interior window
DA - New additional door
D - Existing door
DD - Draft door
FD - Exterior fire door
CDA - New cubicle door
Drawing title: Proposed Section 2
Project title: Bipolar Equinox Community Hub
Client: Bipolar UK
Location: Laxton Square, Peterborough, Cambridgeshire,UK, PE1 1UQ
Drawing number: PF2
Date: 18/05/25
Project number: 4
Scale: 1:50
Revision: 20
Paper size: A1
Designed by: Jessica Mortimer
Drawn by: Jessica Mortimer
Approved by: Marina Hendricks
North


Custom water circulation system and welded spillway pan
Existing I-beam structured floor
Refer to detail A.1
Interior window using Electrochromatic glass
Custom 40mm glazed glass panels
Water channel between glass panels
Lonicera henryi plants
Oak handrail with stainless steel fixings
Timber stud composition landing platform
Custom steel stringer staircase with white oak riser and tread
Refer to detail A.2
Custom water pump system enclosed in a solid brick structure
Plant base composition
Timber stud structured floor
IPE 500 supporting beam structure
Refer to detail A.3
2375
4745
10320
3300
1220
Detail A – 1:20
Water channel
40mm glazed glass panels
M30 Bolt
Steel Fixing plate
200mm Rock wool insulation
Existing I-beam
Integrated grate to allow for water filtration through the bracket
Pressure plate
Water and air barrier Fixing clip
6W LED Recessed Downlight
Perimeter gasket
210
380
Detail A.1 – 1:5
175
145
40mm glazed glass panels
100mm water channel
5mm structural spacer glazing tape
Setting block
Custom aluminium frameless glass channel system
50mm Fibre Cement cladding in Golden Oak
M20 Bolt
Custom galvanized Steel frame support
Custom steel bracket
200
150
50
Detail A.2 – 1:5
80
330
40mm glazed glass panels
Lonicera henryi plants
Glass bracket (Refer to detail A.2)
M6 screw
50mm Galvanized Steel frame support
100mm Masonry screw
Dimplas damp proof membrane
Spin sprinkler system
Custom welded spillway pan
50mm Fibre Cement cladding in Golden Oak
10mm PVC pipe
Fine blend growing medium
Engineered brick supporting walls
Centrifugal circulator pump
PermaSEAL PRO 60P Drainage insulation layer
Membrane
Tetra Active plant substrate
20mm PVC pipe
MDF Skirting board
Evacore white oak engineered flooring
Timber stud structured floor
Steel L bracket, from brickwork to IPE 500
M20 Bolt
Infill Concrete
Shear studs
Metal decking
Continuous Shelf-Angle
IPE 500 supporting beam structure
General brick supporting walls
310
1000
1220
350
600
Detail A.3 – 1:10
Notes:
Overview
Technical detail of the atrium assembly, illustrating the structural framework and key connections.
Detail A.1
Custom-engineered steel curtain wall system anchoring glazed panels to the existing floor slab.
Detail A.2
Frameless channel system securing the glass panels at the base.
Detail A.3
Technical detail of the atrium's load-bearing base, enclosing the integrated water circulation system and associated plant infrastructure.
Ground Floor – Not to scale
Plan View – 1:100
Bipolar Equinox Community Hub
Drawing title: Technical detail A - Atrium
Project title: Bipolar Equinox Community Hub
Client: Bipolar UK
Location: Lorton Square, Peterborough, Cambridgeshire, UK, PE1 1QQ
Drawing number: 001
Date: 30/04/25
Project number: 4
Scale: As shown
Revision: 3
Paper size: A1
Designed by: Jessica Mortimer
Drawn by: Jessica Mortimer
Approved by: Jessica Mortimer


The curved bench seating is a custom designed element that combines ergonomic comfort with integrated Biophelia. Designed as a continuous arc, the bench incorporates a built in planter feature that introduces greenery into the space while enhancing the organic flow of the form. The planter is seamlessly integrated into the form, constructed with waterproofing and drainage considerations.This element is ideal for communal, therapeutic, or transitional spaces where Biophilic design and spatial fluidity are prioritised.
Timber stud frame with oak veneer finish
Stain resistant recycled cotton in grey
Evacore white oak engineered flooring
Timber stud structured floor
Detail B – 1:20
1470
Ficus Lyrata
60mm Galvanised nail
Timber stud frame with oak veneer finish
50x100mm CLS Studs
30mm curved laminated timber with applied oak effect veneer
50mm GL28h Glulam Panel
430
500
Steel U bracket connecting the timber to the pine sheet
Dimplas damp proof membrane
30mm MDF with oak veneer
Growing medium
Drainage layer
Insulation layer, membrane and waterproof sheeting layers
100mm Masonry screw
50mm Dacron polyester fibre Varying sponge densities
CNC cut laminated plywood ribs at regular intervals, fixed to a subframe.
Stain resistant recycled cotton in grey
Pocket Spring
50x75mm GL28c Glulam Beam
100mm Masonry screw
Timber stud structured floor
Mineral fibre ceiling tiles
Refer to detail B.3
M20 Bolt
Steel L bracket connecting the timber frame to the floor
1500
1020
455
500
Detail B.2 – 1:10
500
425
Stain resistant recycled cotton fabric finish in grey
12mm upholstery high density resilient sponge
Polyurethane roll
50mm Dacron polyester fibre high rebound sponge
20mm GL28h Glulam Panel
80mm A.POC Classic surface bonded (Silk) pocket spring
9 gauge upholstery serpentine spring
Dali cotton
12mm upholstery density sponge
M6 50mm Hex Hexagon Head Wood Screw
50x75mm GL28c Glulam Beam
Index Screw 6.7x100mmA4 316 Marine Grade Stainless Steel Screw
50mm GL28h Glulam Panel
50x50mm EA554/2C50 Angle Bracket
30
310
450
55
Detail B.3 – 1:5
2620
1295
1170
995
500
1320
3045
1235
1445
500
625
Detail B.1 – 1:20
Notes:
Overview
Curved bench seating element integrated with a built-in planter feature.
Detail B
Elevation view illustrating the overall form and curvature of the bench.
Detail B.1
Section view indicating principal dimensions and layout geometry, with emphasis on radius and width.
Detail B.2
Sectional view detailing the internal construction of the bench, highlighting the integration of the planter structure and underlying support framework.
Detail B.3
Close-up detail focusing on the material composition and layering of the seating element, including foam types, box spring configuration, and structural support.
Ground Floor – Not to scale
Bipolar Equinox Community Hub
Drawing title: Technical detail B - Seating with planter detail
Project title: Bipolar Equinox Community Hub
Client: Bipolar UK
Location: Lorton Square, Peterborough, Cambridgeshire, UK, PE1 1QQ
Drawing number: 002
Date: 30/04/25
Project number: 4
Scale: As shown
Revision: 3
Paper size: A1
Designed by: Jessica Mortimer
Drawn by: Jessica Mortimer
Approved by: Jessica Mortimer