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Caudwell International Children's Centre

Consultation findings 2015-2020

Before and during construction:

At the outset of the design process and throughout groups of 30 families, all of whom have disabled children, were invited to a series of consultation events by Caudwell Children.

During the consultation, children were supported by volunteers to undergo separate tasks designed to provide practical feedback on preferred colours, textures, designs and emotions towards a development that they may have to visit as part of their treatment.

Whilst the children undertook practical tasks, parents and carers engaged in open forum discussions about the different buildings or facilities they attend for their child's care. Focus was then applied to elements of those buildings that cause either positive or negative reactions from the Children or their Guardians.

Discussions were focused under the headings of:

- Facilities
- Accessibility
- Colour
- Materiality
- Design.

Feedback from the consultations was fed into the design team's decision making process and directly influenced the finished design.

Evidence collected from the children and families was routinely used to 'sense-check' practical design considerations and decisions.

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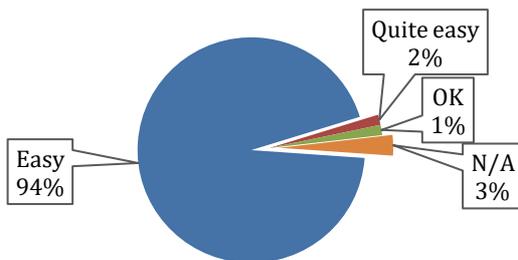
Post construction:

Since opening in 2019, all families attending the Centre to access services are asked to complete a service evaluation. As part of an assessment of the overall service they are also asked to consider the environment and provide feedback on some key areas of the experience.

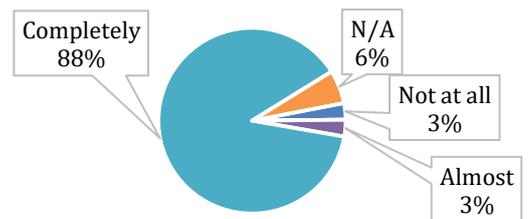
- General
- Layout
- Lifts
- Stairs
- Parking
- Reception
- Family Area
- Toilets
- Assessment Rooms
- Break Out Spaces
- Play Spaces - Indoor
- Play Spaces - Outdoor
- Gardens

The graphs featured show results following the first 100 beneficiaries to access the Centre.

How easy was it to use our building? (General)



Did our building meet your needs during the visit? (General)



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Findings & Evidence:

- Information available for preview / Familiarity

Visual reassurance and planning was repeatedly referenced during forum discussions with beneficiary parents.

Parents shared experiences and the benefits of being able to visit new environments several times as part of the process of adapting to change.



Due to the nationwide catchment for the Centre we knew that familiarisation visits were not applicable for most families so provided an interactive virtual tour which children and families can use to explore the environment prior to visiting.

Parents/carers have reported that their children have use the tour and have shown less anxiety than expected in preparing or travelling to the Centre for their first visit.

One parent stated that a cause for significant delay in obtaining an autism assessment for her child has been the inability to attend hospital/clinic appointments due to the environments, but there had been no such barrier in attending the CICC.

Another parent stated that it was the first time she could remember visiting a new building for any extended period of time and her daughter had not experienced some form of autism-related meltdown.

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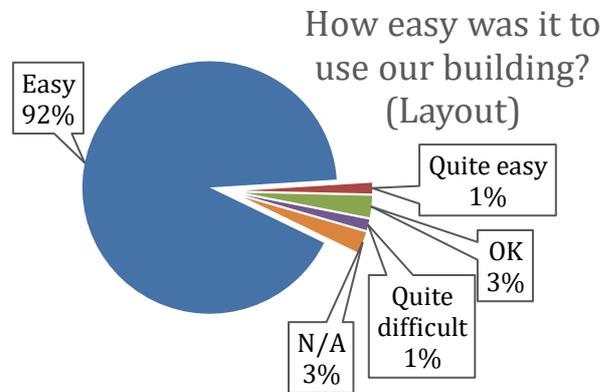
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Layout/use of space

The most prevalent consultation feedback, taken from the children's identification of preferred designs and parent/carer discussion, was the need to avoid over stimulation and enable the ability for children to self-regulate by providing opportunities to use spaces with differing sensory stimuli.



This feedback, combined with the children selecting 'Calm' and 'Peaceful' as two of the emotions they most wished to experience when visiting the Centre, informed the design of clearly defined spaces within the building and additional space in areas of potentially increased footfall.

The main circulation corridors have a clear width of at least 2500mm and all outward opening doors are recessed so that they do not project into the corridor space to reduce/remove the likelihood of collision or anxiety flares.

All corridors and circulation spaces utilise natural light to supplement the high quality, diffused lighting which is free from flicker. In addition, circulation spaces benefit from Class A acoustic treatment.

By switching corners for curves and square rooms for circular spaces, there is lessened potential for unexpected collisions or anxiety of the unknown.

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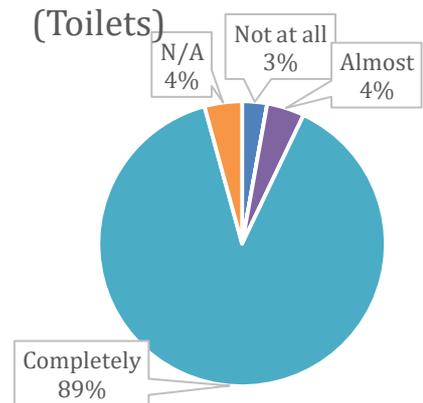
- Positioning of key facilities e.g. kitchens, WCs

Insight for the positioning of key facilities came from considerations for navigation / wayfinding as well as research with SEND and autism-specific education settings.

Using facilities as the focal point of wayfinding provides visitors with an immediate point of reference and reduces the need for extensive signage, which was stated as a potential sensory hazard for some children.

The propensity for some children to use the toilets to demonstrate challenging behaviours was also highlighted and therefore the design was considered to reduce the risk by using door-less entrances and direct, easy access to underfloor drainage to address any blockages.

Did our building meet your needs during the visit? (Toilets)



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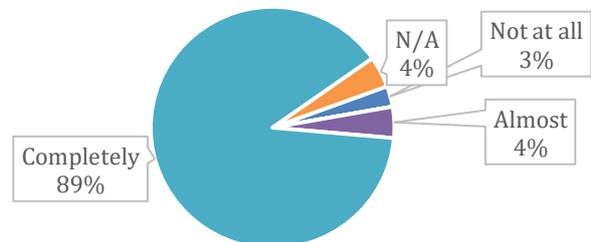
• **Transitions**
(Also see Layout/Use of Space)

Arrival and movement around the Centre and the need for effective transition spaces which reduced the potential for anxiety was a fundamental part of the decision-making process and one of the primary reasons for the 'curved' floorplate and design.

As well as aiding the children to navigate the building using visual reassurance and clear line of sight to the centralised courtyards, the curvilinear design also removes any potential perceived 'institutional' appearance; a key finding and recommendation from the early consultation.

The main Reception was specifically sized to accommodate numerous visitors without the feeling of overcrowding, the main entrance reception is pivotal transition space between the outside space and the inner built environment.

Did our building meet your needs during the visit?
(Reception)



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Wayfinding

As with all internal decoration, wayfinding signage was kept to a minimum using deliberately simple words and arrows.

The curved floorplate and centralised facilities assist with wayfinding and the combination of invisible security within clinical areas allow the promotion of child independence and self-management.

The internal layout and positioning of keys facilities assists with natural wayfinding. (Also see Layout/Use of Space)

Use of symbols/labels for spaces

The use of design techniques to promote visual reassurance (wide corridors, vision panels, glazing) simultaneously negated the requirement for excessive signage, which in turn lessens over stimulation.

Symbol use for facilities including toilets, kitchen utensils and learning resources/toys is employed as part of the holistic approach to assessments and uses the PECS model.

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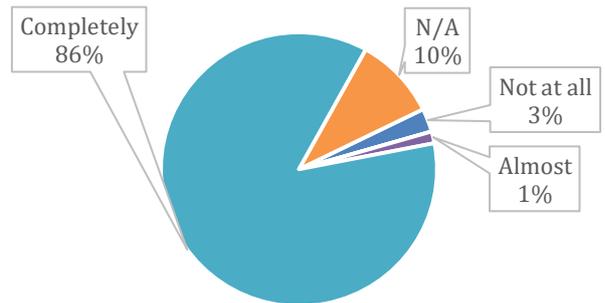


• Quiet spaces

Early design consultation with children showed a preference for internal spaces with comfortable quiet areas, predominantly featuring cushions and soft furnishings.

This feedback and the intent to enable sensory self-regulation led to the positioning and availability of several quiet break out spaces throughout the building.

Did our building meet your needs during the visit?
(Break-out Spaces)



• Sensory rooms

The approach to the use of sensory rooms with the Centre changed during the design consultation period.

Originally assuming a stereotypical, break-out room approach (dark room, bubble tubes etc) would be required, consultation with beneficiaries and clinicians directed designs to a more occupational-therapy led model.

Extending the provision of sensory rooms to become a more functional part of the assessment process, the fit out and equipment provision now provides the OT team to develop a comprehensive sensory profile for beneficiaries.



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Acoustics

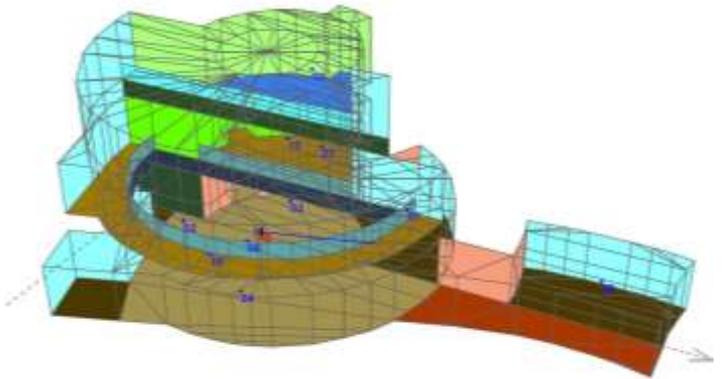
For the Centre to offer maximum support and to function as intended, the internal spaces have been carefully designed to reduce all distracting acoustic sources by meeting or exceeding all current guidance.

Working with specialist acoustic consultants, the Centre has been designed to meet, and often exceed, HTM 08-01: Acoustics, BB93 Acoustic Design of Schools and BS8233:2014 for Sound Insulation and Noise Reduction.

Keen attention was paid to reduce, or eliminate, sound break-out from area to area and so all wall structures are designed to meet, as a minimum, BB93 for levels of acoustic privacy.

For the particularly sensitive Child and Family areas, all acoustically sensitive wall structures exceed BB93 requirements ranging from 55dBRw to 64dBRw.

An area of particular note for its acoustic performance is the main entrance Atrium, for which a reverberation time of <1.5 seconds was required for compliance under HTM 08-01: Acoustics and BB93 Acoustic Design of Schools.



Utilising acoustic ray trace modelling tools during the Design Stage, the completed Atrium ultimately achieved a 0.8 seconds reverberation time when tested in an unfurnished state on site.

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- **Lighting**

The Lighting Strategy has been designed to illuminate the way without glare, confusing reflections or shadows while providing adequate and appropriate lighting levels to all areas.

Consultation demonstrated that flickering light fittings in other settings had been a cause of distress or distraction and were therefore expressly prohibited anywhere within the building from the outset of the design process.

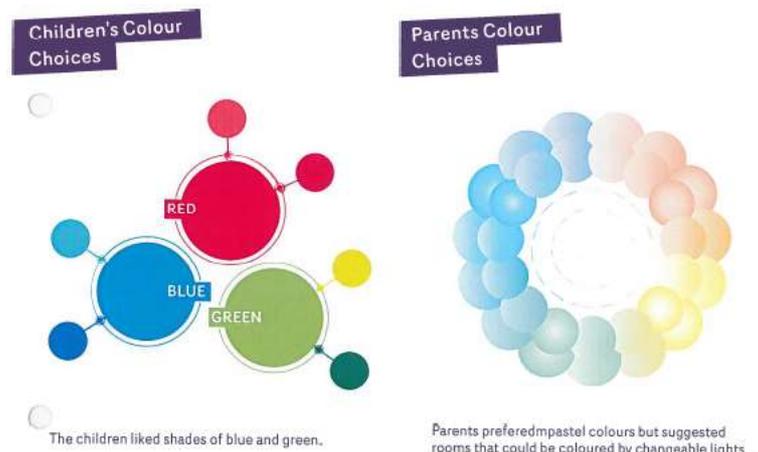
In addition, all lighting utilised in the building is specified to be flicker free and have a semi-warm white light temperature of circa 3800k (Soft White) to promote a more relaxed atmosphere.

Solar controlled glazing has also been utilised throughout the building to reduce solar glare and therefore minimise the risk of over stimulation or distraction.

- **Colour**

Child and parent consultation provided wide variations in colour preferences depending on the sensory profile of the person.

The learning which proved most influential on the interior design was the extreme reaction to certain colours or environments.



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During consultation some children displayed an extreme reaction, both in favour or against, certain colour schemes or interior design examples.

This highlighted the potential for children to experience increased anxiety or develop an unwanted fixation on a particular room/space which could affect wellbeing as well as the efficiency in the use of space.

Therefore, a building-wide neutral colour scheme was adopted – but importantly with the addition of variable LED colour washes available in each assessment suite.

- **Flooring**

Very careful consideration was paid to the choice of flooring, to ensure all surfaces met our acoustic modelling (Airborne Sound Insulation (Floors) – HTM08-01 / Impact Sound Insulation (Floors) - <60dB BB93 Acoustic Design of Schools) as well as the control of disease and infection.

The colour and texture of floor surfaces was also used as part of the wayfinding strategy, using different colours and materials to delineate the type of activity that is intended to take place.

- **Choice of fixtures, fittings and furniture**

A similar decision-making process to the flooring was utilised for furniture and fittings. All of the time maintaining the overall design strategy as conveyed during consultation that areas should be adaptable (e.g moveable furniture) and reduce the potential for distraction (e.g light switches in cupboards).

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- **Technology**

There are several key areas in the Centre where technology has been used to serve the primary aim of reducing the potential for environment-induced anxiety.

Visual Reassurance – in assessment suites where vision panels were required to continue the strategy of visual reassurance through line-of-sight into rooms and transition spaces but privacy was also required during clinical assessments we employed the use of electric switchable glass.

Security – consultation with parents, children and professionals showed that the use of keys and security cards to pass through secure thresholds heightened anxiety and encouraged more challenging behaviour. To avoid obvious security barriers while maintaining safeguarding, proximity reader technology was employed to unlock doors using a reader held in the employees hand and reaching out to open the door as normal. Access is dynamic and can be restricted or released depending on building usage and staff attendance.

- **Outdoor spaces**

At several stages during the consultation period, the importance of access to outdoor spaces as part of the self-regulation strategy was highlighted.



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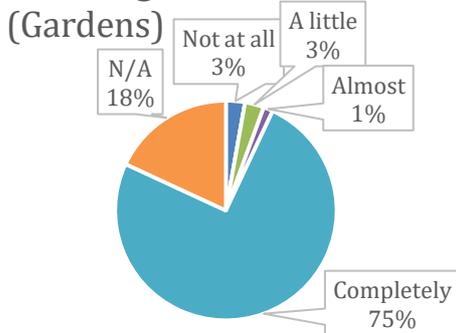


Further focussed beneficiary consultation provided vital insight into the type of sensory experiences children want to experience from outdoor spaces.

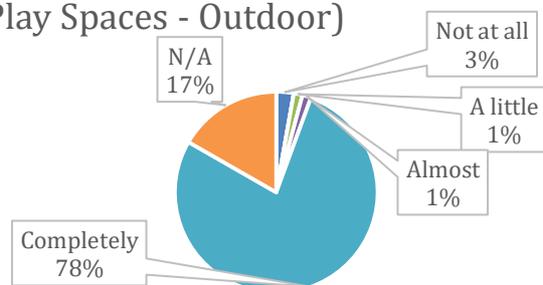
In line with the design strategy for the rest of the building, beneficiaries expressed a desire to have environments with varying levels of sensory stimulation and the ability to self-regulate by accessing or withdrawing based on their own experience.

The design approach to the Centre's 'Sensory Garden' is to reflect and imitate a natural woodland environment to promote the independent use of the natural landscape away from the controlled setting of the Centre.

Did our building meet your needs during the visit? (Gardens)



Did our building meet your needs during the visit? (Play Spaces - Outdoor)



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