



TherAplay Redesign

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GENERAL RESEARCH

Color Preference in Children with ASD

- Young children with autism tend to have adverse reactions to yellow
 - Perceived as being sensory-overloading
 - Hypersensitization finds this color too bright and harsh due to it having the highest luminance value
 - Yellow is the most fatiguing color
- Children with ASD preferred green and brown
- Typically Developing children preferred red and yellow



Color Sensitivity

- Areas where children with autism need to learn and rest should be well-organized and orderly, with minimal distraction and muted, warm colors in order to prevent over stimulation
- Brighter hues are better used as wayfinding cues, guiding children down hallways
- Children with autism will tend to follow patterns



Autism and Light Sensitivity

- Those who are sensory sensitive generally do not prefer direct fluorescent lighting
 - They are more vulnerable to sub-visible flickers and buzzing
- Daylighting can be complicated because of the shifting patterns of daylight can complicate the visual environment
- The amount and type of visual stimulation should be tightly controlled
- Glare created by sunlight also creates problems
- Skylights allow for the health benefits of natural light, without the distraction of typical windows



Children's Hospital of Philadelphia | Case Study

- Sound:
 - Excess noise can cause sensory overload
 - Insulation from other environmental noises is important
 - Acoustic ceilings and carpet help absorb sound
- Lighting
 - Fluorescent lighting should be avoided to prevent flickering and hums
 - Lighting should be dimmable
 - Cove lighting where the light source is not visible is ideal
 - Windows should be shaded or film to prevent bright sunlight and glare



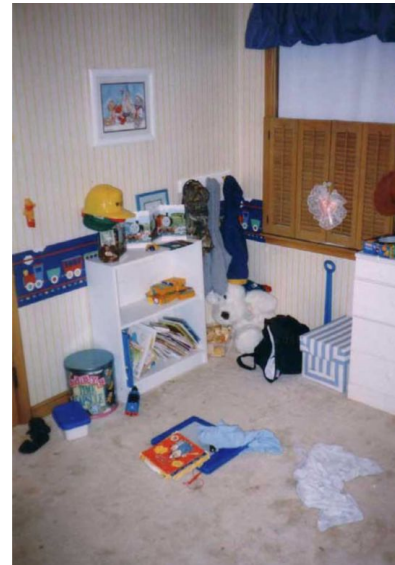
Children's Hospital of Philadelphia | Case Study

- Space-Planning:
 - Divide area for different activities
 - Incorporate “quiet area” for when the child gets overwhelmed
 - Curved walls help eliminate the surprise of coming around a corner
- Décor and Design:
 - Calming decorative scheme
 - Exclude too bright of colors (including white)
 - Use recognizable pictures for signage and labeling

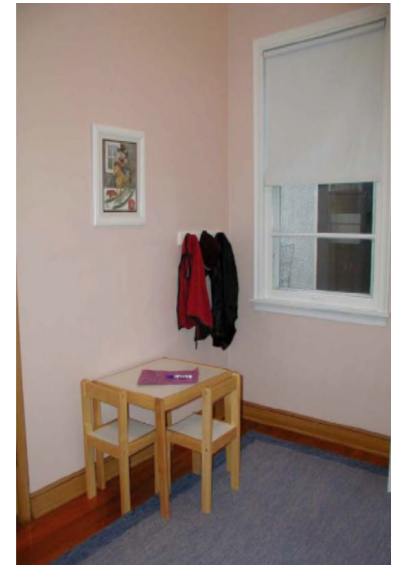


Sensory Stimulation

- Children with sensory sensitivity often depend on their visual senses
 - 85% see colors with greater intensity
- Too much stimulus in classrooms can create havoc in a neurologically delayed individual's mind
- Avoiding wall patterns and removing visual clutter favors those with learning disabilities
- Remove most toys and play equipment from reach; however, items that foster independence (coat hooks, cubbies) should remain accessible
- Electronic ballasts greatly reduce flicker from fluorescent lamps
- Uplighting or diffused lighting are effective in reducing glare.

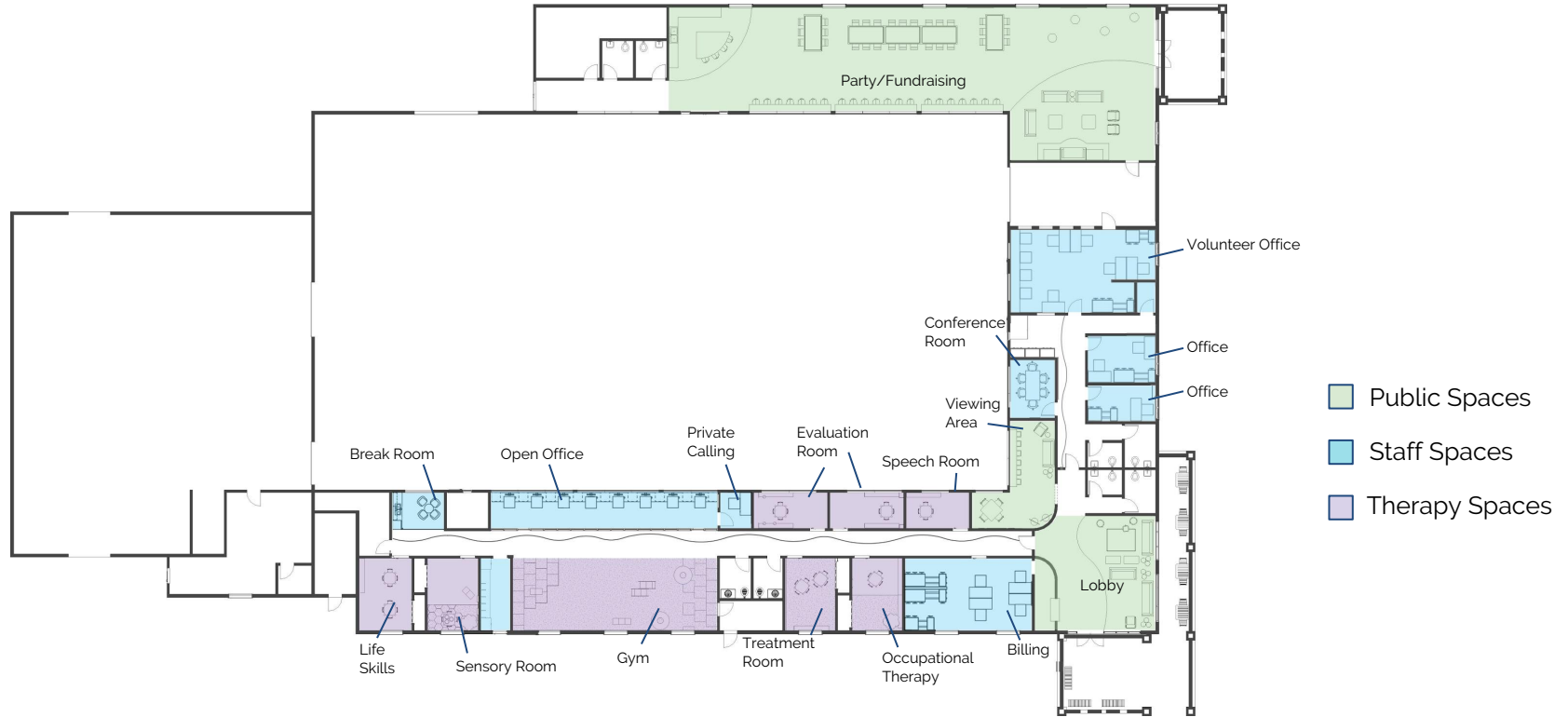


Before



After

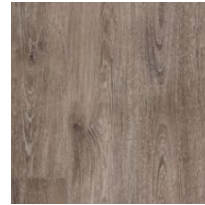
Final Floor Plan



Final Flooring Plan



Mannington - Barrel Oak - Loire

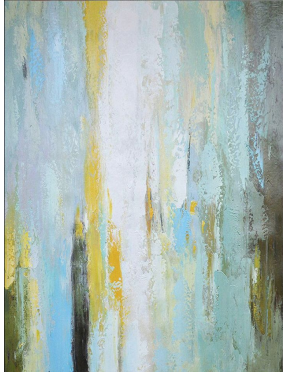


Mannington - Barrel Oak - Alsace

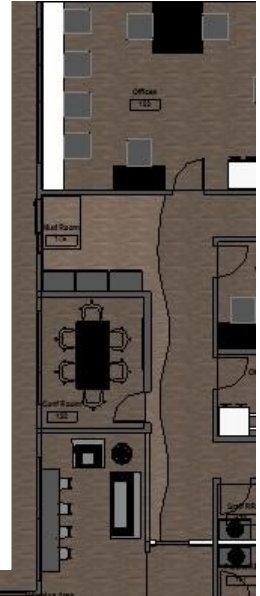
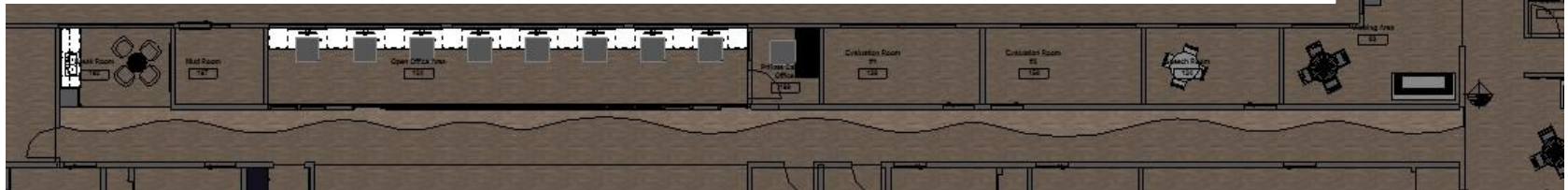


Daltille - AM34 Jet-Setter Dusk

Artwork



Wayfinding



STAFF AREAS

Staff Area: Case Study

- Comfortability of furniture.
- Lack of possibility for distraction.
- Neutral colors stimulating comfort.
- Acoustical privacy.



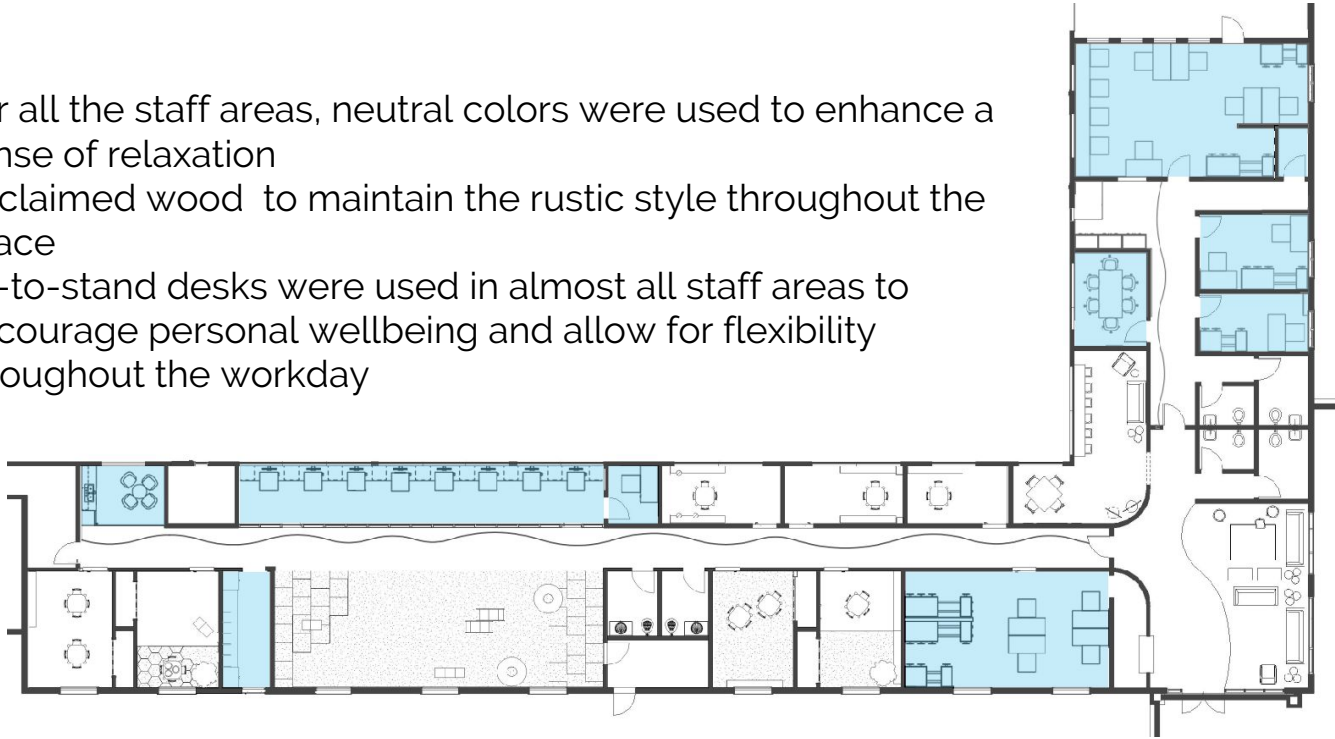
TherAplay Staff Survey Results

- Less harsh/drastic colors.
- No carpet, tile that has texture.
- Comfortable areas to work.
- Acoustics are very important to staff.
- A place to relax and have quiet.



Staff Areas

- For all the staff areas, neutral colors were used to enhance a sense of relaxation
- Reclaimed wood to maintain the rustic style throughout the space
- Sit-to-stand desks were used in almost all staff areas to encourage personal wellbeing and allow for flexibility throughout the workday



Renderings



Renderings



Staff Furniture



Herman
Miller-
Magis
Table



Herman
Miller-
Celle Stool



Herman Miller-
Eames
Upholstered
Fiberglass



Herman
Miller-
Cosm Chair



Herman
Miller-
Eames
Executive
Chair

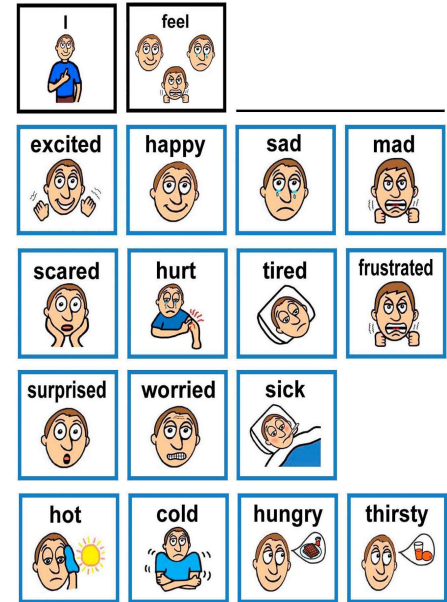


Herman
Miller-
Cosm
Chair

THERAPY SPACES

Sensory Room Case Study 1

- Lack of noise / predictable noise
 - Children with certain developmental deficiencies do not handle unpredictable noises well.
- Room for movement
- Deep pressure input
- “Calming” communication cards
- Sensory Diet
- Tactile Activities



Therapy and Parental Influence

- Occupational therapy not only influences the child, but also the parents.
- Enrolling children in occupational therapy helps to increase parental satisfaction.
- Parents' ability to see and be involved in the benefits that therapy can do helps them see their decisions are the right ones.
- In the survey results, all the parents' highest priority was to see their child's reconstruction of self-worth.



Smile Center | Gymnasium Case Study

- Located in Manhattan, New York City
- Focus on Sensory Integration and Neuro-Developmental Treatment
- Therapies they focus on in the gymnasium setting:
 - Sensory Integration
 - Core Strength exercises
 - Motor Planning
 - Fine Motor Skills
 - Eye-hand Coordination
 - Environmental Modification



Therapy: Space

- Configuration matters within a space
- Arrangement that encourages engagement
- Arrangement that offers a sense of protection
- A desk between the client and counselor was not preferred
 - This created an environment that could not allow the two to engage
- Including flexible furniture
 - This will allow children to move about the space freely and make themselves comfortable
- Including a designated area that allows the child to be alone
 - With ASD, children tend to become over stimulated and need to calm themselves down



Applying To Project

- Spacious layout
- Areas for children to separate themselves
- Materials that allow for movement
- Variation in furniture
- Optional lighting options
- Neutral colors



Therapy: Lighting

- Lighting affects the impressions of a room
 - Perceptions of people and emotions
- Use of natural light
 - With Natural light there needs to be an option to eliminate natural light for children who become over stimulated by light
- Using soundless lighting
 - The flickering of fluorescent and incandescent lighting can cause a distraction during therapy
- Lighting that will eliminate glares on surfaces



Therapy: Color

- Children with ASD are more attracted to primary colors
- Children perceive color differently.
- Blue's and Violets decrease blood pressure and heart rate
- Having designated colors on walls will help children not feel confused or overwhelmed



Therapy: Furniture

- Including a variety of Furniture that will allow children to have a choice of furniture
 - This will help engage children with the therapist
- Fabrics should be durable
- Furniture finishes that do not produce a glare
- Highly colored furniture
 - This will attract children to engage
- Having a group table
 - This will help make group activities comfortable
- Safe furniture that can be rocked
 - Children with ASD tend to rock or shake when they become overstimulated



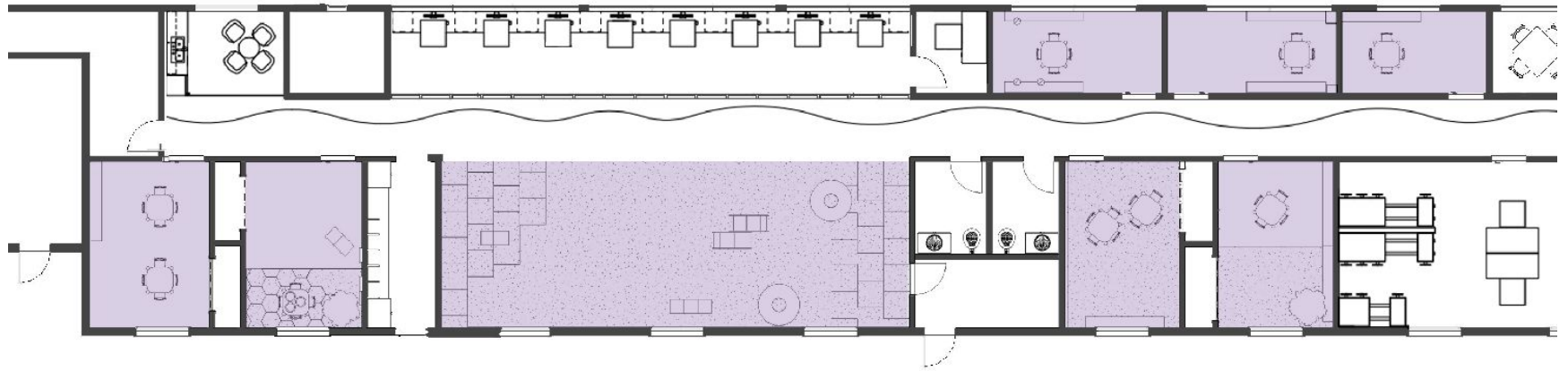
SINGLE SQUEEZER

Therapy: Flooring

- Flooring should be a matt finish to eliminate glares from lighting
 - Glares can cause a distraction for patients during therapy
 - Can cause children to squint, making them uncomfortable
- Flooring should be cushioned and include a wall base for protection
- Including different types of flooring



Therapy Spaces



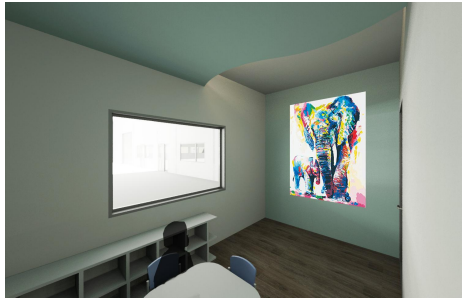
Evaluation Room



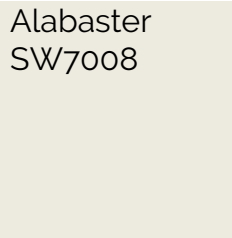
Alabaster
SW7008

Magical
SW6829

Speech Therapy



Mannington
Barrel Oak -
Alsace



Alabaster
SW7008



Minor Blue
SW6792

Occupational Therapy



Magical
SW6829

Alabaster
SW7008

Mannington
Barrel Oak -
Alsace

Sensory Therapy



Life Skills Room



Alabaster
SW7008

Relish
SW6443



Mannington
Barrel Oak -
Alsace

PUBLIC SPACES

TherAplay Parent Survey Responses

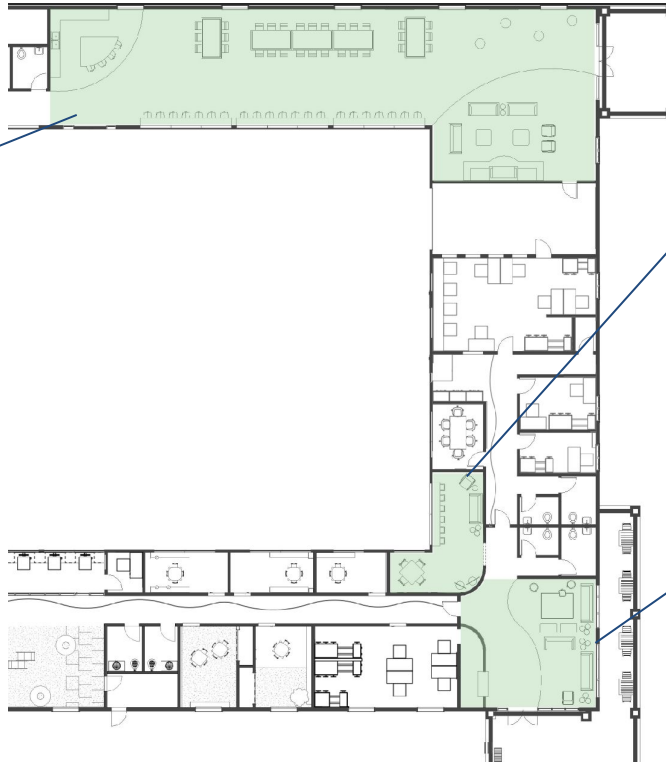
- The parents would like to see:
 - More space for therapy
 - Acoustical privacy
 - More viewing access for their children's therapy sessions
 - A balance of dimmable and natural light
 - More space in the waiting area
- What they view as most important
 - Acoustics
 - Many of the kids are negatively impacted by too much sound
 - Lighting
 - Too bright of lighting or glare can be distracting



Parent/Public Areas

Party/Fundraising Space

- Curves to break up the linear space
- Bar seating to view arena
- Long family style seating, mixed with individual tables
- Standing cafe tables
- Lounge area around fireplace



Parent Waiting

- Variety of seating options
- Bar seating to view arena/workspace
- Table for viewing the arena/workspace
- Coat racks

Main Lobby

- Lounge seating for families waiting
- Interactive wall for children
- Variety of children's seating options
- Plenty of natural light 'with shades' to prevent the space from being overwhelming midday
- Outdoor patio seating available

Parent Waiting



Mannington
Barrel Oak -
Alsace

Salty Dog
SW9177

Alabaster
SW7008

Maharam - Draft
- Swoon



Herman Miller - Magis
Steelwood Stool



BuzziSpace - Nordic



OFS - Denro



Bernhardt - Mills

Parent Waiting



Mannington
Barrel Oak -
Alsace

Salty Dog
SW9177

Alabaster
SW7008

C.F. Stinson
Lift - Moxie



Herman Miller - Magis
Steelwood Table

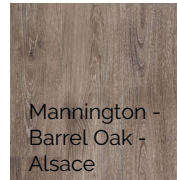


DAVIS - PLC



Hightower -
Tree Coat
Stand

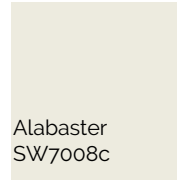
Main Lobby



Mannington -
Barrel Oak -
Alsace



Relish
SW6443

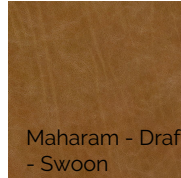


Alabaster
SW7008c

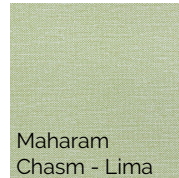
Donor Tree



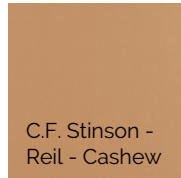
Main Lobby



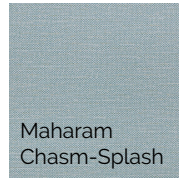
Maharam - Draft
- Swoon



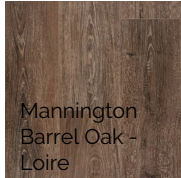
Maharam
Chasm - Lima



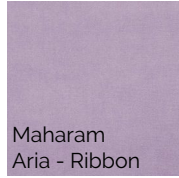
C.F. Stinson -
Reil - Cashew



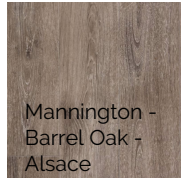
Maharam
Chasm - Splash



Mannington
Barrel Oak -
Loire



Maharam
Aria - Ribbon



Mannington -
Barrel Oak -
Alsace



Relish
SW6443



OFS - Denro



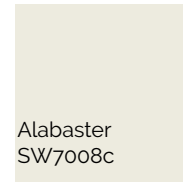
Hightower - Kona Pouf



Hightower - Log Bench



BuzziSpace
- Nordic



Alabaster
SW7008c



Bernhardt - Mills

Fundraising Space



Mannington
Barrel Oak -
Alsace

C.F. Stinson -
Reil - Cashew

Maharam - Draft
- Swoon

Salty Dog
SW9177



BuzziSpace - Nordic



Bernhardt - Elevation Drum

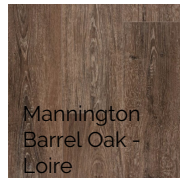


Bernhardt - Mills

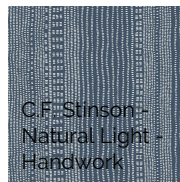
Fundraising Space



Alabaster
SW7008c



Aged Brick



Purposeful Design
Custom Dining Table



Hightower
Kona Table



Crate&Barrel
Miles Upholstered
Dining Chair

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