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Sound Of Systems Music Therapy For Autism

Nishtha Chawla

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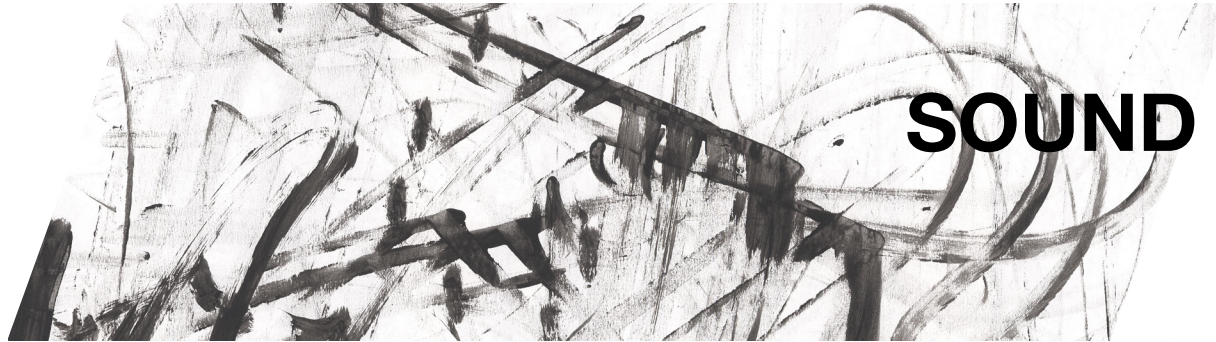
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SOUND OF SYSTEMS

music therapy for autism

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/ Nishtha Chawla
/ Masters in Fine Arts
/ Virginia Commonwealth University
/ Spring 2022

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i believe...

I believe design should be transformative. Architecture and design have the responsibility to evoke memories and provide a sense of belonging through sensory design application. The composition of light, shadow, materials, space, and acoustics can trigger human senses and create a notable moment in life. Humans are sensory individuals that recollect and cherish memories that leave an impact on our subconscious minds. A sensory design should have the ability to activate our latent memories and influence human emotions. As stated by Juhani Pallasmaa "Form alone does not imply any meaning, it is the human interaction with it which gives form its meaning. The act of looking out the window but not the window itself, the act of gathering around the hearth but not the hearth."

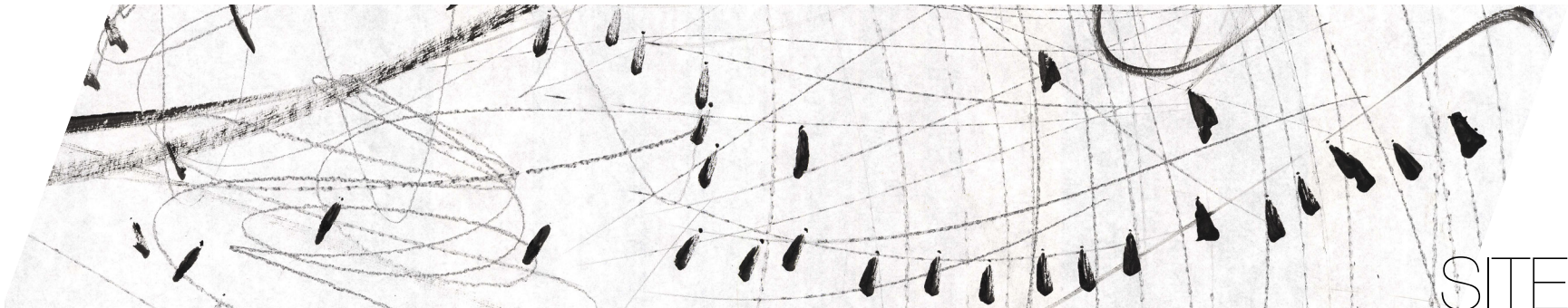
Some memories that have left an imprint on my mind are:
 Balance of traditional cultural values with eastern upbringing
 Playful colors of Indian festivals
 Temple bell ringing at sunrise and sunset
 Classical songs playing during the monsoon season
 The aroma of spices drying in the sun
 Bickering with the vegetable seller over a few pennies
 Priest approaching my iron gated veranda with sandalwood incense and blooming roses

All these memories have shaped my design decisions in terms of choosing sustainable materials, living in harmony with nature, and creating inclusive environments. Lasting impressions on minds are left by environments that evoke one's sensory perception and urge one to live in the present and experience their surroundings.

abstract

The motivation of this project is to nurture the innate quality of enhanced pitch perception in children with Autistic Spectrum Disorder. Past research has shown individuals with ASD have a greater ability in memorizing picture-pitch association and in detecting pitch changes in melodies. Appropriately nurturing this quality with musical therapy enables children with ASD to interact socially in a less intimidating environment. Through music-based activities such as auditory-motor mapping technique, rhythmic training, and improvisational music therapy, cognitive, emotional, and behavioral processes can be gradually improved.

This thesis project is an investigation of a solution through the form of the building's interior to establish a relationship between the structure of music and the structure of the interior. Integrating these two disciplines in a synergistic approach and drawing parallels between the two allows for the manipulation of form and space in a systematic approach that governs the two fields. The systematic approach is based on the noise sensitivity levels of children on spectrum and sound reverberation levels of room size. In addition, the orderly approach takes into account color preference and light sensitivity levels of individuals with ASD. Through this sympathetic understanding of the gifts and vulnerabilities of these children, an inventive environment can optimize their quality of life.



SITE

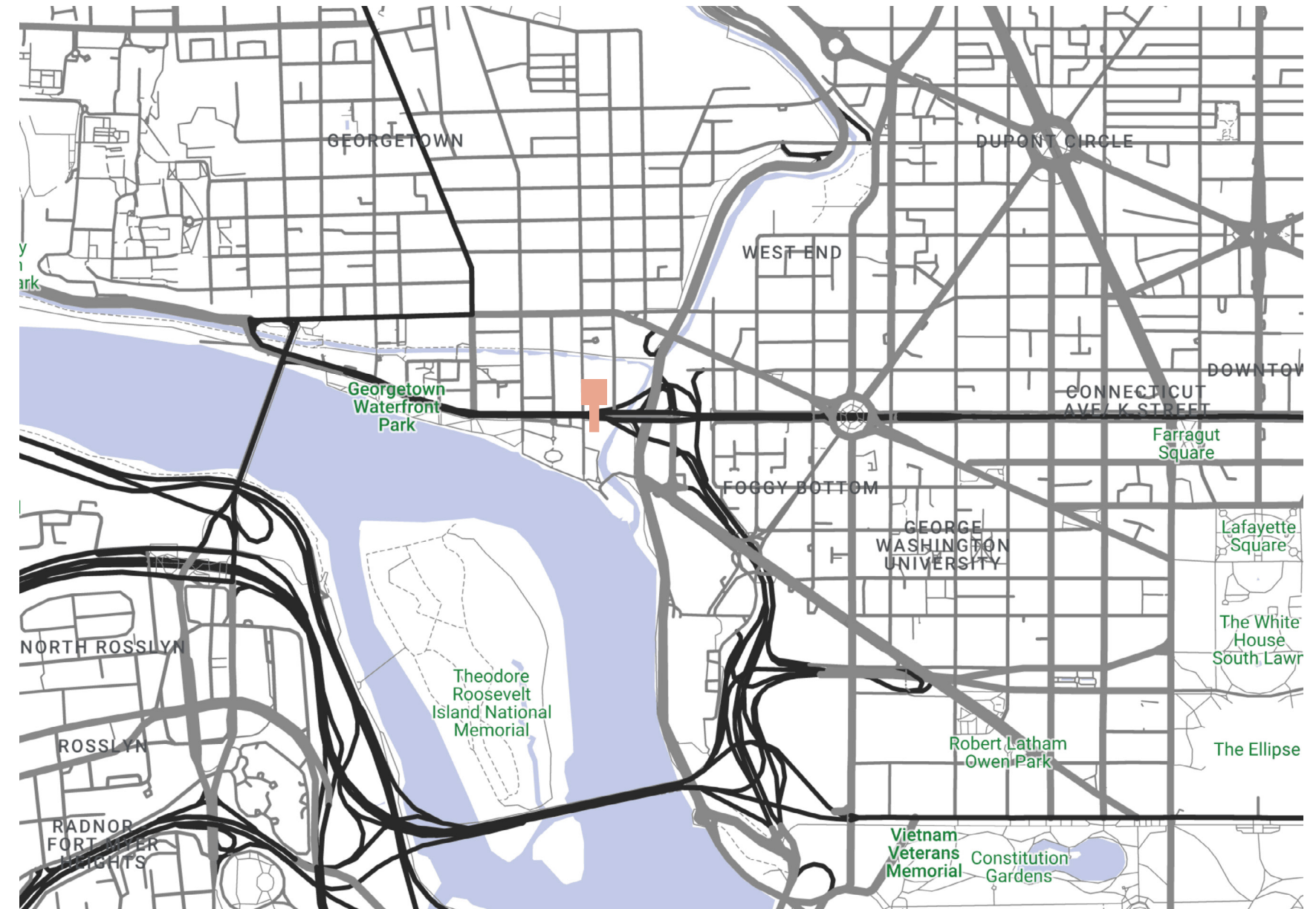
site + neighborhood

site

The proposed project is located on the 2nd level of The House of Sweden, at Georgetown Harbor encompassing 13, 582 square feet. The building is located at 2900 K St, NW, Washington, D.C. that includes The Embassy of Sweden and The Embassy of Iceland and tenants with connection to Sweden. It is the only Embassy in Washington located on the waterfront of the Potomac River. The facade primarily consist of curtain wall and glazed Swedish pine with white timpa stone and black granite floors.

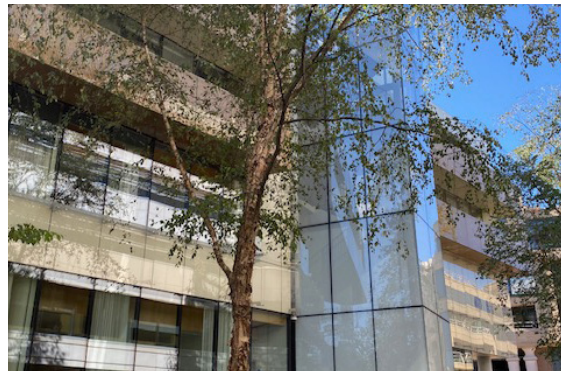
neighborhood

Georgetown is at the boundary of Virginia and Washington, D.C. connected by the Francis Scott Key Memorial bridge. The primary commercial areas of Georgetown are the intersection of M Street and Wisconsin Avenue, which contain high-end shops, bars, and restaurants. The C&O Canal initially carried coal from the Allegheny Mountains from 1831 to 1924. It is now a National Historical Park and draws hikers, bikers and joggers with a connecting path to Theodore Roosevelt Island and The Kennedy Center.





south



north

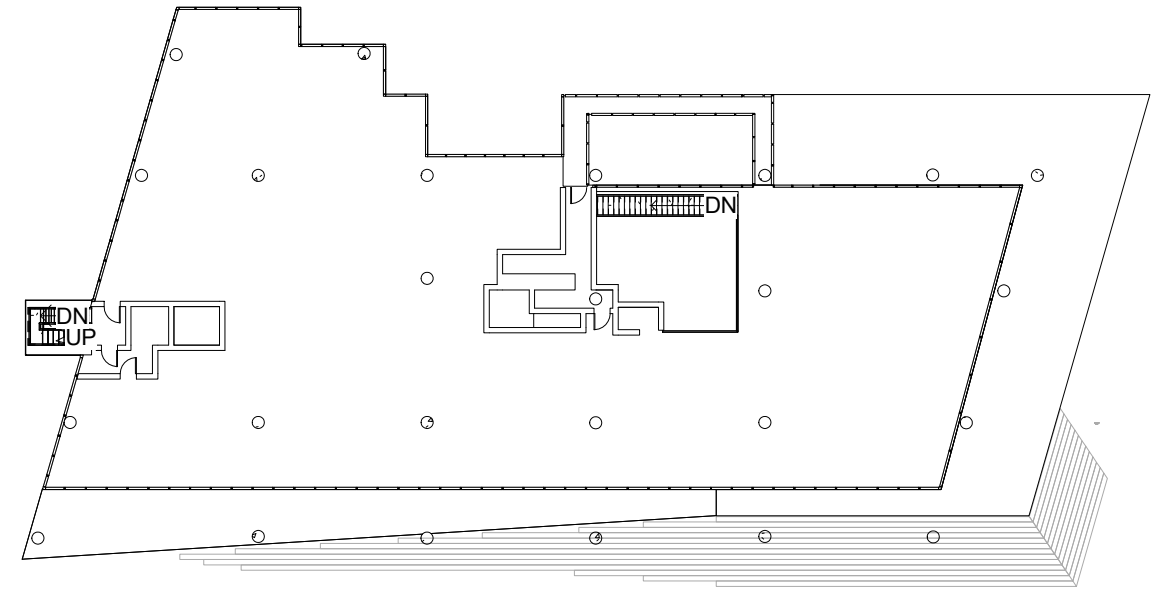
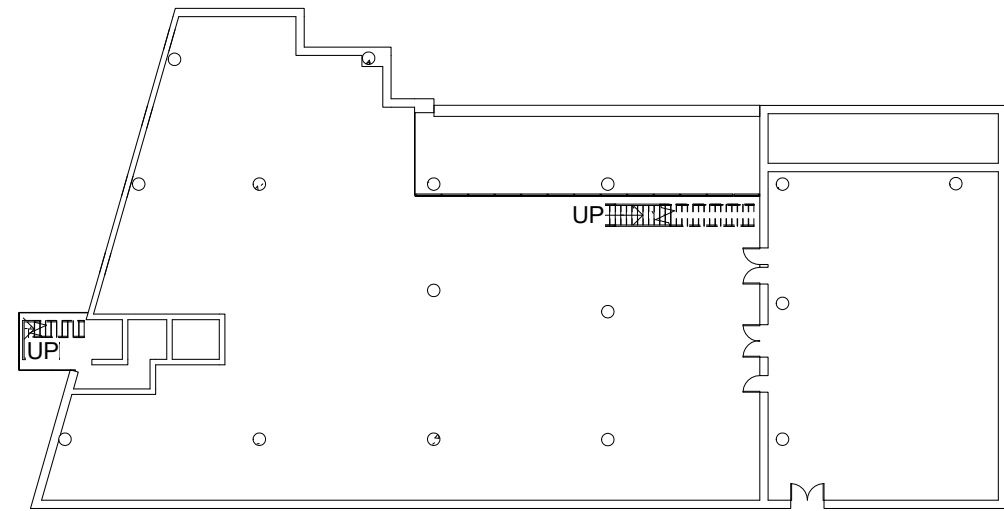


east



west



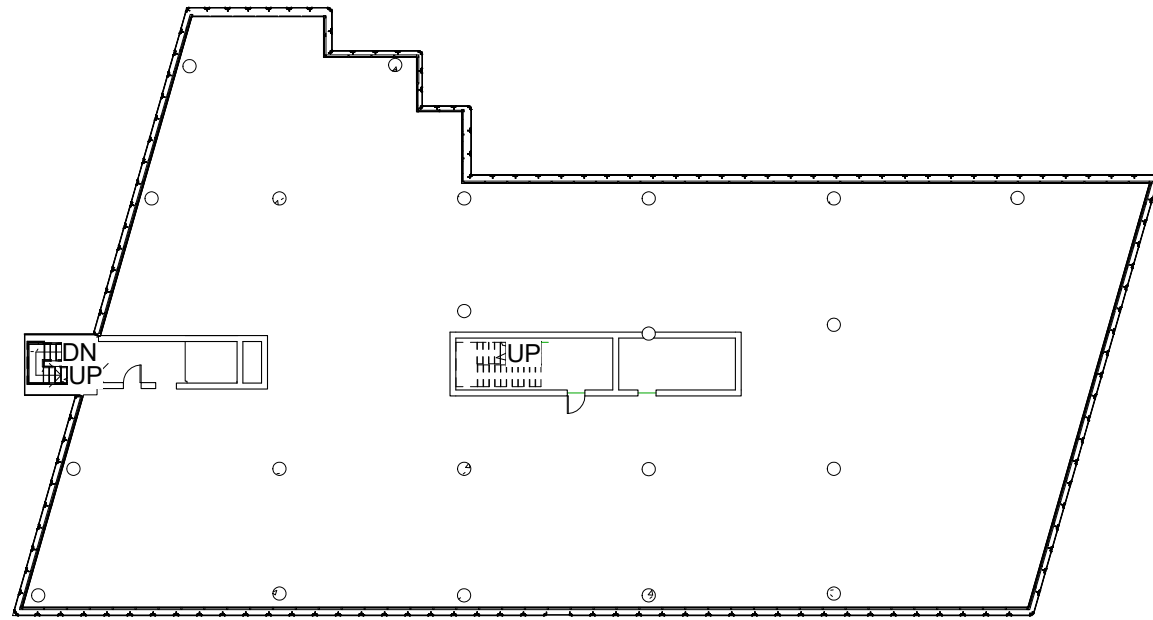


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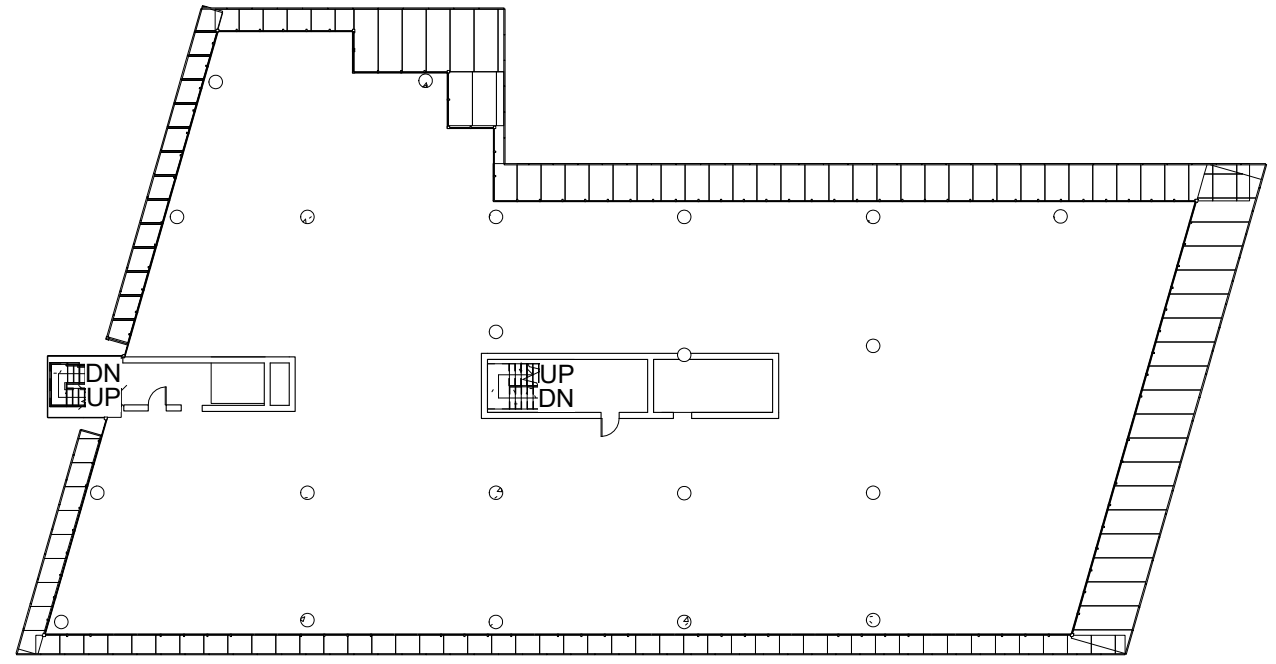


2 FIRST FLOOR PLAN 1/32" = 1"



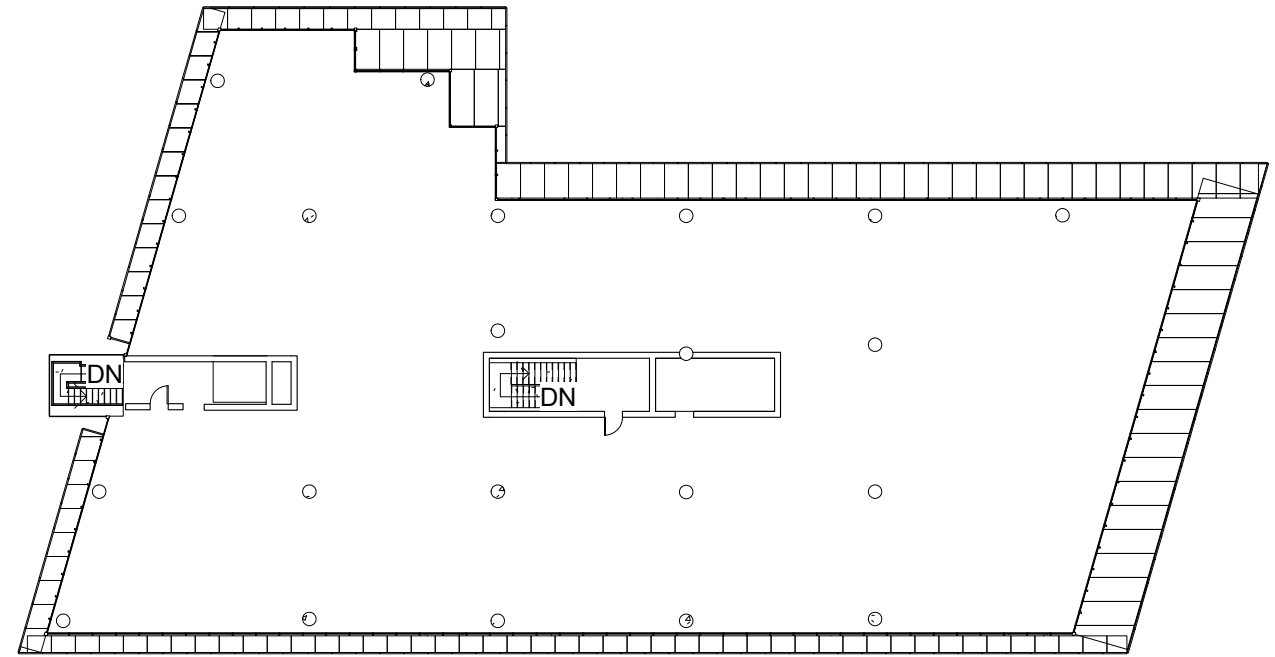
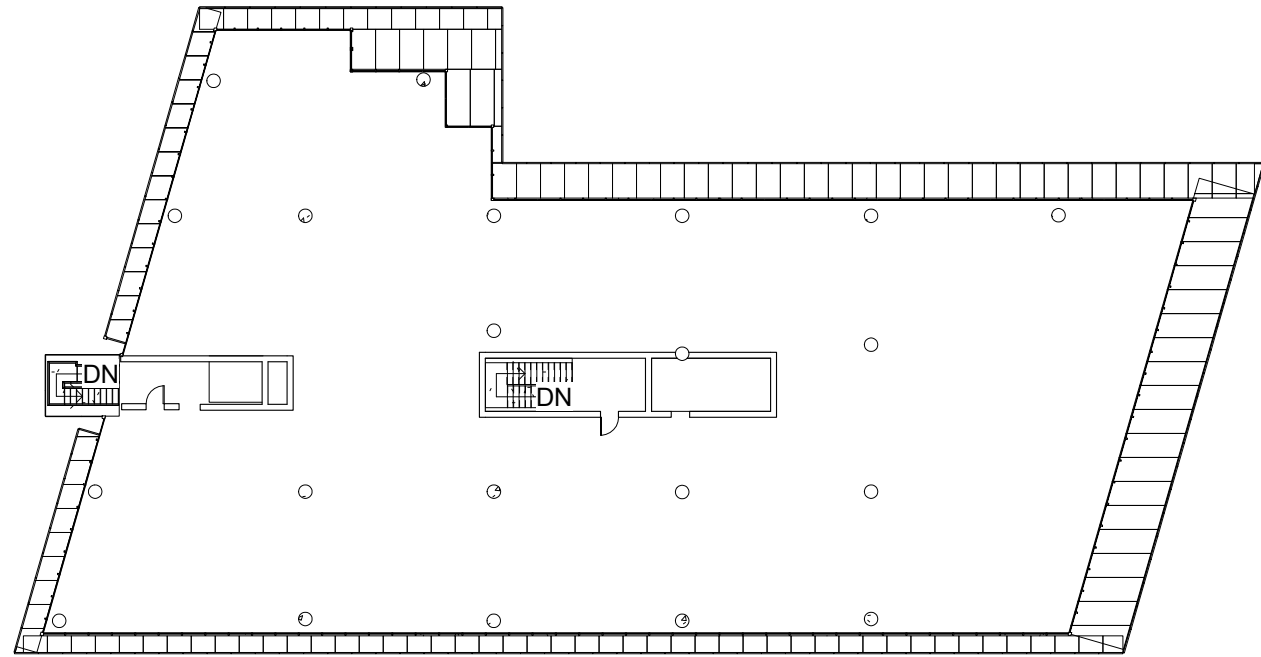


3 SECOND FLOOR PLAN 1/32" = 1"



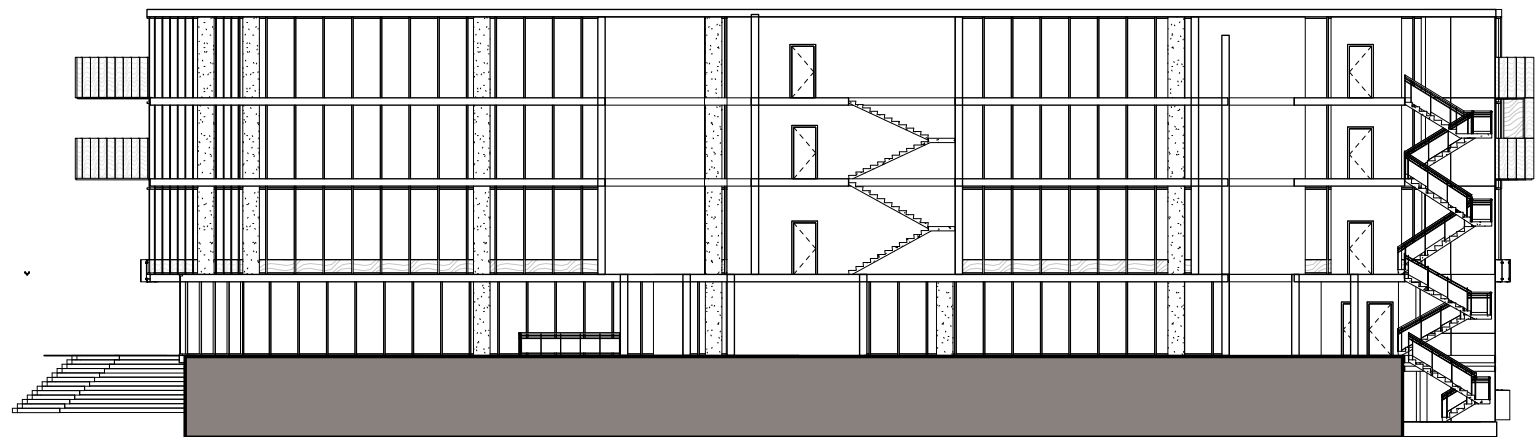
4 THIRD FLOOR PLAN 1/32" = 1"



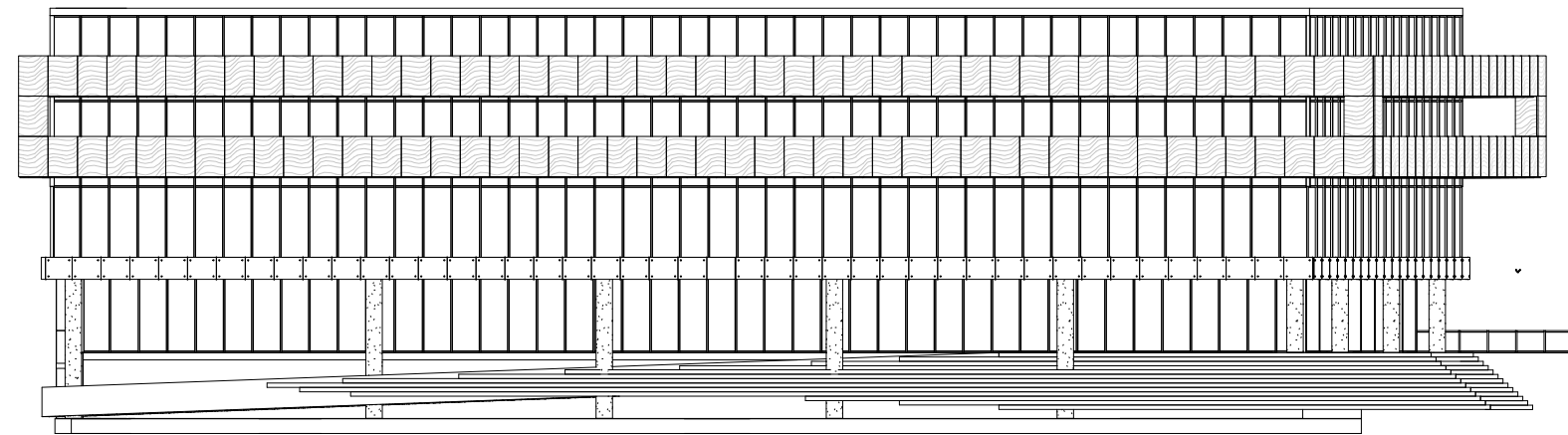
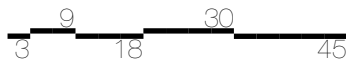


5 **FOURTH FLOOR PLAN** 1/32" = 1" z  

6 **FIFTH FLOOR PLAN** 1/32" = 1" z  

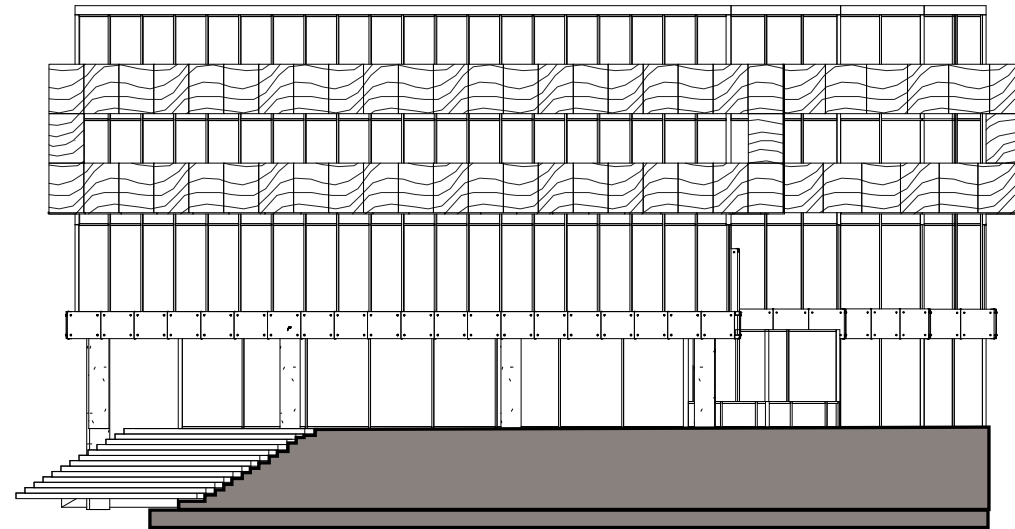


1 EAST SECTION 3/64" = 1"



2 WEST ELEVATION 3/64" = 1"

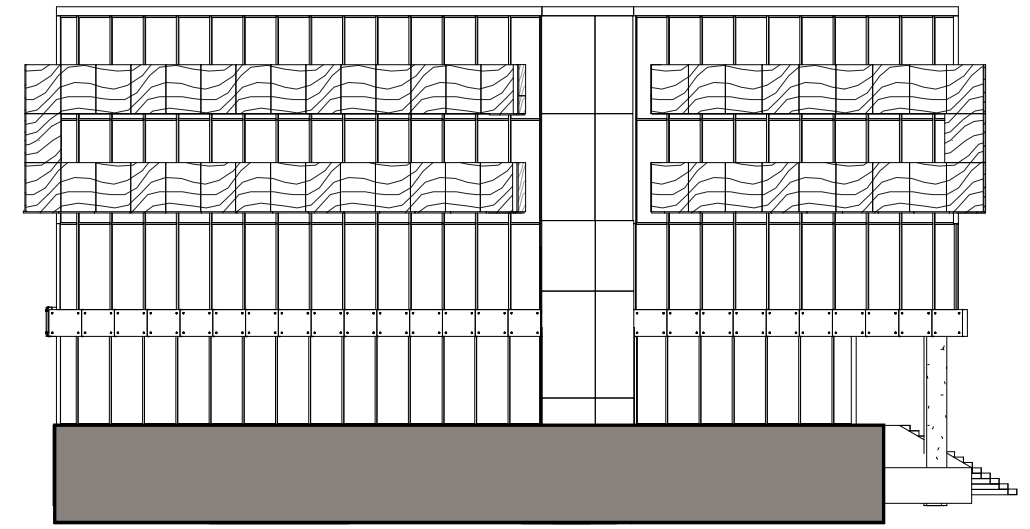
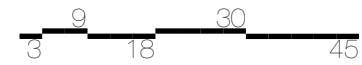




3

NORTH ELEVATION

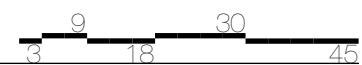
3/64" = 1"

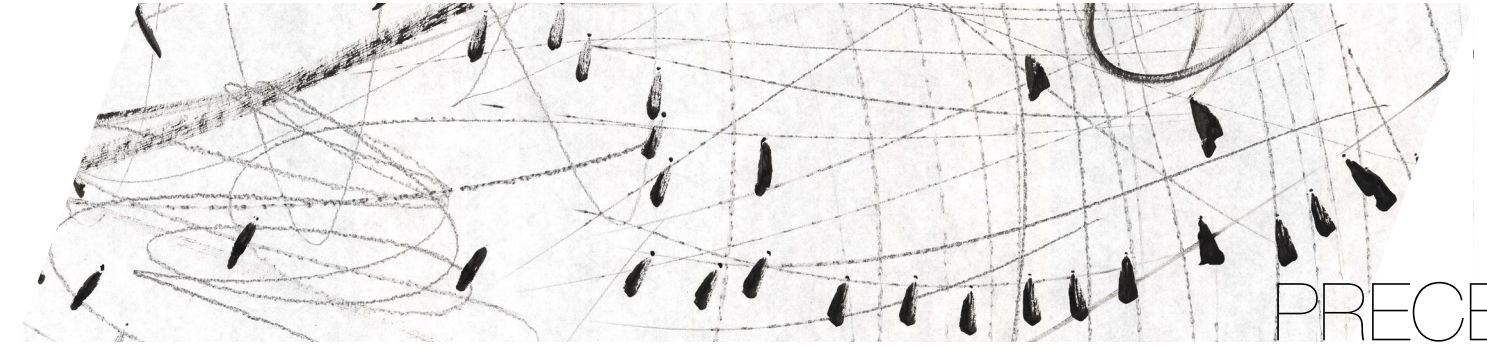


4

SOUTH ELEVATION

3/64" = 1"





PRECEDENTS

sunbeams music centre

location

Penrith, United Kingdom

use

Music therapy for disabilities

year built

2016

architect

MawsonKerr Architects

Sunbeams music center provides community music to children and adults with disabilities such as autism, down syndrome, and sensory impairments. The primary motivation for choosing this building is due to its design strategy. The design is intended to embody musical qualities of rhythm, timbre and melody within the landscape. The architecture brings together nature, contemporary vernacular and musical activity.

Three major goals of the building were to provide music therapy, in acoustically treated spaces designed for group and individual therapy sessions for individuals with autism and other neuro diversities. The project also has strong sustainable agenda. A 6,458 square foot facility is predominantly all naturally ventilated, naturally lit, and heating provided by ground source heat pump.



toho gakuen music school

location

Chofu, Japan

use

music college

year built

2014

architect

Nikken Sekkei

The Toho Gakuen Music School was selected as a study primarily for its acoustic properties while utilizing a glass facade. Due to the superfluous consciousness of ambient noise and sound insulation, several music colleges employ a style in which the exterior appears as a closed box and lesson rooms are lined up along corridors in an institutional manner.

This facility provides a porous appearance to the interior by exposing the volume of lesson rooms to the exterior with small courtyard like spaces between neighboring lesson rooms. This arrangement allows for a connectivity to other students by employing glass and providing sound insulation simultaneously.



advance special needs education center

location

Qattameya, Cairo

use

Education Facility

year built

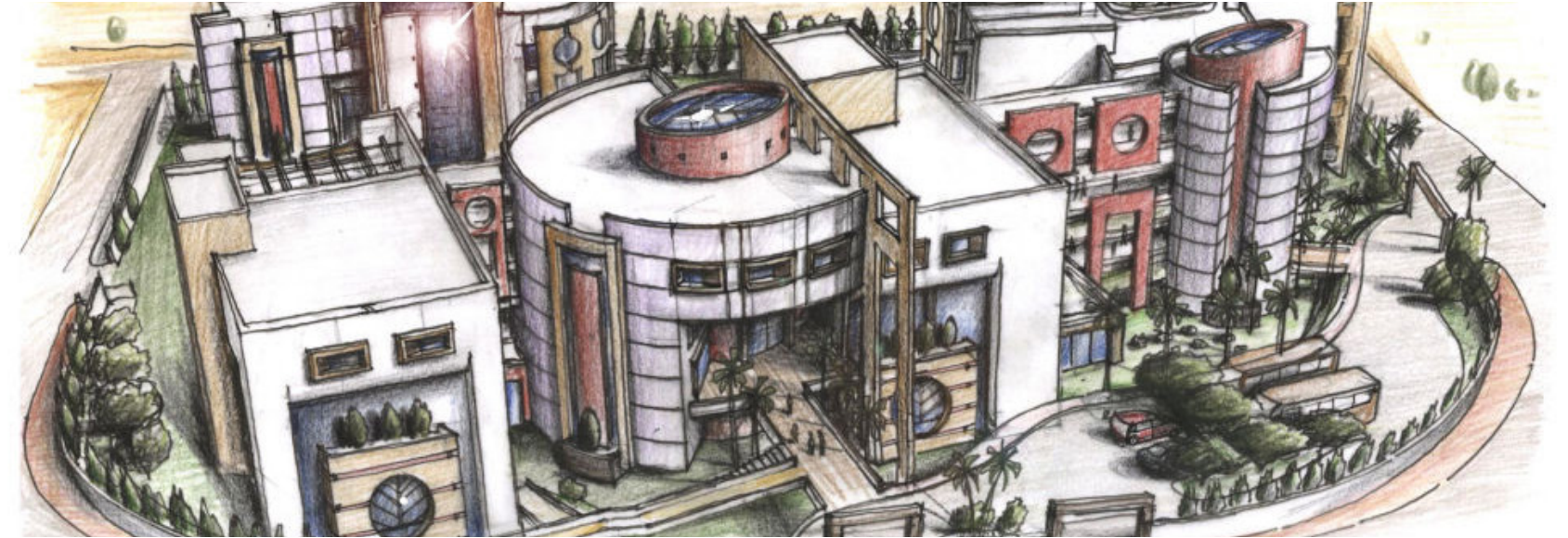
2010

architect

Ashraf Tawfid
Magda Mostafa

Advance Special Needs Education Center is the first building to apply sensory design theory published by Magda Mostafa. Building on the premise of architecture as a sensory environment and a source of controllable stimulation-spatial organization, acoustics, texture, color, pattern and lighting. The architect translates this evidence based on research into a conducive environment for children with autism.

Concepts such as sensory zoning, spatial sequencing, compartmentalization, transitional sensory space and graduated acoustical treatment with escape spaces are utilized to serve 100 students and 200 teachers and staff.



new struan autism center

location

Aloa, Scotland

use

Education Facility

year built

2005

architect

Aitken Turnbull
Magda Mostafa

New Struan is the most advanced centre in the world for education of children with autism.

The 'gull wing' roof has been developed to encourage as much natural light as possible into the building. The pointed center of the 'gull wing' forms a glazed atrium that runs the length of the buildings and floods the space with brilliant sunlight. Seven classrooms are located on either side of the atrium, each incorporating floor-to-ceiling windows with a brise-soleil to diffuse direct sunlight. Color-coded doors lead to an external play area and allow pupils to easily remember which classroom to return to.



reed academy

location

Oakland, NJ

use

School for Autistic Children

year built

2011

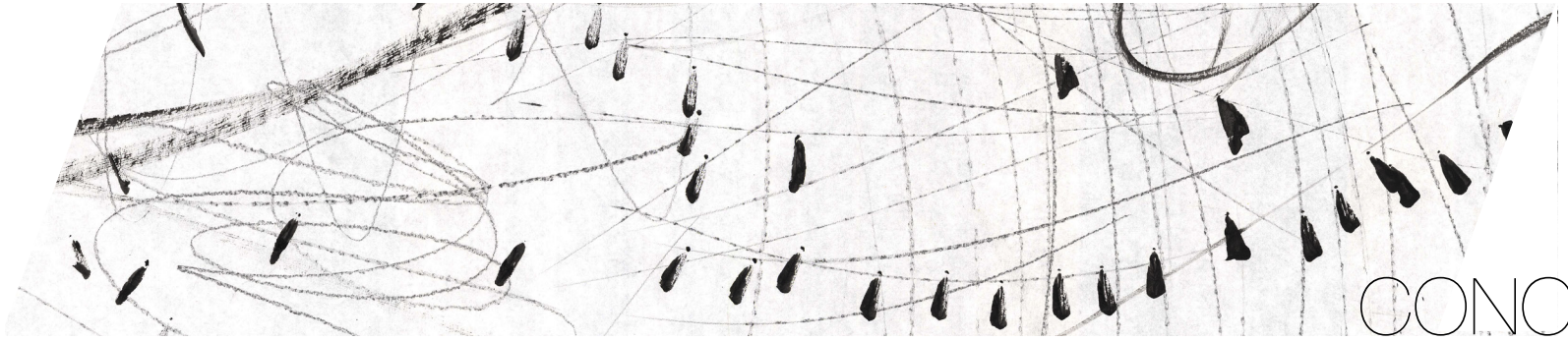
architect

WXY Studio

The design of REED Academy builds on the idea of the environment as a teacher and encourages productive relationships between built space and pedagogical technique. To meet the unique requirements of teaching people with Autism Spectrum Disorders, the building itself acts a learning tool through which students can acquire life skills and job training above and beyond academic learning.

The school is conceptually based on an "interior street" that wraps around a central Multipurpose room serving as the heart of the building. Along each interior street are alcoves where students can set up stations to learn communication and other life skills through modeling and play techniques. The communal spaces are equipped with tackable surfaces to display student work.





CONCEPT

sound of systems

The concept is based on the harmonic proportions of a vibrating string. An octave is an interval between two notes. As per the Greek philosopher and mathematician Pythagoras, musical intervals have the quality to create connections to pattern structure and order. The harmonic proportions consist of an octave ($1/2$) of a fundamental (whole string), $2/3$, $3/4$, $4/5$ and $5/6$ th of the string. Based on this concept, This project explores a system of visualizing these harmonic divisions in a space that can cater to children with autism who have increased sound sensitivity. This systematic division of string is incorporated in variation of ceiling height for children on various different spectrum of autism. The systematic approach is based on the noise sensitivity levels of children on spectrum and sound reverberation levels of room size. In addition, the orderly approach takes into account color preference and light sensitivity levels of individuals with ASD.



This series is exploring the harmonic proportions. Each model is based on proportions of $1/2$, $2/3$, $3/4$, and $4/5$ of an fundamental (1) note. Two different materials are utilized to observe the interplay of materials with one another.

poem

notes of silence

Chaos humming in my head
 Can you hear it?? No, you only see it.
 You see it in the flapping of my hands, which I see as my wings.
 You see a garden for a morning stroll, while my mind sees a jungle with the path obscured.
 You hear a breeze as it gently goes by,
 While I hear a violent thunderstorm ready to seize me into the dark sky.
 I see beauty in the details of life,
 unveiling its essence in numerical orders, patterns, and science.
 My syntax is composed of its own internal rhyme, and my tongue its own instrument,
 repeating and echoing words and chimes.
 You say I lack empathy, but you judge, and dissect myriad parts of me.
 I am not a checklist of deficits, disorders, and abnormalities;
 I perceive the world differently.
 My reality is subject to the imagination.
 All these layers of me create a beautiful symphony.
 Don't sympathize with me,
 But, understand and accept these musical layers of me.

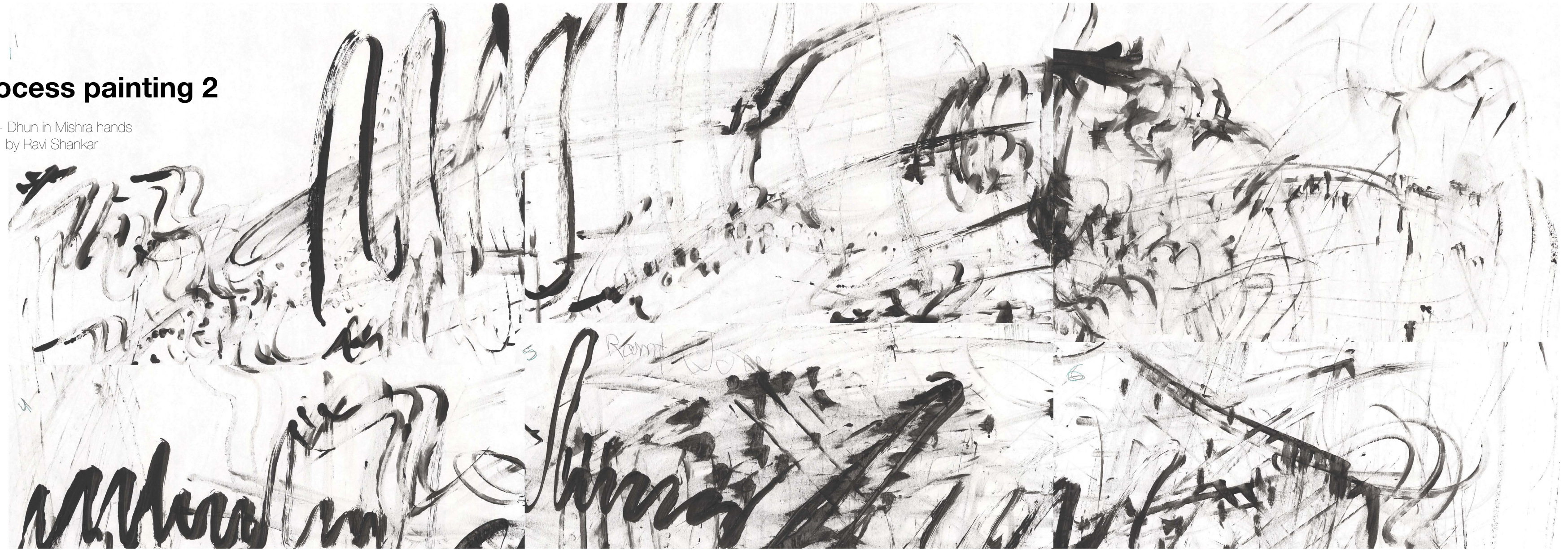
process painting 1

song - Fire Night
 by Ravi Shankar



process painting 2

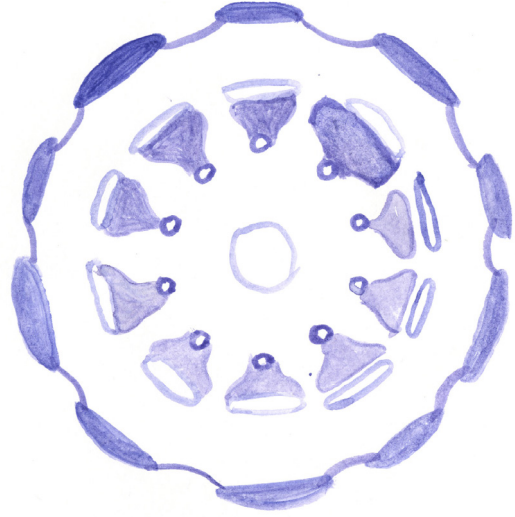
song - Dhun in Mishra hands
by Ravi Shankar



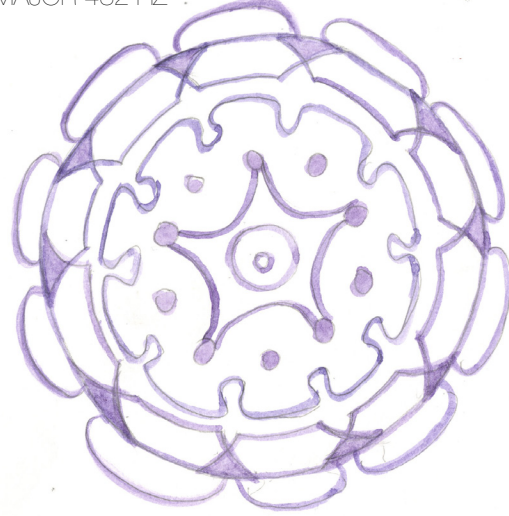
sound vibrations of notes A0 to G1 at 432 Hz

concept / 42

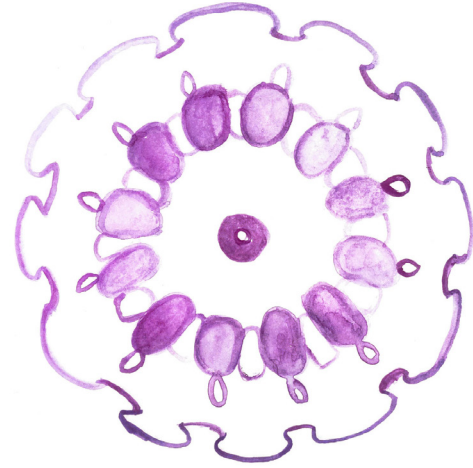
A0 432 HZ



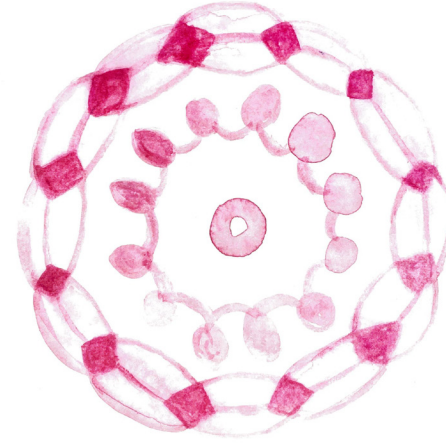
A0 MAJOR 432 HZ



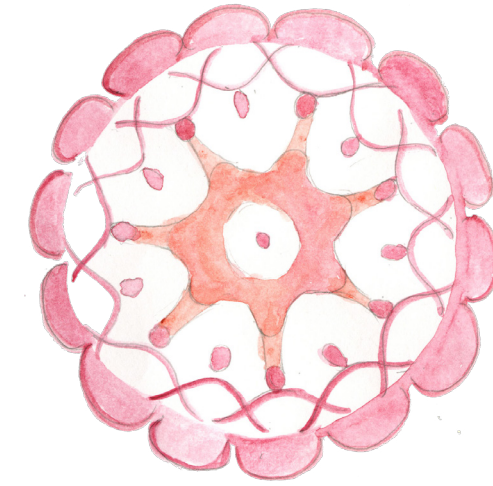
B0 432 HZ



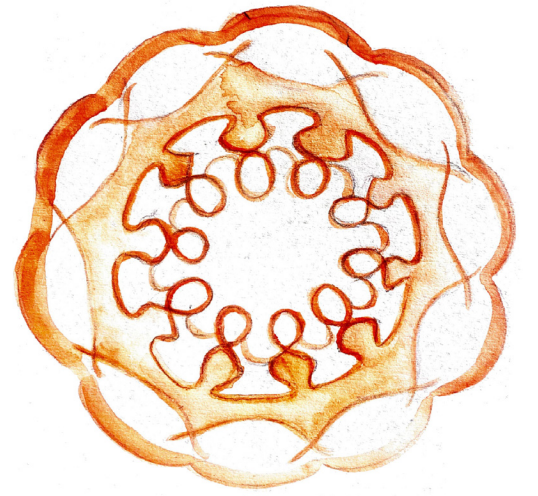
C1 432 HZ



C1 MAJOR 432 HZ

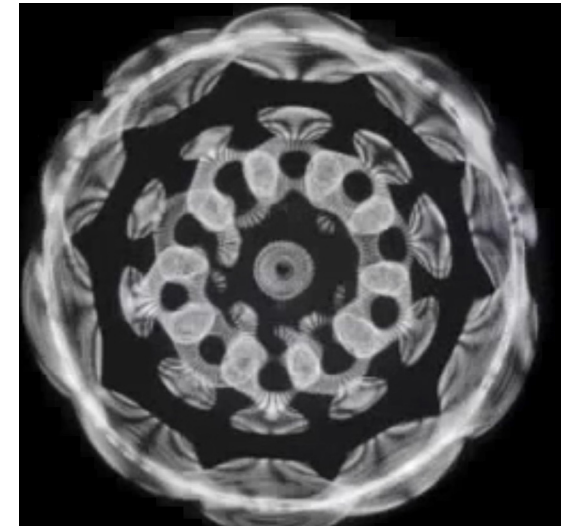
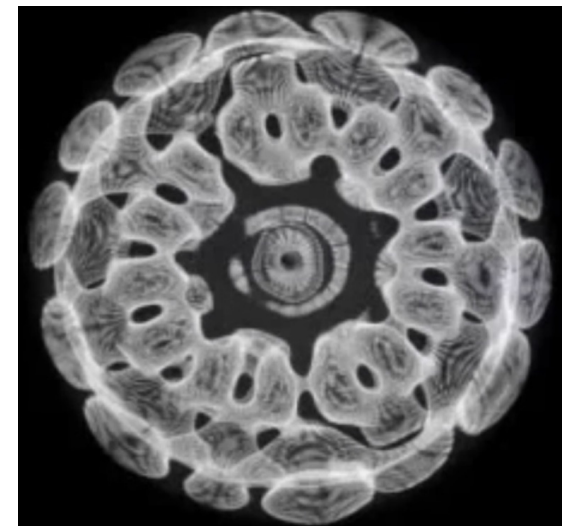
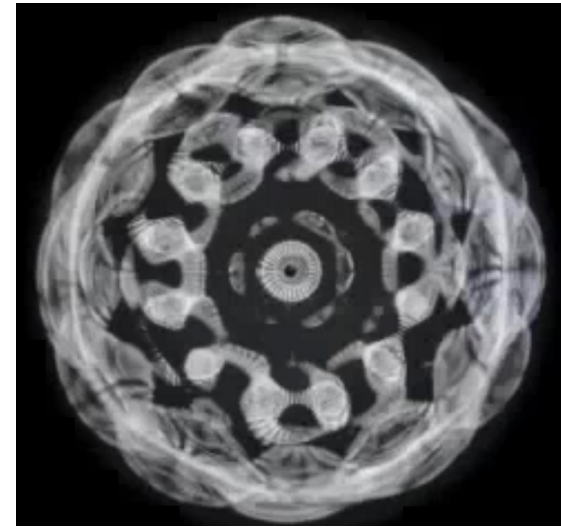
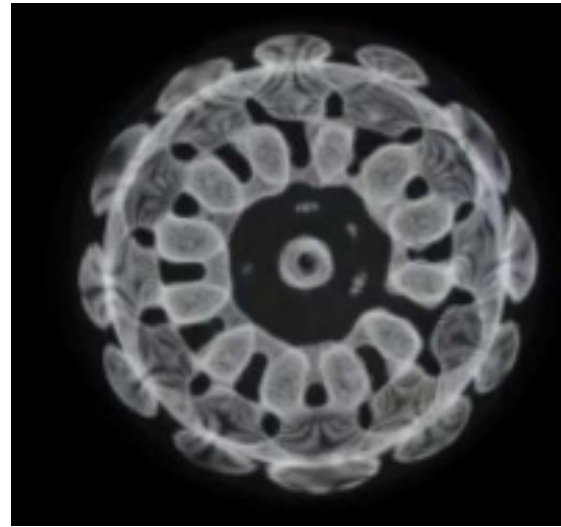
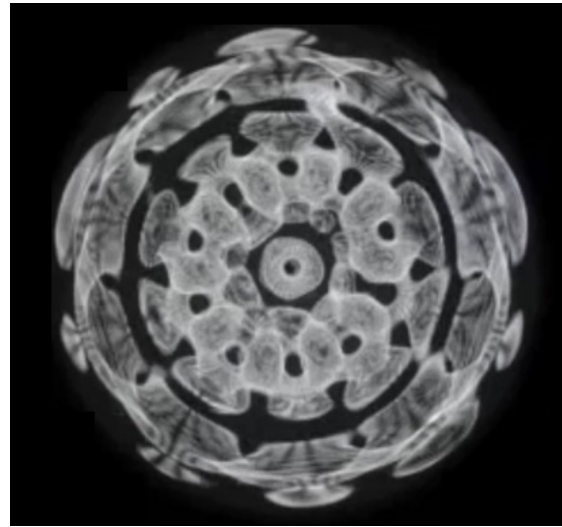
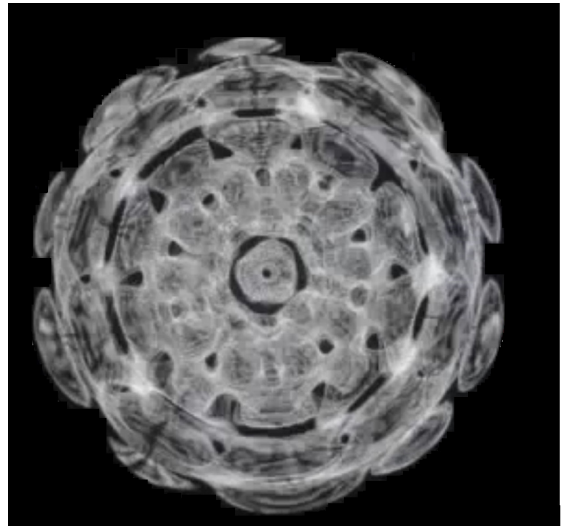


D1 432 HZ

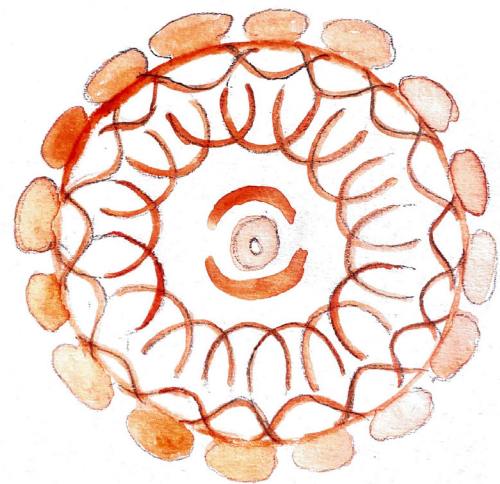


concept / 43

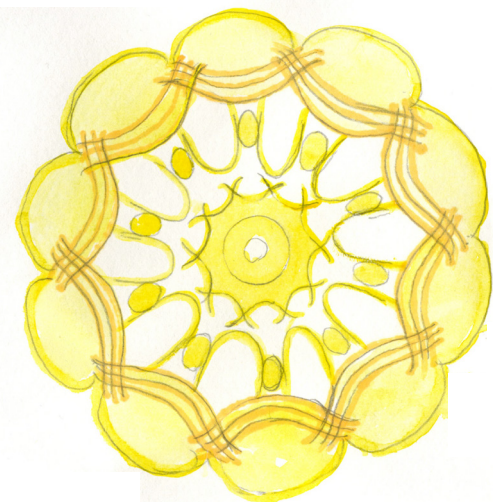
This series uses a CymaScope to explore sound vibration of piano notes from A0 to G the 12 the musical notes. Patterns were generated via watercolors using Newton's color theory of musical notes.



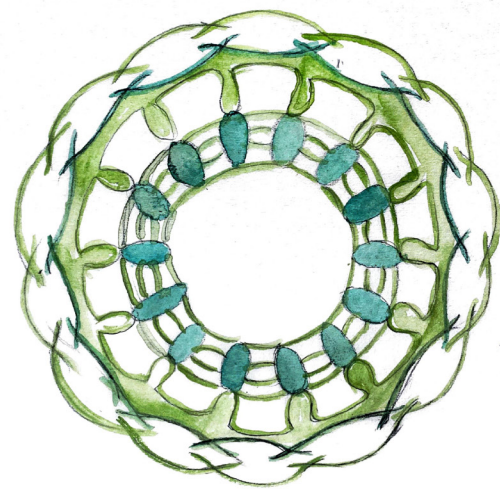
D1 MAJOR 432 HZ



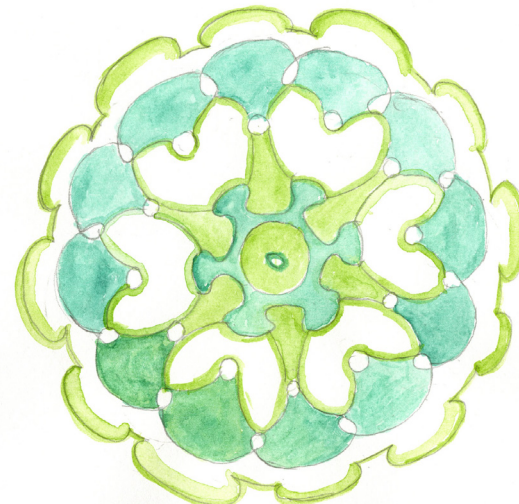
E1 MAJOR 432 HZ



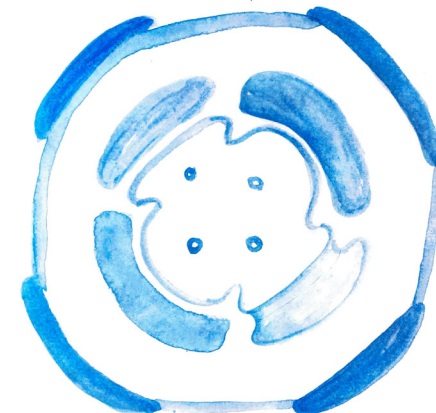
F1 432 HZ



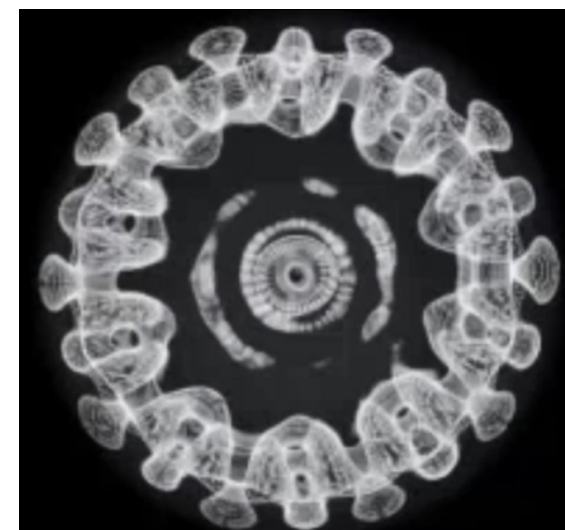
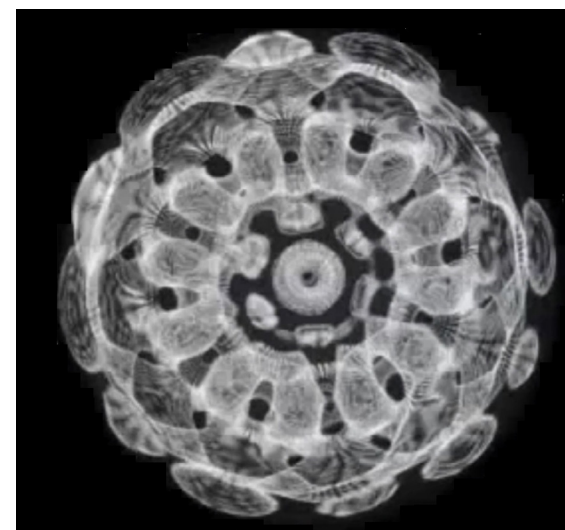
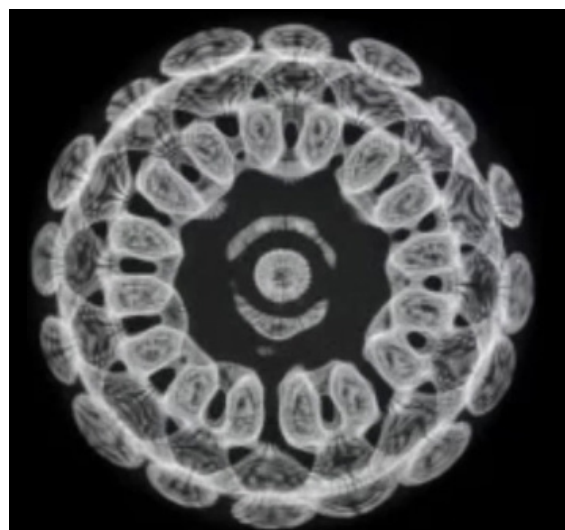
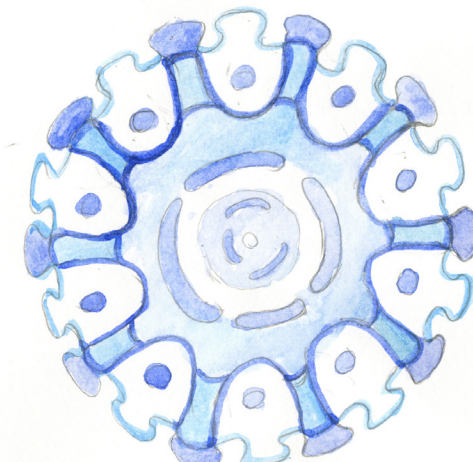
F1 MAJOR 432 HZ

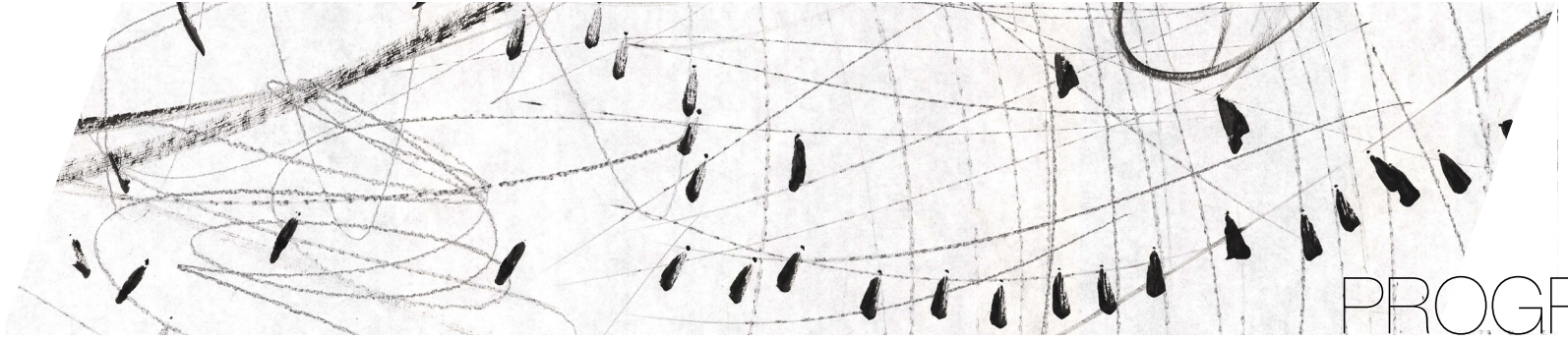


G MAJOR 432 HZ



G1 MAJOR 432 HZ





PROGRAM

overall program

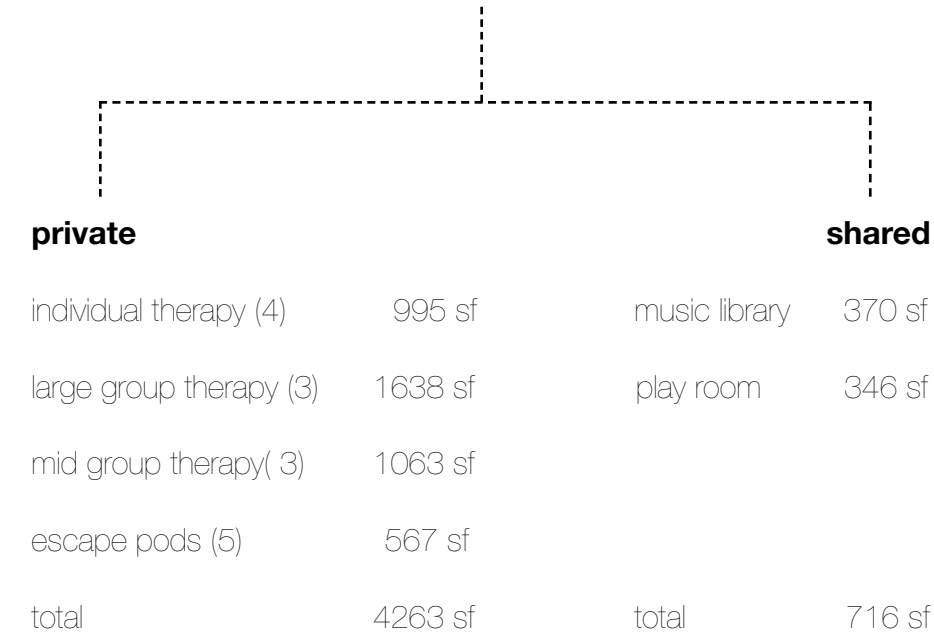
This music therapy center is made of three components

1. **staff offices**
2. **primary user rooms**
 - therapy rooms
 - escape rooms
 - music library
 - play room
3. **support services**
 - kitchenette,
 - storage
 - reception
 - audio control

staff offices
1279 sf (15.60%)

primary user rooms
4979 sf (60.60%)

support
2024 sf (24.62%)



open space
5418 sf (40%)

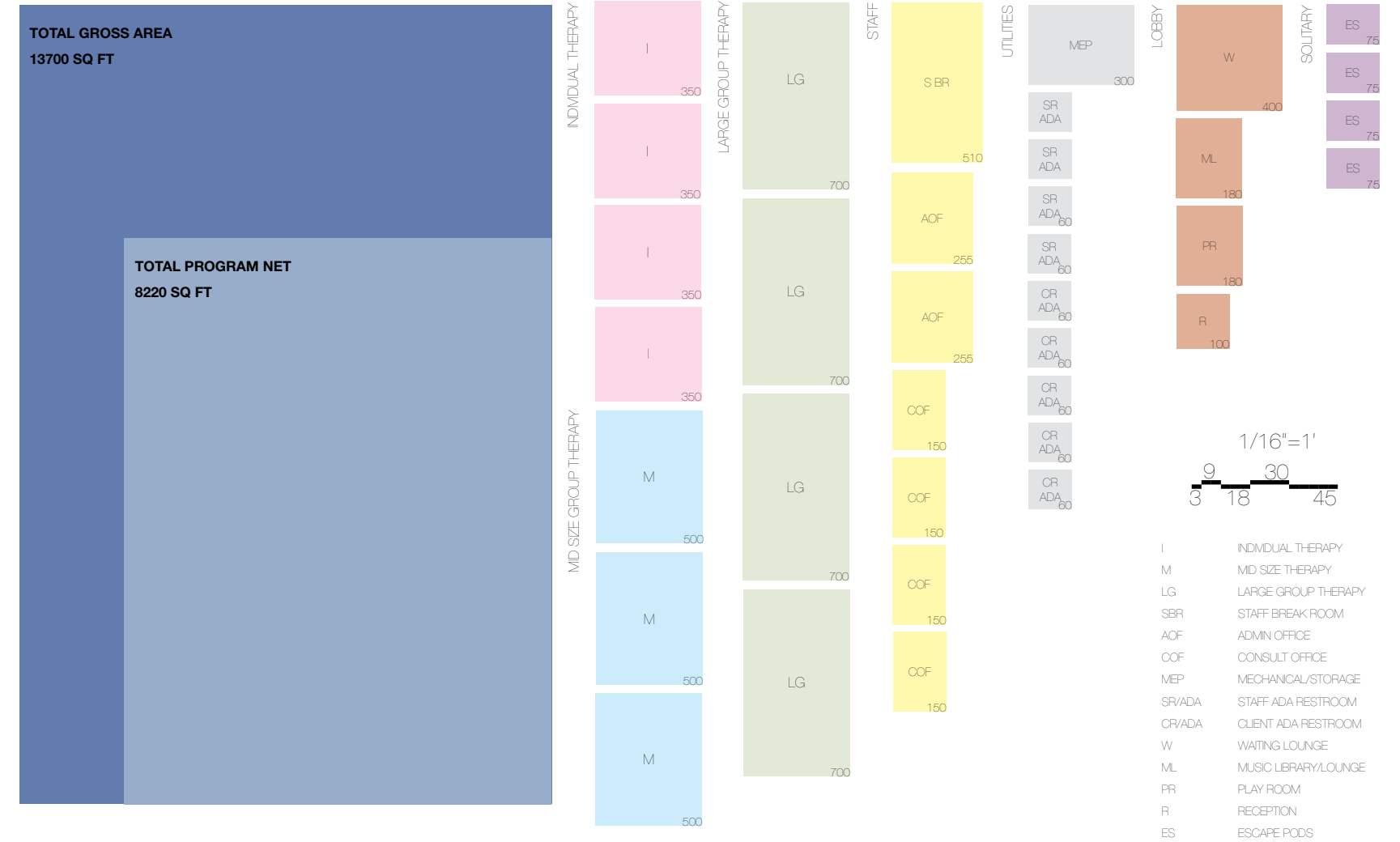
- kitchenette 734 sf
- storage 174 sf
- reception 871 sf
- audio control room 183 sf

criteria matrix

ADJACENCIES		SQ FOOTAGE	SO FOOTAGE	PRIVACY	ACOUSTIC	DAYLIGHT/VIEW	ACCESSIBILITY	PLUMBING	SPECIAL EQUIP	FR&E + NOTES
	RECEPTION	100	○	●	Y	Y	N	N		DUAL HEIGHT COUNTER, SIGNAGE
	WAITING	400	○	●	Y	Y	N	N		WAYFINDING/ SIGNAGE, LOUNGE SEATING,
	MUSIC LIBRARY	180	○	○	N	Y	N	Y		SHELVING, VINYL PLAYER
	PLAY ROOM	180	○	●	N	Y	N	Y		NETTING PLAY AREA
	STAFF BREAK ROOM	510	◐	◐	NR	Y	Y	Y		KITCHENNETTE , LOUNGE SEATING, DINING FURNITURE
	ADMIN OFFICE (2)	510	●	○	Y	Y	N	N		TASK CHAIR, TABLE, GUEST SEATING
	CONSULT OFFICE (4)	600	●	○	Y	Y	N	N		TASK CHAIR, TABLE, GUEST SEATING
	STAFF BATHROOM(4)	240	●	●	N	Y	Y	N		TOILET, SINK+FAUCET
	INDIVIDUAL THERAPY(4)	1400	●	○	Y	Y	N	Y		MUSIC INSTRUMENTS, SEATING , SPEAKERS
	LARGE GROUP THERAPY(4)	2800	●	●	Y	Y	N	Y		MUSIC INSTRUMENTS, SEATING, SPEAKERS
	MID SIZE GROUP THERAPY(3)	1500	●	◐	Y	Y	N	Y		MUSIC INSTRUMENTS, SEATING, SPEAKERS
	ESCAPE PODS (4)	300	●	○	NR	Y	N	N		SOUNDPROOF PODS
	CLIENT BATHROOM (4)	240	●	●	N	Y	Y	N		TOILET, SINK+FAUCET
	MEP	150	●	○	N	NR	N	Y		MECHANICAL/ELECTRICAL EQUIPMENT
	STORAGE	150	●	○	N	NR	N	Y		UTILITY SINK , STORAGE SHELVING

- LEGEND
- HIGH
 - ◐ MEDIUM
 - LOW
 - Y YES
 - N NO
 - NR NOT REQ

graphic program



program areas



HYPO SENSITIVE

Children are under sensitive to sensory information, These children seek out sensory experiences. They prefer brighter lights, louder noises.

Activities : Group activities such as singing, playing an instrument, synchronous movements, clapping and walking to music.

Group size : 10-12



HYPER/HYPO SENSITIVE

As students make progress, in either high or low stimulus spectrum, they will gradually transition to moderate stimulus therapy room where they can learn to interact with one another This avoids the bubble effect.

Activities : Small focus group activities of rhythm training, and singing.

Group Size : 3-7

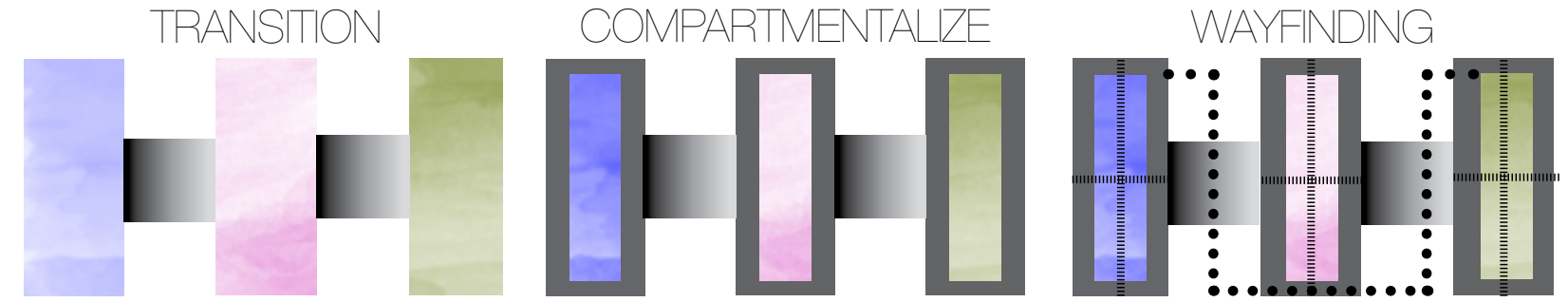


HYPER SENSITIVE

Children are over sensitive to sensory information. These children try to avoid excessive sensory experiences.

Activities: individual therapy of Tomatis Method and AAMT combined with composing a song, playing an instrument and gradually initiate small groups.

Group size - individual or (2-3 people)



Designated areas for therapy activities; Music games, Tomatis Method zone, AAMT Zone, Rhythm Training

Minor zones within major zones allows for greater level of concentration.

Acoustic reverberation levels and lighting levels changes within compartments

High Stimulus - high reverberation time (1.5-2 secs) and low absorption coefficient (0 to .5)
Low Stimulus - Low Reverberation time (1 or less) and high absorption coefficient (.5-.80)

Change in level of acoustic and lighting to avoid bubbling effect in either high or low stimulus zones

Some factors to keep in mind when developing the transition zones are green walls, ambient white noise, transition from bright to mild colors and light play connecting the high, mid and low stimulus zones.

This allows the user to get themselves acquainted prior to entering the main sensory zoning area that fits their sensitivities.

Location: Entrance juncture and corridors

Primary path - one way major circulation to avoid confusion and anxiety connecting high, moderate and low stimulus zones.

Clarity of pathway is achieved via continuous single material for primary path and another material for secondary pathways.

Secondary pathways connecting the zones that are compartmentalized within the major sensory zones.

This reduces fear of large crowds in intersecting pathways as autistic children are fearful of crowds.

user analysis / informational interviews



Jacob Varghese
Age : 14

Personality traits

- Highly social
- Swimmer
- Part of Special Olympics
- Talkative
- Attends music events with his father
- Enjoys painting after school
- Attends Fairfax high school
- Highly active in community events
- Constantly looking for movement
- Has a hard time paying attention to 1 task at a time



Thomas Wagner
Age : 10

Personality traits

- Prefers bright light during daytime and hides under blanket from fluorescent light
- Initiates conversation but quickly loses interest
- Forms friendships but unable to retain them
- Becomes pre-occupied with an object such as a particular toy for long periods of time
- Prefers background noise



Amanda Clien
Age : 7

Personality traits

- Avoids aggressive cartoons
- Walks close to the walls
- Hides under blanket to avoid bright lights
- Prefers having downtime alone in quiet zone
- Closes her ears when a loud bike goes by or hears the sound of vacuum
- Does not interact with other children and share



Saji Varghese
Age : 57

- IT Director at Marriott
- Adjust to situations constantly
- Organizes events for his son to keep him occupied
- Follows a routine daily with some flexibility to avoid conflicts
- Has to take phone calls of his son no matter the circumstance
- Takes his son fishing on days he feels overwhelmed
- Gives him space to make him less dependent



Joshua Shrader, MT-BC
Age : 50

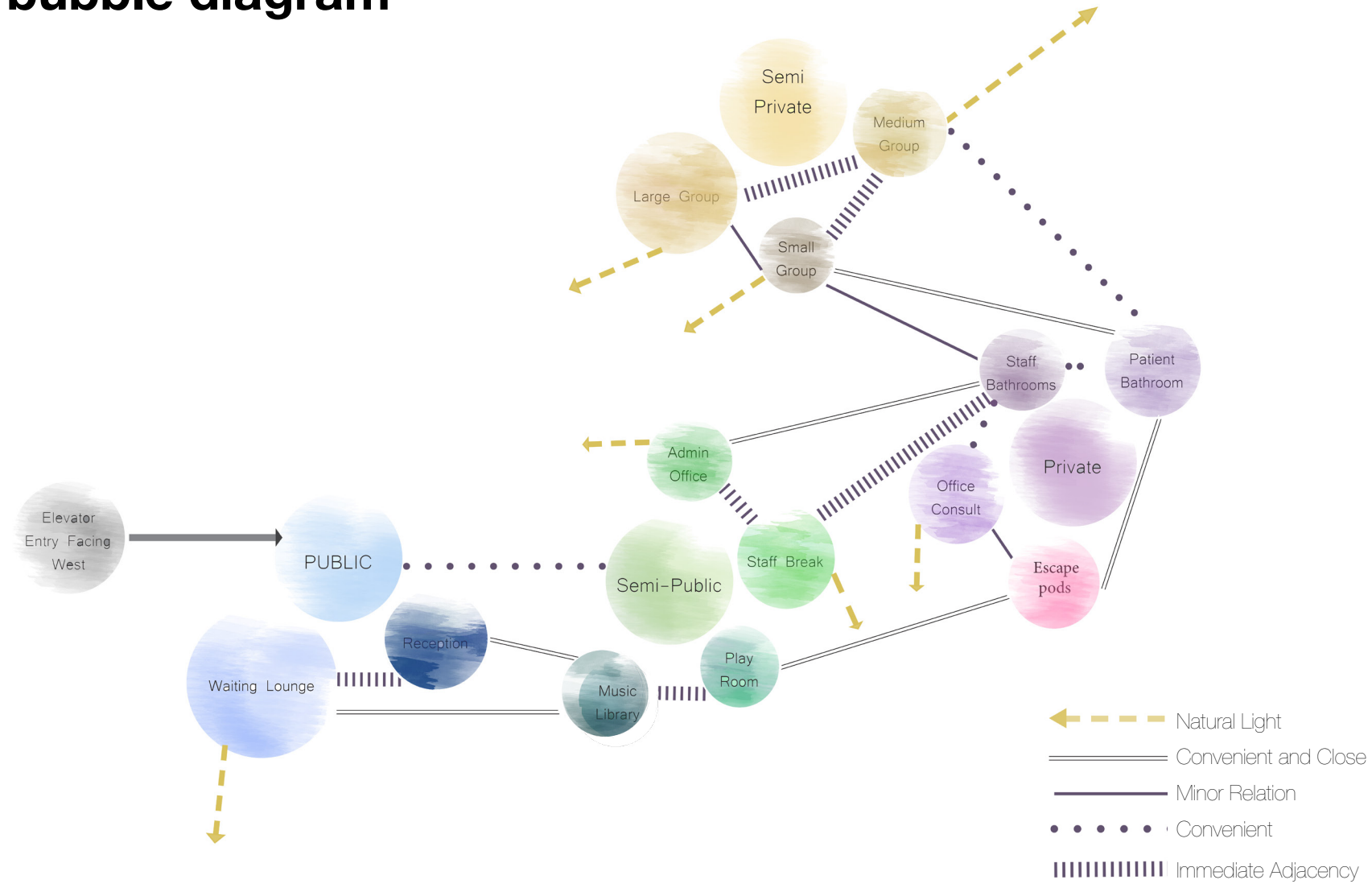
- Therapist at Capital Music Therapy
- Arrives at 7 :30 AM
- Decompresses before classes at 8:00 AM
- Sometimes brings special equipment aside from what is available in class
- Frequently researches new techniques
- Updates parents on any unforeseen circumstances
- Monitors progress on weekly basis



AMT Cleaning Company
Service since 1990

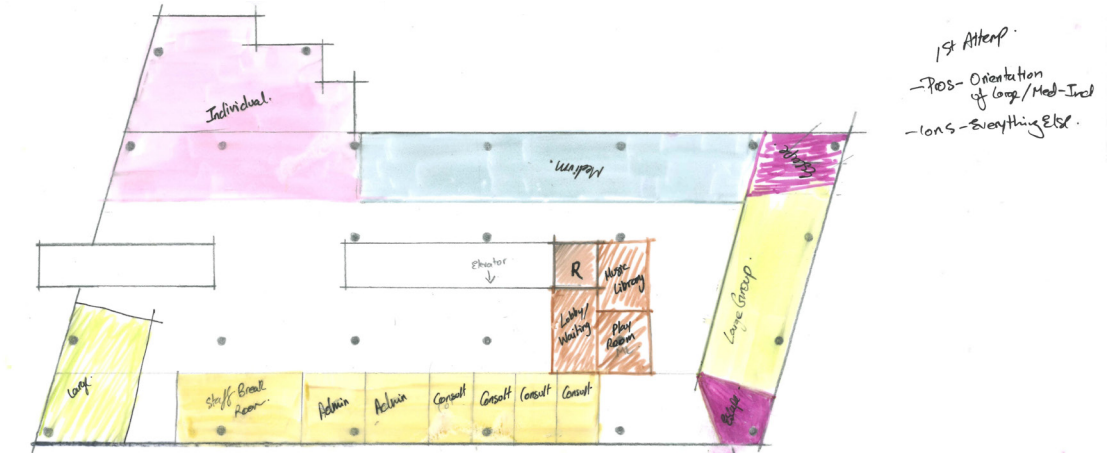
- Arrives after hours daily to clean open areas such as kitchen, reception, offices
- Does not clean music equipment
- Incorporates recycling and compost
- Does not need designated parking after hours
- Checks in and checks out time entry for security purpose

bubble diagram



space planning

iteration 1

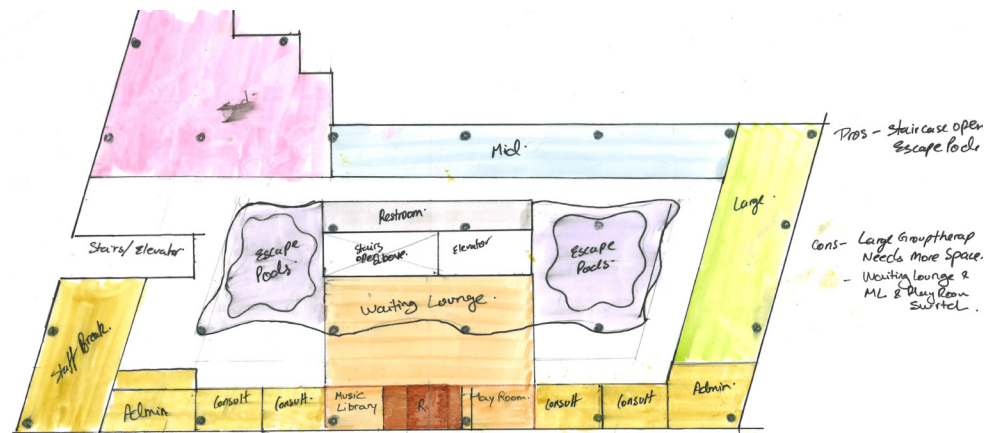


iteration 2

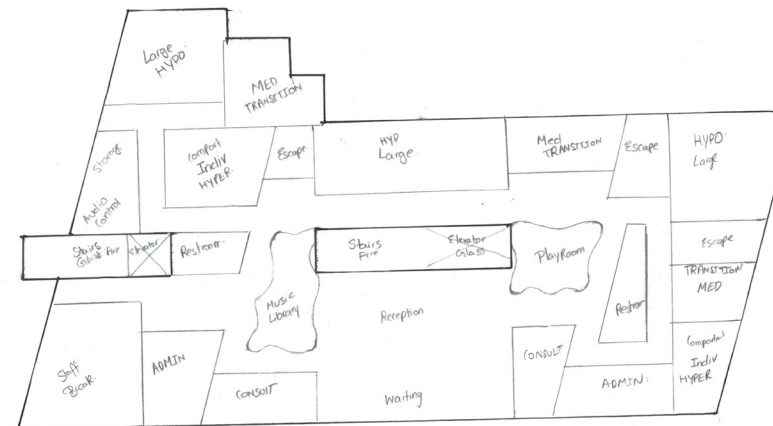


space planning cont.

iteration 3

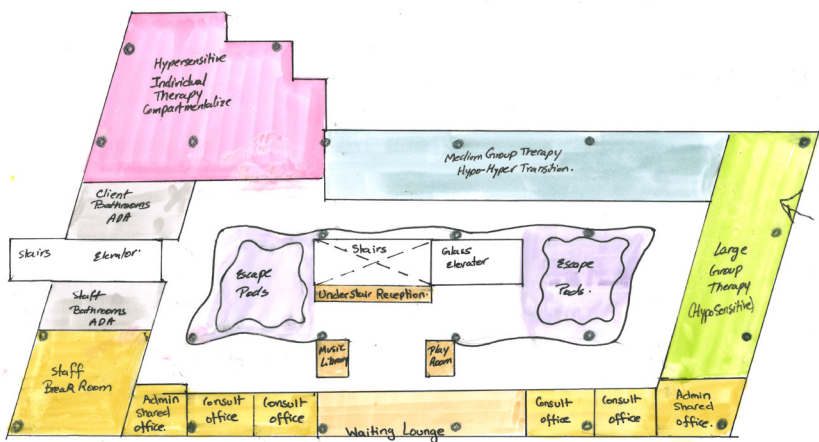


iteration 5

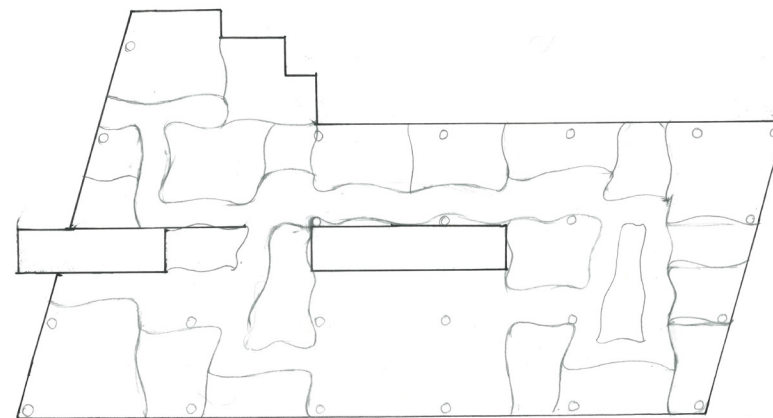


- Curving the exterior of rooms
- incorporating a way path

iteration 4



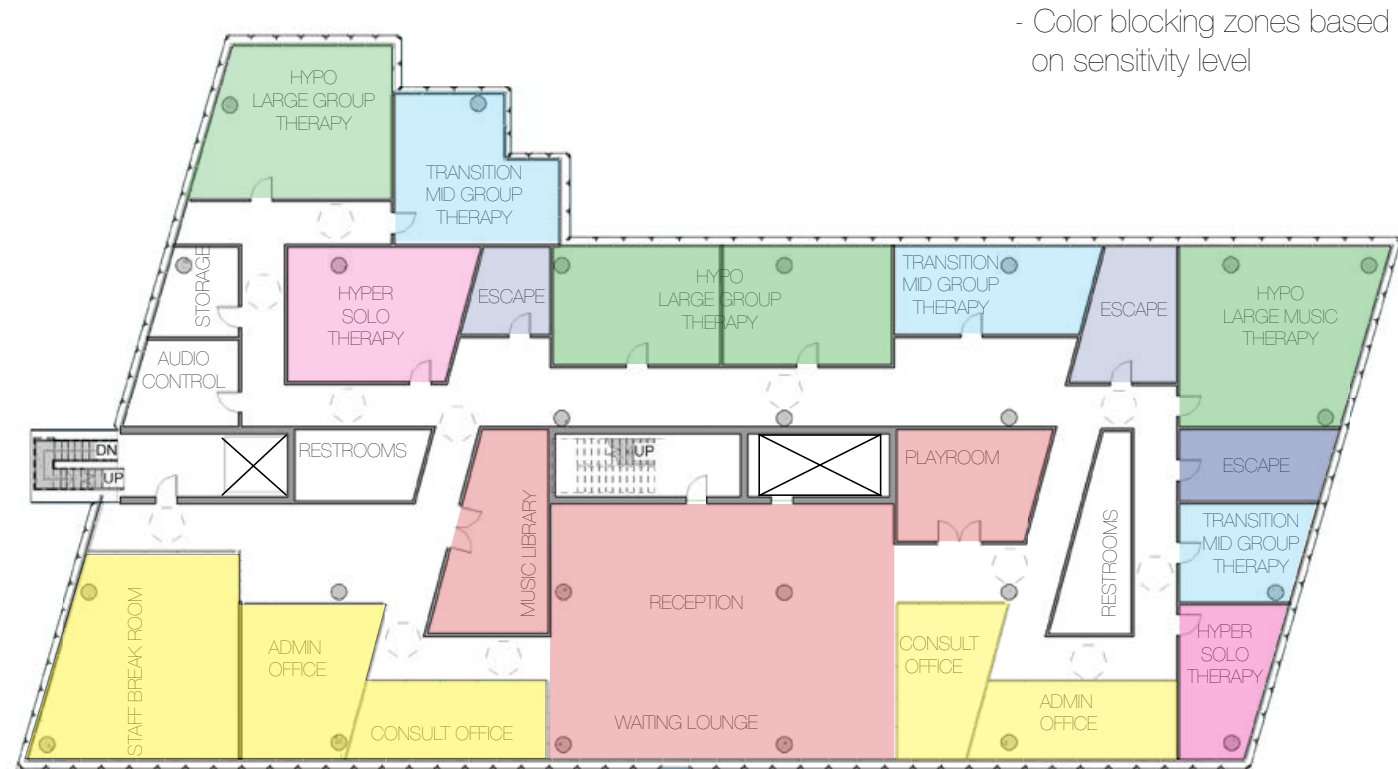
iteration 6



- Curving the library and play room only
- Providing distinction of areas

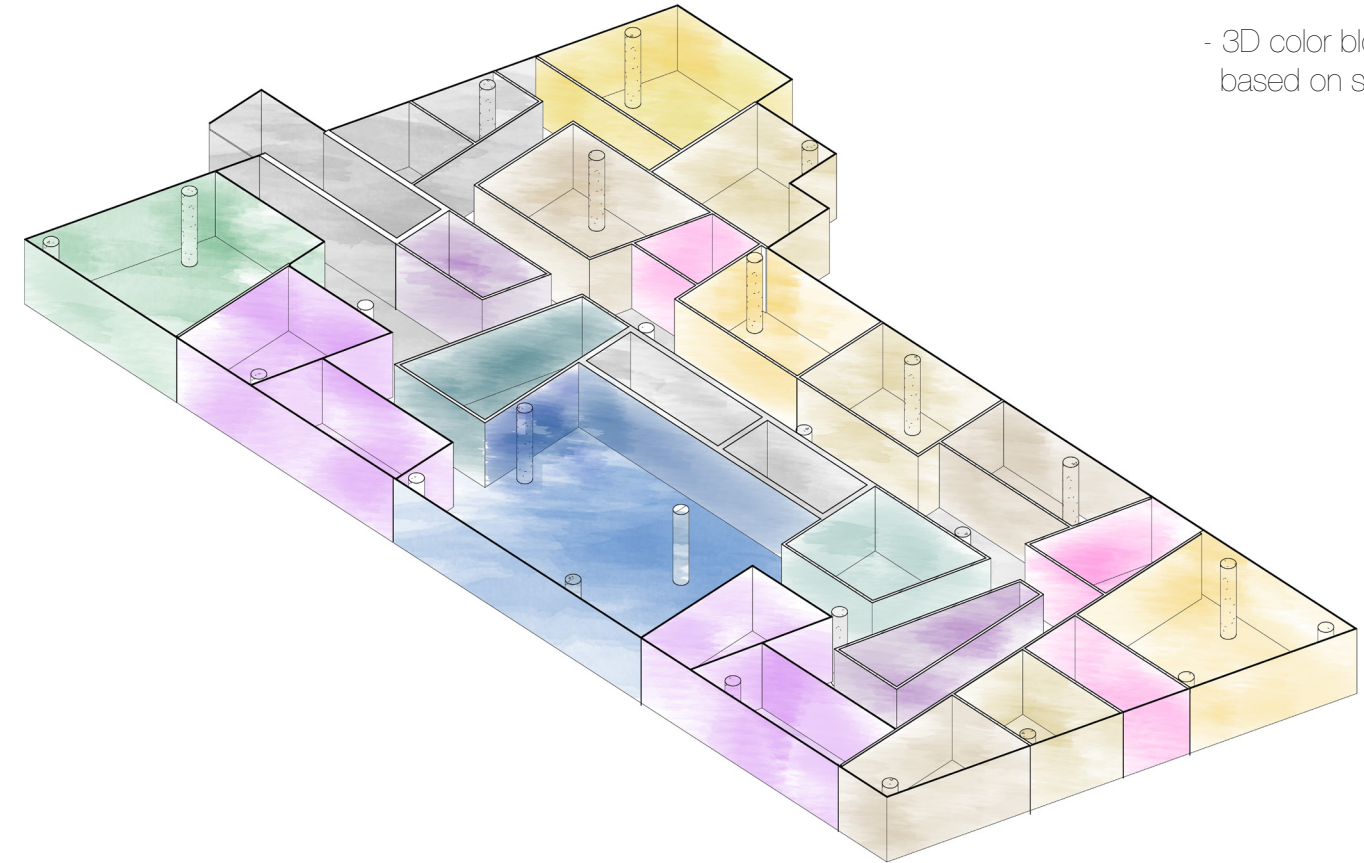
space planning cont.

iteration 7

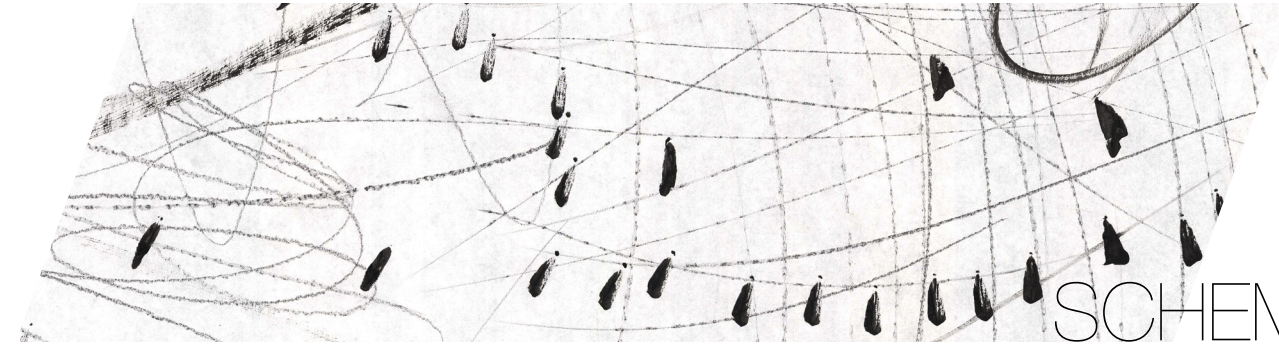


- Color blocking zones based on sensitivity level

iteration 8



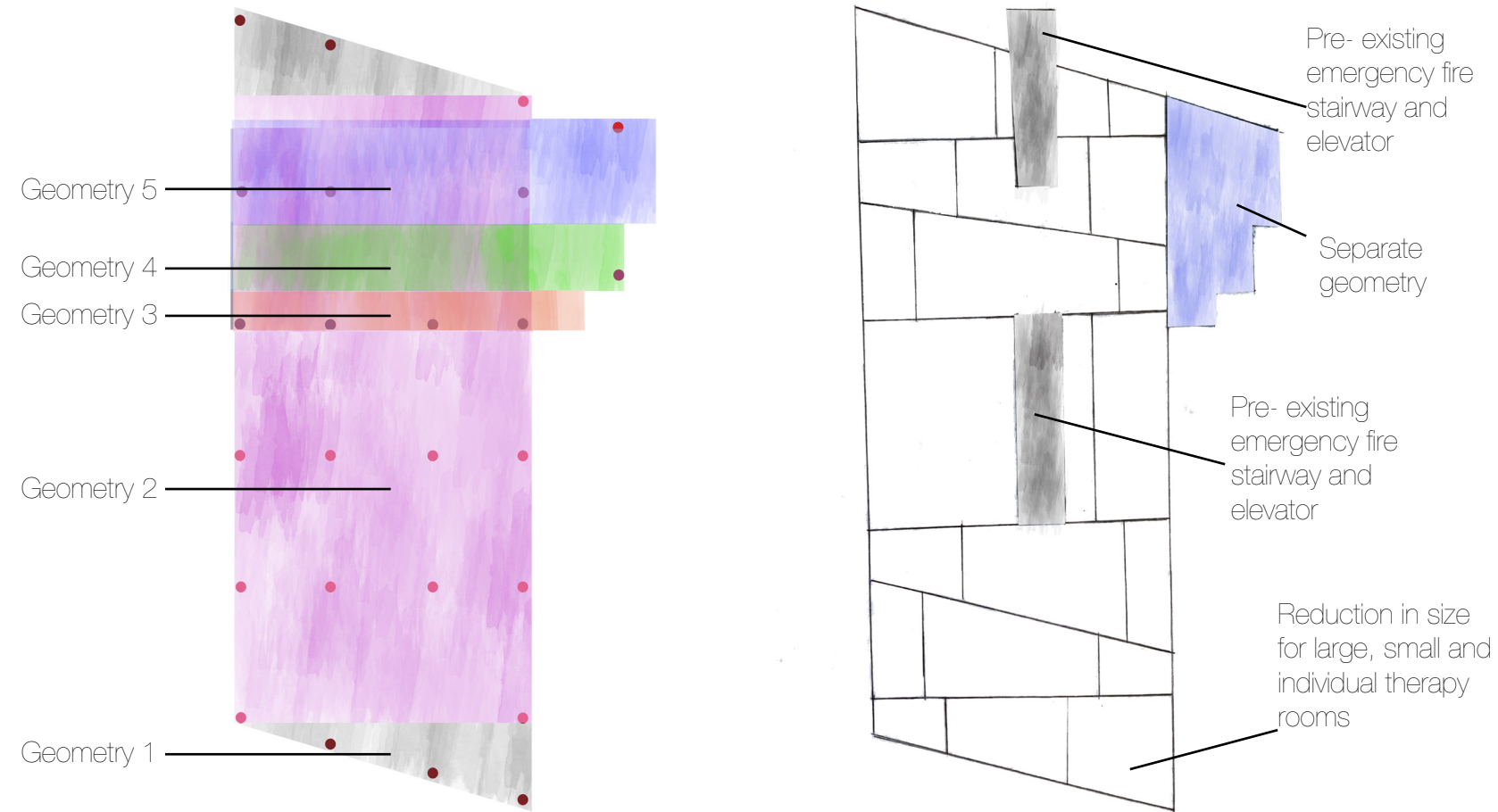
- 3D color blocking of zones based on sensitivity level



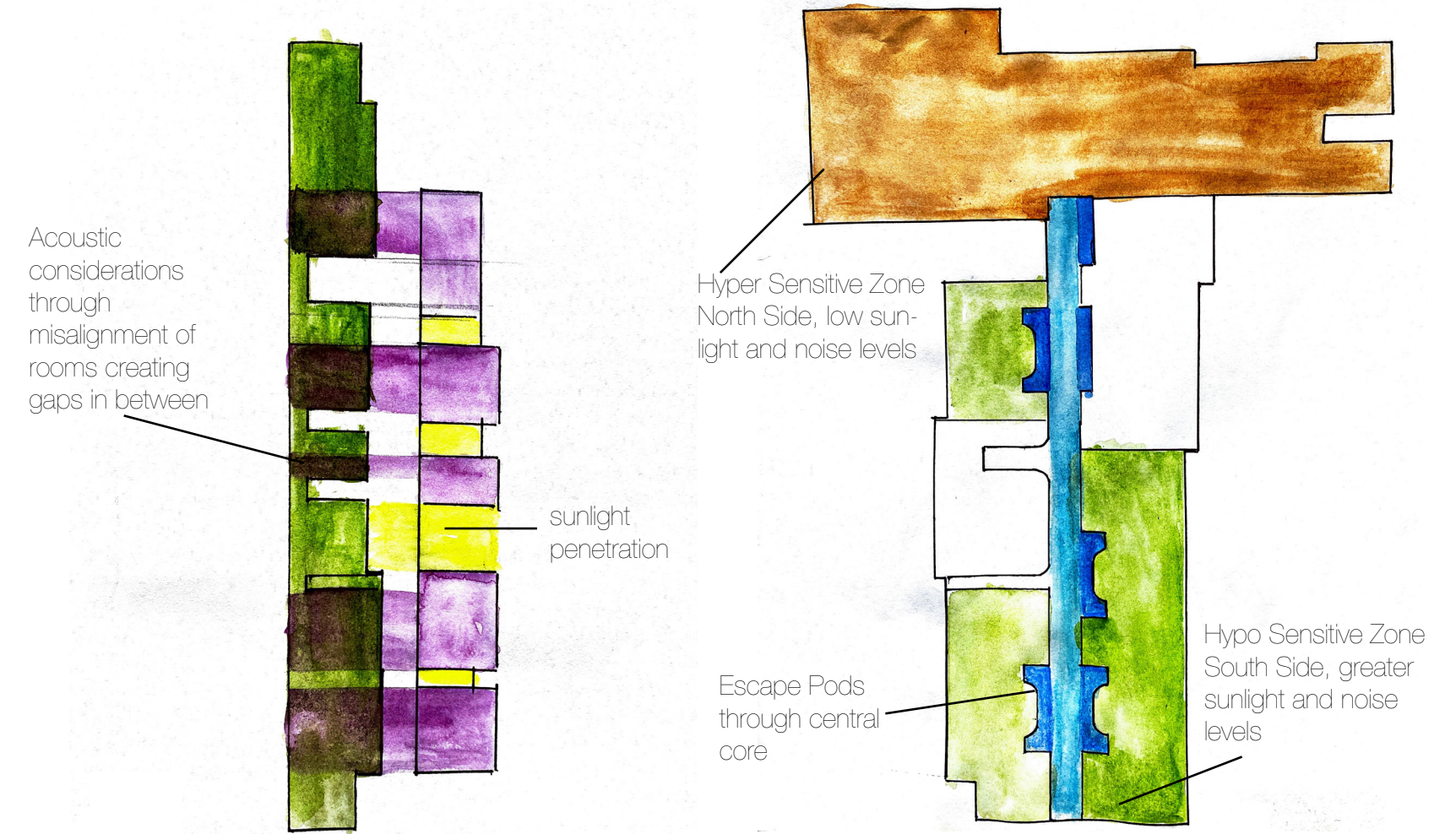
SCHEMATIC DESIGN

process diagrams

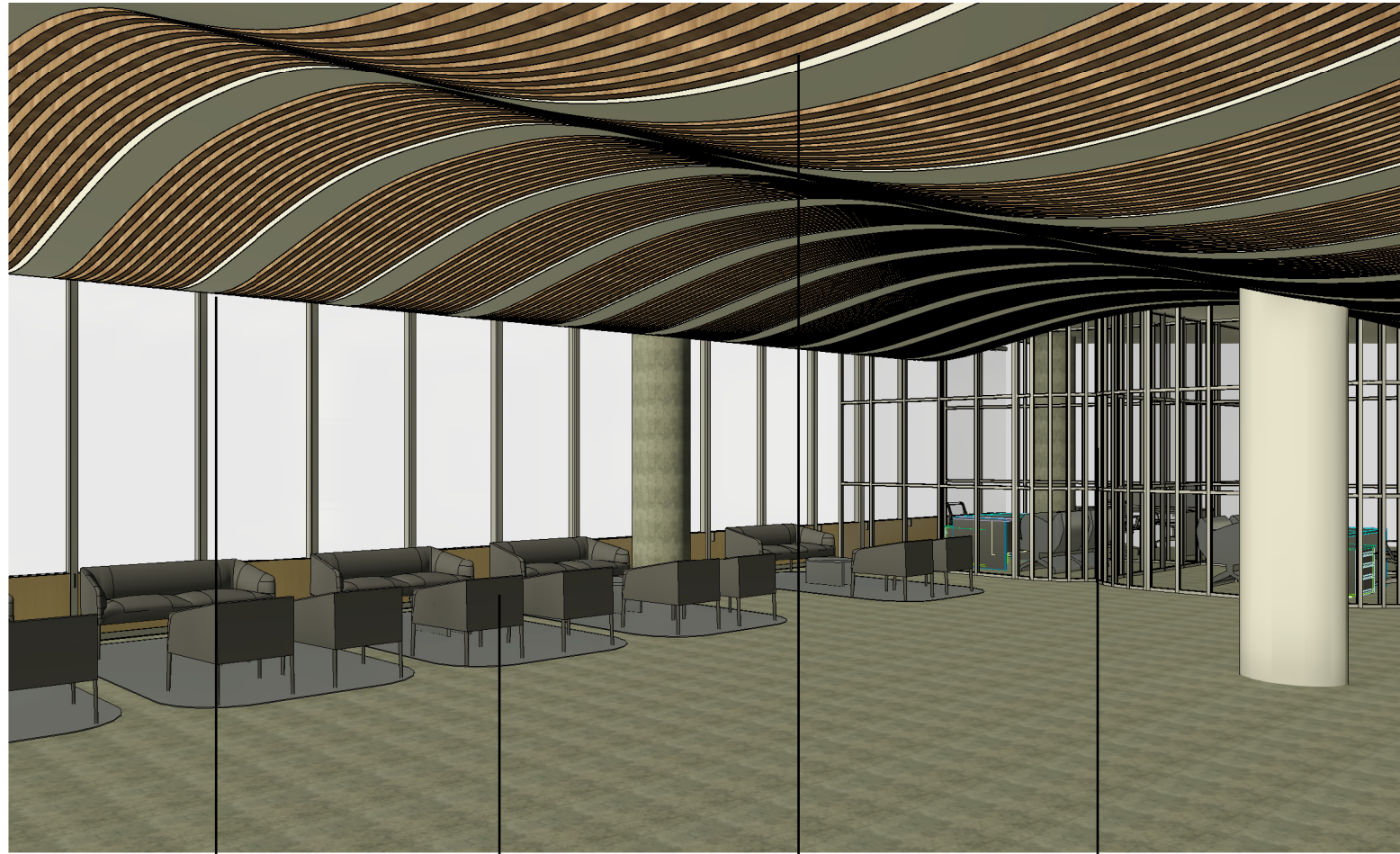
Diagrams exploring various ways of dividing the floor plan, pre-existing conditions, and column grid



Diagrams exploring the central pre- existing core of emergency stairs and elevators



RECEPTION



Provide pendant lighting above waiting zone and linear light in ceiling

Provide various types of seating and lower the amount

Change materiality of ceiling

Provide privacy screening as it is adjacent to waiting lounge

STAFF BREAK ROOM



Change curtain wall to provide privacy

Change form of island and lower bar seats to counter height

Provide pendant light above island and under cabinet lighting

Change seating arrangement, No back towards curtain wall, provide pendant lights above

Change materiality



STAFF BREAK ROOM

RECEPTION



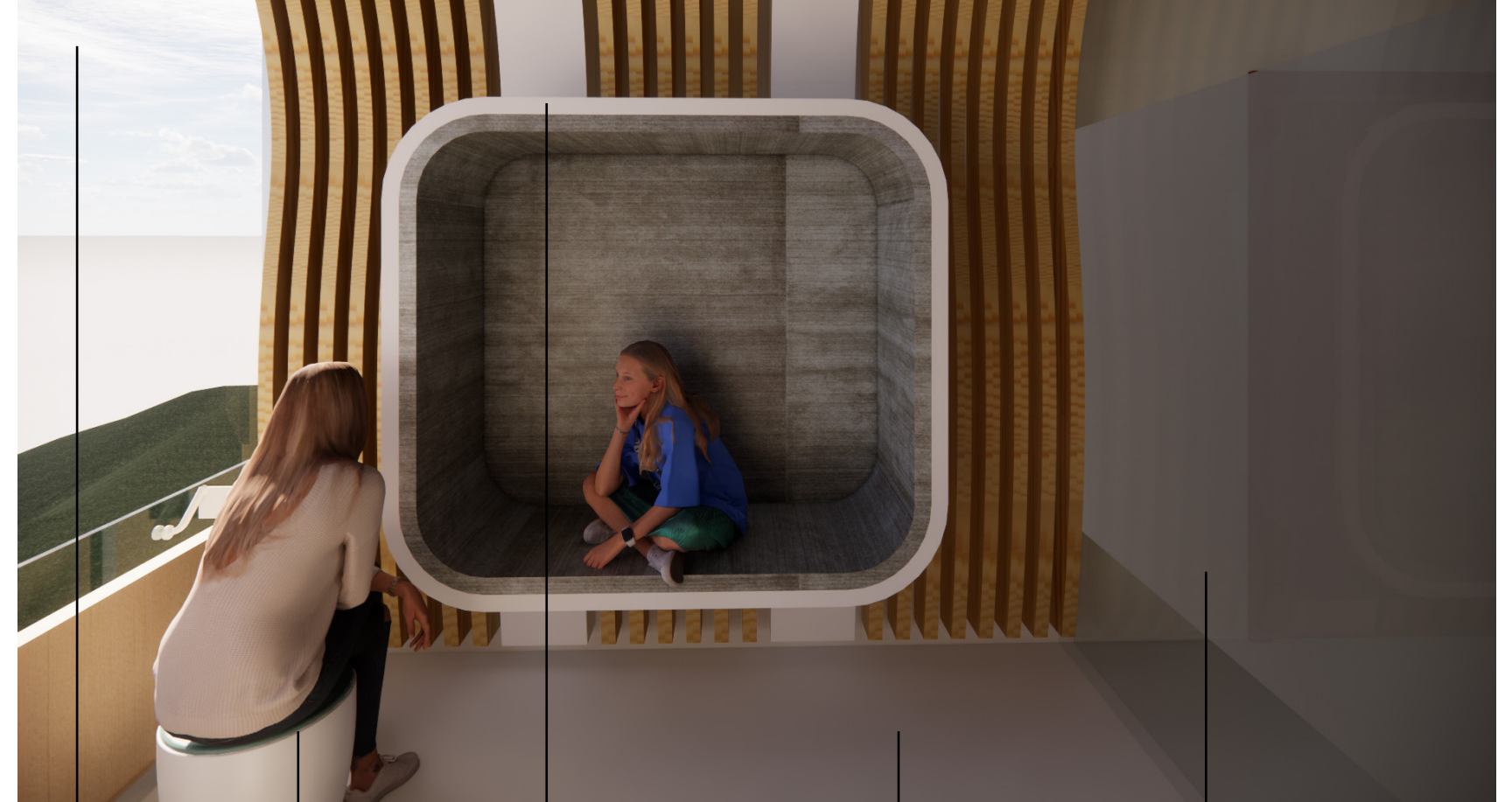
Provide different seat heights

Consider the height of wall mounting instruments

Change orientation of wall panels to 1 wall + ceiling

Change from paint to colored acoustic felt based on sensitivity level

ESCAPE POD



Provide shading device for east facing rooms

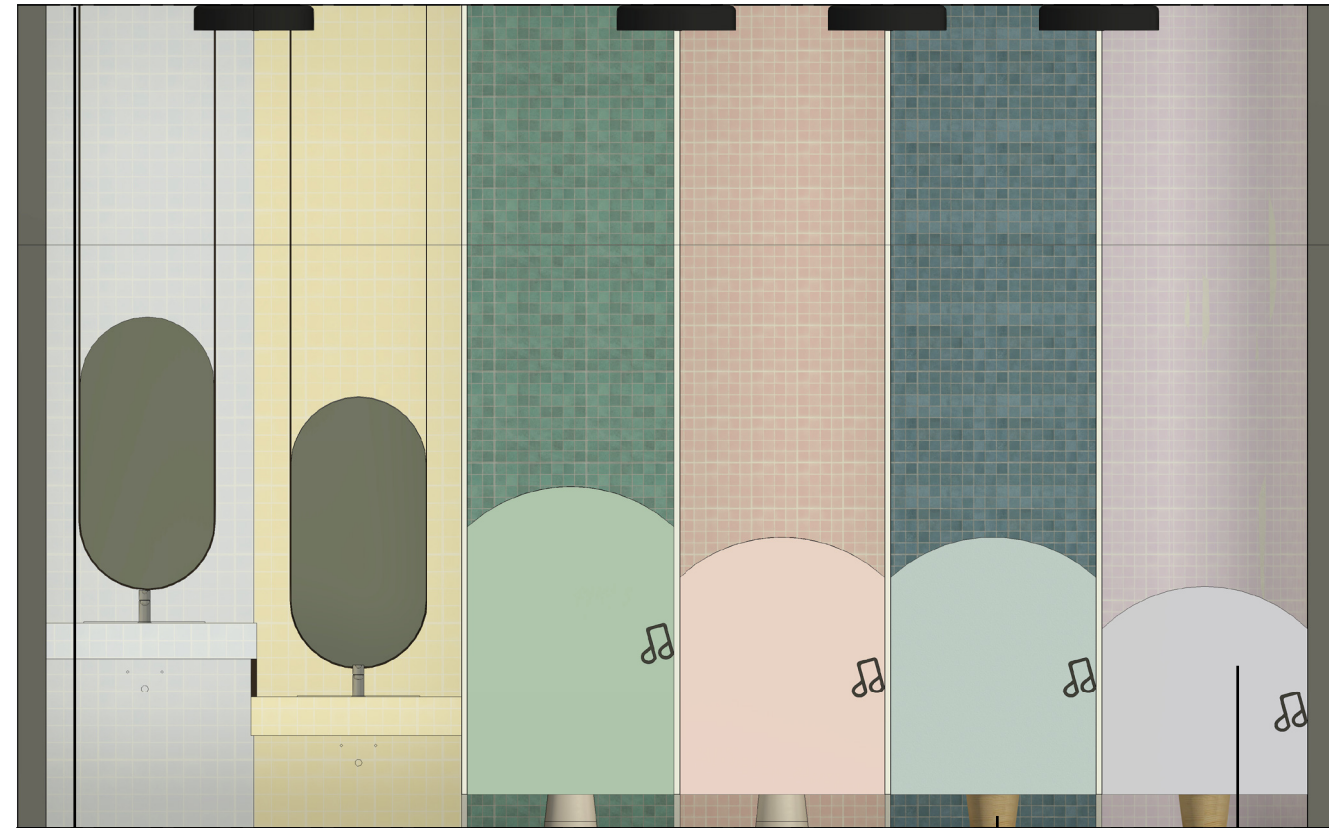
Incorporate color theory applicate in therapy rooms

Change materiality of shell

Add rug and lighting fixture for ambient lighting

Add wall with clerestory window for light filtration to adjacent pod

CHILDREN'S BATHROOM

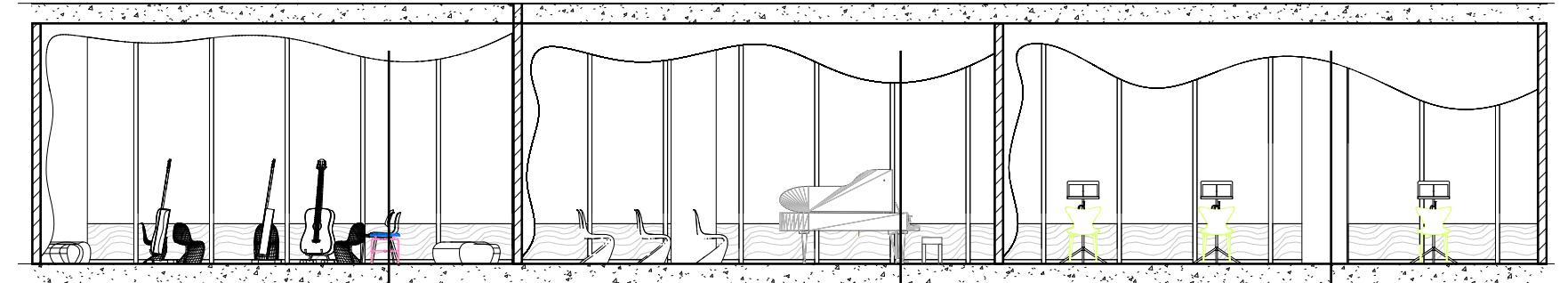


Change height level in bathroom from 12'-0" to 9'-0"

Toddler toilets for difference in children's height levels

Increase door height for more privacy

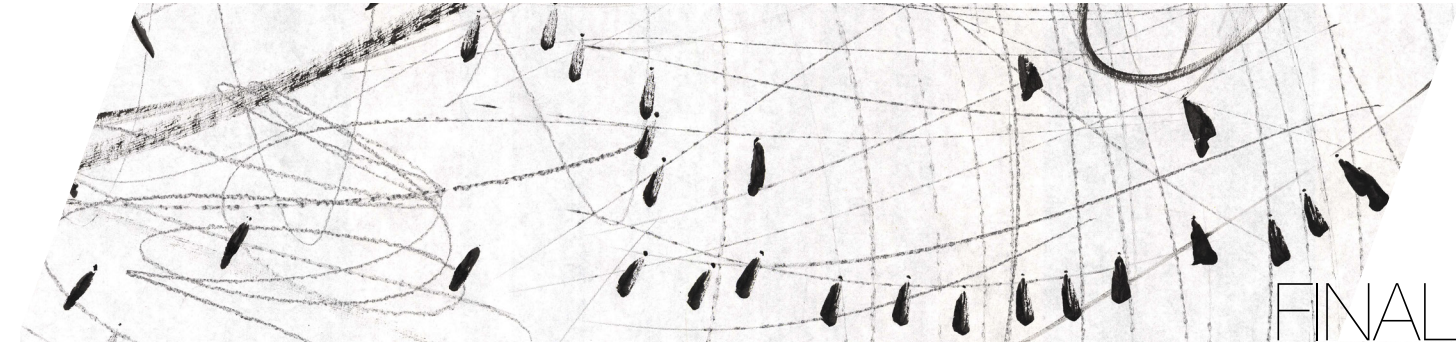
EAST SECTION



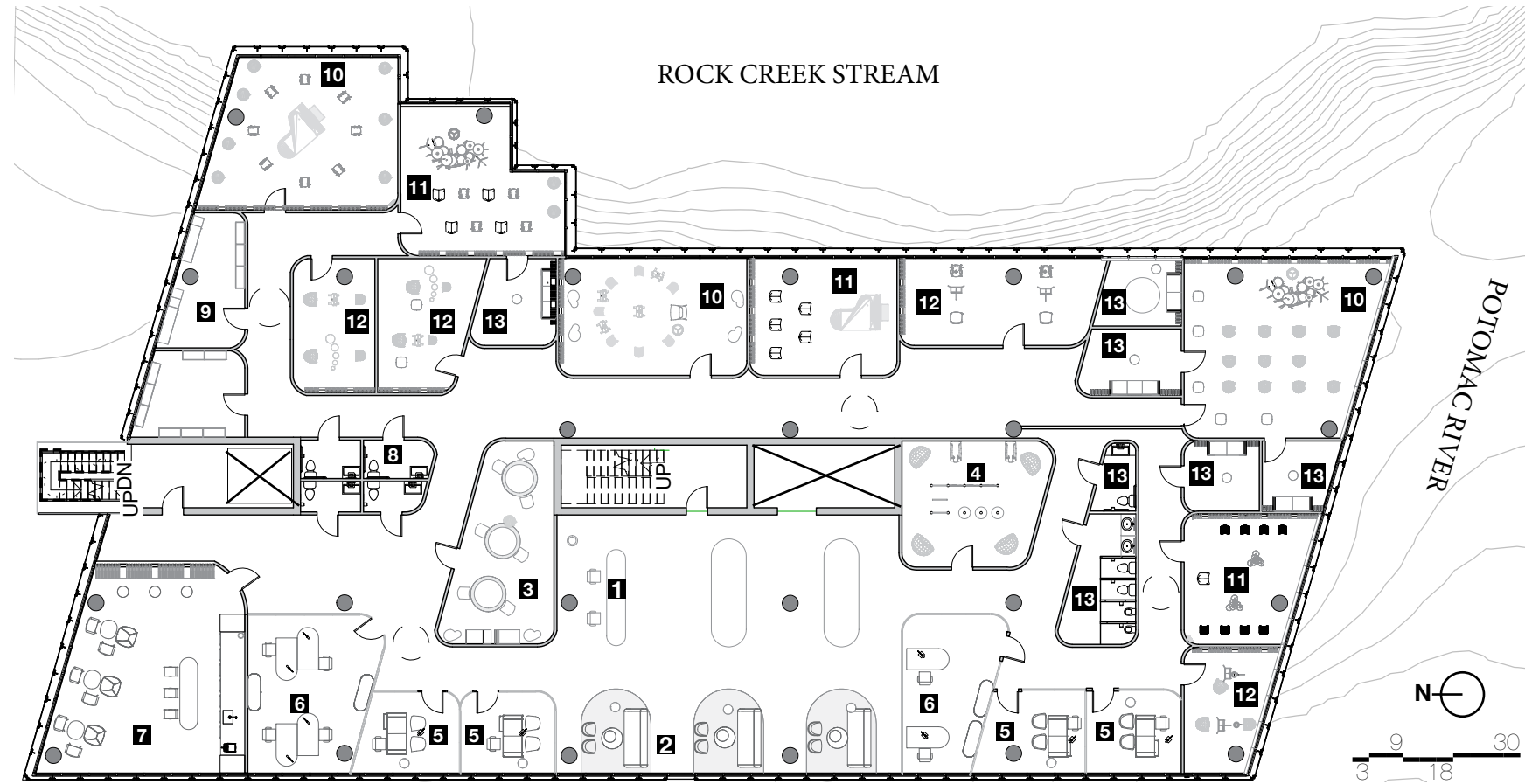
Large group therapy
Hypo Stimulus
higher ceiling + larger room = higher reverberation
Ceiling range 10'-6" to 11'-6"

Small group therapy
mid height ceiling + mid size room = average reverberation
Ceiling range 9'-6" to 10'-6"

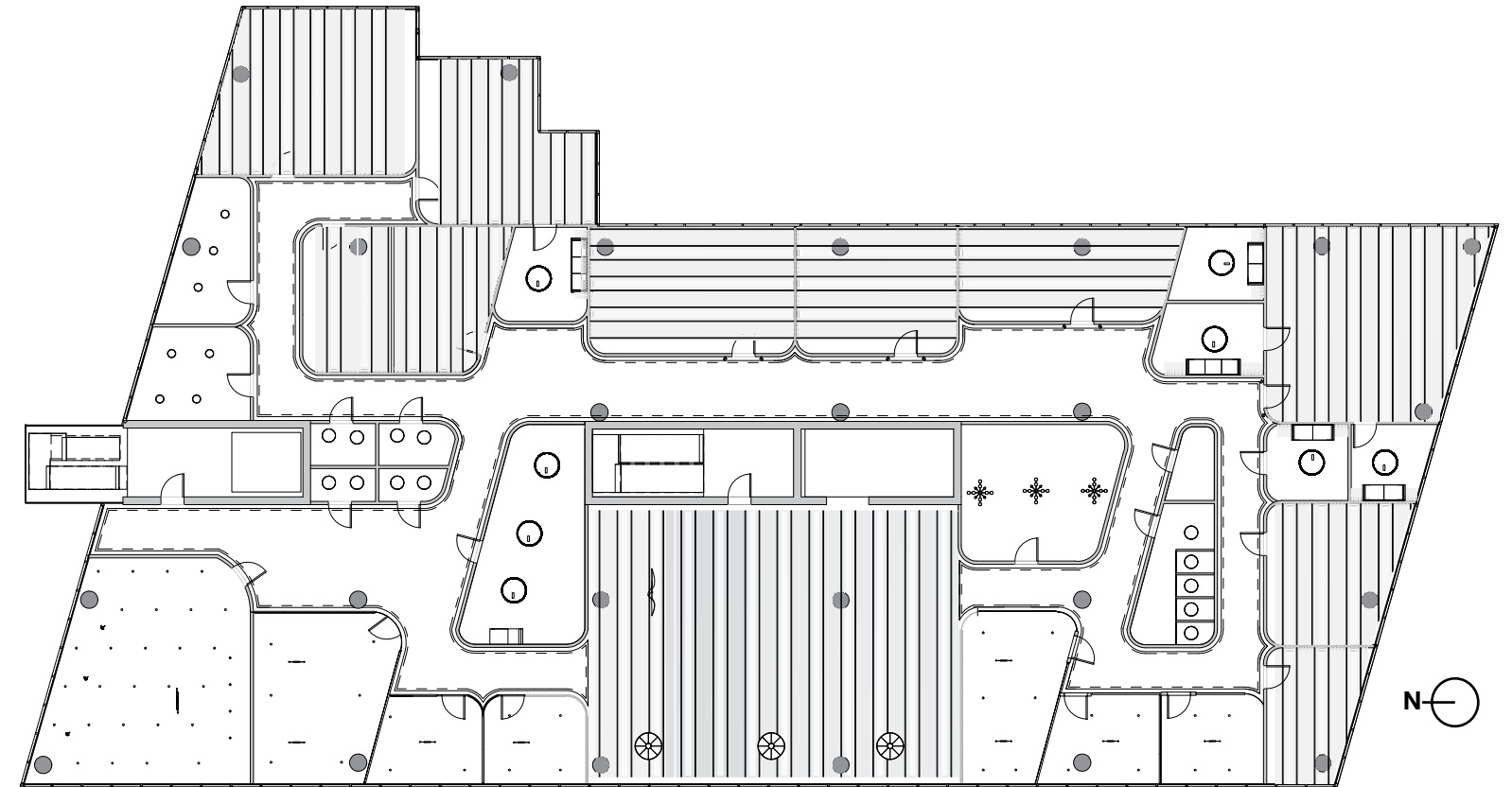
Individual therapy
low height ceiling + small room = low reverberation
Ceiling range 7'-6" to 8'-6"



FINAL DESIGN



- | | | | |
|---|-------------------------|----|------------------------------------------|
| 1 | Reception | 8 | Staff Bathrooms |
| 2 | Waiting Lounge | 9 | Audio Control |
| 3 | Hyper Sensitive Library | 10 | Hypo Sensitive Large Group Therapy |
| 4 | Hypo Sensitive Playroom | 11 | Hyper/Hypo Small Group Therapy |
| 5 | Consult Office | 12 | Hyper Sensitive Individual Group Therapy |
| 6 | Administrative Office | 13 | Escape Pods |
| 7 | Staff Break Room | 14 | Children's Bathroom |



- | | | | |
|--|------------------------------|--|-------------------------------|
| | Venus TC 3 D IP 67 | | Nloom Supermatic Pendant |
| | III.08 Pendant Lamp | | Thimble Recessed Canned |
| | Estiluz Vola Suspension Lamp | | Markcove 504 Cove Luminaire |
| | UTU Pyppe Suspension | | Panzeri Genova |
| | Bover Mediterrania Pendant | | Panzeri Brooklyn Ceiling Lamp |



RECEPTION

PINK WAITING LOUNGE



The waiting lounge has variety of seating options for children and adults. The waiting lounge is also color coded with the rug, pouf and the marble table depending on the sensitivity level of the child.

BLUE WAITING LOUNGE



The waves in th ceiling are also based on harmonic proportions. The areas where it drops and recedes are composed of $\frac{3}{4}$, $\frac{1}{2}$, and $\frac{1}{4}$ of a fundamental 1 string.

HYPER SENSITIVE
INDIVIDUAL THERAPY

Small group therapy individuals have a ceiling height of 7'-6" to 8'-6" which leads to lower levels of sound reverberation. Pastel colors of acoustic green felt is applied to the walls for acoustic consideration. Natural sunlight filters through the south facade, however mecho shades allow for more light control in case of over stimulation. Smaller more enclosed space with seating against the wall in order to feel secured is preferred by hyper sensitive children.

HYPER / HYPO SENSITIVE
SMALL GROUP THERAPY

The small group therapy rooms have a ceiling height of 8'-6" to 9'-6" allowing for more sound reverberation but not as great as large group therapy. Feline acoustic felt in a slightly bolder color is used and shading device for light control. The room caters up to 8 individuals who are somewhere in between the spectrum and those who have shown progress and can now transition to these rooms.

HYPO SENSITIVE
LARGE GROUP THERAPY

The Large Group Therapy consists of ceiling height from 10'-6" to 11'-6". Due to the larger size of the room, larger ceiling height and glass curtain wall, the result leads to greater amount of sound reverberation. Acoustic felt in a more saturated color is utilized. Various seating options with two colors also helps with additional stimulus, which is preferred by hypo sensitive children. This rooms seats up to 15 people.

ESCAPE PODS
SOLITARY MOMENTS

Escape Pods provide solitary moments in case of over stimulation and can also serve to diffuse an uncontrollable situation. This allows for a child to be alone with the therapist while not disrupting the other students and a few are easily accessible through the classroom. Also, an adjacent escape pod without views to the outside allows for an even more controlled environment with sunlight filtering through the clerestory windows.

HYPER SENSITIVE LIBRARY



The Hyper Sensitive Library is adjacent to the north side of the waiting lounge. It provides an alternate option for waiting before or after therapy. The pastel palette and muted tones in an enclosed room provides a secure environment with little stimulation. Various table and chair height options are provided for children from age 4 to 14.

HYPO SENSITIVE PLAYROOM



The Hypo Sensitive Playroom is adjacent to the south side of the waiting lounge. It provides an alternate option for waiting before or after therapy. The poles with step up plates in saturated colors help with movement. The varying height of the step ups creates its own symphony. Swings on all four corners of the room with peg boards provide additional stimulation.

STAFF BREAK ROOM



CHILDREN'S BATHROOM



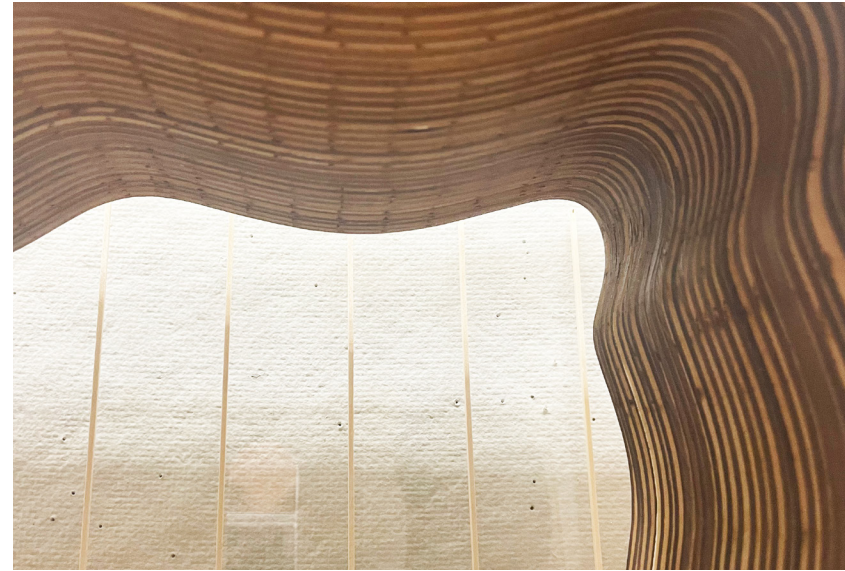
The bathrooms are color coded to seamlessly continue the color coding of the sensitivity levels as well as providing various height options in the lavatories and water closet for young and older children.

THERAPY HALL

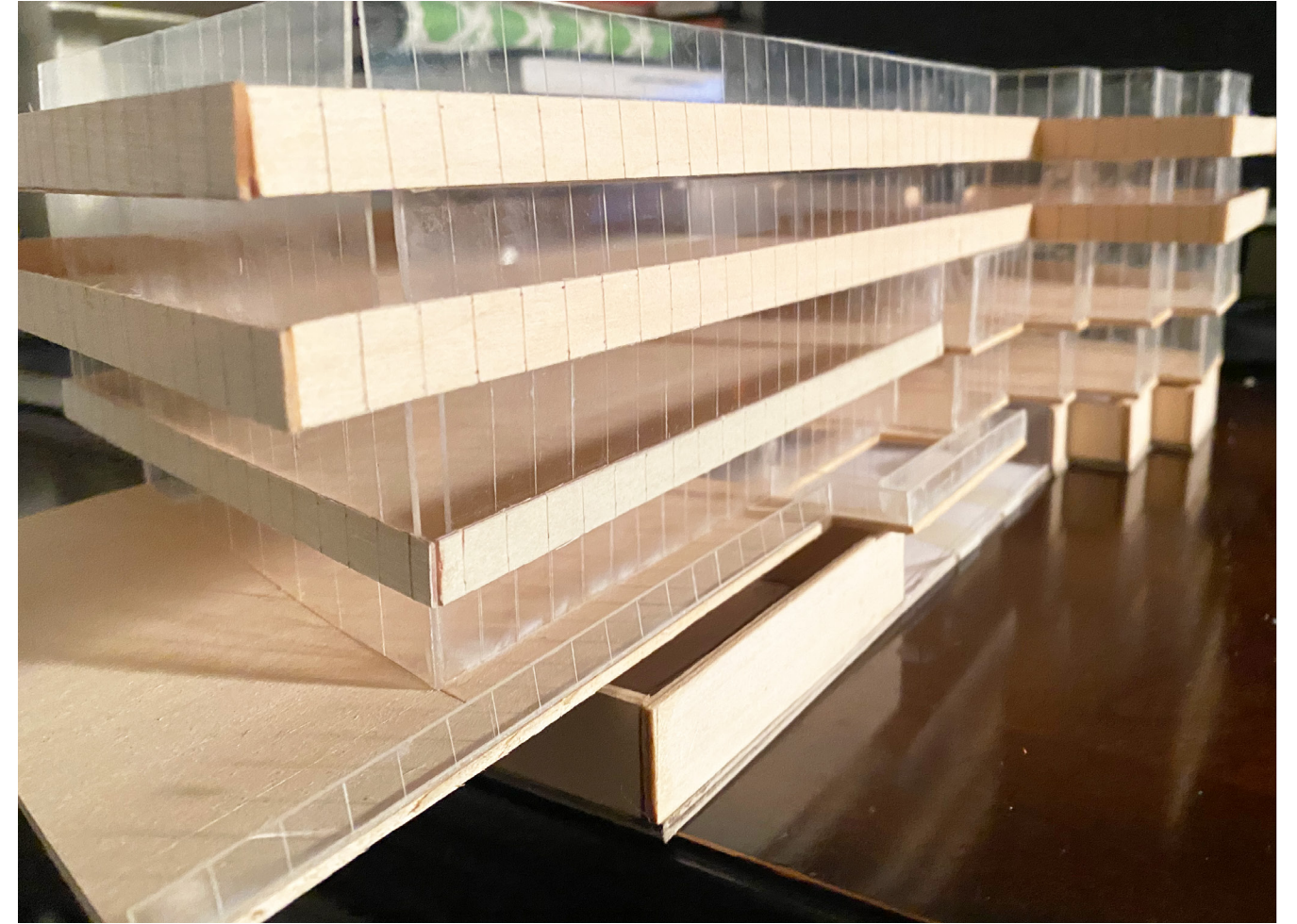


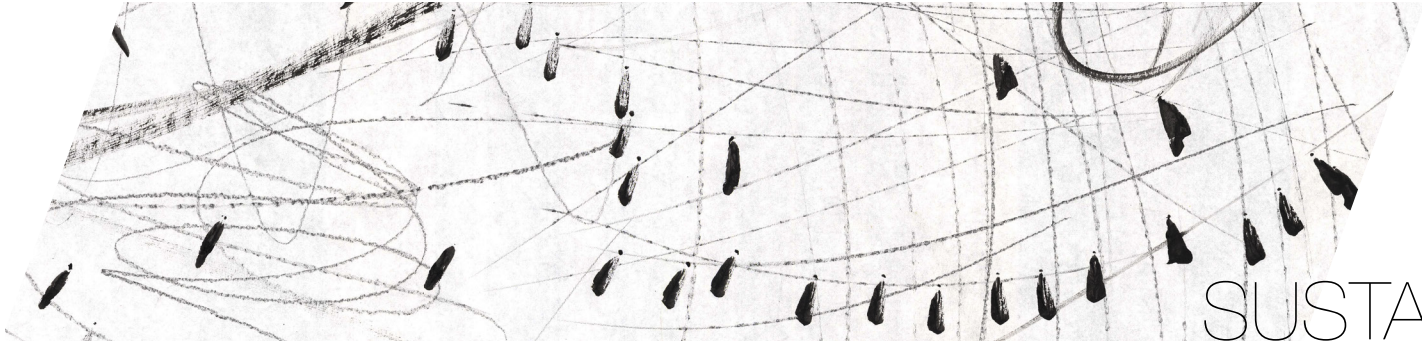
The therapy hallway consists of color coded doors and sconces to help with wayfinding and orientation. Also the graphic on the wall and cove light help guide the children through the hallway and providing an interesting visual stimulus.

MODEL SECTION EAST SIDE



BUILDING MODEL





SUSTAINABILITY

Location and Transportation

- The site was chosen at the intersection of Virginia and DC by keeping commuters route in mind therefore leading to reduction of greenhouse gas emissions caused by vehicle travel.
- The building entrance is located within 1/2 mile walking distance of seven or more diverse uses such as banks, pharmacies, grocery stores, libraries, police stations, and place of worships.
- Develop in areas that have multi modal transportation access such as bu stop, commuter rial station.

Energy and Atmosphere

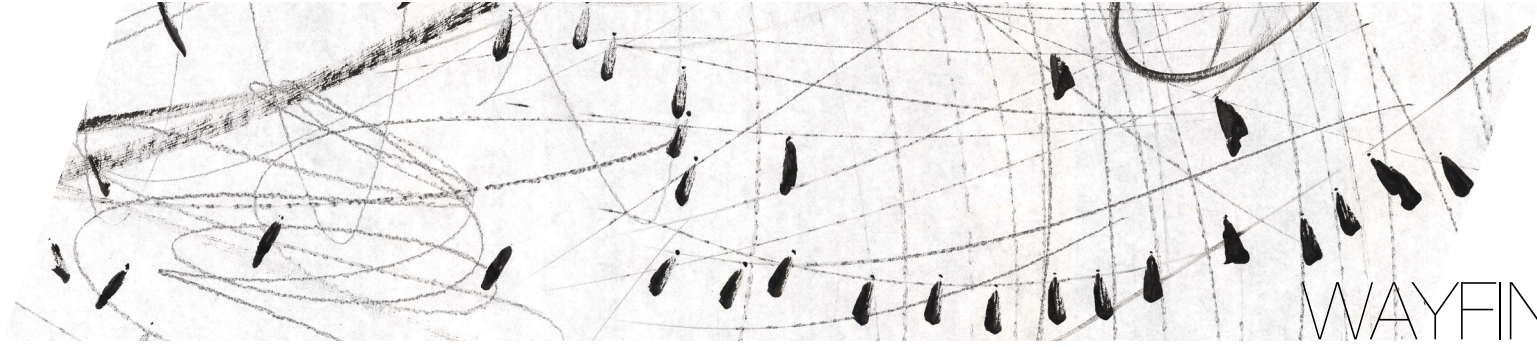
- Passive solar design strategy in orienting the rooms towards south and east side of the facade to help with heating and cooling. and reducing the need for artificial light and using shading device for daylight control.
- Through commissioning process a third party contracted to verify that building and all of its system and assemblies are planned, designed, installed, tested, operated and maintained to meet owner's project requirements.
- Install High Efficiency Appliances in the Staff break room that are Energy Star certified.

Materials and Resources

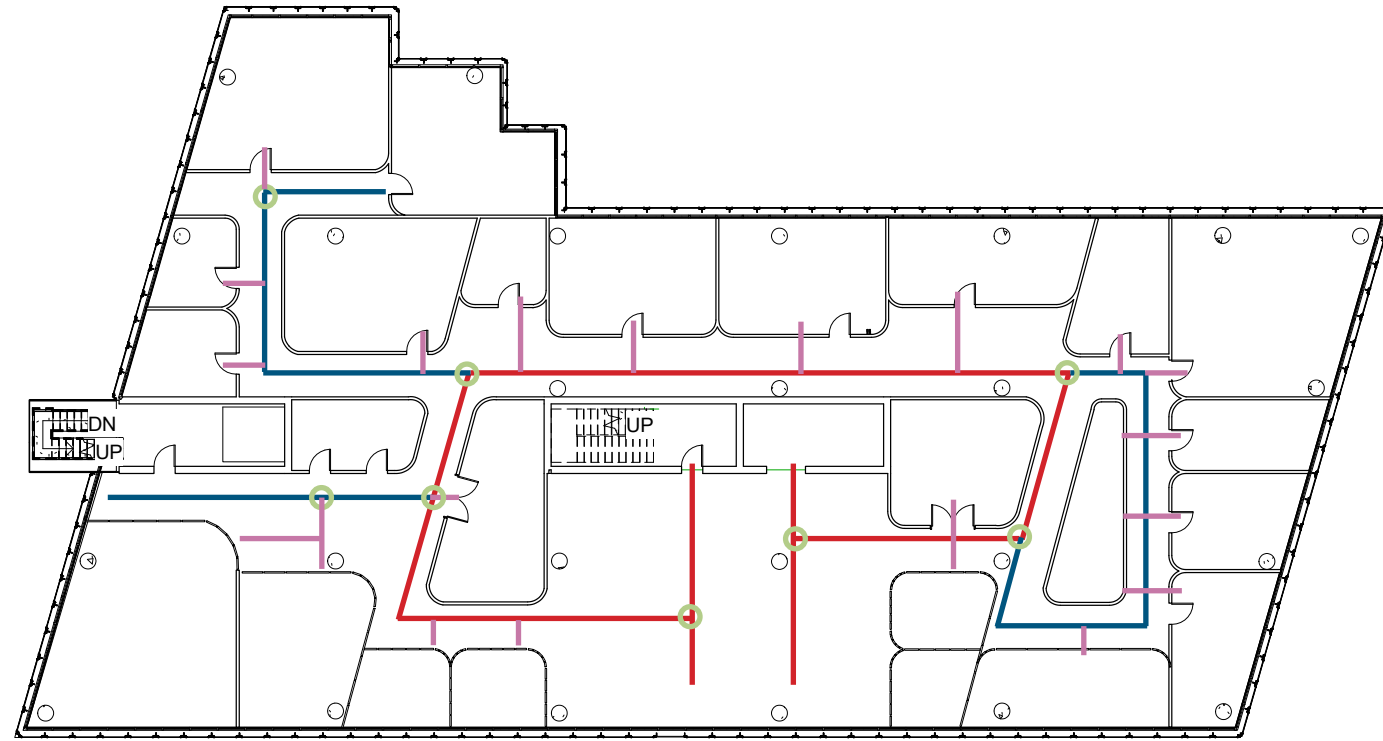
- Material conservation through re-use of nano perforated wall panels pre-installed in the building.
- Selecting environmentally preferable materials with low VOC's.
- Specify green cleaning products for instruments and children's therapy rooms.
- Compost food waste bins in staff break room.

Acoustics

- Use of acoustic felt on walls to reduce background noise levels by HVAC systems.
- Calculation of reverberation times, understanding absorption quality of products.
- Incorporating buffer rooms as escape pods for sound isolation.



WAYFINDING



- Primary Path ———
- Secondary Path ———
- Entry Way ———
- Point of Decision ○

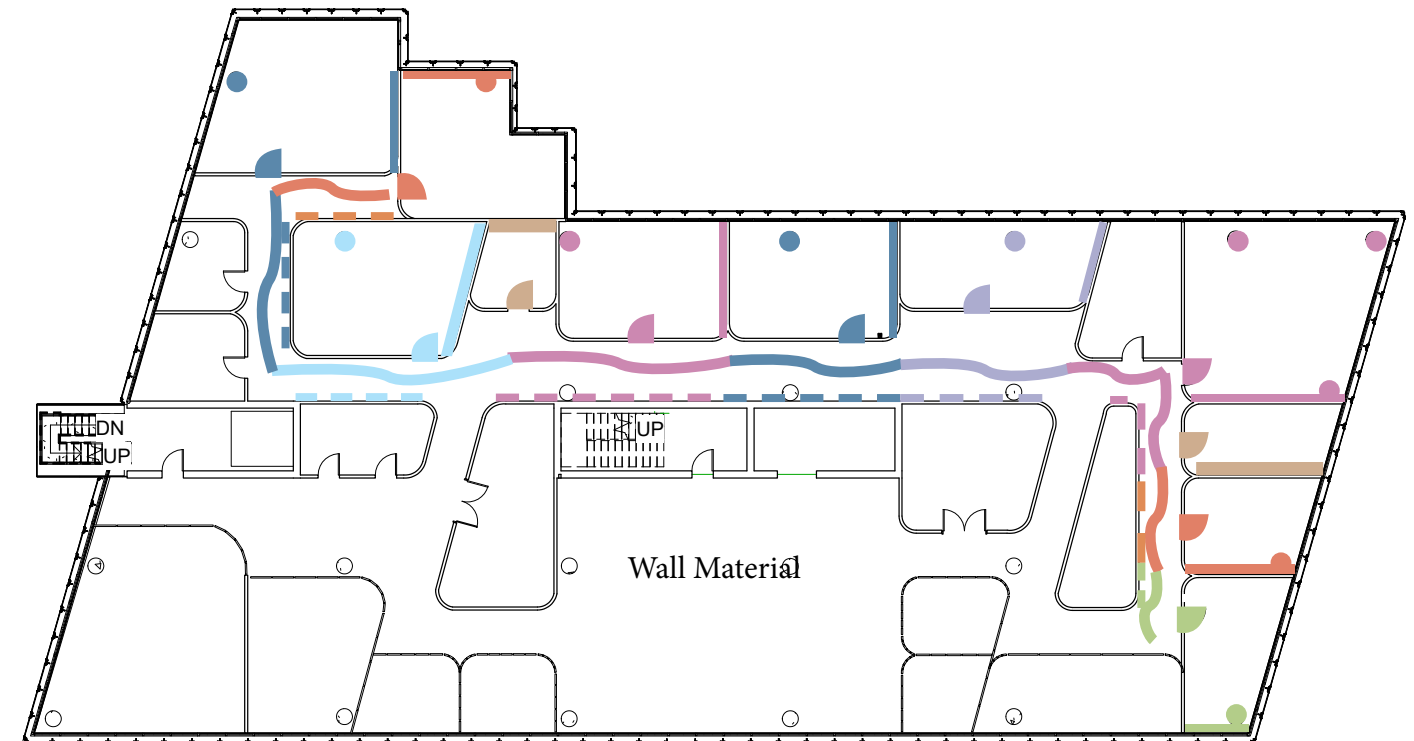
Potential Wayfinding Opportunities

One way circulation - highlighted in red around the central core with views from the distant corridor with unobstructed sight lines

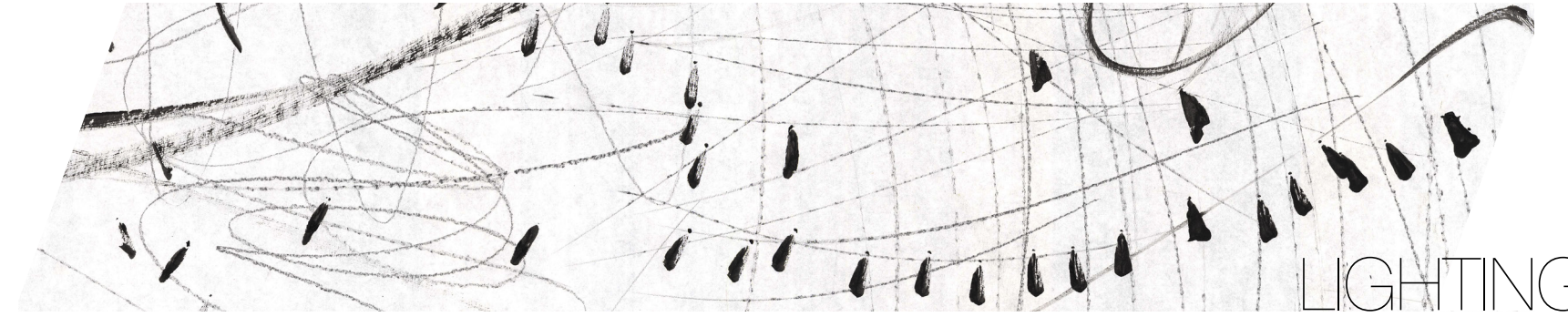
Transparency - through space by utilizing curtain wall and curved edges for staff offices allows for previewing

Color - used to identify individual, large and small group therapy rooms and escape rooms along the floor and door

Edge contrasting - floor material from reception hall to hallway provides way finding into the interior of the building



	Floor Accent	Door	Accent Wall	Column Landmark	Lighting level	Kids Art Work
Hyper						
Hypo						
Hyper/Hypo						
Escape Room				N/A		



LIGHTING

General

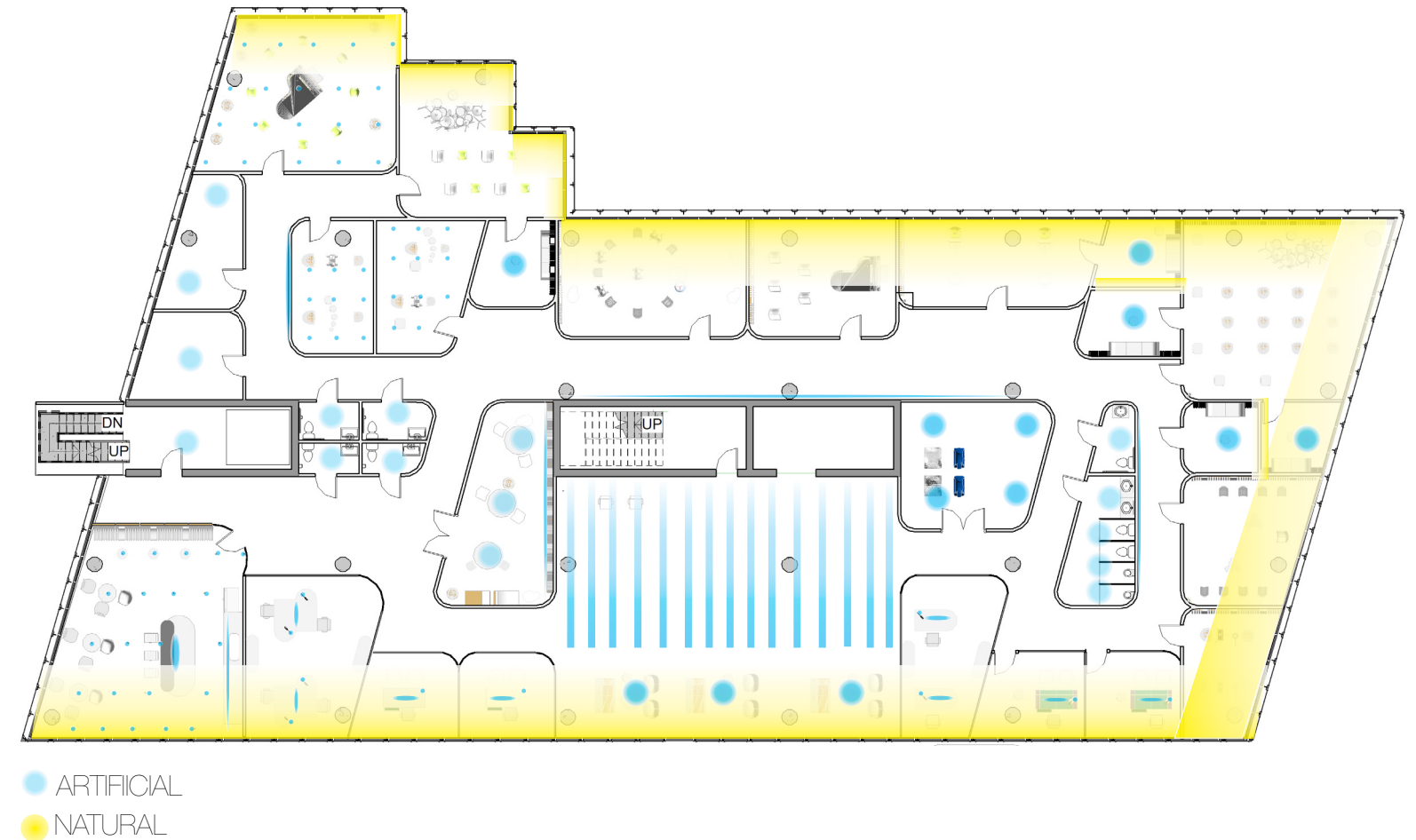
1. How will you use both natural and artificial lighting to enhance your concept?

The concept for this project is the sound of system catered toward children with autism. By keeping the neuro-diversity in mind of children on the spectrum, natural light is vital for their well-being. The therapy rooms are situated on the south and east side of the facade which provides natural light at different intensity levels depending on whether the room is on the east or south side. To augment the space with artificial lighting, the therapy rooms will consist of recessed downlight with a color temperature of 3000K as a class take place during the daytime neither too early nor too late in the evening. The natural light provides large amounts of cooler color temperature at 5000K. This is inconsistent with the Circadian Lighting Strategy.
2. What is the overall mood you would like the light in your space to evoke?

As a music therapy place that holds sessions from 8:30 AM to 6:00 PM, the facility requires the use of more natural daylight. The lighting should evoke a sense of calm as a sensory stimulus as music and architecturally built components stimulate the senses. A balance of the two is necessary for these individuals.
3. Will you use lighting to benefit way finding? If so, where?

Lighting will be used to help users locate major program areas such as the pathways to the therapy rooms and the large open waiting lounge/reception space. It is vital to provide ample illumination along the long unobstructed hallway of the therapy rooms as natural light is limited in this area.
4. Given the function of the space, in what ways will you use the lighting to influence productivity, leisure or other program areas that are necessary for your space to function properly? Program areas that are necessary for your space to function properly?

The areas that require lighting for productivity are the reception area, consult rooms and administrative offices. Task lighting in conjunction with daylighting will also be used in these spaces. Spaces such as the library and playroom for leisure require more ambient lighting however, the sensory stimulus for both spaces vary. The library requires fixtures that are not the focal point whereas the playroom for the hypo-sensitive spectrum requires fixtures that can provide a visual stimulus.



Natural

1. How have you populated the program in relation to each space's proximity to natural light?
The therapy rooms and escape pods are situated near the natural daylight as it is vital to the program and the user's needs. Other administrative spaces are also situated toward the glass facade on the west side through the sunlight is partially blocked by the adjacent façade, therefore, providing shade. Passive solar design technique along with keeping building orientation in mind will aid with heating and cooling and daylighting reduces the need for artificial light.
2. Which spaces receive the most/least natural light and why?
The areas that receive the most natural light are the therapy rooms and escape pods which are situated right next to the curtain wall facade on the south and east side of the building. The interior escape pods share a clerestory window with the adjacent escape pod next to the one placed near the glass facade. This provides both privacy as well as natural light.
3. How are you treating the windows around the perimeter?
Matural views of the Potomac River, rock creek stream, and Theodore Roosevelt Island can be viewed from the south and east side. The natural landscape provides a soothing environment for children. Mecho shades are added along the south and east side where therapy is taking place. In addition, they are added on the west side in consult offices and reception area.

Artificial

1. How will you use artificial lighting to manipulate the mood/energy of the space?
Artificial light will be used to enhance spaces such as the waiting lounge, staff break room, and playroom to provide energy in those zones. Other rooms, require less sensory stimulus therefore utilizing artificial lighting without being distracting will be vital.
2. Which spaces require special attention for lighting and how do you plan to address those needs?
The long corridor around the therapy rooms is shielded from natural daylight and can seem dark and dingy. Therefore, using a lighter color palette and artificial lighting to brighten the hallway with sufficient illumination.

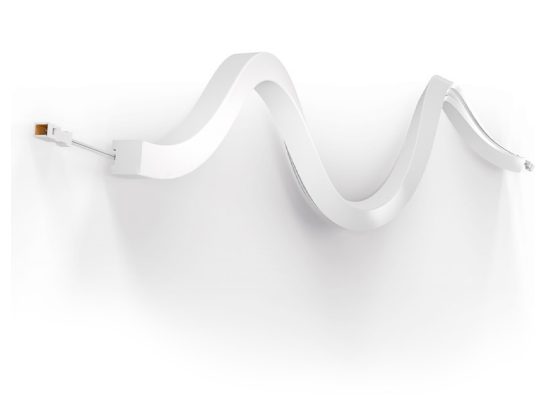
Bover Mediterrània Suspension Pendant S/105

Location Waiting Lounge
 Dimension (in) 60 suspension; 41.34 W
 Color Temp 2700 K
 CRI > 90
 Dimmable Yes



Venus TC 3 D IP 67

Location Reception Ceiling
 Dimension (in) W .71 x H .687
 Color Temp 3000 K
 CRI > 95
 Dimmable Yes



III.08 LED Suspension Pendant

Location Reception Desk
 Dimension (mm) 1800 x 300 x 300
 Color Temp 2700 K
 CRI > 95
 Dimmable Yes



Lucerna Table Lamp

Location Consult and Admin Rooms
 Dimension (cm) H 83, Base 21x 21
 Color Temp 3000 K
 CRI > 90
 Dimmable Yes



Noom Supermatic Two CS5

Location Staff Break Room
 Dimension (cm) H 37 x W 17.5 x D 15
 Color Temp 3000 K
 CRI > 90
 Dimmable Yes



UTU Pyppe 70

Location Hypo Sensitive Playroom
 Dimension (cm) H 36 x W 70 x D 80
 Color Temp 3000 K
 CRI > 90
 Dimmable Yes



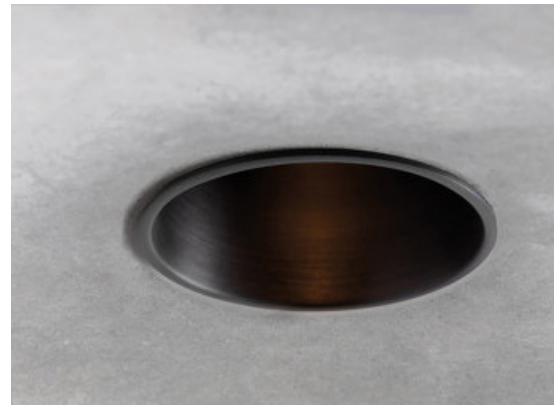
Panzeri Brooklyn Ceiling Lamp 55 W LED

Location Hyper Sensitive Library
 Dimension (in) 39 2/5 diameter
 Color Temp 3000 K
 CRI > 90
 Dimmable Yes



Thimble recessed downlight

Location Kitchen Island, Consult/Admin
 Dimension (mm) 74 diameter
 Color Temp 3000 K
 CRI > 90
 Dimmable Yes



Estiluz Volta Suspension Lamp

Location Kitchen Island, Consult/Admin
 Dimension (mm) H 1524; 630 diameter
 Color Temp 3000 K
 CRI > 90
 Dimmable Yes



Panzeri Ginerva LED Ceiling Pendant

Location Bathrooms
 Dimension (cm) 53 diameter
 Color Temp 3000 K
 CRI > 90
 Dimmable Yes



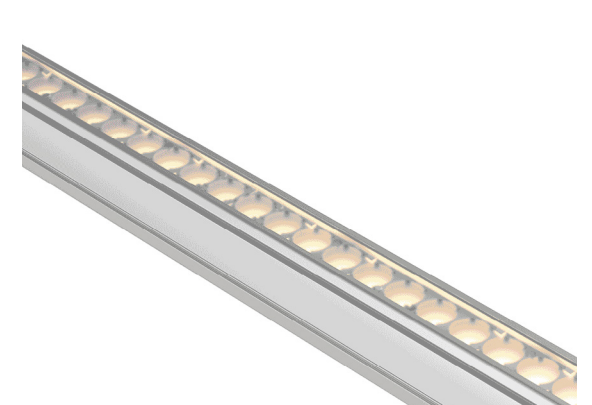
Kundalini Evita LED Wall Lamp

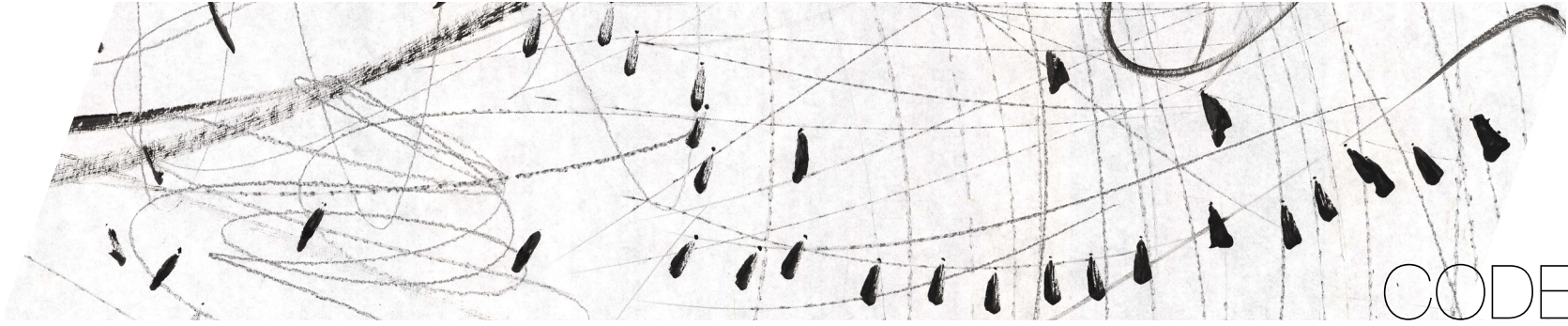
Location Therapy Room Door Sconce
 Dimension (in) H 15; Diameter 4.3
 Color Temp 2700 K
 CRI > 80
 Dimmable Yes



Markcove 504 Cove Luminaire

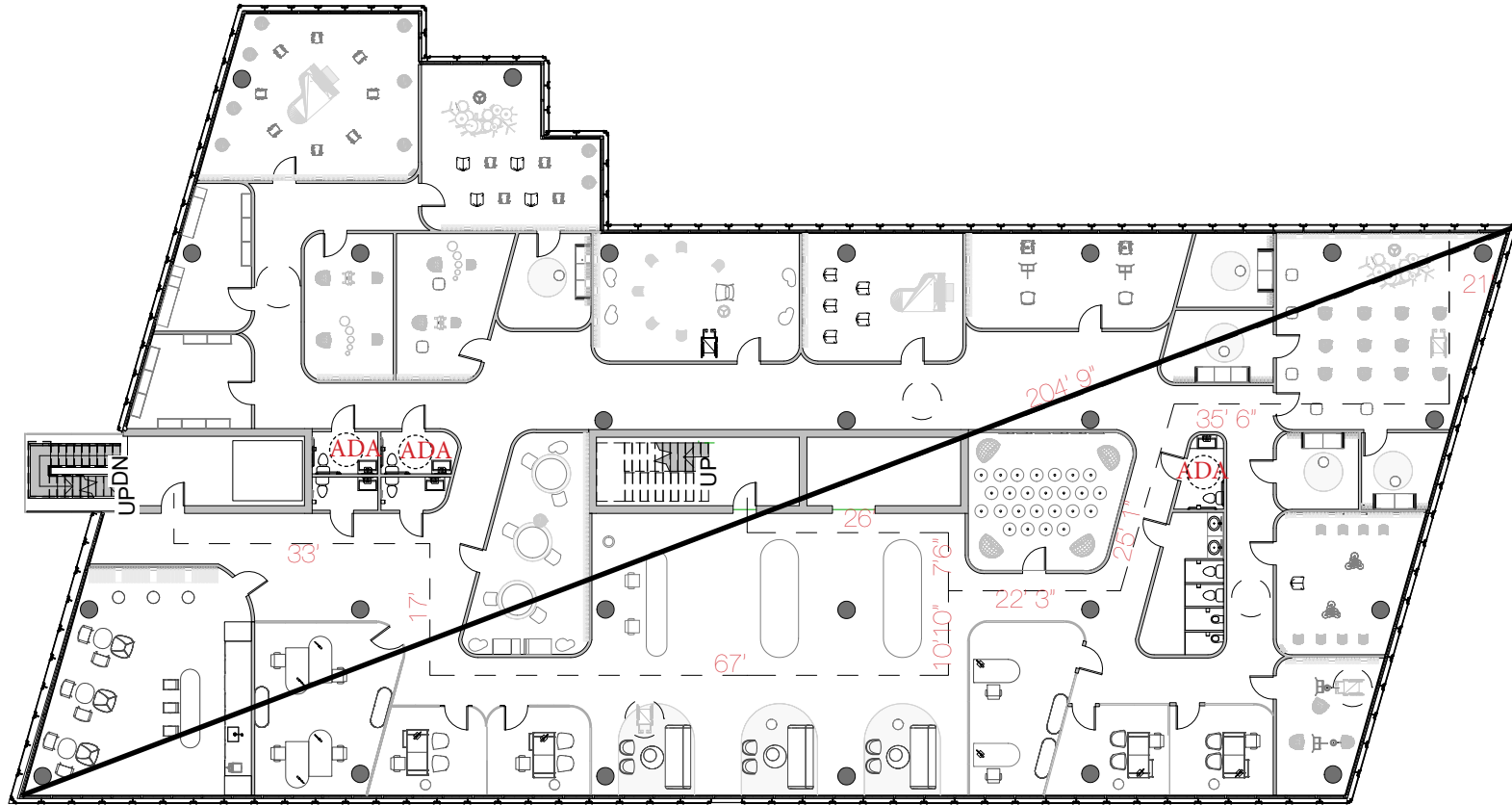
Location Hallways
 Dimension (in) 48
 Color Temp 3000 K
 CRI > 90
 Dimmable Yes





CODES

egress plan

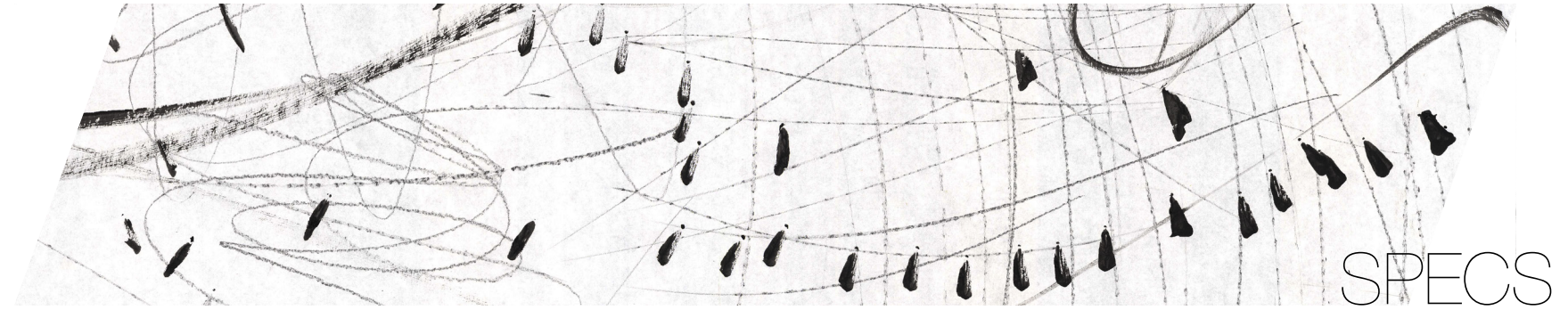


plumbing code

As per section 2902, table 2902.1 of 2018 International building code, the minimum number of required plumbing fixtures for educational facility

Classification	Description	Water Closets (Urinals See Section 424.2 of the IPC)	Lavatories	Bathtubs/ Showers	Drinking Fountains (See Section 410 of the IPC)	Other
Educational	Educational Facilities	1 per 50	1 per 50	-	1 per 100	1 service sink

Based on the code above at a maximum capacity of 450 people 9 water closets are installed.
Based on the code above at a maximum capacity of 350 people 7 lavatories are installed



SPECS

Santa Cole Cadaqués Sofa



Specs

Company Name	Santa Cole
Website	https://www.santacole.com/es/mobiliario/cadaques-424/?gclid=Cj0KCCQjwsdiTBhD5ARIsAlpW8ClItFBB-P7KzfWpsiORhwrZH078AOPzgFtEZOVro-JHGyREZTfT6osaAIXLEALw_wcB
Fixture Number	n/a
Description	Sofa
Color	Ivory
Dimensions (cm)	L 250, D 100 Seat H 40, Overall H 75
Available Sizes	2
Material	100 % New Wool
Special Instruction	Clean Gently
Sustainability	n/a
Reason Chosen	Low Seat and Form
Project Location	Waiting Lounge

Sancal Tonella Armchair

specs / 110



Specs

Company Name	SANCAL
Website	https://sancal.com/en/armchair-tonella/
Fixture Number	n/a
Description	Armchair
Color	Atlantic 65074, 64117, 66063
Dimensions (cm)	Seat H 41, W 49, overall H 71 x W 61 x D 45
Available Sizes	1
Material	Upholstery 100% PL; Base Metal
Special Instruction	Clean with Soft Cloth
Sustainability	ISO 14001 Certification of a Rigorous Environmental management System
Reason Chosen	Various Color Options Available for Children
Project Location	Waiting Lounge

Sancal Chat Pouf



Specs

Company Name	SANCAL
Website	https://sancal.com/en/pouf-chat/
Fixture Number	n/a
Description	Pouf
Color	Atlantic 65074, 64117, 66063
Dimensions (cm)	45 x 45
Available Sizes	1
Material	Upholstery 100% PL; Base Oak
Special Instruction	Clean with Soft Cloth
Sustainability	ISO 14001 Certification of a Rigorous Environmental Management System
Reason Chosen	Various Color Options Available for Children
Project Location	Waiting Lounge, Escape Pod

Gan Ply Rug

specs / 111



Specs

Company Name	GAN Rugs
Website	https://shop.gan-rugs.com/us_en/collection-ply-rug-yellow
Fixture Number	100642
Description	Hand Tufted Rug
Color	Base Neutral , Loops : Pink, Blue, Lilac, Seafoam
Dimensions	82: x 120"
Available Sizes	2
Material	100% New Wool
Special Instruction	n/a
Sustainability	n/a
Reason Chosen	Form, Playful Colors
Project Location	Waiting Lounge

ALU Armchair



Specs

Company Name	Real Piel
Website	https://www.realpiel.it/en/products/alu/
Fixture Number	n/a
Description	Armchair
Color	Soft Pink 31BR
Dimensions (cm)	Seat H 46, D 40 Overall W 68, H 85, D 55
Available Sizes	1
Material	Upholstery Top Grain Leather, Base Black Chrome Metal
Special Instruction	Clean Gently
Sustainability	Production Chain Made up of Small and Medium Sized Zero-Kilometer Artisan Companies
Reason Chosen	Form

Project Location

Staff Break Room

Sancal Tortuga Armchair

specs / 112



Specs

Company Name	SANCAL
Website	https://sancal.com/en/armchair-tortuga/
Fixture Number	n/a
Description	Armchair
Color	Atlantic 65074, 64117, 66063
Dimensions (cm)	Seat H 42, W 65, Overall H 77 x W 81 x D 60
Available Sizes	2
Material	Upholstery 26% WO, 35% M; Base Wood Natural
Special Instruction	Clean with Soft Cloth
Sustainability	ISO 14001 Certification of a Rigorous Environmental Management System
Reason Chosen	Various Color Options Available for Children

Project Location

Staff Break Room

Pinch Adjustable Stool



Specs

Company Name	ZUO Modern
Website	https://modernselections.com/Pinch-Adjustable-Stool.aspx
Fixture Number	SKU#: BS-EEI#693
Description	Bar Adjustable Stool
Color	Natural Finish
Dimensions (in)	L 19.5, W 15, H 20 - 30"
Available Sizes	1
Material	Natural Wood Veneer Finish , Base Steel
Special Instruction	n/a
Sustainability	n/a
Reason Chosen	Form

Project Location

Staff Break Room

LA Isla Coffee Table

specs / 113



Specs

Company Name	Note Design Studio
Website	https://sancal.com/en/occasional-table-la-isla/
Fixture Number	n/a
Description	Coffee Table
Color	Blanco
Dimensions	70 W x 35 H
Available Sizes	3
Material	Table Top Fume Glass; Table Base Extra Matte Lacquer
Special Instruction	n/a
Sustainability	n/a
Reason Chosen	Electrical Sockets Including USB-A + C

Project Location

Staff Break Room

Kettal Cala Side Table



Specs

Company Name	Cala Collection
Website	https://www.kettal.com/living/en/cala_side_able_48_doshi_levien
Fixture Number	KS270110
Description	Side Table
Color	Bone Table Base Color
Dimensions (in)	H 19.2" , 18.8" Diameter
Available Sizes	1
Material	Aluminum, Glass
Special Instruction	Clean Gently
Sustainability	Uses Recycling Process, Eco Friendly
Reason Chosen	Adjustable Legs

Project Location

Staff Break Room

Lagom Rose Wallpaper

specs / 114



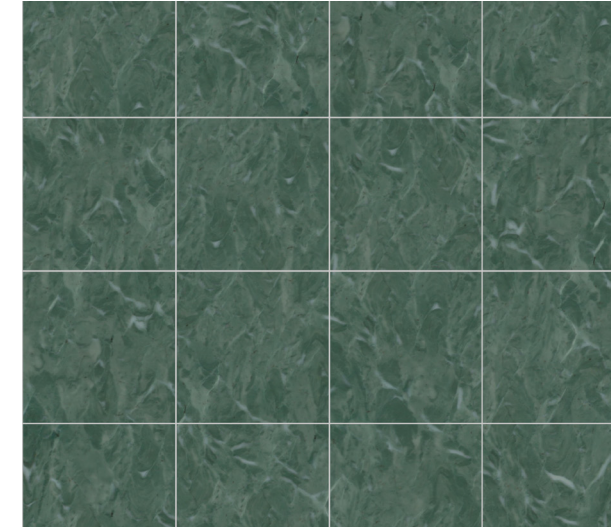
Specs

Company Name	Graham Brown
Website	https://www.grahambrown.com/us/lagom-rose-plain-wallpaper/1ing-wallpaper-pink
Fixture Number	106840
Description	Wallpaper
Color	Lagom Rose
Dimensions (in)	L 32'.80" , W 20'.47"
Available Sizes	1
Material	Vinyl
Special Instruction	n/a
Sustainability	n/a
Reason Chosen	Materiality, Color

Project Location

Staff Break Room

GAN Ply Round



Specs

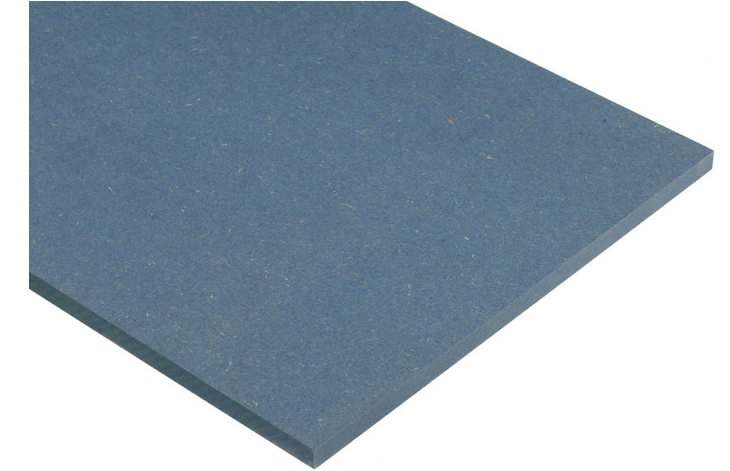
Company Name	GAN Rugs
Website	https://www.bedrosians.com/en/product/detail/cloe-ceramic/
Fixture Number	DECCLOGRN55
Description	Ceramic Tile
Color	Green
Dimensions	3 x 3
Available Sizes	3
Material	Ceramic
Special Instruction	n/a
Sustainability	n/a
Reason Chosen	Function and Color

Project Location

Staff Break Room

MDF Wood

specs / 115



Specs

Company Name	Inventables
Website	https://www.inventables.com/technologies/blue-mdf-sheet
Fixture Number	n/a
Description	MDF Cabinets
Color	Blue
Dimensions (in)	L 12 x W 12, 1/4" Thick
Available Sizes	2
Material	MDF
Special Instruction	n/a
Sustainability	Organically Dyed
Reason Chosen	Color of MDF

Project Location

Staff Break Room

Alfa Kids Table



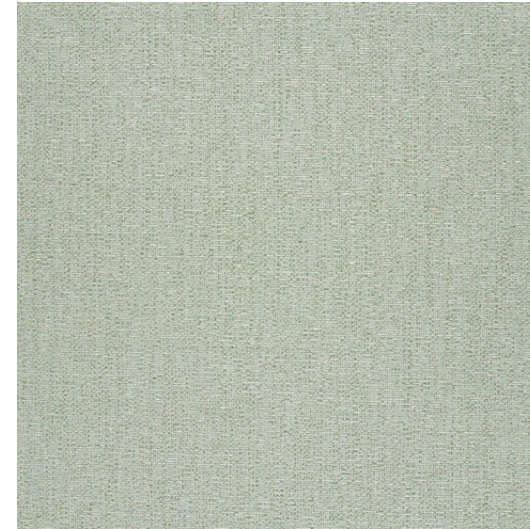
Specs

Company Name	Vitтер
Website	https://www.vitterdesign.com/en/kids-collection/kids-table/
Fixture Number	n/a
Description	Library Table
Color	Top - Pink, Blue, Lilac
Dimensions (cm)	H 53.1, 120" Diam
Available Sizes	1
Material	Formaldehyde-Free Compact Laminate
Special Instruction	Clean Gently
Sustainability	Recycle and Renewable
Reason Chosen	Color Options and Formaldehyde Free

Project Location

Hyper Sensitive Library

Blink Vinyl Wallcovering



Specs

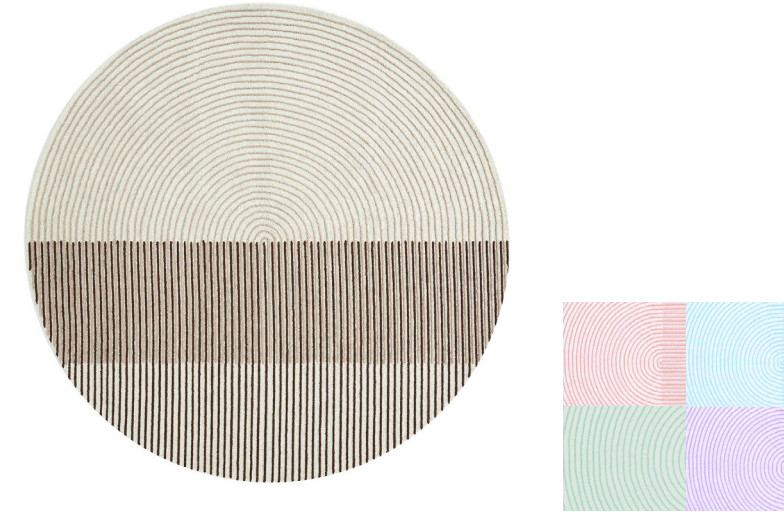
Company Name	Design Tex
Website	https://www.designtex.com/blink.html
Fixture Number	3127-502
Description	Wallcovering
Color	Bermuda Green
Dimensions (in)	W 54
Available Sizes	1
Material	21% Polyester(recycled), 47% Polyethylene
Special Instruction	n/a
Sustainability	Ships Carbon Neutral
Reason Chosen	Low VOC, No Antimicrobials

Project Location

Hyper Sensitive Library

specs / 116

GAN Ply Round



Specs

Company Name	GAN Rugs
Website	https://shop.gan-rugs.com/us_en/rug-round-collection-ply-model-pink
Fixture Number	100640
Description	Hand Tufted Rug
Color	Base Neutral , Loops : Pnk, Blue, Lilac, Seafoam
Dimensions	96.45 " Diameter
Available Sizes	2
Material	100% New Wool
Special Instruction	n/a
Sustainability	n/a
Reason Chosen	Form, Playful Colors

Project Location

Hyper Sensitive Library, Escape Pods

Panton Chair



Specs

Company Name	Vitra
Website	https://www.vitra.com/en-us/living/product/details/panton-chair
Fixture Number	n/a
Description	Chair
Color	Pale Rose, Soft Mint, Glacier Blue
Dimensions (in)	Overall H 34, W 19 3/4 D 24, Seat H 17 1/2"
Available Sizes	1
Material	100% Recyclable Polypropylene Matt Finish
Special Instruction	Limit Sun Exposure
Sustainability	100 % Recyclable
Reason Chosen	Colorful and Available in Jr. Size

Project Location

Hyper Sensitive Library, Therapy Rooms

specs / 117

Loop by Kazuhide Takahama



Specs

Company Name	
Website	https://www.cassina.com/it/en/products/loop.html
Fixture Number	W52 01/10
Description	Consult Office Table
Color	Black
Dimensions (in)	W 70.1" x H 29.1" x D 32.3"
Available Sizes	2
Material	Wood with Matte Lacquer
Special Instruction	Gently Clean
Sustainability	n/a
Reason Chosen	Storage Casters with Lock and Key

Project Location

Consult Office

HON Workstations



Specs

Company Name	HON
Website	https://www.officecrave.com/hon-lm72penpnc.html
Fixture Number	LM72PENPNC
Description	Work Station
Color	Natural Birch
Dimensions (in)	H 29" x W 72" x D 36"
Available Sizes	one
Material	Birch
Special Instruction	Clean Gently
Sustainability	n/a
Reason Chosen	Form

Project Location

Administrative Office

specs / 118

Bla Station Wilmer S



Specs

Company Name	SANCAL
Website	https://www.blastation.com/products/easy-chairs/wilmer/wilmer-o55s
Fixture Number	055S
Description	Swivel Easy Chair
Color	Abodo White
Dimensions (in)	Seat H 46", Seat W 47", Overall W 100"; Seat D 46", Overall D 62"
Available Sizes	1
Material	Upholstery 100% Recycled Polyester; Base: Lacquered Steel
Special Instruction	n/a
Sustainability	recyclable materials
Reason Chosen	Form
Project Location	Consult Office

Herman Miller Aeron Chair



Specs

Company Name	Herman Miller
Website	https://store.hermanmiller.com/office-chairs-aeron?lang=en_US
Fixture Number	100073872
Description	Task Chair
Color	Black
Dimensions (in)	H 41, W 27, D 16.75
Available Sizes	3
Material	Polished Aluminum
Special Instruction	n/a
Sustainability	Eco-Friendly
Reason Chosen	Ergonomics

Project Location

Consult and Admin Office

specs / 119

Vondom Love Chair



Specs

Company Name	VONDOM
Website	https://www.vondom.com/us/products/chairs-love-chair-eugeni-quitlet-65042
Fixture Number	n/a
Description	Chair
Color	White
Dimensions (in)	Seat H 17 3/4, W 20 3/4 x H 34 1/4 x D 20 1/4
Available Sizes	2
Material	Polypropylene
Special Instruction	Clean with Soft Cloth
Sustainability	100% Recycled Plastic from Mediterranean Sea
Reason Chosen	Various Color Options Available for Children

Project Location

Therapy Rooms

Casala Cantilever w/ Armrest



Specs

Company Name	Casala
Website	https://www.archiproducts.com/en/products/casala/cantilever-chair-with-armrests-casalino-2008-10_164322
Fixture Number	2008/10
Description	Padded Chair w/ Armrest
Color	White
Dimensions (cm)	Overall H 72, W 58 D 54, Seat H 41
Available Sizes	1
Material	Plastic Frame
Special Instruction	n/a
Sustainability	n/a
Reason Chosen	Curved Organic Form

Project Location

Therapy Room

specs / 120

Casalino Jr.



Specs

Company Name	Casala
Website	https://www.archiproducts.com/en/products/casala/cantilever-chair-with-armrests-casalino-2008-10_164322
Fixture Number	2000/00
Description	Junior Chair
Color	White
Dimensions (cm)	Overall H 59, W 42 D 53, Seat H 34
Available Sizes	2
Material	Plastic Frame
Special Instruction	n/a
Sustainability	n/a
Reason Chosen	Curved Organic Form

Project Location

Therapy Room

Caslino No Armrest



Specs

Company Name	Casala
Website	https://www.archiproducts.com/en/products/casala/cantilever-chair-with-armrests-casalino-2008-10_164322
Fixture Number	2004/00
Description	w/o Armrest
Color	White
Dimensions (cm)	Overall H 72, W 58 D 54, Seat H 41
Available Sizes	1
Material	Plastic Frame
Special Instruction	n/a
Sustainability	n/a
Reason Chosen	Curved Organic Form

Project Location

Therapy Room

specs / 121

H& A Double Braced Drum Throbe



Specs

Company Name	ADORAMA
Website	https://sancal.com/en/pouf-chat/
Fixture Number	SKU: HADTH
Description	Guitar Stool
Color	Black
Dimensions (in)	17-22.5 " Adjustable Height 12" Diam
Available Sizes	1
Material	Top Grain Leather
Special Instruction	Clean with Soft Cloth
Sustainability	n/a
Reason Chosen	Special Seating for Music Instrument

Project Location

Therapy Rooms

Hightower Kona Pouf



Specs

Company Name	Hightower
Website	https://cgmood.com/3d-model/hightower-round-kona-pouf-by-most-modest
Fixture Number	n/a
Description	Pouf
Color	Camira Armadillo
Dimensions (in)	Base Diam 20", Top Diam 17" H 17.5"
Available Sizes	1
Material	100% Wool
Special Instruction	Clean Gently
Sustainability	n/a
Reason Chosen	Seating Variety

Project Location

Therapy Room

specs / 122

Bla Station Puppa Pouf



Specs

Company Name	Bla Station
Website	https://www.blastation.com/products/product-families/puppa/puppa
Fixture Number	n/a
Description	Pouf
Color	Camira Grey Decade WK 020
Dimensions (cm)	W 50, H 33, L 73
Available Sizes	1
Material	Upholstery 100% Wool
Special Instruction	Clean with Soft Cloth
Sustainability	Recyclable Materials
Reason Chosen	Various Color Options Available for Children

Project Location

Large Group Therapy

Sancal Elephant Pouf



Specs

Company Name	SANCAL
Website	https://sancal.com/en/pouf-elephant/
Fixture Number	n/a
Description	Pouf
Color	Atlantic 65074
Dimensions (cm)	45 x 45
Available Sizes	1
Material	Upholstery 100% PL; Base Smooth Metal Black
Special Instruction	Clean with Soft Cloth
Sustainability	ISO 14001 Certification of a Rigorous Environmental Management System
Reason Chosen	Various Color Options Available for Children

Project Location

Large Group Therapy

specs / 123

Floating Bubble Chair



Specs

Company Name	Modholic
Website	https://www.myhammock.com/shop/hammock-chairs/bubble-chair-swing/
Fixture Number	n/a
Description	Swing
Color	Mustard, Royal Blue
Dimensions (in)	W 32 x H 42 x L 41
Available Sizes	1
Material	Clear Acrylic, Polished Chrome
Special Instruction	n/a
Sustainability	n/a
Reason Chosen	Various Color Options Available for Children

Project Location

Hypo Sensitive Playroom

Mecho Shade Motorized System

specs / 124



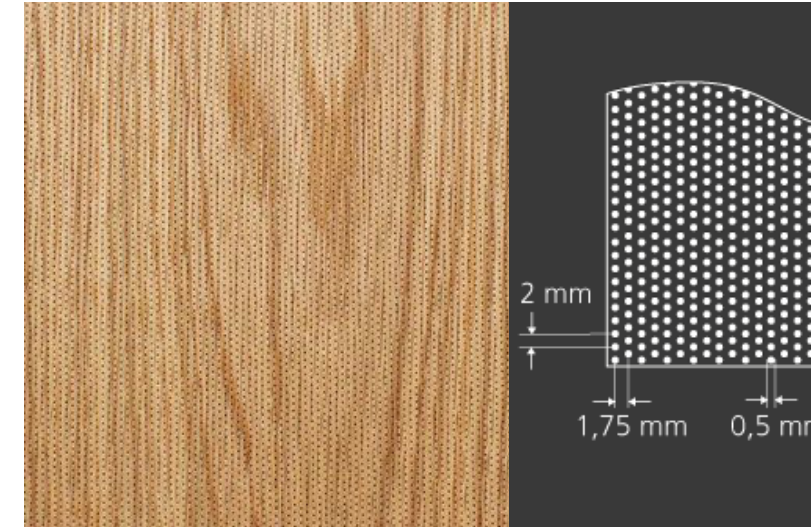
Specs

Company Name	Mecho Shade
Website	https://www.mechoshade.com/products/shade-systems/motorized-shade-systems/electroshade
Fixture Number	n/a
Description	Motorized Solar Shade
Color	Soho Elavate White 1181
Dimensions	Customized Based on Room
Available Sizes	Several
Material	76% PVC and 24% Polyester
Special Instruction	n/a
Sustainability	60% Cost Reduction with iQ3-DC
Reason Chosen	Light Control

Project Location

Therapy, Consult and Admin, Waiting Lounge

Gustafs Nano Perferoated Acoustic Panel



Specs

Company Name	Gustafs
Website	https://gustafs.com/gustafs-panel-system/acoustic-panels/nano-perforation/#
Fixture Number	n/a
Description	Acoustic Panel
Color	Natural Birch
Dimensions	.5 mm Hole and 1.75mm Space
Available Sizes	1
Material	Fibre Gypsum Core with Birch Wood Veneer
Special Instruction	n/a
Sustainability	Maintenance Free due to Small Holes
Reason Chosen	Acoustic Needs

Project Location

Hallways Therapy Room, Playroom, Library

Birch

specs / 125



Specs

Company Name	Hearne Hardwoods
Website	https://www.hearnehardwoods.com/birch-lumber/
Fixture Number	n/a
Description	n/a
Color	Light Yellow Sapwood
Dimensions (in)	W 2"
Available Sizes	Varies
Material	Birch
Special Instruction	n/a
Sustainability	n/a
Reason Chosen	Locality and Color Similar to Existing Condition

Project Location

Ceiling Wavy Panels

Marble



Specs

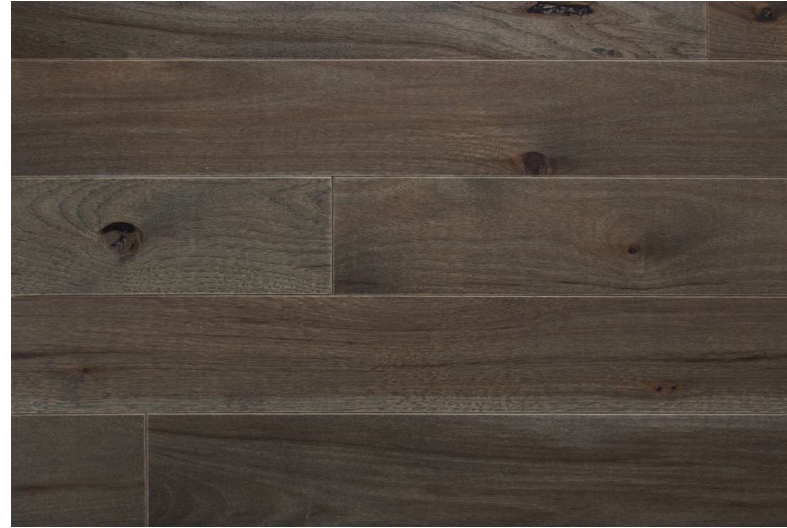
Company Name	SANCAL
Website	https://pro-tops.com/marble-countertops/
Fixture Number	n/a
Description	Solid Surface
Color	Bianco Ibiza
Dimensions	Custom
Available Sizes	Varies
Material	Marble
Special Instruction	Clean with Soft Cloth
Sustainability	n/a
Reason Chosen	Scratch Resistant

Project Location

Staff Break Room

Solid Hardwood Oak

specs / 126



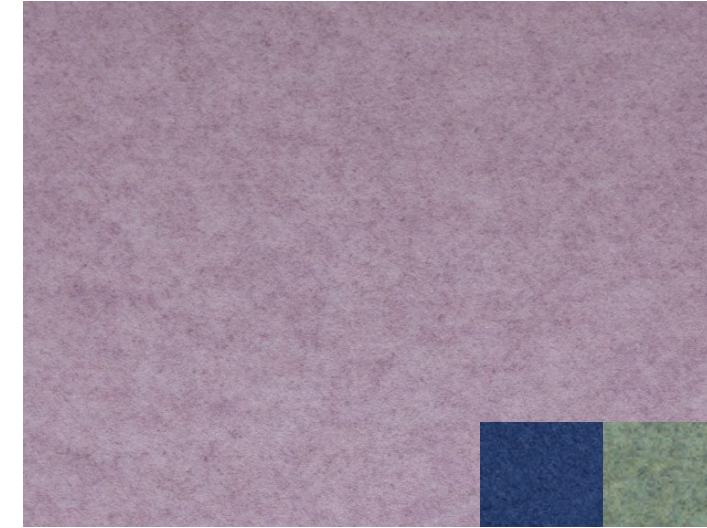
Specs

Company Name	Somerset Floors
Website	https://www.somersetfloors.com/product-collection/collection/11/product/56
Description	Hardwood Floor
Color	Hickory Ember
Dimensions(in)	W 4"
Available Sizes	3
Material	Oak ,Smooth, Low Gloss
Special Instruction	n/a
Sustainability	n/a
Reason Chosen	Providing Contrast in Color from Ceiling and Walls

Project Location

Floors

Féline Acoustic Felt



Specs

Company Name	Feline Fabrics
Website	https://www.felinefabrics.com/felt-collections/pet-felt/
Description	Acoustic Felt
Color	Fresco Green, Purple, Minimal Art Blue
Dimensions (mm)	Thickness 3, W 150 cm
Available Sizes	3
Material	90% WP/ 10 % PL
Special Instruction	n/a
Sustainability	No Water or Drying Machines in Felting Process, Biodegradable Glue
Reason Chosen	Acoustic Properties Absorption Coeff .95

Project Location

Therapy Rooms

Corian

specs / 127

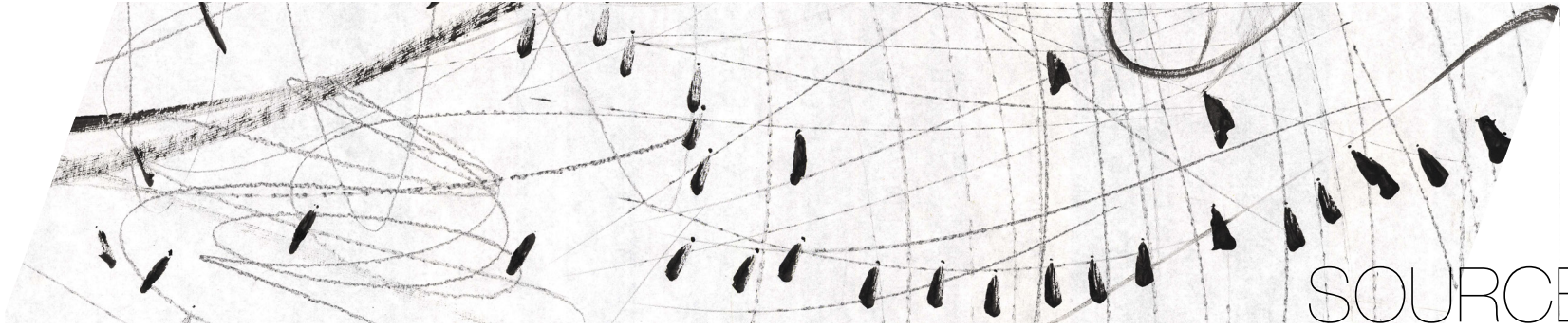


Specs

Company Name	Corian
Website	https://www.corian.com/
Fixture Number	n/a
Description	Solid Surface
Color	Venaro White
Dimensions	Custom
Available Sizes	Varies
Material	Corian
Special Instruction	n/a
Sustainability	n/a
Reason Chosen	Scratch Resistant, Durable

Project Location

Reception Desk, Custom Waiting Lounge



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reflection

The defense for this thesis project, held on May 5th of 2022, gave me a moment to reflect upon the development of not only this project but also my development as a designer over the past two years. This project was a medium to exhibit the proficiency of skills developed thus far. With the help of the respected professors Roberto Ventura, Kristin Carleton, Dr. Sara Reed, Emily Smith, Lexy Holcombe, and Camden Whitehead, I was able to cultivate my dormant creative abilities and apply them to this project to the best of my ability. They have consistently provided me with guidance and critiqued me when needed. The presentation of this project included a description of the project, its personal relevance to me, site context, neighborhood and building history, programming information, conceptual development, schematic design, and design development. The concept was predominantly implemented in the ceiling and walls of the therapy rooms, escape pods, and library. The form of the sound vibrations inspired the selection of furniture and staff break room. Through continuous guidance over the past few months, I was challenged to think about the materiality of the ceiling as well as the wall panels. This led me to explore the nano perforated acoustic panels for their acoustic quality as well as the invisibility of the perforation. As I transitioned from schematic to design development, the selection of furniture was greatly improved as suggested by my mentor Kristin Carleton. I learned to incorporate and mix and match various seating options and select finishes that are consistent with the overall design strategy. Post presentation, the respected professors and mentors provided their feedback. The biggest takeaway was to perceive the project as a whole and not separate units of space, as well as how to incorporate the concept in totality, especially at points where there is a meeting of floor, ceiling, and walls. I am very grateful for their insight and hope to carry their advice with me in my future endeavors.

