Decatur Cooperative Ministry

Sustainable Design Collaborative Atlanta_ Vision Project _ 2022

INTRODUCTION

Welcome!

Sustainable Design Collaborative Atlanta is honored to select Decatur Cooperative Ministry for our 2022 project. The following pages outline our organization, our process, and the final vision for this important project..

PARTICIPATING ORGANIZATIONS

American Institute of Architects (AIA) Atlanta Chapter

American Society of Heating, Refrigeration and Air Conditioning Engineers (ASHRAE) Atlanta Chapter

American Society of Interior Designers (ASID) Georgia Chapter

American Society of Landscape Architects (ASLA) Georgia Chapter

Construction Specifications Institute (CSI) Atlanta Chapter

International Interior Design Association (IIDA) Georgia Chapter

U.S. Green Building Council (USGBC) Georgia Chapter

PREPARED FOR:

Decatur Cooperative Ministry

DEVELOPED BY:

Sustainable Design Collaborative Atlanta

PROCESS

SDCA INTRODUCTION

Our Vision

In its tenth year as a collaborative effort, Sustainable Design Collaborative Atlanta, formerly Red and Green Scene (R+GS) Community Outreach Committee, continues to follow its vision to enhance communities by providing equal access to cross-disciplinary sustainable design solutions.

Our Mission

To provide a means for pooling talent,sharing ideas, and developing programs for the betterment of the community.

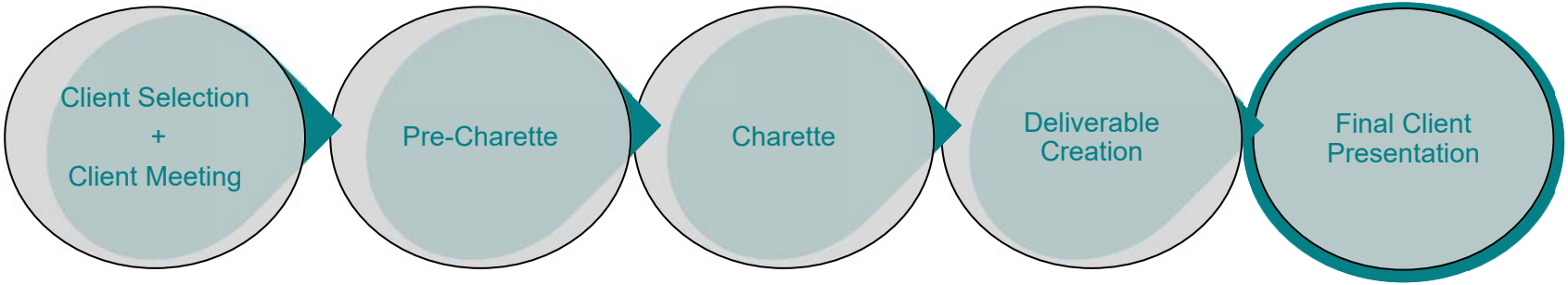
Who We Are

We are a non-profit volunteer driven organization with our members representing eight diverse building community organizations. Each member is a sustainable-minded professional. We are connected by our desire to provide professional design services to the 99% of the human race that does not normally have the opportunity to fund these types of services. We began in 2010 and complete one pro-bono project each year. Each of our organizations are represented at the annual Red and Green Scene Holiday Fundraising event. Currently, this event provides all of our funding.

What We Do

Our cross-disciplinary approach focuses on bringing holistically integrated design solutions to organizations with sustainability and community enhancement driven missions.

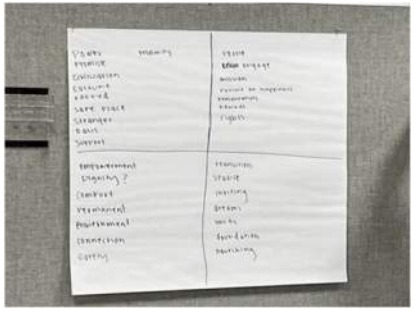
Inclusive and Relevant

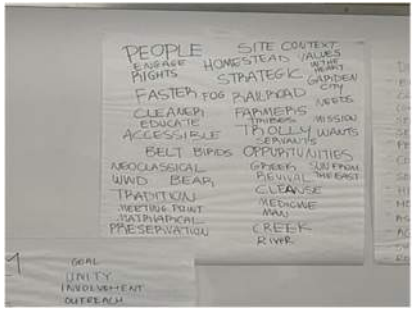


Our participatory process ensures all voices are heard. For 2022, we had the privilege of not only a great client, but the opportunity to work with an amazing group of students from the Savannah College of Art and Design. Through a series of meetings, the Client, the Students and SDCA's diverse stakeholders work side-by-side to produce the final design vision.

CLIENT MEETING AND PRE-CHARETTE

A participatory process is imperative to the strength of the final vision found within this report. The first meeting with the client involves a multi-hour facilitated conversation to understand the goals, opportunities, and details of the project and all partners. Also included in the initial client meeting is a deep-dive tour of the existing facility. The information gathered in the client meeting drives the design direction for the entire process. After the client meeting, the teams organize into smaller task forces, such as site, systems, and interiors, to begin implementation of design creation. The process continues to be collaborative throughout, with multiple group presentations for feedback and revision to ensure alignment with teams and solutions to project goals. This year SDCA collaborated with the SCAD students from Professor Kia Weatherspoon SCAD serve class. Professor Liset Robinson served as the liaison. The Professors are located at the Atlanta campus and are members of the Interior Design Department.





CHARETTE AND DESIGN VISION CREATION

Once the initial vision is created during the pre-charette, the entire group convenes, after doing research and task force work, to detail the final direction of the design. The charette was held at a SCAD Design Studio so that the students could collaborate on specific details of the building and site, and existing building elements.

Teams presented their preliminary designs to the larger group for feedback and integration.

Properly designed goals need a vehicle to push an organization forward.
A well-prepared concept will unify an organization and inform decisions.

INTERRUPT HOMELESSNESS

Expand the overall community well-being by making sure that the care needs are considered while a family is experiencing a difficult season.

ENGAGE THE COMMUNITY

Connect the clients of the homeless shelter with strategic partners in the community that can be a bridge for them in providing safe and secure opportunities for growth.

BALANCED SUSTAINABILITY

A sustainable, healthy, safe, and beautiful facility is the goal of DCM, SCAD and SDCA. In addition to reducing their environmental footprint, creating sustainable spaces for both clients and staff will allow all to be able to focus on the organization’s primary focus.

SITE

SITE OVERVIEW

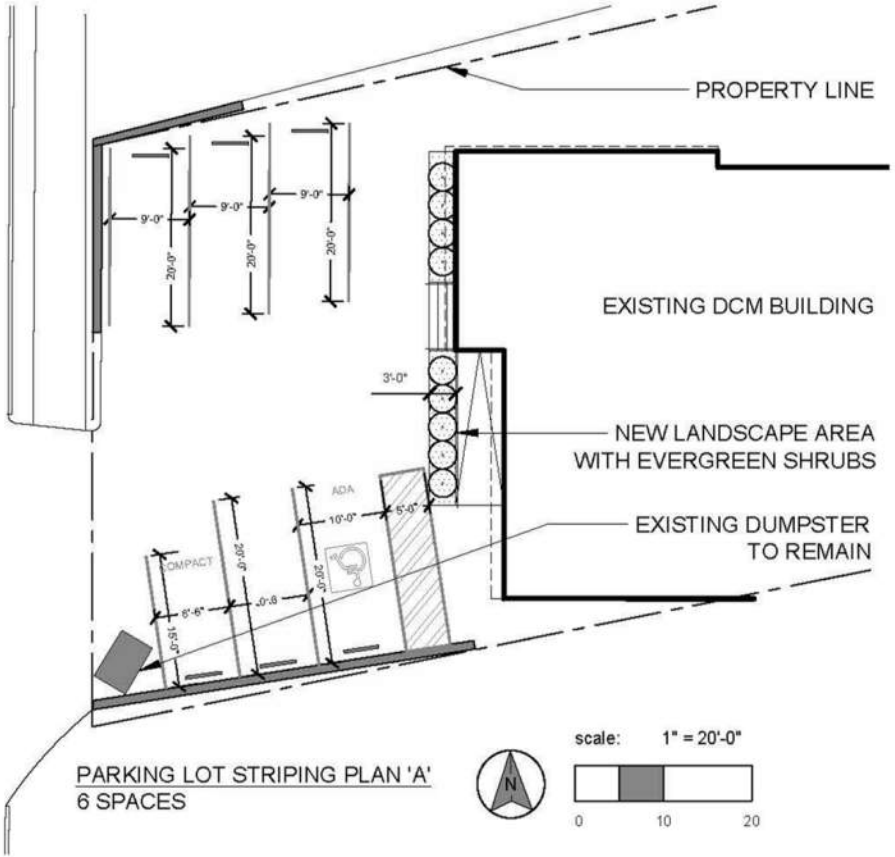
SDCA identified the following needs for the DCM exterior spaces:

- Re-pave and re-stripe the parking lot
- Optimize the courtyard space
- Address drainage problems at the south side of the building
- Address drainage problems at the stormwater detention weir behind the building

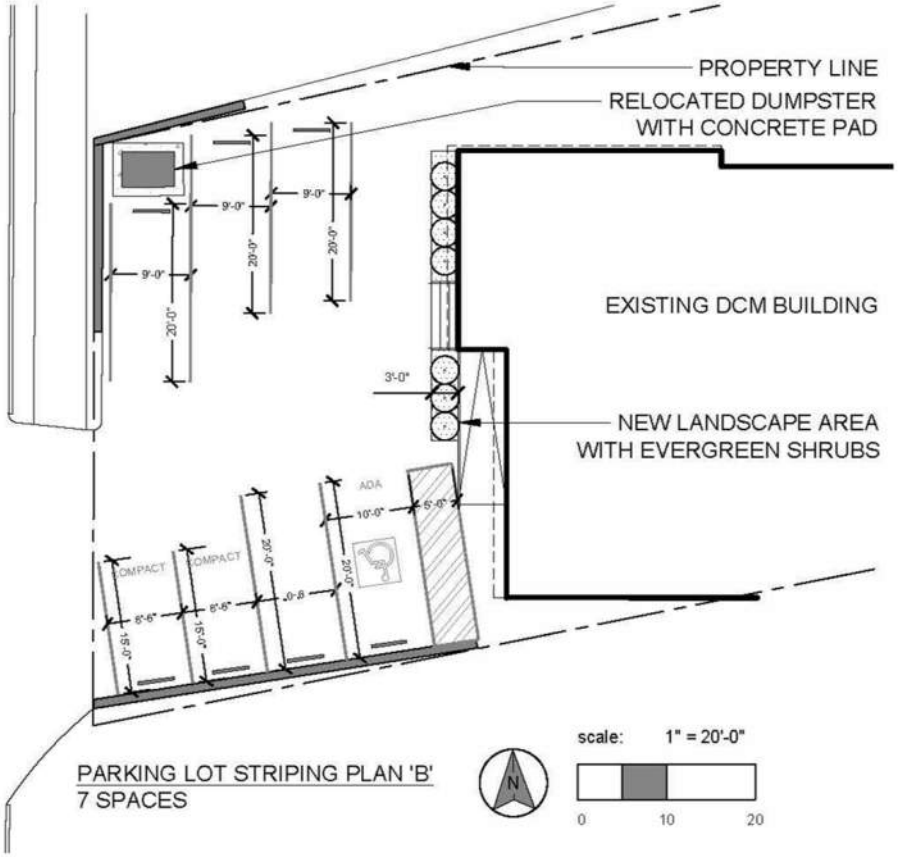
PARKING LOT

The parking lot at the front of the property is in need of resurfacing and restriping. As it is currently laid out, there is space for 6 cars. DCM would ideally have 7 spaces to provide capacity for each room, the executive director, and one handicap space. A parking study reveals that this would be possible if the dumpster can be moved to a new location behind one of the parking spaces. This position may compromise access to the dumpster, and the parking space would need to be left vacant prior to trash pickup. The 7 parking spaces could then be provided as long as two of them were smaller spaces limited to compact vehicles.

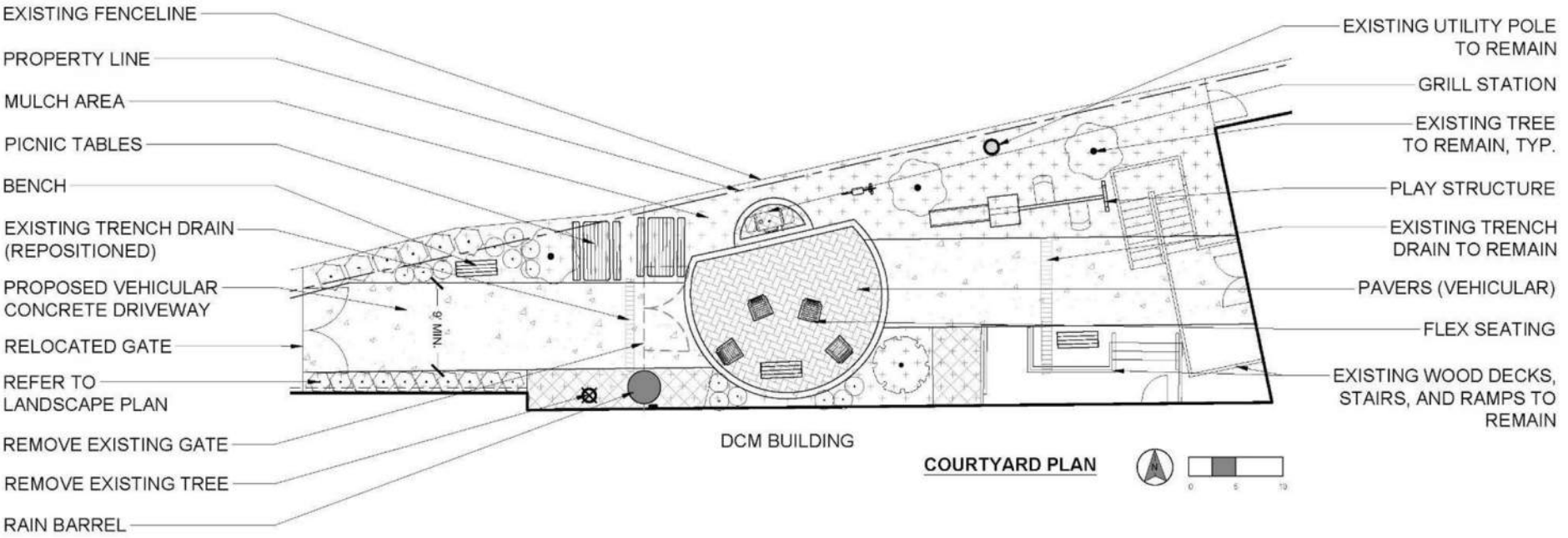
In both plans, the addition of a new landscape strip in front of the existing handicap ramp allows space for evergreen shrubs (azaleas would work nicely in this shady spot) to soften the facade of the building. Refer to the following page for both parking lot layout options. Dimensions are included to facilitate re-striping.



PARKING LOT STRIPING PLAN 'A'
6 SPACES

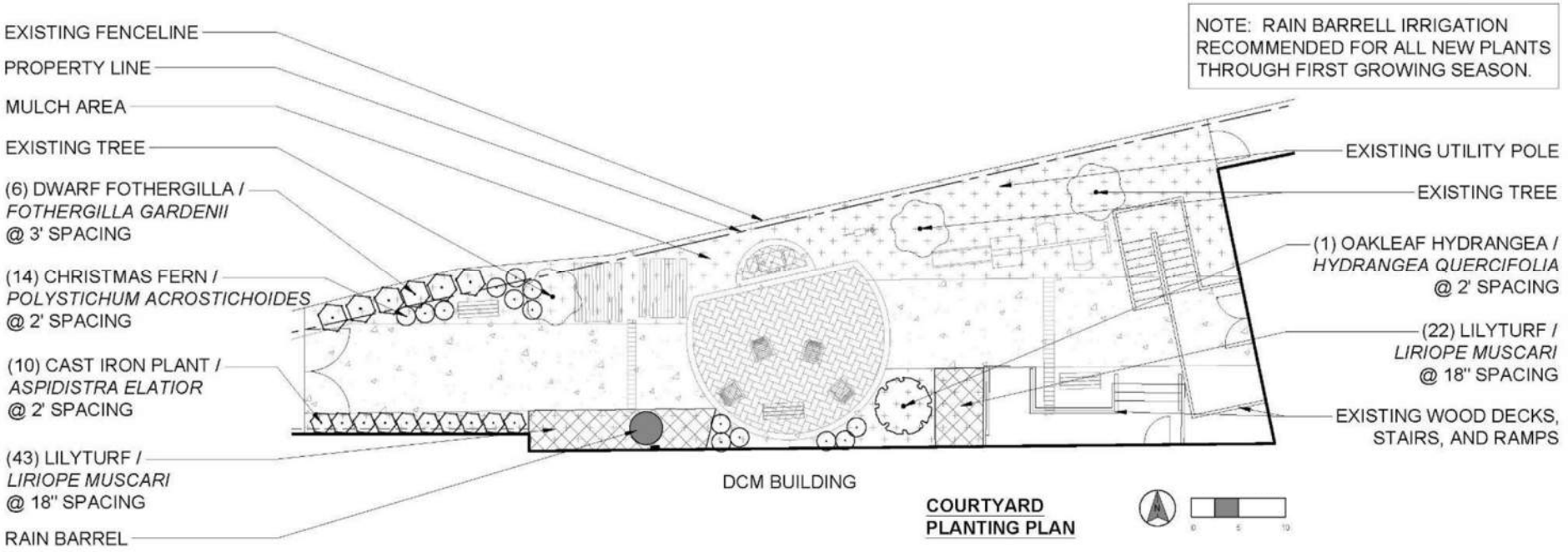


PARKING LOT STRIPING PLAN 'B'
7 SPACES



COURTYARD

The schematic visioning plan above entails enlarging the courtyard by moving the existing gate to the front corner of the building, and reconfiguring the paved area for improved functionality to accommodate additional seating and amenities in the enlarged mulch areas. Note that this plan is conceptual and requires additional refinement prior to implementation.


EXISTING FENCELINE
PROPERTY LINE
MULCH AREA
EXISTING TREE
(6) DWARF FOTHERGILLA / FOTHERGILLA GARDENII @ 3' SPACING
(14) CHRISTMAS FERN / POLYSTICHUM ACROSTICHOIDES @ 2' SPACING
(10) CAST IRON PLANT / ASPIDISTRA ELATIOR @ 2' SPACING
(43) LILYTURF / LIRIOPE MUSCARI @ 18" SPACING
RAIN BARREL
NOTE: RAIN BARRELL IRRIGATION RECOMMENDED FOR ALL NEW PLANTS THROUGH FIRST GROWING SEASON.
EXISTING UTILITY POLE
EXISTING TREE
(1) OAKLEAF HYDRANGEA / HYDRANGEA QUERCIFOLIA @ 2' SPACING
(22) LILYTURF / LIRIOPE MUSCARI @ 18" SPACING
EXISTING WOOD DECKS, STAIRS, AND RAMPS
DCM BUILDING
COURTYARD PLANTING PLAN

DRAINAGE

An apparent drainage issue along the south edge of the building causes stormwater intrusion into the kitchen. This is due to the slope of the ground causing water to flow towards the building. The ideal solution would be to fill with soil against the side of the building, thus raising the grade to create a slope away from the building for at least five feet. This solution is complicated because the edge of the building is on the property line and thus earthwork cannot be undertaken without permission from the neighboring property owner. Additionally, there is a mature canopy tree whose root systems would be impacted by the grading process. If the neighboring property owner were to consent to the re-grading and a tree plan with an arboricultural assessment were to demonstrate that the existing tree would not be harmed, then this could be a viable option to stop the flooding.

Image: South edge of building with ground sloping towards it. Mature tree adjacent.

Another, more actionable solution, would be to add a waterproof membrane against the exterior foundation of the building and a french drain with perforated pipe and drainage stone immediately adjacent to the building wall. This would route stormwater to the southeast corner of the building, where it could be tied into the existing drainage system. This possibility should be explored by soliciting input from foundation waterproofing and landscape contractors.

A second drainage issue occurs at the rear of the building in the concrete detention basin. The I-shaped weir, designed to release water slowly, regularly clogs with magnolia leaves from the adjacent property. A solution to this problem would be to saw-cut the concrete notch to a more conventional V-shape, as indicated in the adjacent photo. This would create a larger outlet and prevent clogging with debris. This intervention would modify the rate of stormwater drainage from the site and thus require consultation with the City of Decatur Stormwater Department, the permitting authority for the existing detention structure.

Image: this photograph displays the existing weir construction and the proposed cut lines to widen the notch while retaining its stormwater detention function.

INTERIORS

STUDENTS

The next slides that include concept, color story and renderings have been designed by Savannah College of Art and Design (SCAD) students with the supervision of their professor Kia Weatherspoon and the help of SDCA members. These drawings are copyright protected and may not be used unless written allowance is provided by SCAD SERVE

SCAD COURSE NAME: DESIGN FOR GOOD. SCAD 560

PROCESS

Togetherness

tuh-geth-er-nis

The process for this project began with seeking understanding of our partners Decatur Cooperative Ministries (DCM) mission. In a series of meetings with our Community Partner, Student Designers, and other professional trades and disciplines.

The Student Designers did extensive site surveys to fully understand the site condition of the building. Along conducting interviews with the facilities team, volunteers and support services to learn what a family member / residents truly need to create a elevated design outcome.

Our process also allowed the Student Designers to build trust, empathy and connection with our community partner.

Image: Student Designers gather to meet with our community partner DCM to understand their program needs.

CONCEPT

The intentionality of the concept for DCM was rooted in have a historical and contextual analysis of the building location as far back to who were the original native care takers of the land. Coupled with understanding the history of Decatur as a community. Followed by connecting the community partners property namesake Hagar's House to the origin story of Hagar. Hagar's story of God's unwavering support to those who are lost was a critical narrative for concepts. Hagar saw the oasis of water in the desert from God. Our community partner DCM is that haven and oasis for these families. Our concept became Rooted in Reviving Oasis.

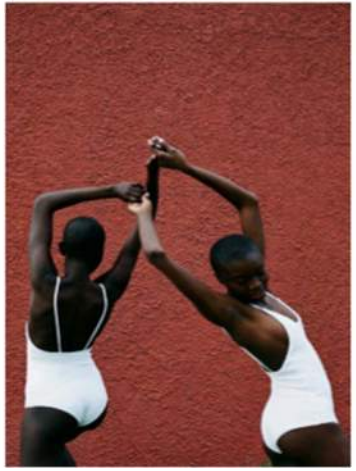
Image: Student Designers and professional partners had a 8 hour day charette to come up with the concept.

ROOTED

Fixed / Grounded / Firm

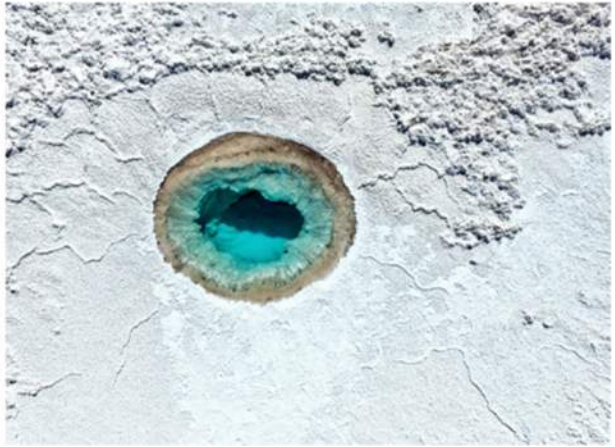
REVIVING

Rejuvenate / Invigorate / Overcome.



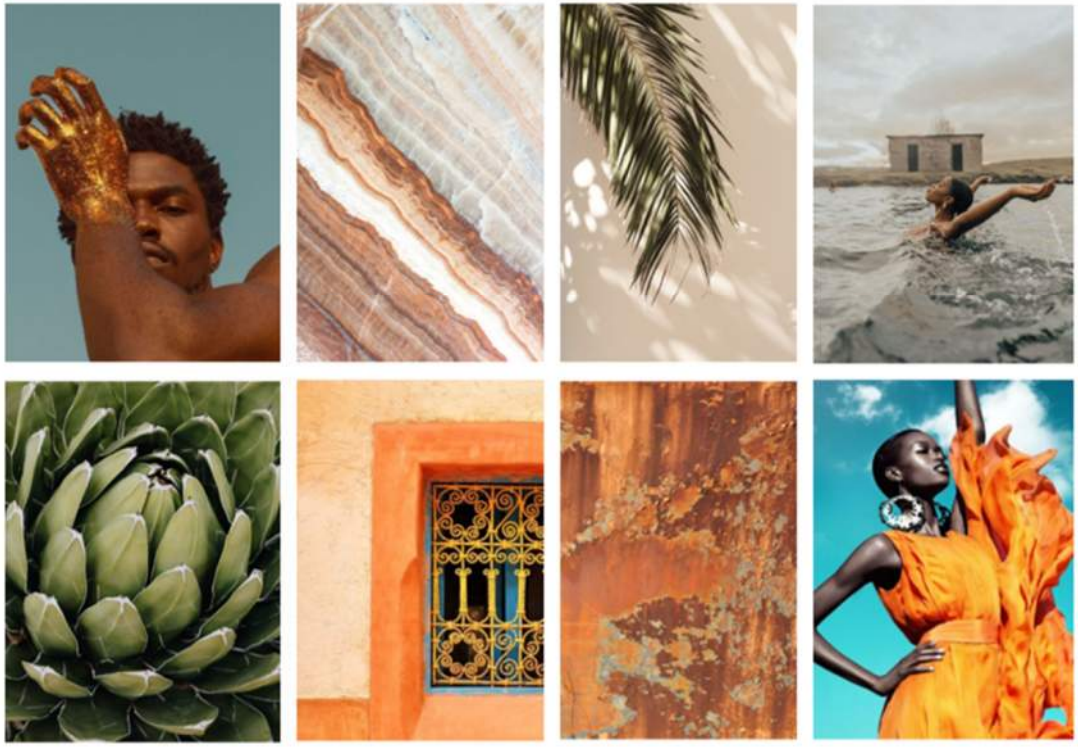
OASIS

Prosperity / Rebirth / Refuge



ROOTED IN REVIVING AN OASIS

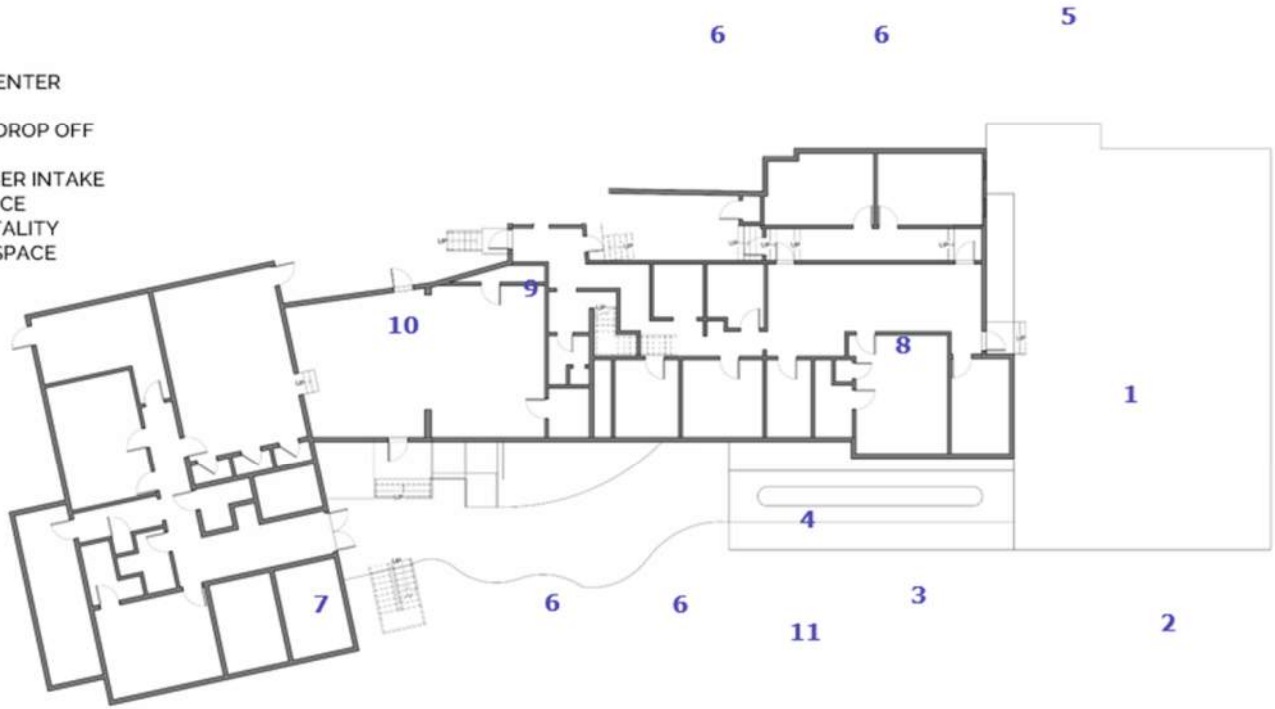
COLOR STORY



EXISTING PLAN

LEGEND

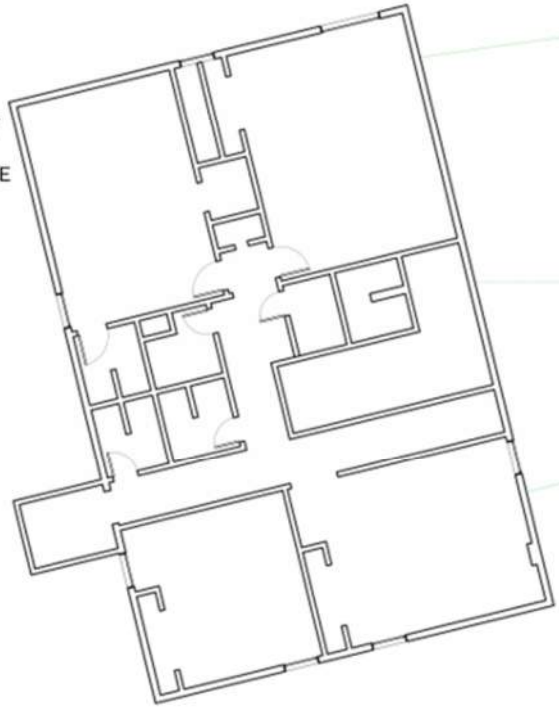
1 . WELCOME CENTER
2. WAITING
3. DONTATION DROP OFF
4. STORAGE
5. CASE MANAGER INTAKE
6. SHARED OFFICE
7. TEAM HOSPITALITY
8. FLEX WORK SPACE
9. OFFICE
10. COPY AREA
11. RESTROOM

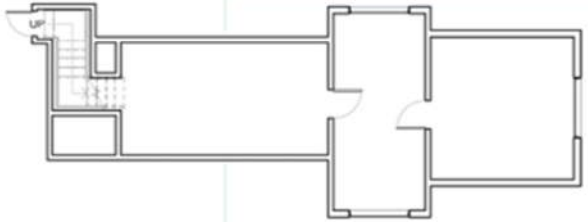


EXISTING PLAN

LEGEND

1 . WELCOME CENTER
2. WAITING
3. DONTATION DROP OFF
4. STORAGE
5. CASE MANAGER INTAKE
6. SHARED OFFICE
7. TEAM HOSPITALITY
8. FLEX WORK SPACE
9. OFFICE
10. COPY AREA
11. RESTROOM





DCM TEAM SPACES

Space Plan

LEGEND

1 . WELCOME CENTER
2. WAITING
3. DONTATION DROP OFF
4. STORAGE
5. RESTROOM
6. PRIVATE OFFICE
7. FLEX WORK SPACE
8. TEAM HOSPITALITY
9. ADMIN OFFICE
10. SHARED WORKSPACE
11. DONATION ASSEMBLY
12. MEETING ROOM

HAGAR'S HOUSE

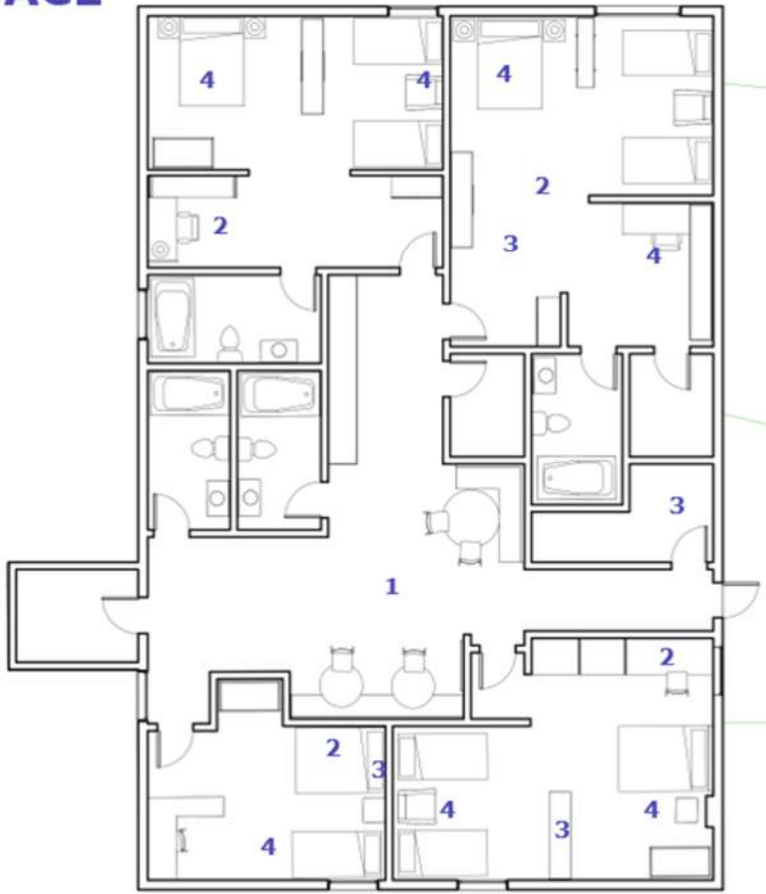
LEGEND

1 . CHECK IN
2. INTAKE
3. STORAGE
4. FAMILY ROOM
5. LAUNDRY
6. KITCHEN
7. MULTI-PURPOSE ROOM
8. COMMUNITY ROOM
9. TECH/CLASSROOM
10. BATHROOM

FAMILY RESIDENTIAL SPACE

LEGEND

1 . SOCIAL
2. STUDY
3. STORAGE
4. REST



WELCOME CENTER

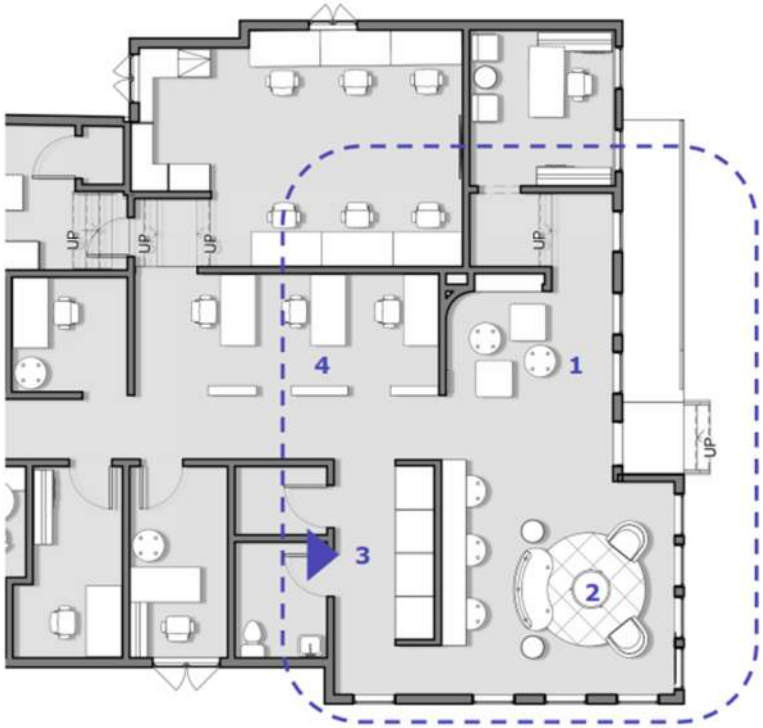
WAITING

DONATION DROP OFF

ENLARGED PLAN

LEGEND

1 . WELCOME CENTER
2. WAITING
3. DONTATION DROP OFF
4. FLEX WORKSPACE



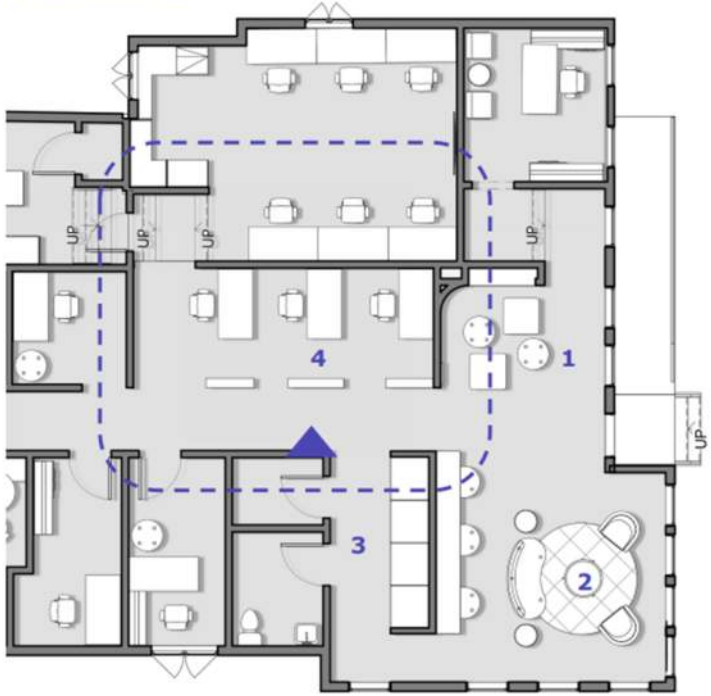
DONATION DROP OFF

FLEX WORKSTATIONS

ENLARGED PLAN

LEGEND

1. WELCOME CENTER
2. WAITING
3. DONTATION DROP OFF
4. FLEX WORKSPACE



FURNITURE

MATERIALS

A. BIOPHILIC ACCENT

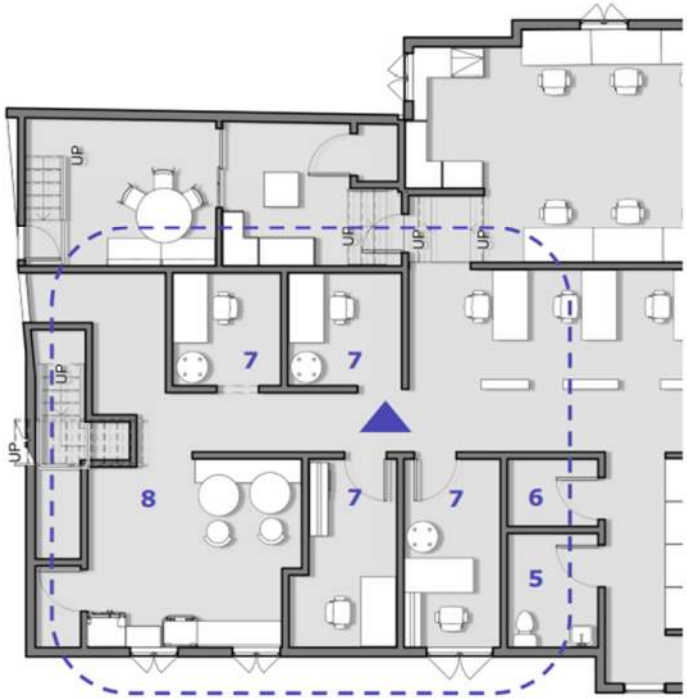
FLEX WORKSTATIONS

PRIVATE OFFICE(s)

ENLARGED PLAN

LEGEND

5. RESTROOM
6. STORAGE
7. PRIVATE OFFICE(s)
8. TEAM HOSPITALITY



FURNITURE

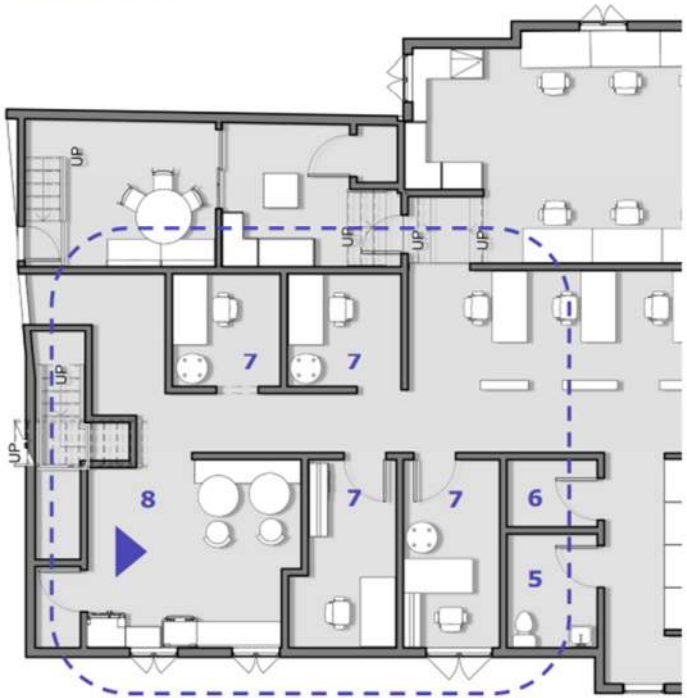
PRIVATE OFFICE (s)

TEAM HOSPITALITY

ENLARGED PLAN

LEGEND

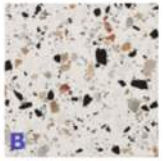
5. RESTROOM
6. STORAGE
7. PRIVATE OFFICE(s)
8. TEAM HOSPITALITY



FURNITURE

MATERIALS

A. ACCENT WALLCOVERING
B. ACCENT TILE FLOORING



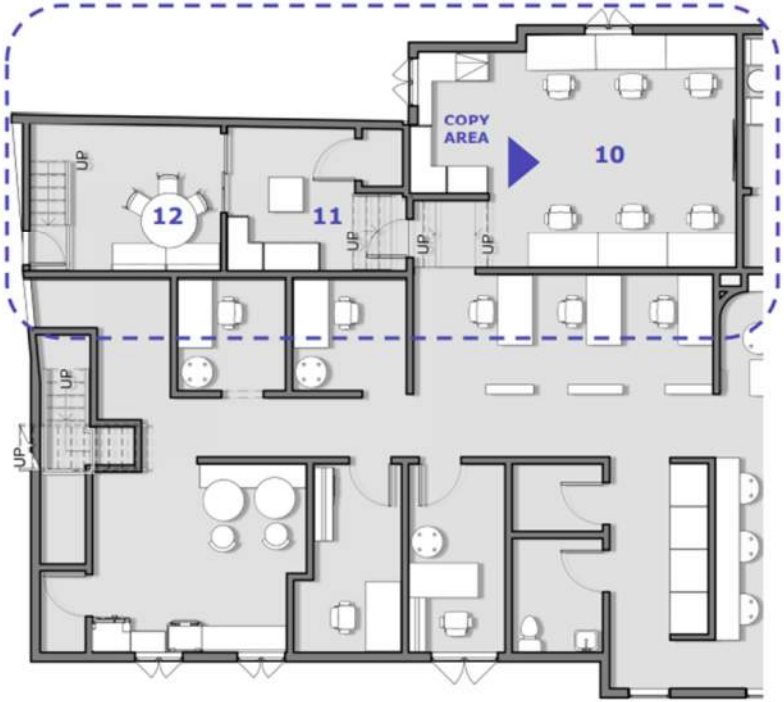
TEAM HOSPITALITY

SHARED SPACES

ENLARGED PLAN

LEGEND

10. SHARED WORKSPACE
11. DONATION ASSEMBLY
12. MEETING ROOM



FURNITURE

MATERIALS

A. CEILING ACCENT REFERENCE PHOTO
B. ACCENT WALLCOVERING
C. CARPET TILE REFERENCE PHOTO

SHARED SPACES

SHARED SPACES

ENLARGED PLAN

LEGEND

10. SHARED WORKSPACE
11. DONATION ASSEMBLY
12. MEETING ROOM

FURNITURE + LIGHTING

MATERIALS

A. OVERALL WALLCOVERING
B. ACCENT WALLCOVERING

SHARED SPACES

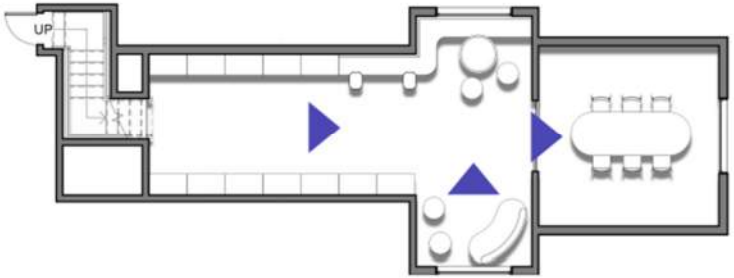
SHARED SPACES

TREE HOUSE

ENLARGED PLAN

LEGEND

13. STORAGE | WORKSURFACE
14. FLEX GATHERING
15. KIDS SPACE



FURNITURE + LIGHTING

THE TREE HOUSE

THE TREE HOUSE

HAGAR'S HOUSE

OVERALL PLAN

LEGEND

1. CHECK IN
2. INTAKE OFFICE
3. FAMILY HAVENS
4. LAUNDRY
5. KITCHEN
6. MULTI-PURPOSE ROOM
7. COMMUNITY ROOM
8. TECH/CLASSROOM
9. BATHROOM

EXISTING STORAGE | MECH.

CHECK IN

ENLARGED PLAN

LEGEND

1 . CHECK IN
2. INTAKE OFFICE
3. FAMILY HAVENS
4. LAUNDRY
9. BATHROOM

CHECK IN


"Don't be afraid.
Be focused.
Be determined.
Be hopeful."
– Michelle Obama

CHECK IN

INTAKE OFFICE

ENLARGED PLAN

LEGEND

1. CHECK IN
2. INTAKE OFFICE
3. FAMILY HAVENS
4. LAUNDRY
9. BATHROOM

FURNITURE

D

INTAKE OFFICE

LAUNDRY ROOM

ENLARGED PLAN

LEGEND

1 . CHECK IN
2. INTAKE OFFICE
3. FAMILY HAVENS
4. LAUNDRY
9. BATHROOM
EXISTING STORAGE | MECH.

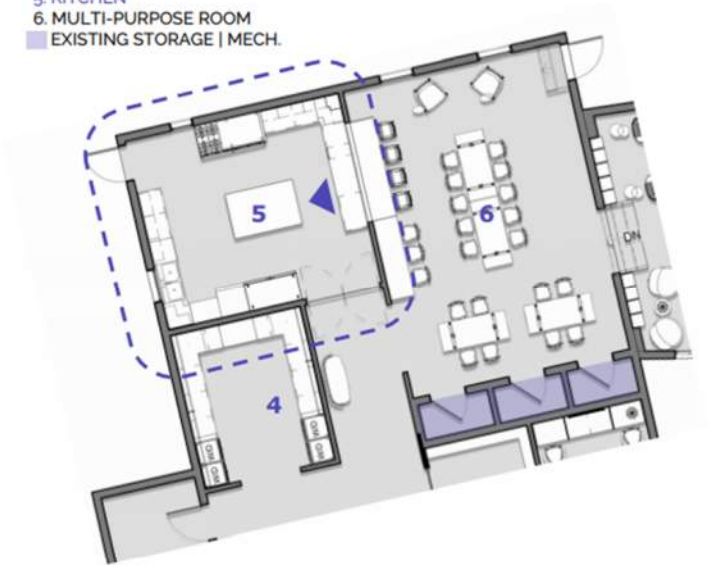
LAUNDRY ROOM

KITCHEN

Add'l Coordination w. Consultant Req.

LEGEND

4. LAUNDRY
5. KITCHEN
6. MULTI-PURPOSE ROOM
EXISTING STORAGE | MECH.



KITCHEN

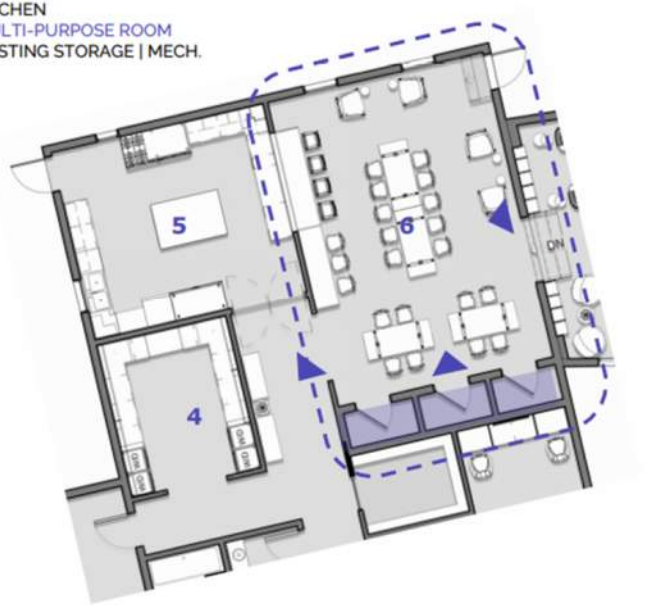
Add'l Coordination w. Consultant Req.

MULTI-PURPOSE ROOM

ENLARGED PLAN

LEGEND

4. LAUNDRY
5. KITCHEN
6. MULTI-PURPOSE ROOM
EXISTING STORAGE | MECH.



PROGRAM

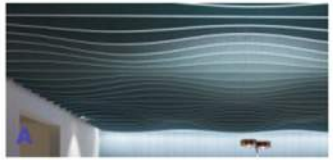
6 COUNTER STOOLS
4 LOUNGE SEATING
18 STACKABLE CHAIRS

FURNITURE




MATERIALS

A. CEILING ACCENT
B. LVT WOOD FLOORING



MULTI-PURPOSE ROOM

MULTI-PURPOSE ROOM

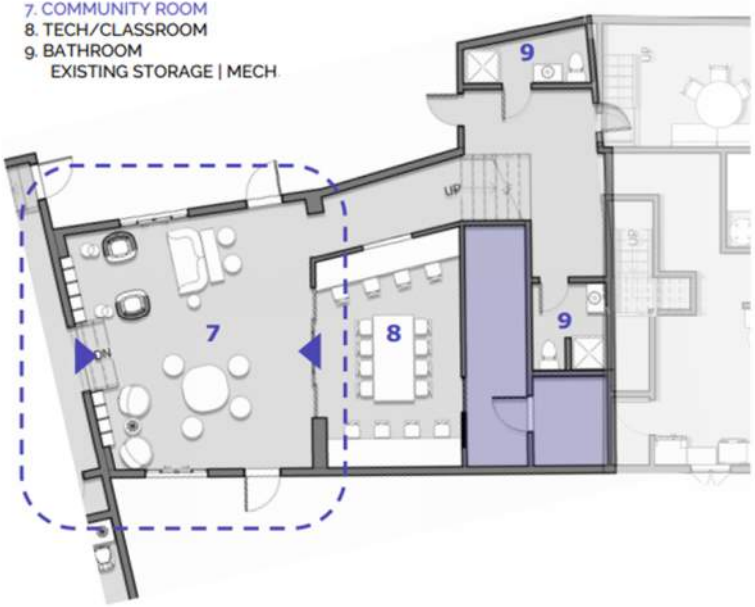
MULTI-PURPOSE ROOM

COMMUNITY ROOM

ENLARGED PLAN

LEGEND

7. COMMUNITY ROOM
8. TECH/CLASSROOM
9. BATHROOM
   EXISTING STORAGE | MECH



FURNITURE

PROGRAM

14 SEATS

COMMUNITY ROOM

COMMUNITY ROOM

TECH ROOM

FAMILY HAVENS

LEGEND

1. SOCIAL TOUCHDOWN
2. FAMILY HAVENS
3. STORAGE

PROGRAM

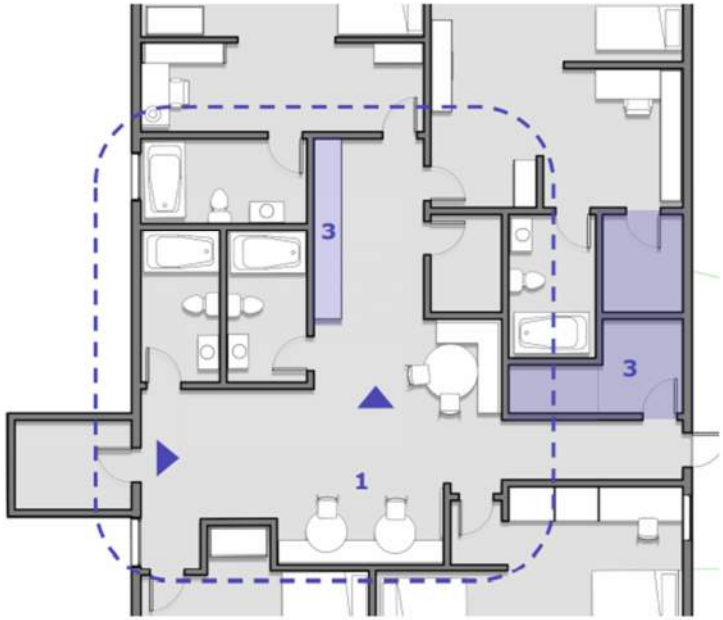
4 FULL SIZE BEDS
7 TWIN SIZE BEDS
3 CRIBS

SOCIAL TOUCHDOWN

ENLARGED PLAN

LEGEND

1. SOCIAL TOUCHDOWN
2. FAMILY HAVENS
3. STORAGE



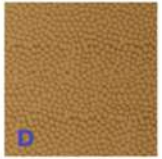
FURNITURE + LIGHTING





MATERIALS

A. WALL PAINT
B. WALL PAINT ACCENT
C. WALLCOVERING ACCENT
D. BANQUETTE FABRIC
E. WOOD LVT FLOORING



SOCIAL TOUCHDOWN

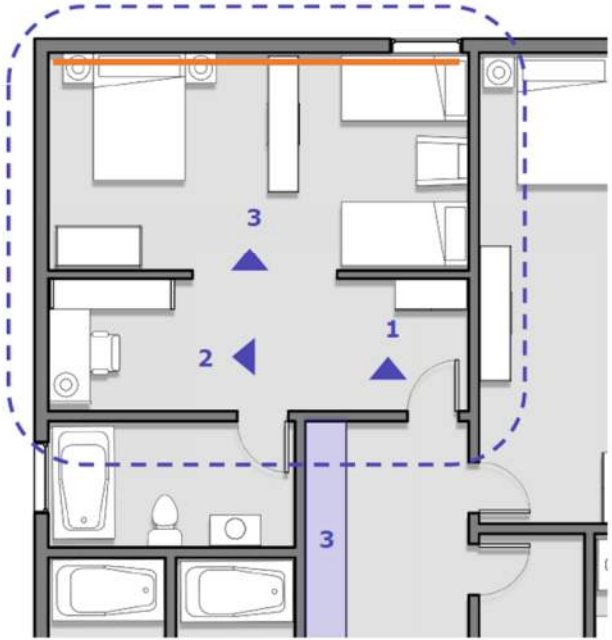
SOCIAL TOUCHDOWN

FAMILY HAVENS

MATERIAL STORIES

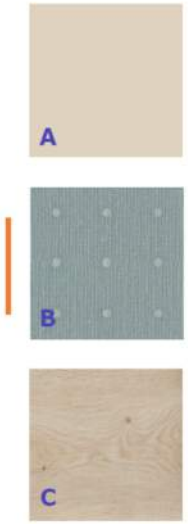
ZONES

1. WELCOME
2. STUDY
3. REST



COLOR STORY 1

A. WALL PAINT
B. WALLCOVERING ACCENT
C. WOOD LVT

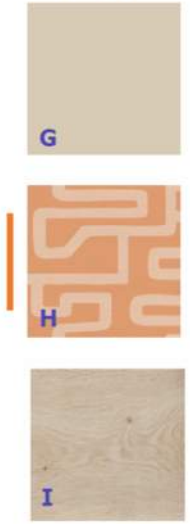


COLOR STORY 2

D. WALL PAINT
E. WALLCOVERING ACCENT
F. WOOD LVT

COLOR STORY 3

G. WALL PAINT
H. WALLCOVERING ACCENT
I. WOOD LVT



SOCIAL TOUCHDOWN

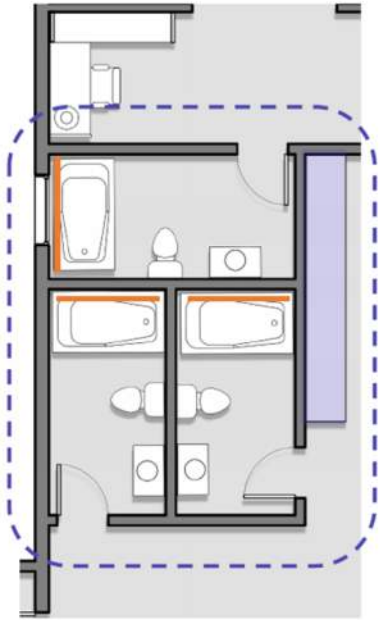
FURNITURE STORIES

STORY 1

STORY 2

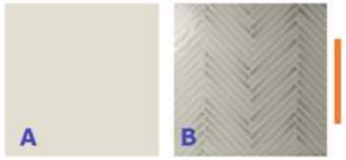
FAMILY HAVENS

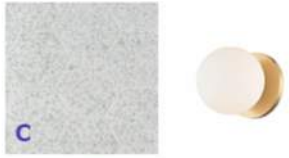
BATHROOM MATERIAL STORIES



BATROOM STORY 1

A. WALL PAINT
B. WALL TILE ACCENT
C. TILE FLOORING
D. LIGHTING
E. ACCENT MIRROR
F. FIXTURES
G. VANITY





BATHROOM STORY 2

H. WALL PAINT
I. WALL TILE ACCENT
J. TILE FLOORING
K. LIGHTING
L. ACCENT MIRROR
M. FIXTURES
N. VANITY

BATROOM STORY 3

O. WALL PAINT
P. WALL TILE ACCENT
Q. TILE FLOORING
R. LIGHTING
S. ACCENT MIRROR
T. FIXTURES
U. VANITY

SYSTEMS

Systems Review and Recommendations

June 2022

“Systems” refers to the various utilities and strategies required for a facility to properly operate and function. Typically, this includes electric power, lighting, heating, ventilating and air conditioning, fire protection, internal storm water drainage, potable water and wastewater conveyance as well as the building envelope itself.

Image: Energy Efficient Home Design, Tommaso.sansone91/Wikimedia Commons
(Creative Commons CC0 1.0 Universal Public Domain Dedication)

BUILDING ENVELOPE

The existing facility was originally a one-story single family wood frame home that has been renovated and added onto many times to its present day function for DCM of administrative offices and housing and training facilities for homeless families.

The original home has been expanded but is still a wood frame structure on grade with a pitched roof with asphalt shingles that now has a 2nd floor loft area. A second building in the rear, called “Hagar House”, currently not directly connected to the original structure, has been constructed of CMU bearing walls with steel bar floor and roof joists and concrete floors and a flat membrane roof.

For energy efficiency, it is always best to start with the building’s envelope (the skin, openings and roof of a building’s exterior). The more efficient the envelope, the less energy will be required for conditioning of the interior spaces and the spaces will be much more comfortable to occupy.

Another goal of this approach is to make the ongoing utility costs as low as possible (and thus concentrate more of the budget on services), as well as to make the buildings more comfortable and easy to maintain.

BUILDING ENVELOPE

The envelope (skin) of the buildings appears to be in relatively good condition, though water issues are evident in the Hagar House building and the exterior wood siding is in need of some maintenance.

This property is a low point for surrounding areas and is challenged with stormwater runoff collecting at the rear of the building. Many of the exterior CMU walls of Hagar House do not have any additional coverings or insulation and are therefore prone to water migration (dampness) and poor thermal performance.

The wood frame structure is assumed to have fiberglass insulation between the studs, but as any of these walls are exposed, this should be verified and improved, if possible.

There is evidence of leaks that appear to be from plumbing issues (see below) but this needs to be investigated to be sure. It was not possible to access the roof of Hagar House but there was no evidence of roof leaks. The shingles on the original building appear to be in good condition also with no evidence of roof leaks.

MECHANICAL SYSTEMS

Heating, Ventilating and Air Conditioning (HVAC)

We understand the HVAC systems have been upgraded with a grant from “Grants to Green” in the last 6 to 7 years and are in good condition. They consist of residential type split systems with external condensers and internal gas furnaces and air-handling units ducted to the various rooms in the building. They seem to all be functioning properly, though there are reports that there is unequal distribution of heating and cooling in some areas.

MECHANICAL SYSTEMS

Plumbing

The plumbing systems also appear adequate but there are some leaks evident in Hagar House that need to be investigated. The plumbing system has an added level of complexity as the rear Hagar House building is below the level of the city sewage system and thus must have a “grinder pump” lift station to pump sewage waste to the city sewer. Storm water must also be collected in sumps and pumped to the city storm water system. These systems appear to be functioning properly but require continual maintenance and monitoring. During any renovations, care must be taken to keep them operational and maintained.

Fire Sprinkler System

Both buildings are currently fully sprinklered for fire protection and appear to be up to date and certified for occupancy.

ELECTRICAL SYSTEMS

Electrical

The electrical systems also appear to be fairly recently upgraded and adequate for the functioning of the occupants.

Recommendations:

The following recommendations are to improve the thermal performance of the building and the comfort of the occupants. This is not a professional engineering review or report, but rather suggested strategies to be explored for incorporation into any renovations to the existing facilities.

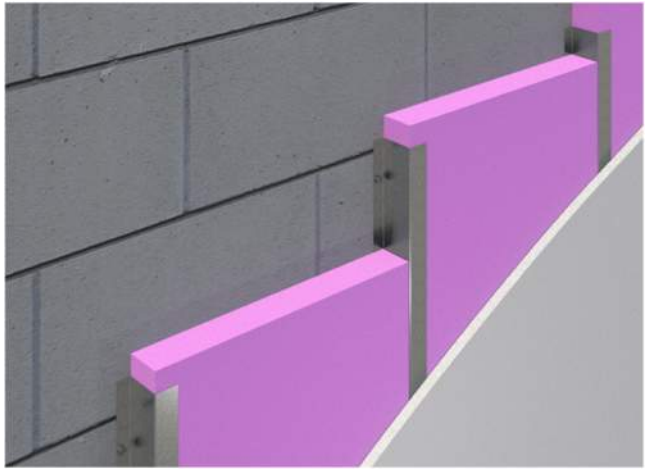
A further caveat is that all renovations/upgrades will need to be fully compliant with existing building codes.

SYSTEMS RECOMMENDATIONS

Envelope – The first area of improvement, and the one that will most likely bring the greatest benefit, is the building skin or envelope. This encompasses the exterior walls, openings and roofs of the building.

The bare exterior CMU walls in Hagar House would benefit from a furred-out wall on the interior. This could be something like “Z” furring studs with integral rigid insulation boards between the studs. This would be covered by a moisture resistant gypsum board that was also manufactured for high abuse areas, at least to 4’ aff.

The exterior siding seems to be in pretty good condition, but there were a few areas where penetrations for piping and others were not properly sealed and some deterioration of the wood siding has occurred. It is recommended to patch and seal or replace any deteriorated siding and openings. An exterior painting is also recommended after the renovations.



The main roofs are an asphalt shingle that seem in fair condition and probably have useful life remaining. These can remain until replacement is needed (guessing at about 6 to 8 years or so). Recommended during renovations, when the roof structure is exposed, is to install a spray foam insulation at the underside of the existing roofs. This will further improve their energy efficiency. In the meantime, as areas of the roof are exposed, the existing insulation should be inspected and replaced or supplemented as needed.

Likewise for the existing wood framed exterior walls, any exposed areas during renovation should be inspected for proper insulation and sealing and replaced or supplemented as needed.

A “Blower Door Test” is a good thing to have done towards the end of construction but before completion. This will determine if there are areas of major air leakage that should be sealed and will result in better energy efficiency and occupant comfort. Reference Southface Energy Institute www.southface.org

HVAC

HVAC – The existing systems seem to have been installed relatively recently and appear in good working order and maintained well.

There will be some ductwork and supply register reconfiguration required for the renovations. In conjunction with this, we recommend that all ductwork be cleaned, filters replaced and all existing equipment be tested and balanced and commissioned to ensure everything is working properly. This should handle any adjustments and any existing unequal distribution. In the future, when these systems get to the end of their useful life and need replacement (probably 8 to 12 years), we recommend that a Variable Refrigerant Flow (VRF) system be investigated for replacement.

Dual flush toilet

PLUMBING

Plumbing – As mentioned, there appear to be some water leaks in Hagar House that are coming from the bathrooms on the second level.

As the renovations include some changes/upgrades to existing bathrooms, those should have their branch piping inspected and possibly replaced back to the risers at that time. It is recommended that all new fixtures and faucets be very water efficient (low flow). The existing leaks should be investigated, pinpointed and addressed at that time, though replacement of the branch piping and fixtures should probably handle this.

The existing kitchen and laundry areas are planned to be upgraded/renovated. The current design documents for this show renovations and adjustments for the plumbing in that area. All new appliances should be Energy Star approved.

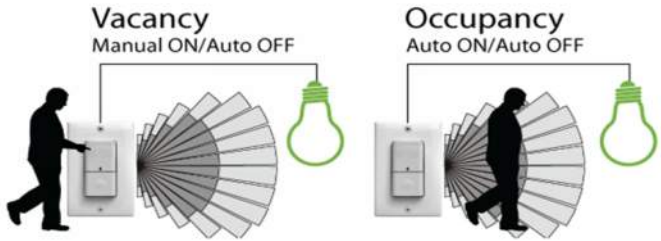
ELECTRICAL SYSTEMS

Existing Electrical – The existing electrical system appears to be in good working order.

With the renovations/upgrades, the electrical systems will need to be reconfigured/extended. With this work, all areas should be reviewed to ensure they are code compliant and have sufficient power and lighting for the facility's needs.

As a matter of course, we recommend that all new and replacement lighting be LED type fixtures. All communal rooms should be equipped with occupancy sensors, and certain areas can benefit from daylight sensors to dim when daylight is sufficient.

It would be a good idea in conjunction with any renovations to assess the data/communications, fire alarm and security needs of the buildings. If any changes or improvements are needed, this is the time to incorporate them.



Occupancy Sensors

LED Light Bulb

Fire Sprinkler – The existing system appears to be in working order.

There will be minor adjustments of sprinkler heads due to the renovations but no major changes are anticipated. The existing system should be adequate, but it will need to be tested and inspected after any modifications. A qualified licensed sprinkler company should be used and they should be able to handle these requirements.

Additional Notes

Use of the 2nd Floor Loft area will probably require a second means of egress be installed. This might be from the center section, out the window to a platform and then down a ladder or stairs to grade or along the roof back to the existing fire escape platform.

Solar panels for energy are always advisable, but the buildings and property are so shaded, this does not seem very feasible. Panels for solar heating for hot water might be a good option as not many panels would be required and a small sunny area could probably be found for them.

SUSTAINABILITY

Sustainability Outline

Professional and Construction Considerations

Site Considerations

Building System Specifications

Indoor Environmental Quality Considerations

Building Flushout

Professional Considerations

Purpose: To ensure low utility rates and minimal ecological impact with your project, work with professionals who have experience designing buildings with sustainability as a primary goal.

For example, experience including working with Leadership in Energy and Environmental Design (LEED) certified projects and or professionals holding the LEED AP professional certification would qualify for this criteria.

• Have professional provide proof of experience working on a sustainable project to the project management.

• Ensure at least 1-2 professionals on each job have sustainable design and/or construction experience so they can teach the best practices to the other members of the team.

Construction Considerations

Follow Construction Management Association of America (CMAA) Standards

• To ensure project success and that all parties fulfill their contractual commitment use the resources such a contract templates and process documents provided by CMAA.

• Visit cmaanet.org for detailed information

● Recycle Construction Waste

• Recycle, AT MINIMUM, 50% of construction waste, 75 -100% is ideal

• Consider donating materials that can be reused *to* reuse centers such as the Lifecycle Building Center of Greater Atlanta - 1116 Murphy Ave.

• Consider incorporating salvaged materials *from* reuse centers such as the Lifecycle Building Center of Greater Atlanta - 1116 Murphy Ave.

Site Considerations

Using the site design provided, implement the below best practices to reduce potable water

use, utility bills and maintenance costs.

• Use native plants for landscaping

• Reduce the use of turf for the site

• Design the site so you don’t need an irrigation system. If one is absolutely necessary, implement a low water use drip irrigation system

• Use harvested rainwater for watering garden plants

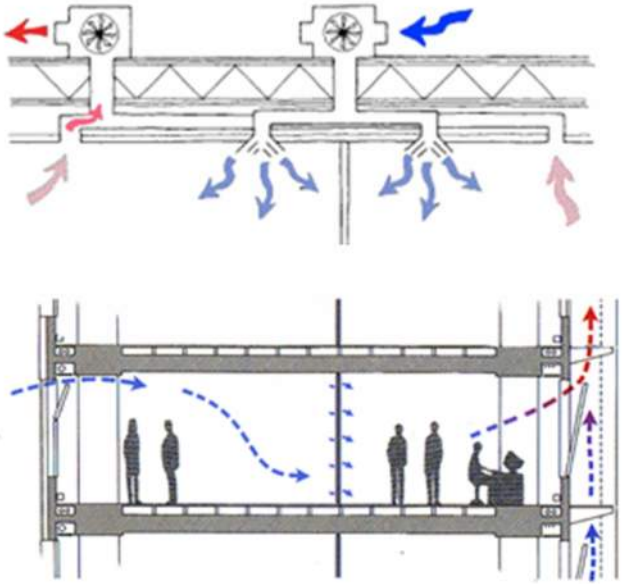
Indoor Environmental Quality

Minimum Indoor Air Quality Performance

• Ensure the final design of the building has suitable air quality for resident well being.

• Meet at a minimum, ASHRAE 62.1 2010 performance requirements for the indoor air quality performance.

Have the project’s mechanical engineer conduct the calculations and provide confirmation of compliance.



Building Flushout

BIOPHILIC DESIGN:

How We Used the Wellbeing Science of Nature and Captured the Love of Life in Your Project

Our process utilized many research-driven approaches such as environmental psychology and wayfinding to support your goals, the learning success of your collaborators and the overall wellbeing of everyone in your space.

One of the bodies of research used was the field of Biophilia-specifically Biophilic Design. Literally translated, Biophlia means the Love of Life.

Biophilic design can be described as the healing science of nature. Imagine how you feel when you are in nature. Biophilic design seeks to pull that experience - that sense of intrigue, wonder and awe - into the spaces where we spend our lives.

Integrating biophilia as a design driver for a project's site, building and interior design has been shown to reduce stress, increase learning and productivity rates, reduce time it takes to heal from surgery, and support the growth of our overall wellbeing.

When we are in spaces that inspire us - we know it. We feel it. Biophilic design is the research-driven science of how to pull the healing aspects of nature into our everyday spaces.

The field of biophilia goes far beyond plants, expanding into over 73 attributes. The goal is not to integrate all 73 of course. The goal instead, is to identify the essence of this projects' sense of place and align this with the project goals for organizational success. This is done best through a collaborative and integrative process involving key project stakeholders throughout the design process-like the one used for this project.

Your organization is doing such inspiring work. Below are some of the many ways we incorporated the healing benefits of the essence of nature throughout your site, building and interior to support your goals and overall quality of life.

- Site plan that encourages a sense of play, creativity and wonder designed to inspire people to linger and explore in nature individually as well as in groups.
- Strong indoor-outdoor connection through elements such windows providing optimal views from occupied spaces.
- Integration of natural materials throughout the site, building and interior.
- Sustainability strategies integrated throughout to reduce energy and water use which educates us on the importance of caring for our environment.
- Hands-on learning opportunities such as edible portions of the site landscaping. This allows the opportunity to integrate the site into course curriculum. This can help highlight the growth cycle of life and care taking to connect students with nature-driven concepts and an ecosystem larger than themselves.

If you have any questions on the integration of biophilia, its benefits and project or course-curriculum integration approaches please contact Bonnie Casamassima at bonnie@InterweavePeoplePlace.com or 404.953.9037. I'm happy to speak to your class or share a lunch and learn conversation.

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Building System Specifications

Refer to below table for detail and level of achievement recommendations for each category.

Building System	Prototype Specification	Value	Reference	System Description
Walls	R-Value	≥ 20	IECC 2012	3 inch rigid XPS
Roof	R-Value	≥ 30	IECC 2009	5.5 inches of closed-cell spray foam in truss cavity
Floor	R-Value	≥ 19	IECC 2012	Fiberglass-batts underneath floor, if applicable
Windows	U-Value	≤ 0.3	ENERGY STAR	NFRC Certified Window
	SHGC	≤ 0.25	ENERGY STAR	NFRC Certified Window
Air Leakage	ACH50	≤ 3	IECC 2012	Achieve continuous air barrier by sealing all wall, ceiling, and floor penetrations to the outside
Mechanical Ventilation	Constant CFM	20	ASHRAE 62.2	Energy Recovery Ventilator (ERV); ducts deliver fresh air
Space Conditioning	SEER	≥ 14.5	ENERGY STAR	Ductless mini-split heat pump
	HSPF	≥ 8.2	ENERGY STAR	
Water Heater	EF	≥ 0.90	ENERGY STAR	Tankless; gas
Appliances			ENERGY STAR	ENERGY STAR certified, if applicable
Lighting			ENERGY STAR	LED; ENERGY STAR certified
Plumbing fixtures	Gallons Per Minute (GPM)	0.5	WaterSense	Low-flow bathroom sinks
	Gallons Per Minute (GPM)	1.5	WaterSense	Low-flow kitchen sink/shower
	Gallons Per Flush (GPF)	≤ 1.28	WaterSense	Dual-flush water closets

Table 1. Optimized Building Performance Implementation Requirements Table

Indoor Environmental Quality

- Require the person specifying products provide the specification sheet for each product showing the below labels or VOC thresholds.

Specify Volatile Organic Compound (VOC) Limits

Ensure that all products fall below the MAXIMUM VOC thresholds listed in the provided tables for each category.

Specify furniture with Greenguard Certification

Greenguard certified products go through testing to confirm they have low levels of chemical emission into the built environment.

Specify Floorscore and/or Green Label Plus Certification Flooring

These certifications confirm the product has been tested and emit low levels of chemicals into the built environment.

Specify no ADDED UREA-Formaldahyde wood

- When at all possible, specify only no ADDED Urea-Formaldehyde for all wood used inside the building envelope (paneling, doors, cabinets, blocking, etc.). Urea-Formaldehyde has been linked with multiple negative health effects such as respiratory and skin irritation. Additionally, it is a known carcinogen when people are exposed to high levels

*Product Category List **Paints and Coatings**	VOC Limit (g/L, minus water)
Interior Non-Flat Coating or Primer	150
Anti-Corrosive/Anti-Rust Paint	250
Clear Wood Finish: Lacquer	550
Clear Wood Finish: Sanding Sealer	350
Clear Wood Finish: Varnish	350
Clear Brushing: Lacquer	680
Floor Coatings	100
Sealers and Undercoaters	200
Shellac: Clear	730
Shellac: Pigmented	550
Stain	250
Concrete Curing Compounds	350
Japans/Faux Finishing Coatings	350
Magnesite Cement Coatings	450
Pigmented Lacquer	550
Waterproofing Sealers	250
Waterproofing Concrete/Masonry Sealers	400
Wood Preservatives	350
Low-Solids Coatings	120*

*VOC levels for Low-Solids Coatings are measured in grams of VOC per liter of material

*Product Category List **Adhesives and Sealants**	VOC Limit (g/L, minus water)
Architectural Adhesives	
Indoor carpet adhesives	50
Wood flooring adhesives	100
Rubber floor adhesives	60
Subfloor adhesives	50
Ceramic tile adhesives	65
VCT and asphalt adhesives	50
Drywall and panel adhesives	50
Cove base adhesives	50
Multipurpose construction adhesives	70
Structural glazing adhesives	100
Specialty Adhesives	
PVC welding	510
CPVC welding	490
ABS welding	325
Plastic cement welding	250
Adhesive primer for plastic	550
Contact adhesive	80
Special purpose contact adhesive	250
Structural wood member adhesive	140
Sheet applied rubber lining operations	850
Top and trim adhesive	250
Substrate Specific Adhesives	
Metal to metal	30
Plastic foams	50
Porous material (except wood)	50
Wood	30
Fiberglass	80
Sealant Primers	
Architectural nonporous	250
Architectural porous	775
Other	750
Sealants	
Architectural	250
Nonmembrane roof	300
Roadway	250
Single-ply roof membrane	450
Other	420

PROJECT CONTROLS

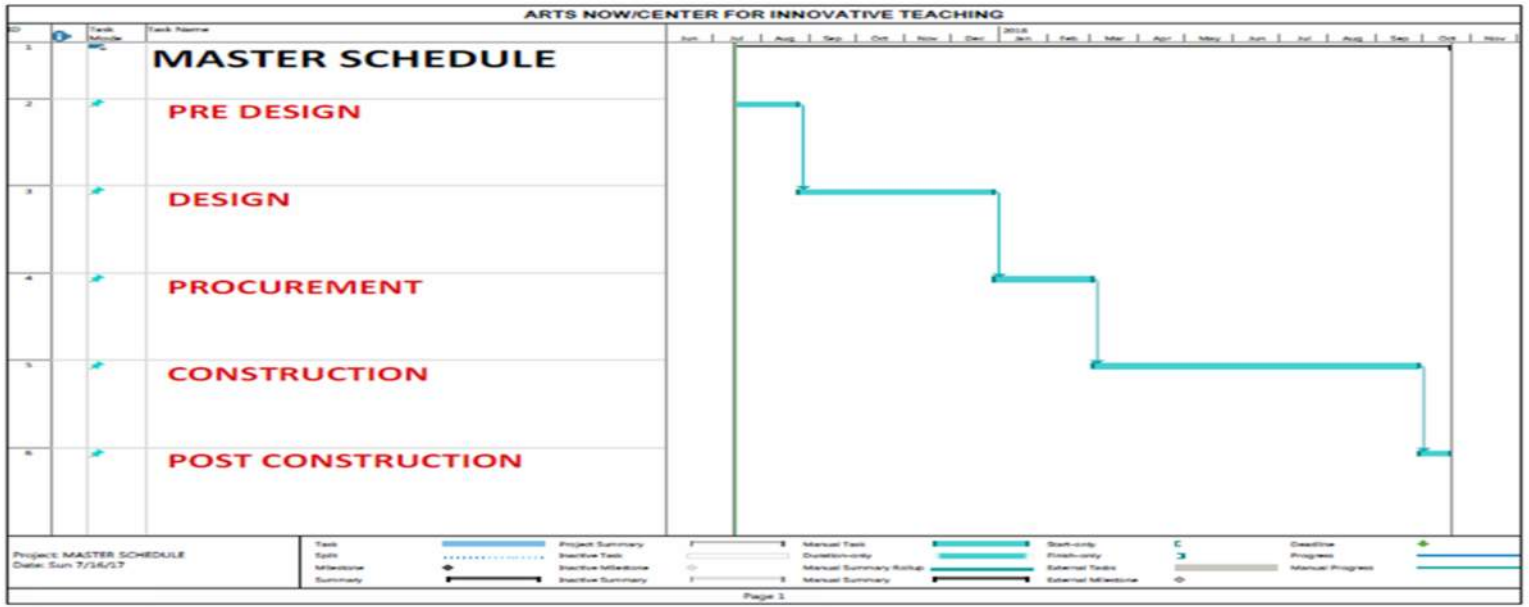
Why Project Controls?

Saleh Mubarak in his 2010 book titled “Construction Project Scheduling and Controls “ provides an explanation as to why.

The concept of project controls covers all aspects of the plan (schedule, budget, quality, contract and safety). “Once a project starts, certain aspects can easily deviate or go astray. This deviation can be overspending, a schedule slippage, a departure from the objective/scope, or something else. It is of utmost importance to know --at all times-- where you stand in relation to where you planned to be (the baseline). With any deviations you must know why and take corrective action to get back on track or, at least, minimize the deviation. Positive deviations show that results were better than expected. This process exemplifies Project Control.

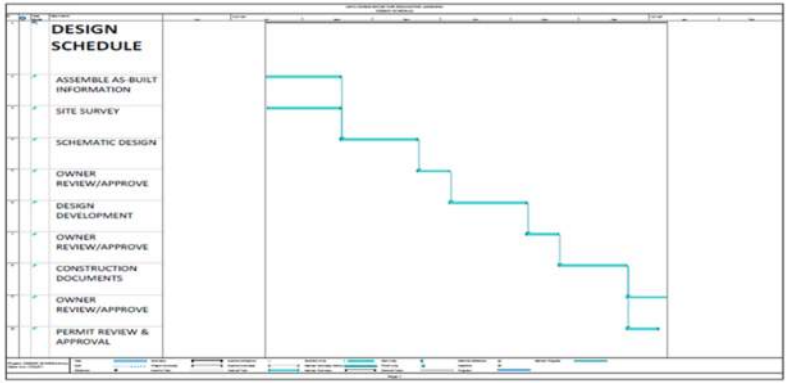
IN AN EFFORT TO INSURE THAT A PROJECT IS COMPLETED WITHOUT MAJOR DEVIATIONS, SCHEDULES ARE REQUIRED TO ANSWER THE *WHEN* QUESTION.

Master Schedule - provides a summarized view of the entire project rolled up into one schedule without the detail of a specific phase of the project. It allows the project team to review the relationships between the phases of the project. It provides the team a view of the entire project duration for future planning.used in conjunction with the budget to create cash flow projections. The following two charts provide an example of how scheduling can be helpful.



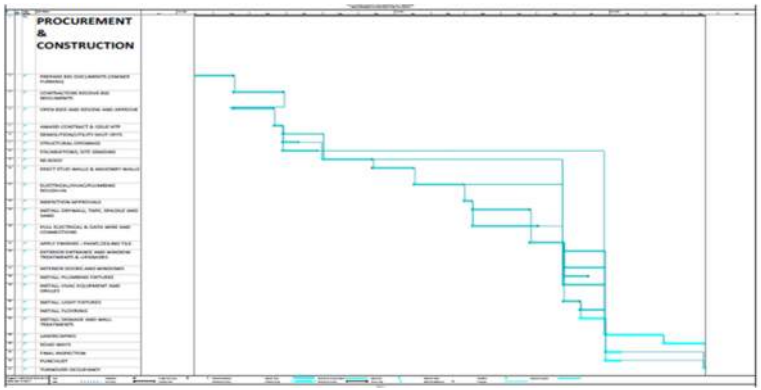
DESIGN SCHEDULE

- Identify decisions to be made and the time required to make these decisions.
- Calculate the Project Completion Date
- Track the status of the design.
- Provides a baseline to measure progress



PROCUREMENT & CONSTRUCTION SCHEDULE

- Calculate bid date and completion date
- Calculate the start and finish of a specific activity
- Provides a tool for coordination between the trades
- Useful tool to Predict and calculate cash flow
- Evaluate the effect of changes
- Identify the critical activities to keep the project on schedule
- Determines if the contractor has a reasonably accurate and realistic plan
- Verify delay claims
- Serves as an effective project monitoring tool



BUDGET

RECOMMENDATIONS

- Provide a line-item budget to maintain flexibility
- Estimate soon and often to make achievable budgets and design to them

- Establish cost categories that can be verified against future contracts
- Define project costs and program costs, and make sure everybody understands all the budget components

- Keep budgets updated as conditions change--in increasing levels of detail--and manage them with insufferable attention

BENEFITS

- Develops trust
- Creates transparency
- Identifies scope increases(creep)
- Provides useful information for team members
- Economies of scale in large programs with multiple projects
- Never lose site of the bottom line
- Use to compare bids to determine if the bids are reasonable
- Change order and claims management

COST CONTROL

- Another project component that is used to either eliminate or manage deviations in the area that will make or break a project for the owner or contractor.
- Similar to the schedule tool all projects participants are required to assist in the development and implementation of the budget.
- Budgeting and estimating are predictions of future costs and are rational processes. But bidding can be irrational and unpredictable.
- **Many variables affect our predictions:** Material costs, labor costs, competition or the lack of.

CONTRACT ADMINISTRATION

Because this project will be made up of very different components with a high probability of different funding sources, Construction Phasing is highly recommended. As part of that process, there are several key points that could be beneficial in planning for a long term project.

Clear roles and responsibilities are key to effective administration. This would involve a system of thorough documentation and construction monitoring. Clear lines of communication will ensure a common understanding. Continuity between the owner and the A/E team will ensure success.

Periodic meetings should be scheduled to reinforce the lines of communication and facilitate progress. This process should include a review of the submittal process, a key administrative activity that is where quality control starts. It is necessary no matter what project delivery method is used. The submittal process needs to be efficient and prompt. Site visits, observations and inspections should be clearly defined and properly documented. Outstanding items should be tracked accurately.

Image: Negotiations, Scott Graham/Unsplash

Quality assurance and quality control cannot be overstated. Quality assurance is the action of evaluating the contract documents before the execution of the work. Quality Control is the ability to evaluate completed elements and activities for compliance. Although critical components, they are not mutually exclusive. This key aspect will minimize the potential for the need of conflict resolution and interpretations/modifications

Claims and disputes will happen. Even ‘successful’ projects will have them. Using proper AIA contracts and forms will begin to mitigate them by setting a clear and concise path to resolution. Orderly and effective administration of these will lead to quick solutions and aid the progress of the overall project. Progress of a project should be measured carefully and accurately. There are many metrics to track and most of them involve progress payments. Making sure these factors are evaluated accurately, regularly, and efficiently are critical to progress success.

Finally, Project Closeout is as important of a stage as any of the others. It is an orderly stage of the owner occupying the project and ensuring all systems and components are running properly. It may include owner training, commissioning and balancing, and documentation (as-builts to occupancy). There will also be opportunities for post-occupancy evaluation and warranty repairs as necessary.

CONCLUSION

PARTICIPANTS

THANK YOU for the hard work of everyone supporting this project! Below are some of the participants we'd like to highlight in particular. It's been an honor working with you and this project would not be possible without you:

Volunteers:

Heath Barton

Eloisa de Leon

Bonnie Casamassima

SDCA Board:

Liset Robinson, Executive Director

Brent Redmon, Chair

Reed Thomas, Vice-Chair

George Harkness, Director of Logistics & Treasurer

Taejun Park, Director of Design Technology

Chris Morphis, Director of Design Landscape

Delaram Tafreshian, Director of Graphics

Ian Hunter, Director of Public Relations

Xin Wang, Administrative Director

Savannah College of Art and Design, Atlanta

Interior Design Studio

Professor Kia Weatherspoon

Betele Ambaye

Juliana Costa

Ariel Feldkamp

Alyssa Innis-Gittens

Grace Ligocki

David Martynenko

Christine Min

Gianna Perrone

Angelica Pinheiro

Sydney Strange

Decatur Cooperative Ministry (DCM):

Marlene White, Executive Director

Thomas Thompson, Housing Operations Coordinator

Amma Williams, Board Chair

SPECIAL THANK YOU to Decatur Cooperative Ministry and SCAD, Atlanta for all of the hosting duties for the 2022 project

LETTER FROM THE EXECUTIVE DIRECTOR

It has been SDCA's pleasure to work with DCM on this project. It has both inspired and humbled me personally. I am inspired by the chance to innovate and sustain the DCM vision alongside the SCAD students and Professor Weatherspoon and the SDCA board members and volunteers. I am humbled by the service that DCM accomplishes every day for their residents and those in need.

I remain hopeful that this booklet will assist the staff and executives at DCM as they attempt to bring in additional funds to complete the renovations necessary. I trust that the design and sustainable recommendations within this booklet, as well as the SCAD student presentation found on our website, will serve as a *beacon of light* (concept tagline) towards the creation of a facility that will function more efficiently for all users within an aesthetically uplifting environment.

SPECIAL THANK YOU to Decatur Cooperative Ministry and SCAD, Atlanta for all of the hosting duties for the 2022 project

IMPORTANT DISCLAIMER:
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