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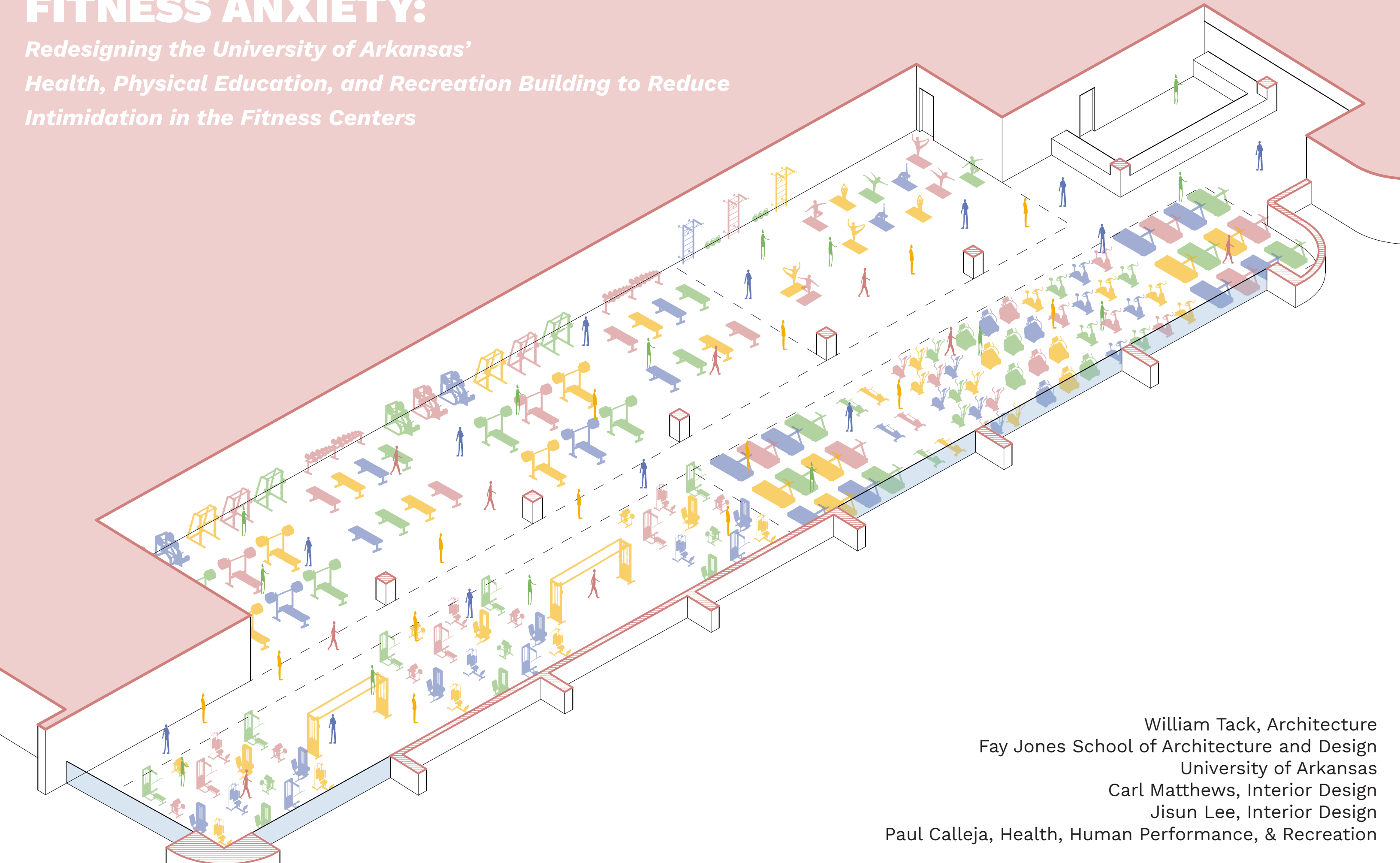
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Tack, W. (2022). Fitness Anxiety: Redesigning the University of Arkansas' Health, Physical Education, and Recreation Building to Reduce Intimidation in the Fitness Centers. *Architecture Undergraduate Honors Theses* Retrieved from <https://scholarworks.uark.edu/archuht/56>

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FITNESS ANXIETY:

Redesigning the University of Arkansas' Health, Physical Education, and Recreation Building to Reduce Intimidation in the Fitness Centers



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THANK YOU AND ACKNOWLEDGMENTS

Special thank you to my capstone committee:

Carl Matthews
Jisun Lee
Dr. Paul Calleja

Thank you to the university recreation executive staff for all their help:

Kristin Durant DeAngelo
Jeana Carow
Becky Todd

Thank you to all the HPER staff and my student focus groups for giving me feedback along the way

Thank you to the HPER itself for being such an awful building making this process a little less arduous



INTRODUCTION

The goal of the capstone was to redesign Health, Physical Education, and Recreation (from here on out referred to as the H.P.E.R.) building on the University of Arkansas Campus to make the space more friendly to new users. This redesign consisted of a reworked site plan for the overall building and some significant shifts in the program to accommodate more gym space. The redesign work was based on the following: prior academic research regarding what causes intimidation in gym settings, student opinions shared via questionnaires, spatial/ programmatic standards from the National Intramural and Recreational Sports Association, a photographic journal documenting the existing space, and finally my instincts as a designer and the feedback and commentary from my capstone committee. The final gym design aims to be more friendly and welcoming to new fitness users and is sized more appropriately for a student body of 30,000 students.

WHY DOES UNIVERSITY RECREATION MATTER?

Benefits of regular exercise for students:

- Improve your memory and brain function
- Protect against many chronic diseases.
- Aid in weight management.
- Lower blood pressure and improve heart health.
- Improve your quality of sleep.
- Reduce feelings of anxiety and depression.
- Improve joint pain and stiffness.
- Maintain muscle strength and balance.
- Increase life span
- Increase positive self-perception
- Positive effect on mood
- Low to moderate anxiety reduction
- Decreased risk of developing clinical depression
(Li, Lu, and Wang 55-56)

Benefits of a student population that participates in exercise:

- Higher retention rates
- Higher graduation rates
- Higher GPAs (Huesman 60)
- The student body is more emotionally happy, confident, and less stressed
(NIRSA 62)

WHAT CAUSES FITNESS INTIMIDATION?

Gender and spatial separation:

-Gyms often are divided into various types of fitness zones, such as cardio, weightlifting, and stretching. Many gyms have architecturally separated these spaces with walls and barriers. The weightlifting space in gyms tends to be overwhelmingly male. The gender skew in the spaces creates a social barrier to women who then cross a gendered threshold into a masculine space. Feelings of gendered discomfort are furthered when having to cross both a gendered and architectural barrier into a weightlifting space (Malley 41).

Knowledge:

There is a significant amount of knowledge that accompanies proper weightlifting. Lack of knowledge leads to feelings of discomfort and fear that one is improperly using machinery or is taking too long on the equipment. These feelings of awkwardness can cause avoidance of the weightlifting area altogether (Johansson 32-47).

Judgment:

Often people's concern about what other people think of them affects their gym behavior. The gym is a social space leading some to feel that they are being watched, judged, and scrutinized by those around them. These feelings of judgment often cause discomfort and gym avoidance (Salvatore and Marecek, 557-567).

Comparison:

Feelings of discomfort and inadequacy can arise when one is working out in a fitness space alongside others who are at a more advanced level of fitness than oneself. People compare themselves and their bodies to other gym goers which can lead to feeling like one is not attractive or good enough to that fitness space (Johansson 32-47).

HOW OTHER GYMS BATTLE FITNESS INTIMIDATION

Planet Fitness

Policies:

- Strict dress code
- No grunting or weight dropping allowed
- Promise of a “Judgment Free Zone”

Design:

- Plan with very little division between spaces
- Bright and cheery colors
- Limiting equipment to deter advanced weightlifters
 - Dumbbells only to 75
 - Barbells only to 60
 - No squat racks or bench presses
 - Only smith machines/ hydraulic based lifting equipment
- Signage that discourages intimidating and distracting behavior

(Malley 70)

University Recreation Fitness Center in the Arkansas Union

Design:

- Limited equipment to deter advanced weightlifters
 - Dumbbells to 50
 - Barbells to 120
 - No benches or squat racks
 - Limited Mirrors



TAKEAWAYS FOR DESIGNING A MORE WELCOMING GYM

Design:

Utilizing bright colors and playful signage is a good way to make gym space feel less serious. Overly divided gym can cause intimidating feelings suggesting a more open and continuous plan is preferable. Gym equipment should be tailored to the clientele they are trying to attract. Generally, advanced fitness users want heavyweights and advanced equipment, while new users want beginner equipment and lighter weights.

Education:

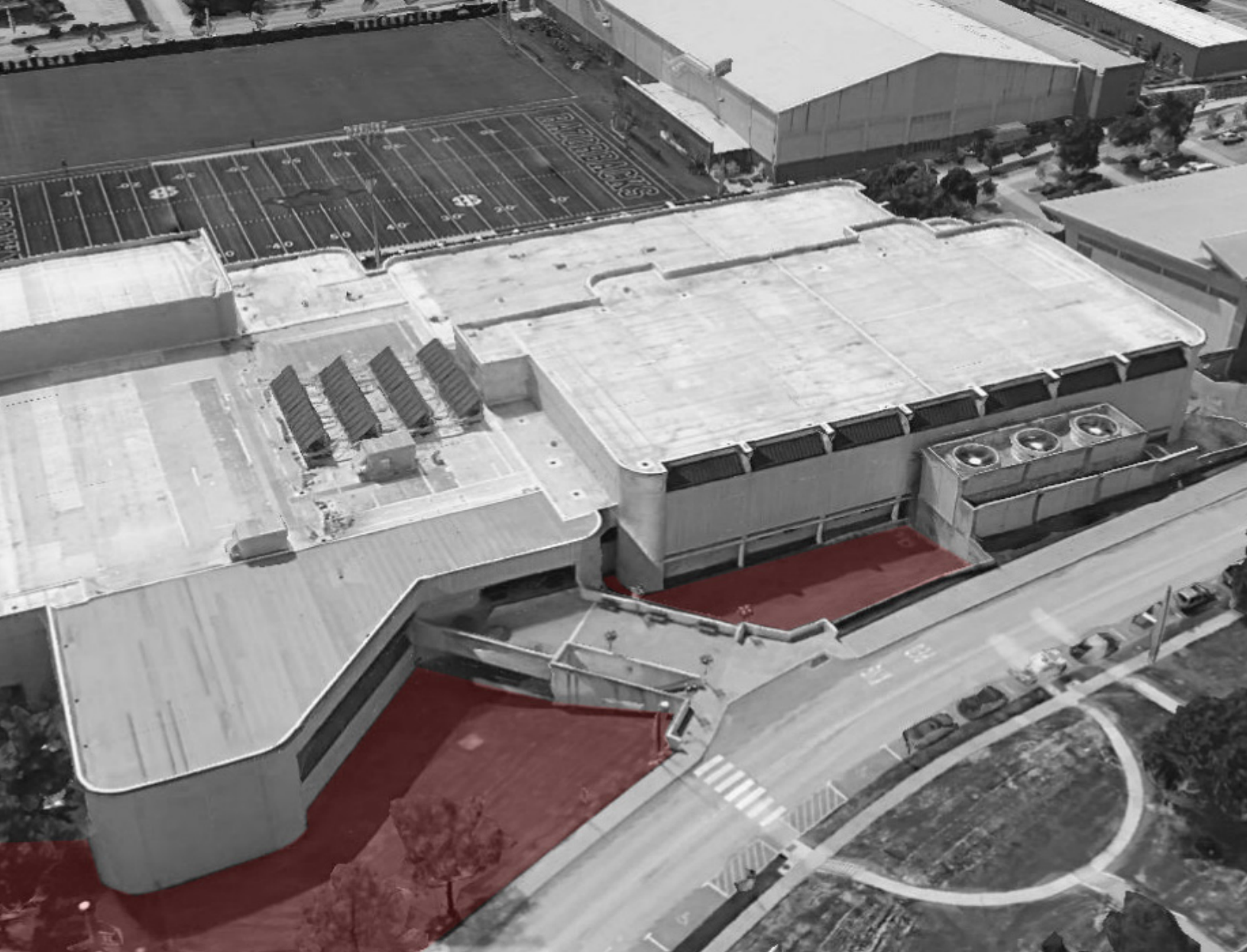
Two major causes of gym intimidation are feeling judged/ watched and feelings of insecurity based on being surrounded by fit people. These intimidating factors can be combated by limiting mirrors and adding friendly signage. More importantly, educating gym users on proper form and workout techniques will build their confidence and make them more comfortable in gym space.

The background of the entire page is a repeating pattern of small, stylized human silhouettes in various colors (blue, green, orange, pink, purple) scattered across the white space. The silhouettes are in different poses, some standing, some walking, and some with arms raised, creating a sense of a diverse crowd.

THE EXISTING HEALTH, PHYSICAL EDUCATION, AND RECREATION BUILDING

PHOTOGRAPHY JOURNAL

Having reviewed what conditions cause intimidation in the gym and what other gyms do to combat it, I used this knowledge to document the existing space of the Donna Axum Fitness Center. The following images have been annotated and diagrammed based on my previous research as well as my design instincts for best practice in interior design and architecture



EXTERIOR OF THE HEALTH, PHYSICAL EDUCATION, AND RECREATION BUILDING

- The main student entry of the HPER is a large bridge that lets students into the building on the second floor
- The existing outdoor spaces in front of the student entry are green lawns
- The ground floor doors are hidden underneath the existing bridge and are only used for exiting the building currently
- the building has no major signage currently
- there are few windows on the main facade of the building



UNUSED PUBLIC SPACE

- The more public lawn (left) is home to one non ADA accessible ramp
- The more private lawn (right) is blocked off from public access

The entry of the building is unwelcoming and austere. The lack of vegetation and windows creates a harsh facade with no visual relief. The front lawn spaces and ground floor threshold are severely underutilized. The lack of any signage can lead to confusion for first-time users



LOBBY AND ENTRY TO DONNA AXUM FITNESS CENTER

- Existing furniture is placed in a circulation route
- equipment checkout desk is centrally located
- Entry to the DAFC is a narrow hallway
- there is no visual connection between the lobby and gym space

The equipment checkout/ help desk is in a great location because the space is a high-traffic area. Furniture is awkwardly positioned and rarely used. The fitness center entry is highly spatially segregated from the lobby, jarring transitions like these can lead to intimidation (Malley 41).



THE DONNA AXUM FITNESS CENTER

- The ceiling and floor change height frequently
- Lots of changes in floor and ceiling material
- Small fences, walls, and non-structural columns split up the fitness center

There are copious architectural divisions in the Donna Axum fitness center. These divisions are further reinforced by stark material changes. These separations bolster perceptions that one does not belong in certain gym spaces forcing them to transition into a space they already feel unwelcome and judged in (Salvatore and Marecek, 557-567) (Malley 41).



THE DONNA AXUM FITNESS CENTER

- Floor height change creates a need for a ramp
- Physical trainers/ graduate student trainers offices are in a small hidden office

The ramping could be avoided if there were no floor height changes, existing ramp creates avoidable wasted space. Physical trainers are hidden away making many users unaware of their presence discouraging seeking help to learn more about fitness



THE EXISTING DONNA AXUM FITNESS CENTER SPACE

STUDENT AND STAFF OPINIONS

Questionnaires were sent out to student focus groups primarily consisting of Students from the Fay Jones School of Architecture and Design as well as to HPER staff who work in the Donna Axum Fitness Center. These questionnaires were geared towards getting student and staff opinions on the existing fitness space and what they would like to see changed in a potential redesign.

Student Opinion: “Describe what feelings and emotions you feel while exercising in the Donna Axum Fitness Center.”

“I don’t like working out at DAFC because **the atmosphere is very uninviting, especially for women.** There are constantly men hogging machines and generally making me uncomfortable, either with unnecessary grunting or flexing or inappropriate behavior. Working there, I have been harassed numerous times, so **I do my best to avoid the space as much as possible.**”

“**I feel overwhelmed and out of place** and like I don’t have enough room to preform.”

“It is really crowded and filled with mostly boys. There are not a whole lot of machines to use, it’s mostly free weights. The few machines they have are almost always in use. The space they have available for lighter weight/body weight exercise is tiny and cramped. **It is also very dark and an awkward shape**”

“**The space always feels judgmental.** It is **dark** inside and artificially lit and **feels like a prison.** I feel like everyone is watching me”

HPER is confusing to me, and **kind of overwhelming.** It’s so big and open and **I felt too exposed working out there.** Also, it’s hard to explain, but it just seems meaner somehow. Maybe it’s all the free weights and the harsher pale lighting, because the UREC center is lit more warmly and is much quieter.

“When I first began it was a bit **nerve racking** because there were few women weight lifting. I was relearning a lot and so waiting for racks and taking my time was **uncomfortable** because everyone was waiting as well. After becoming comfortable again thought it was a good space that I looked forward to working out in as long as it wasn’t peak hours.”

Frequently mentioned by students in the poll:

UNCOMFORTABLE
DARK
TOO SMALL
OVERWHELMING

Student and Staff Opinion: “If the HPER building were to be redesigned what changes would you want to see in the Donna Axum Fitness Center?”

“Natural light, more space between workout zones, and brighter colors”

“I think it would be cool to have a **designated women’s section, better lighting, more machines**, as well as more diversity in the types of machines. There are treadmills and one stair stepper, and maybe one row machine, but it would be nice to have a wider variety and higher quantity.”

“**Better use of space.** From what I remember, over half the gym is free-weights that are only used by like 10% of the people there. With the machines, calisthenics areas, etc, there’s usually only one of each or they’re dark and unwelcoming. **I would also like to see better lighting**”

“I feel like the **arrangement of some of the equipment and machines could be better.** The layout of the room is a little bit strange and I feel could be organized better.”

“Maybe some **more artwork/lighting improvements.** If all the machines switched to a color scheme themed after the university I think it would add some character to the gym. Right now all the equipment is gray and washed out, but if it was themed red and white it would pop more to the eye and would encourage people to stay longer.”

Frequently mentioned by students in the poll:

BETTER LIGHTING
BRIGHTER COLORS
MORE EQUIPMENT
BETTER LAYOUT

Student Opinion: “if you have any memorable experiences in the HPER please share.”

“My freshman year I googled the University of Arkansas Gym and it took me to the HPER building and I proceeded to walk around the complex for 30 minutes unsure of where to enter.”

“I went to the HPER for the first time recently and I wandered throughout the building for a while before figuring out where the weightlifting space was.”

**TWO STUDENTS MENTIONED
GETTING LOST BECAUSE OF A
LACK OF SIGNAGE**

Staff Opinion: “Describe what feelings and emotions you feel while working or exercising in the Donna Axum Fitness Center.”

“I prefer working at [the other campus gym] in the union as it tends to be less crowded and I feel more comfortable there.”

“I would like to see the DAFC expand a lot to accommodate all the students that use it. **Currently, there are wasted spaces all throughout the HPER that could add up to be more space for the DAFC.**”

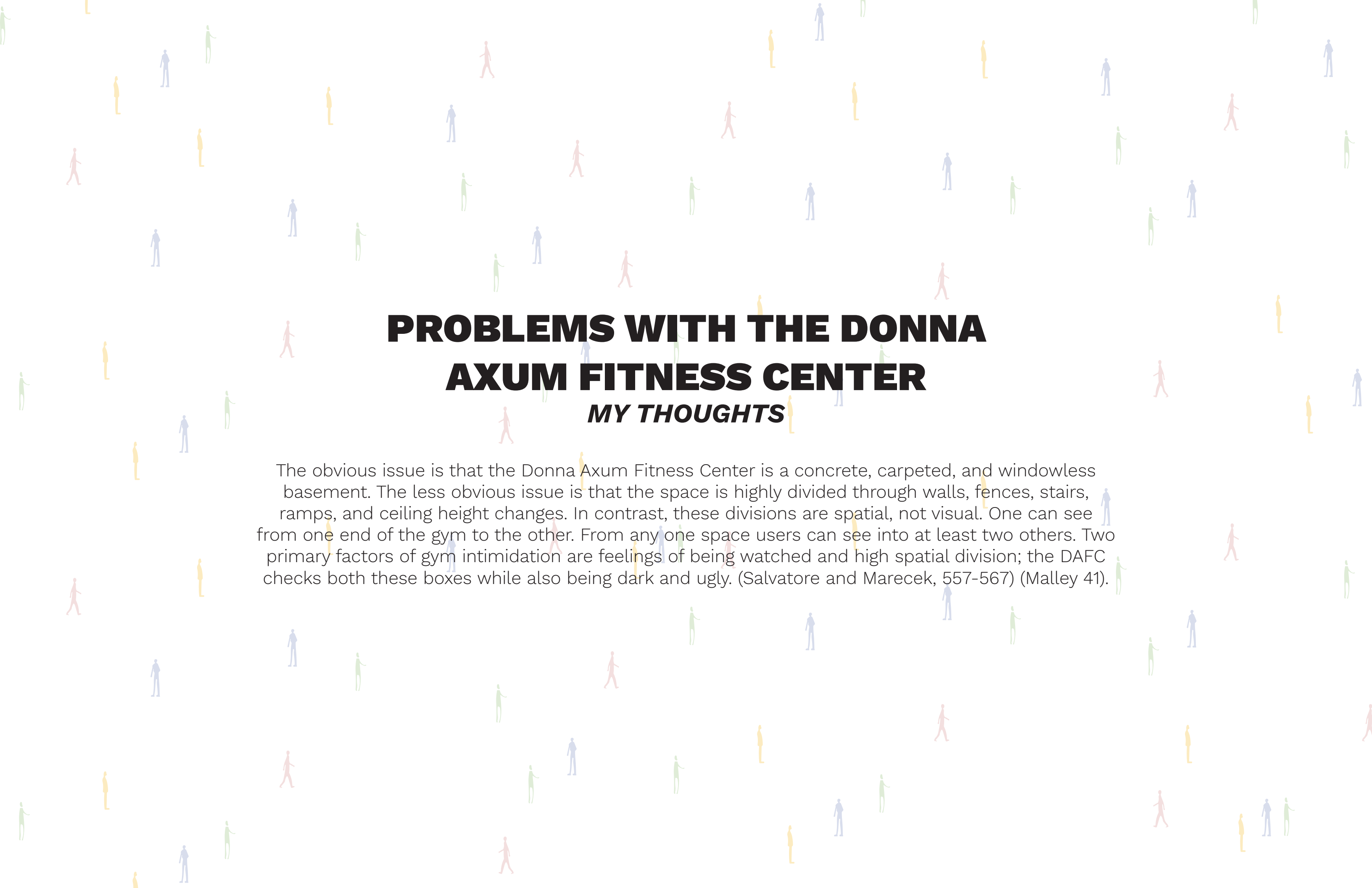
“**I feel like I will not complete my routine of exercise because there are a lot of people waiting for the machines and anything I am using.**”

“**DAFC is too small for the size of the University of Arkansas** and is usually very crowded due to that.”

“**I do not enjoy working in DAFC.** There is **no where for [employees] to sit** so we awkwardly stand at the front and back or walk around and it makes people uncomfortable, but our bosses get mad if we aren’t. Because there’s **no real place for us**, it feels pointless to even have us in there. The space itself is difficult to monitor because of its strange shape, **it’s easy for people to tuck themselves out of our view and break rules** (most of the time intentionally). The fact that mirrors line practically the entire gym gives it a weird competitive vibe, like everyone can see you all the time. **It’s dark and the lighting is bad**, and it’s overall such a dated space.”

Frequently mentioned by students in the poll:

TOO BUSY
TOO SMALL
NO STAFF DESK



PROBLEMS WITH THE DONNA AXUM FITNESS CENTER

MY THOUGHTS

The obvious issue is that the Donna Axum Fitness Center is a concrete, carpeted, and windowless basement. The less obvious issue is that the space is highly divided through walls, fences, stairs, ramps, and ceiling height changes. In contrast, these divisions are spatial, not visual. One can see from one end of the gym to the other. From any one space users can see into at least two others. Two primary factors of gym intimidation are feelings of being watched and high spatial division; the DAFC checks both these boxes while also being dark and ugly. (Salvatore and Marecek, 557-567) (Malley 41).

The background of the slide is a repeating pattern of small, stylized human silhouettes in various colors (blue, green, orange, red, purple) scattered across the white background. The silhouettes are in different poses, some standing, some walking, and some with arms raised.

THE REDESIGNED HEALTH, PHYSICAL EDUCATION, AND RECREATION BUILDING

USING SPATIAL GUIDELINES TO SIZE THE SPACE

Current student enrollment was applied to the National Intramural and Recreational Sports Association spatial guides for university recreation centers. The results are on the following slides

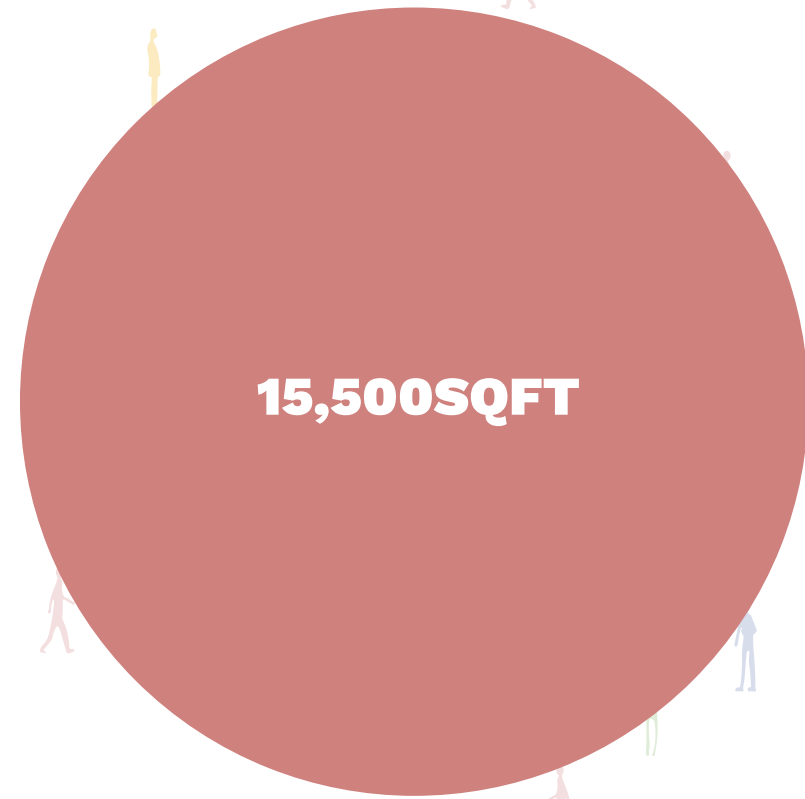
**EXISTING FITNESS SPACE IN
THE HPER BUILDING**

10,500SQFT

**SPATIAL RECCOMENDATION FOR
CURRENT STUDENT ENROLLMENT**

30,000SQFT

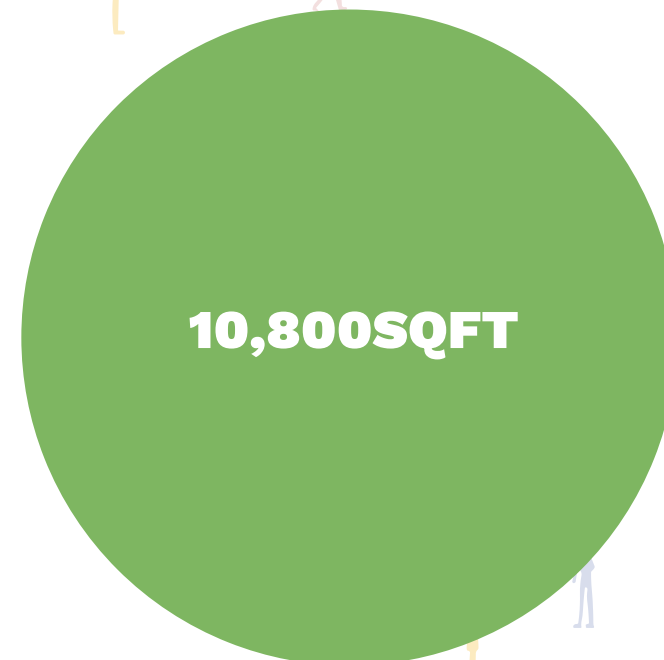
EXISTING LOCKER ROOM SPACE

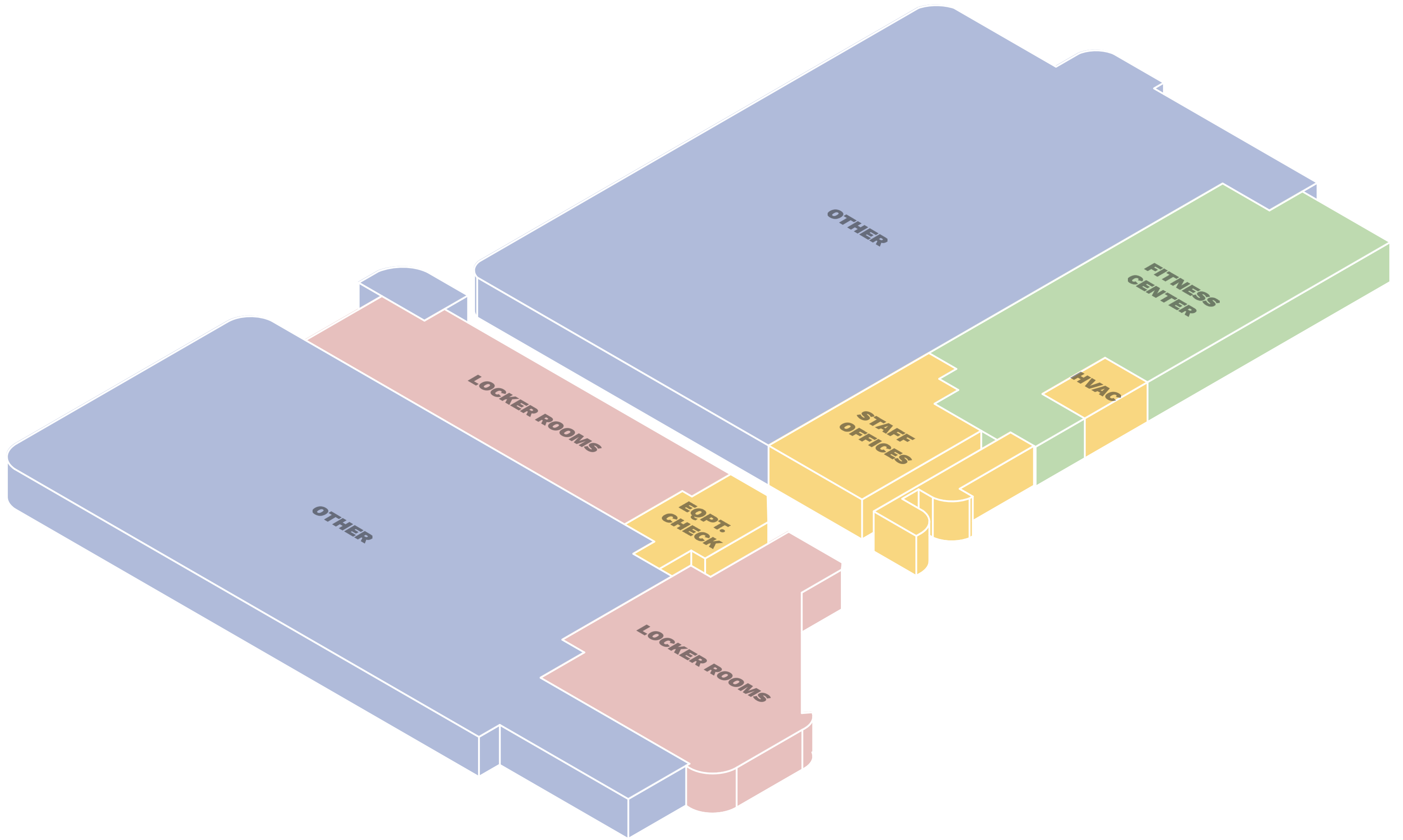


SPATIAL RECCOMENDATION FOR CURRENT STUDENT ENROLLMENT

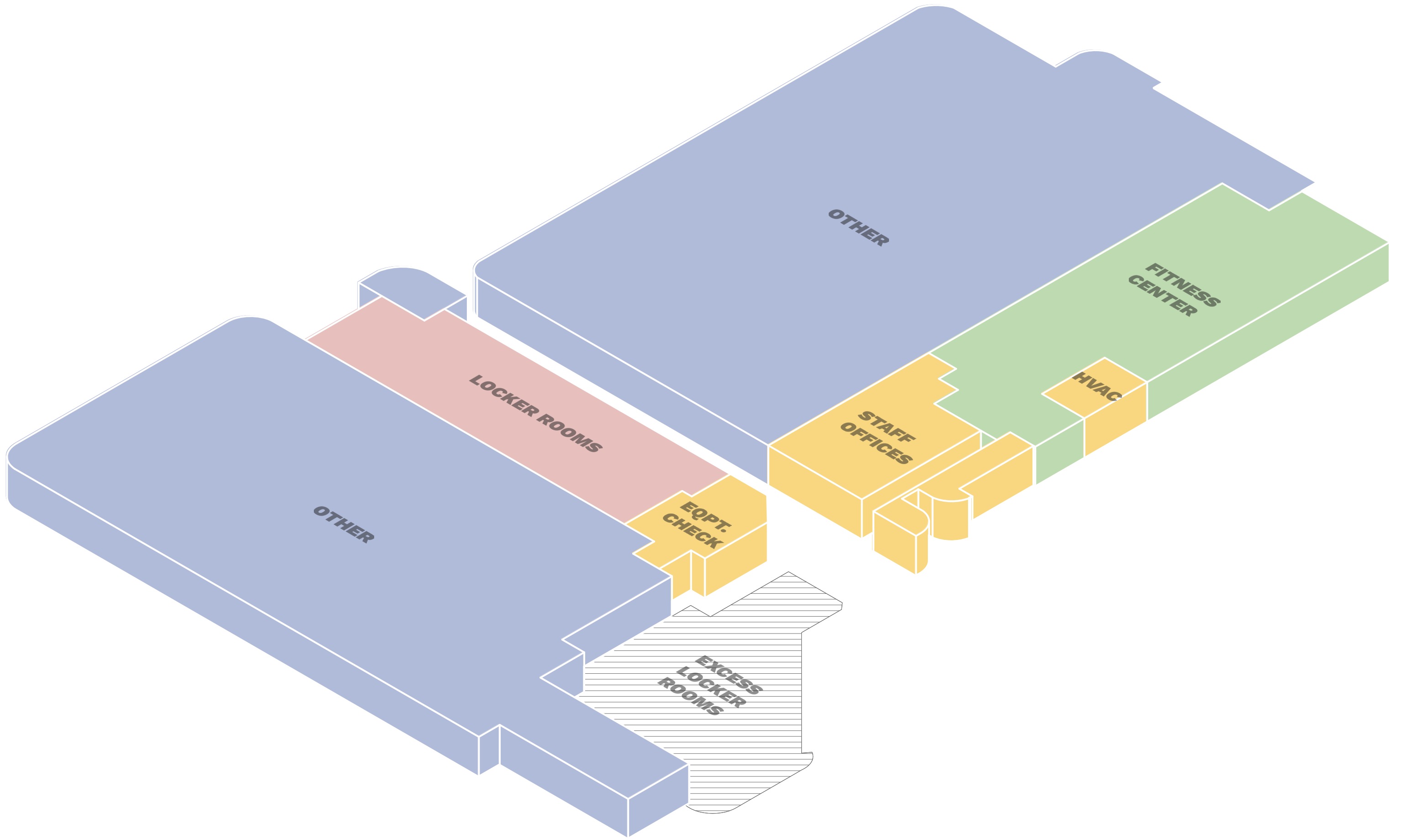


UNNECESSARY LOCKER ROOM SPACE THAT CAN BE REASSIGNED TO FITNESS

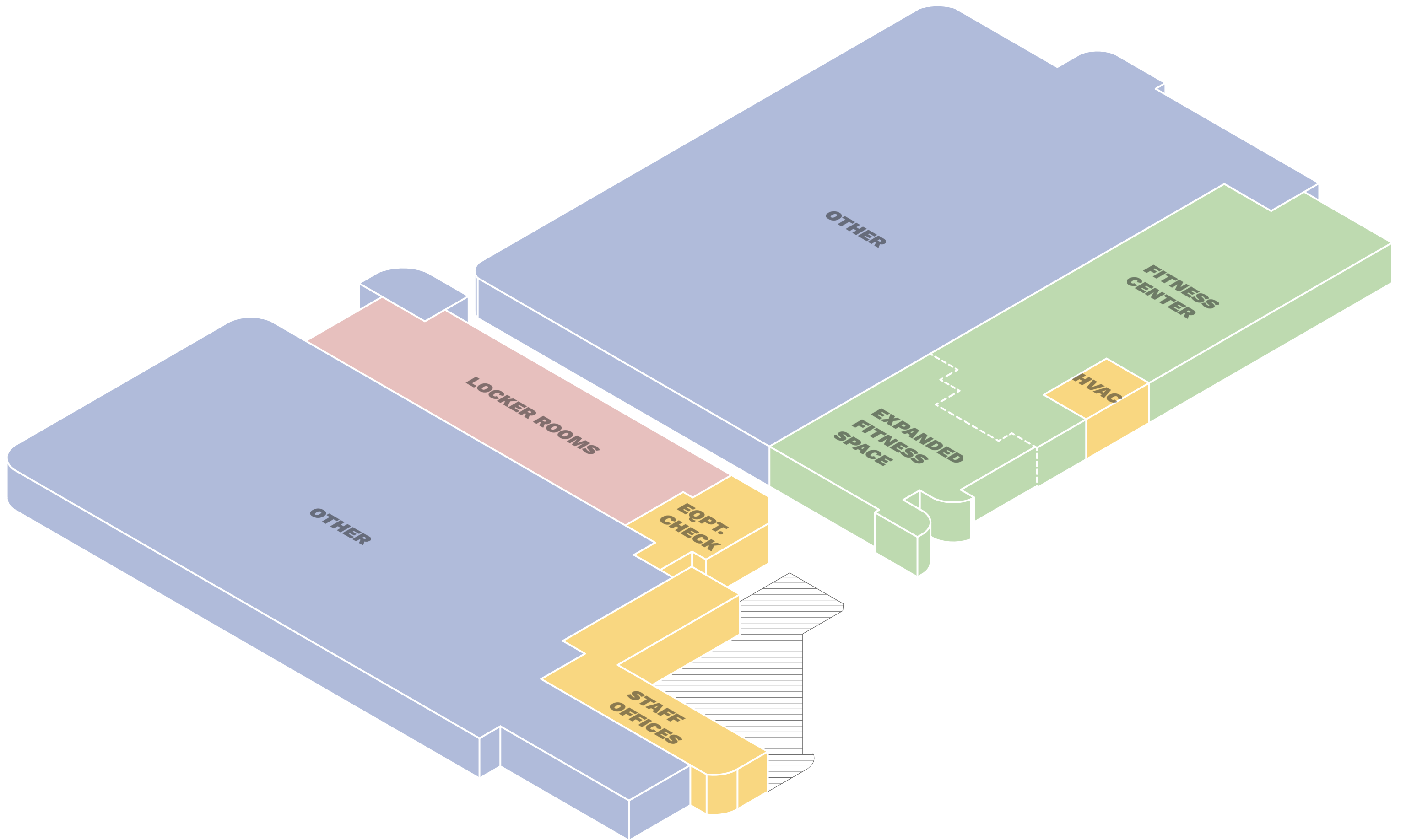




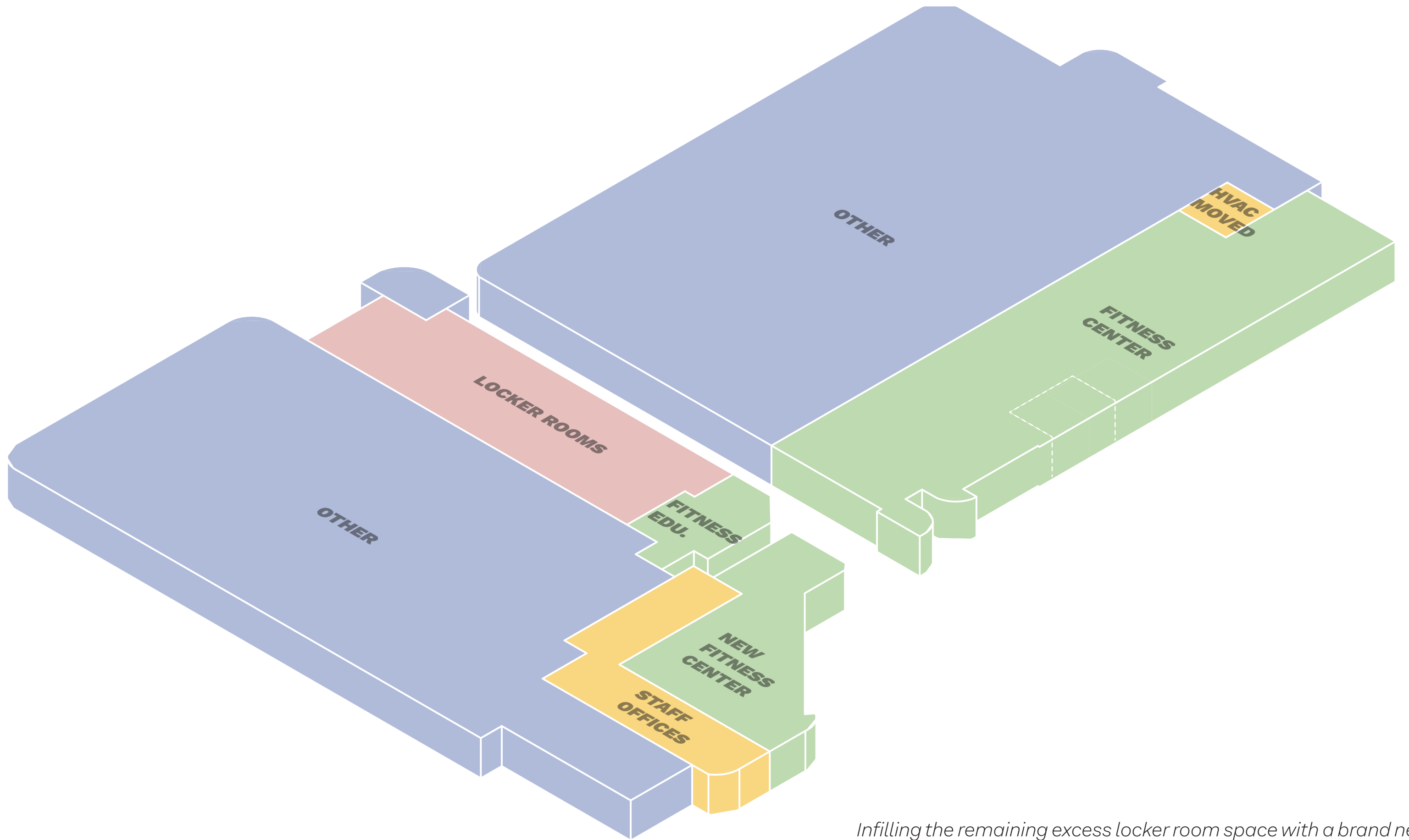
Current HPER Ground Floor



Reduction of excess locker room square footage



Moving the offices and conference rooms to the excess locker room space to extend the existing fitness center

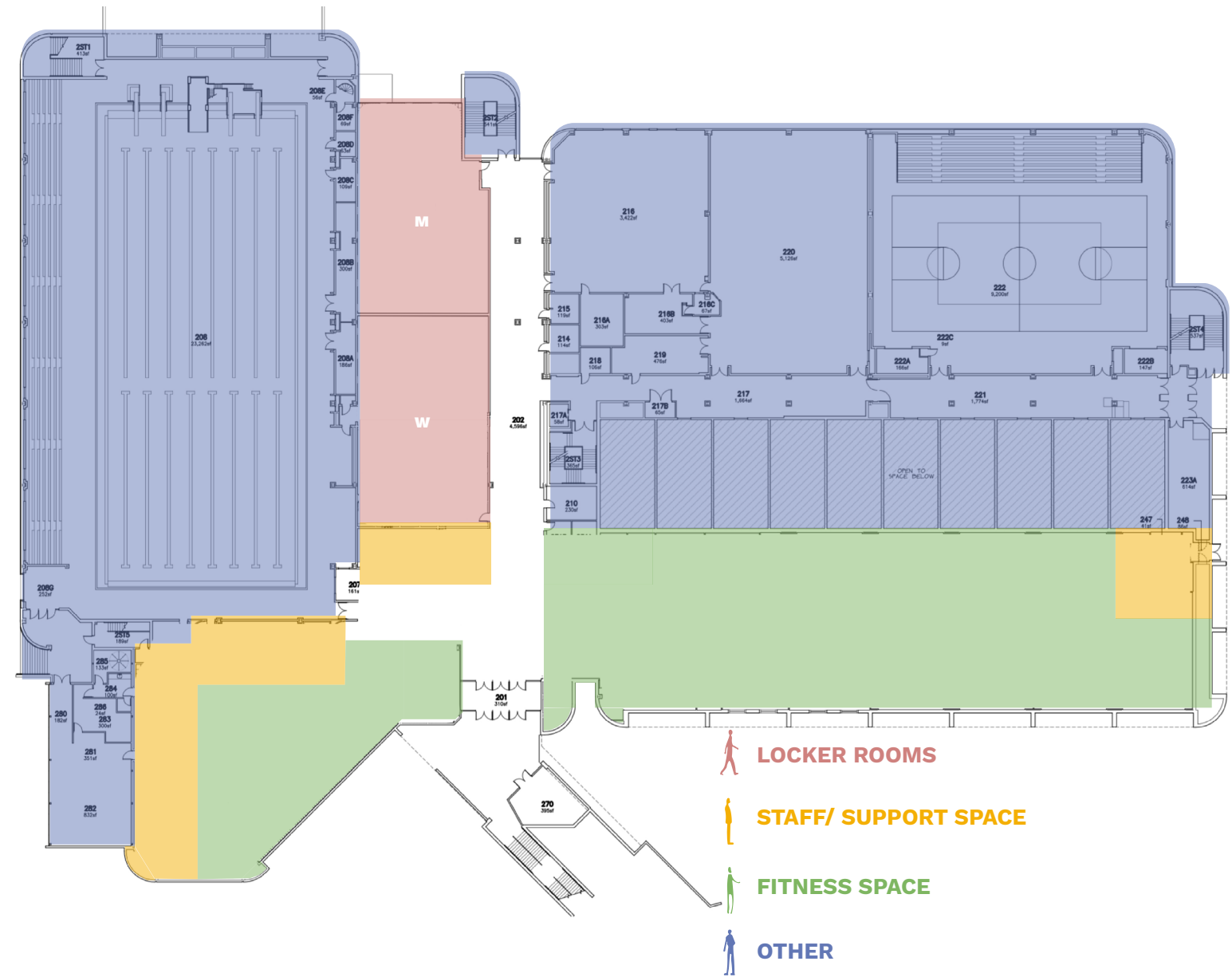


Infilling the remaining excess locker room space with a brand new fitness center, moving the HVAC unit to the corner of the existing fitness center to create a more united space, and converting the equipment rental space into a fitness education space

EXISTING PLAN



PROPOSED PLAN



Program shifts increase total fitness space by 10,000 square feet



THE REDESIGNED HEALTH, PHYSICAL EDUCATION, AND RECREATION BUILDING

SITE DESIGN

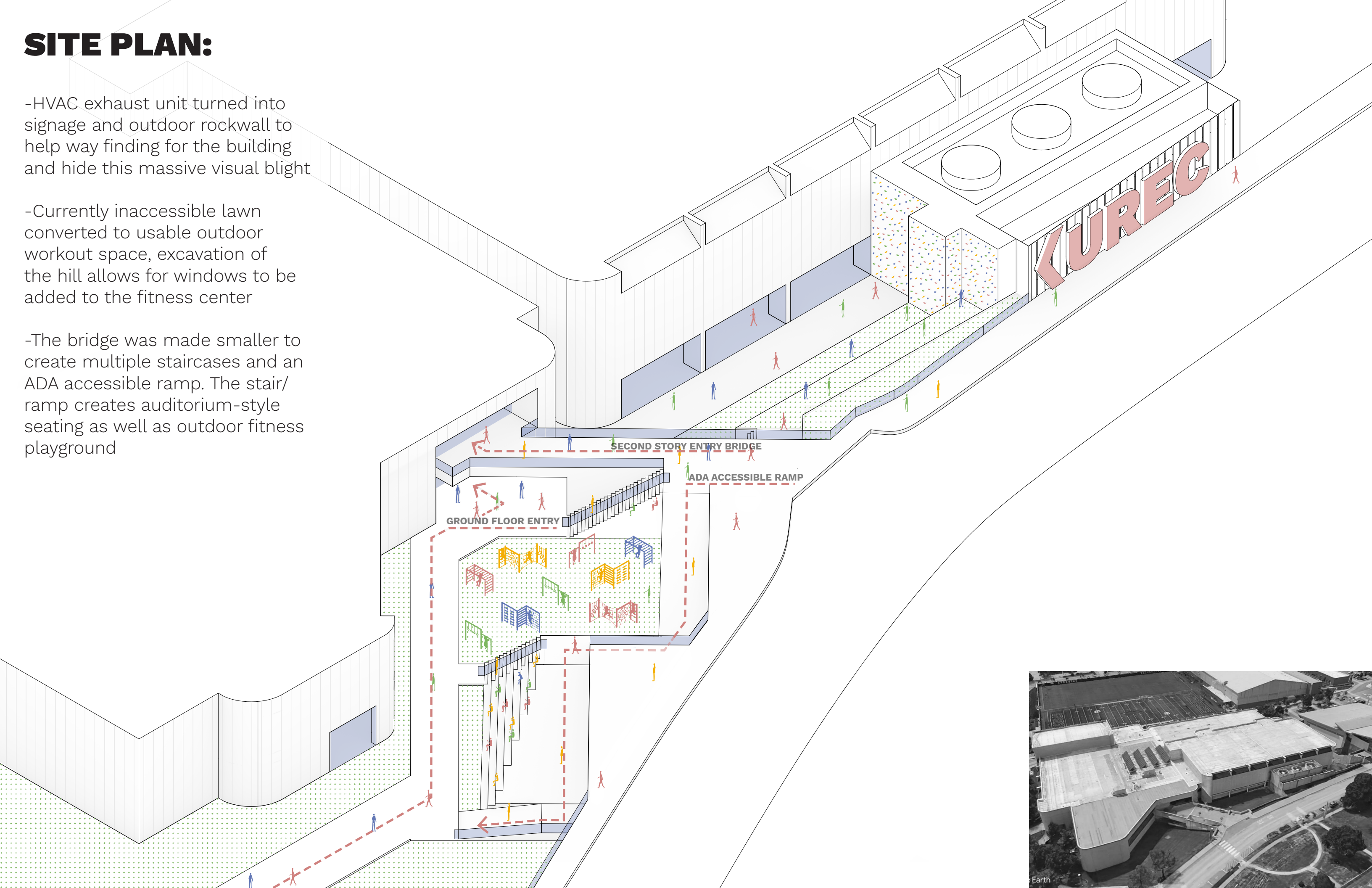
Site design was focused on presenting a friendlier entry to students going to the HPER to combat intimidation before a student reaches the front door

SITE PLAN:

-HVAC exhaust unit turned into signage and outdoor rockwall to help way finding for the building and hide this massive visual blight

-Currently inaccessible lawn converted to usable outdoor workout space, excavation of the hill allows for windows to be added to the fitness center

-The bridge was made smaller to create multiple staircases and an ADA accessible ramp. The stair/ ramp creates auditorium-style seating as well as outdoor fitness playground



THE PUBLIC LAWN:

The existing hill's excavation allows for windows to be added to the HPER's facade letting more light into the building.

The existing bridge is reduced in size significantly, allowing the ground floor doors to now act as both entry and exit

The addition of clear signage helps students navigate to their destination efficiently

Multiple means of circulation (stairs, bridge, and ramp) make the HPER more accessible

outdoor fitness space can be used on nice weather days

the addition of bright colors and vegetation make the entry sequence friendlier



THE PRIVATE LAWN:

-The formerly blocked off lawn now acts as outdoor stretching, yoga, and rock climbing/ bouldering space

-The addition of bright colors and Astroturf softens up the harsh face of the HPER's brutalist facade

-The excavation of the hill allowed for three bays of floor to ceiling operable glazing to be put into the Donna Axum Fitness Center both letting sunlight into the space and allowing the fitness center to open up to the outdoors on days with good weather





SITE DESIGN SUMMARY

Once where there was a massive concrete HVAC exhaust unit there is now bright colorful handholds with students challenging themselves to scale a wall. Upon closer inspection passers-by see students stretching, doing yoga, and enjoying the outdoors in a space that formerly was an unused green lawn. Walking past the HPER one can look into new windows and see and see excited students working on their physical health.

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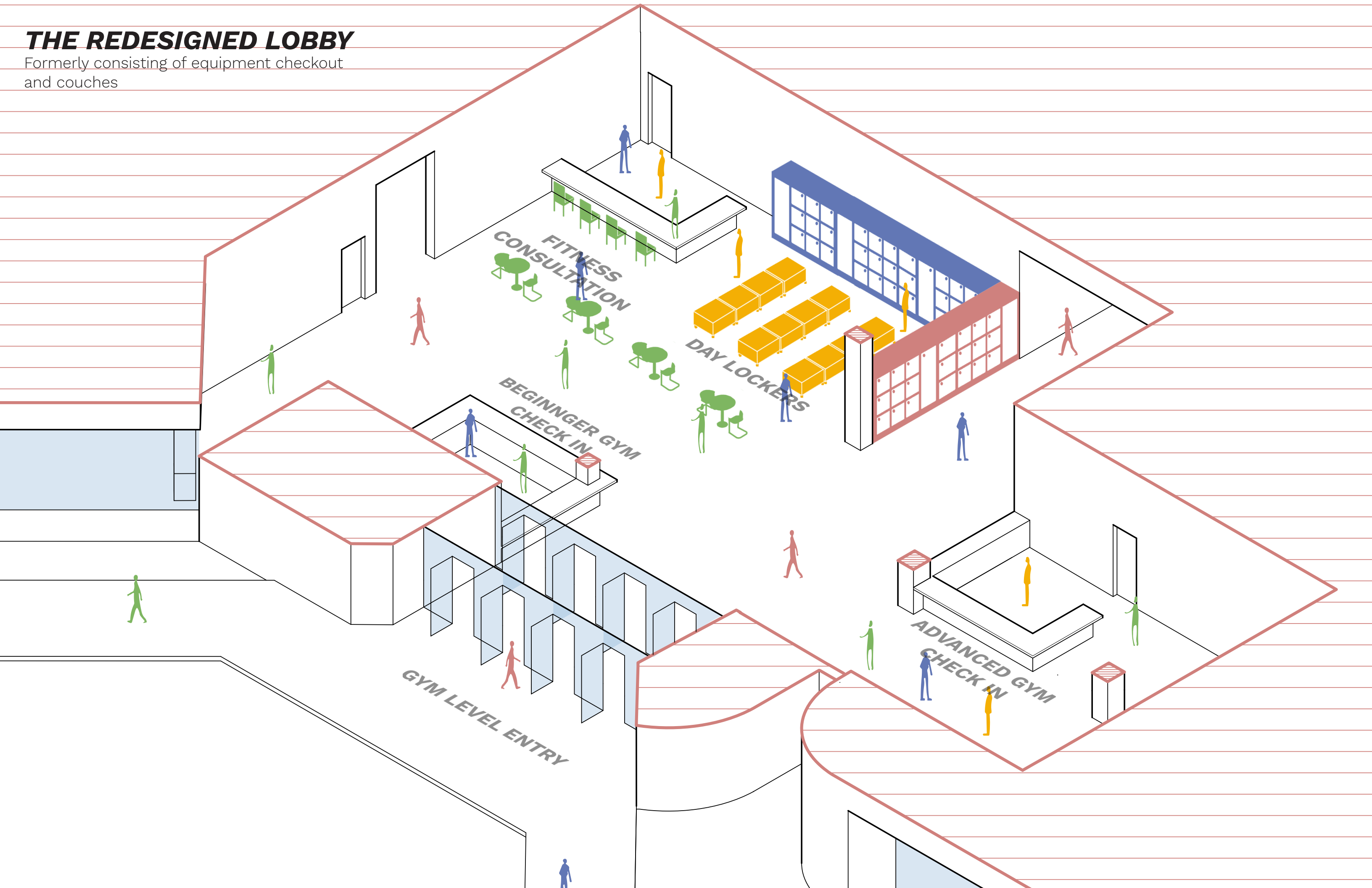
THE REDESIGNED HEALTH, PHYSICAL EDUCATION, AND RECREATION BUILDING

OVERARCHING INTERIOR DESIGN STRATEGIES

All interiors of the redesigned HPER have bright cheery colors, warmer materials, and more overhead lighting. These design moves are a response to student feedback that the current fitness center space is dark, monotone, and harsh.

THE REDESIGNED LOBBY

Formerly consisting of equipment checkout
and couches



FITNESS EDUCATION SPACE:

-The centrally located equipment rental space has been replaced by a fitness education space

-Having the personal trainers by the entry lobby of the two fitness centers invites users to interact with these knowledge resources helping them learn more about working out and start to build their confidence in fitness space

-the intent of the fitness education space is for this zone to act as a workout consultation zone. One can sit down and tell the personal trainer what they would like to do and then receive a structured workout from the trainer.

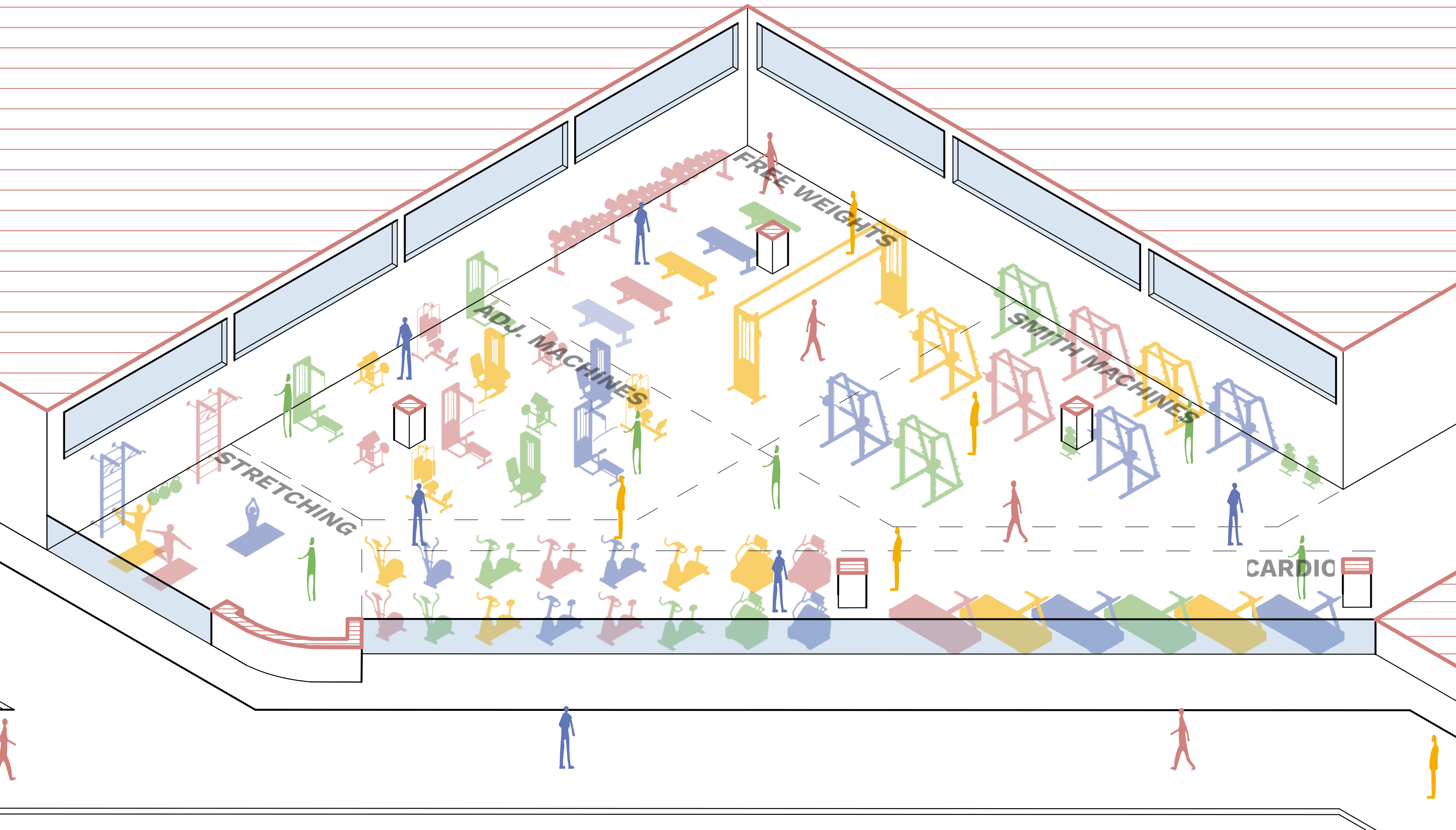
-For those who do not wish to interact with the trainers/ when the trainers are not working there is a QR workout guide. The QR codes take users to a workout app that will guide them through a custom workout based on their fitness preferences.

-Day lockers (pictured on the right) are a quick and easy place to drop off one personal item before a workout and the furniture by these lockers can be a place to sit and wait for a workout partner to show up



THE BEGINNERS' GYM

Formerly Locker Rooms



THE BEGINNERS' GYM:

-A designated beginner's gym gives fitness newbies the option to workout alongside people more similar to their experience level and thus avoiding intimidation caused by comparison to fitter users leading to feelings of ineptitude.

-This gym has copious views of the outdoors making it less internally focused than a windowless gym space attempting to combat intimidation triggered by feelings of being watched and judged.



THE BEGINNERS' GYM:

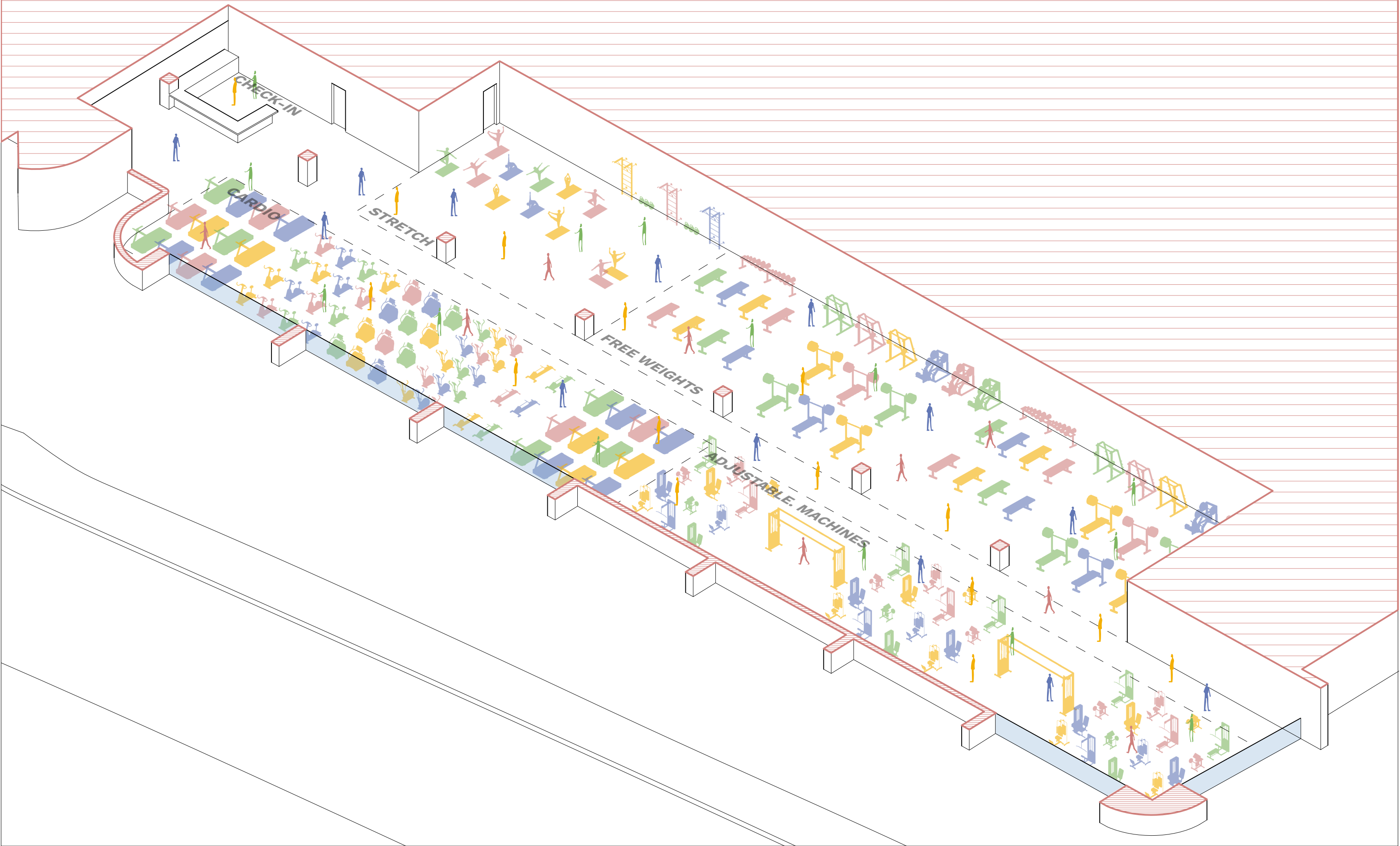
-The dumbbells in the beginners' gym cut off at 60 pounds as do the pre-loaded barbells

-Much like Planet Fitness, there are no traditional squat racks or bench presses in this gym, but rather hydraulic smith machines. These machines are versatile and their safety mechanisms are helpful to new and inexperienced lifters

-Limiting equipment in such a way encourages tailors this gym to fitness novices and discourages potentially intimidating advanced fitness enthusiasts



THE REDESIGNED DONNA AXUM FITNESS CENTER



THE CARDIO ZONE:

-The previously windowless gym now has some views of the outdoors, making it less internally focused and thus attempting to combat intimidation triggered by feelings of being watched and judged.

-Wood partitions between spaces reduce visual connections between spaces trying to prevent intimidating feelings of being watched and judged. In contrast, these dividers do not run to the ceiling, and in order to maintain the greater spatial connectivity and avoiding spatial segregation intimidation

-looking out towards brightly colored rock climbing walls makes the space more playful and less severe



THE FIXED WEIGHT ZONE:

-The previously windowless gym now has some views of the outdoors, making it less internally focused and thus attempting to combat intimidation triggered by feelings of being watched and judged.

-Square footage gain allows for more fixed weight machinery addressing the frequent student complaint that there are never enough machines available



STRETCHING ZONE:

-Currently, the Donna Axum Fitness Center's stretching spaces are tucked in awkward corners and leftover spaces where weight machinery and cardio equipment cannot fit

-having a designated zone for stretching that can be used for many things will make the gym more appealing to a variety of people

-The significant increase in square footage to this space allows it to host a myriad of activities and classes such as yoga classes, HIIT workouts, and dynamic stretching courses.

-Wood partitions between spaces reduce visual connections between spaces trying to prevent intimidating feelings of being watched and judged. In contrast, these dividers do not run to the ceiling, and in order to maintain the greater spatial connectivity and avoiding spatial segregation intimidation



The background of the entire page is a repeating pattern of small, stylized human silhouettes in various colors including blue, green, orange, and pink. These silhouettes are scattered across the white background, some standing upright and others in walking or running poses, creating a sense of a diverse crowd.

FINAL THOUGHTS

Improving one's physical health is a humbling decision. You must first recognize there is some part of you that you may not like. Then you go get sweaty in an uncomfortable space surrounded by strangers several times a week over several months. Along the way, you will feel judged, awkward, and most likely insecure. And if you stick through all that AND did it correctly, then maybe you will feel and look better. Getting in shape is difficult, it's a long process. While embarking on our health journey, we spend those hours in space that was given little to no thought. If you are going to put yourself through the arduous process of trying to better your physical health and appearance, you deserve to spend that hour in a pleasant space. So honors committee, this is my love letter to people trying to feel better and like what they look like, a university fitness center that does not architecturally contribute to the scariness of getting in shape.

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