

SYRACUSE UNIVERSITY |  
COLLEGE OF VISUAL AND PERFORMING ARTS |  
SCHOOL OF DESIGN |  
ENVIRONMENTAL AND INTERIOR DESIGN PROGRAM

SERIES No. 2

# MEANINGFUL PARTNERSHIP

COMMUNITY | DESIGN | STUDIO



CDS



# The Community Design Studio encompasses the partnership

between the Environmental and Interior Design program and construction management studios. The goal is for students to further comprehend challenges being faced within the Syracuse community, and address them from both creative and analytical perspectives. Our studio focuses on projects that include opportunities to improve social, environmental, economic, and political opposition.

Meaningful Partnership, the community design studio was established in 2017-18. Since then, it has become an important aspect of the design education to work with a variety of community organizations to provide beneficial solutions to their problems. This year, 2020-21, the goal was to redesign the Central New York Headquarters for the YWCA. The YWCA is an organization that is dedicated to bettering the lives of young women and children. Each group of students brainstormed and developed a design that would not only serve the functions for the building, but allow for growth and new opportunity, further empowering the women and children of Syracuse to thrive.

Seyeon Lee, Ph.D  
George Miller Quasi Endowed Assistant Professor  
School of Design  
Syracuse University

fall semester



08

design kick-off /  
project introduction  
to students

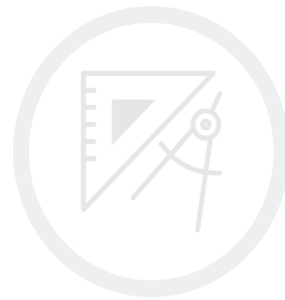
09

client meeting /  
site survey /  
conceptual design

schematic design /  
client presentation

10

design  
development /  
finishes and  
materials



11

construction  
document



12

final design  
presentation

# spring semester

construction management  
kick-off meeting

construction material  
quantity take-offs /  
schedule / estimation

construction management  
documents /consolidated  
presentation preparation

community design  
project exhibition

01

02

03

04



20-21

The Young Women's Christian Association (YWCA) of Syracuse and Onondaga County is a nonprofit organization which was founded in 1885. Their mission is to eliminate racism, empower women, and promote peace, justice, freedom and dignity for all. The YWCA promotes advocacy for women's rights. The YWCA provides women and children with a safe, supportive

# the project overview 2020-2021

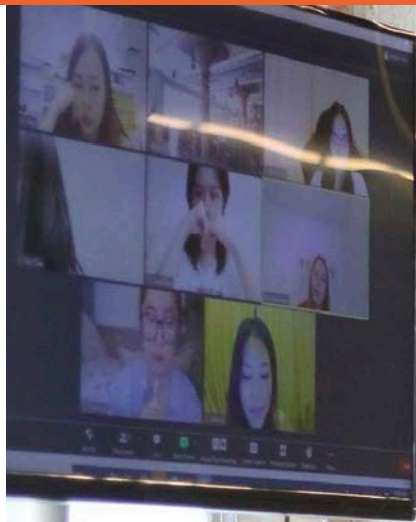




# COVID-19 pandemic

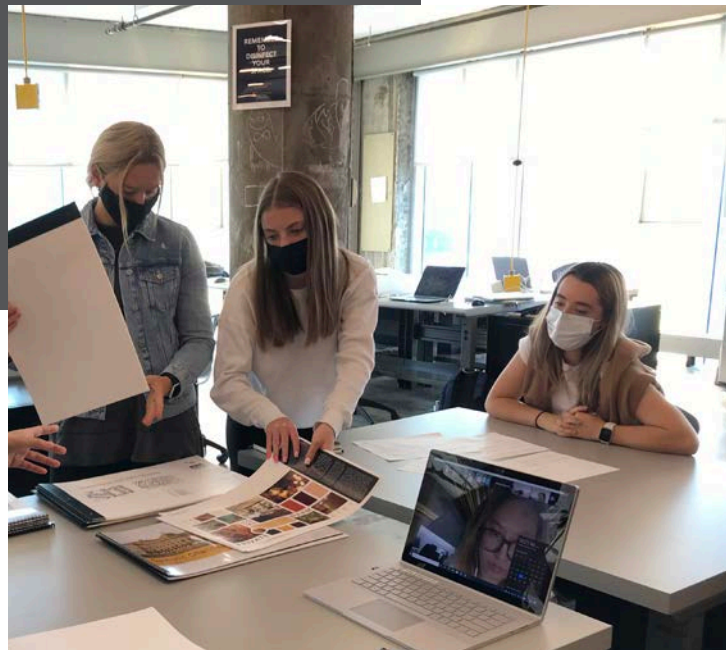
In 2020, COVID-19 pandemic drastically changed the how we teach, work, learn, or socialize in the higher learning environment. The pandemic forced us to change the way we do everything in the design studio.

Six out of 16 participating students in this project was remotely located in China and Taiwan



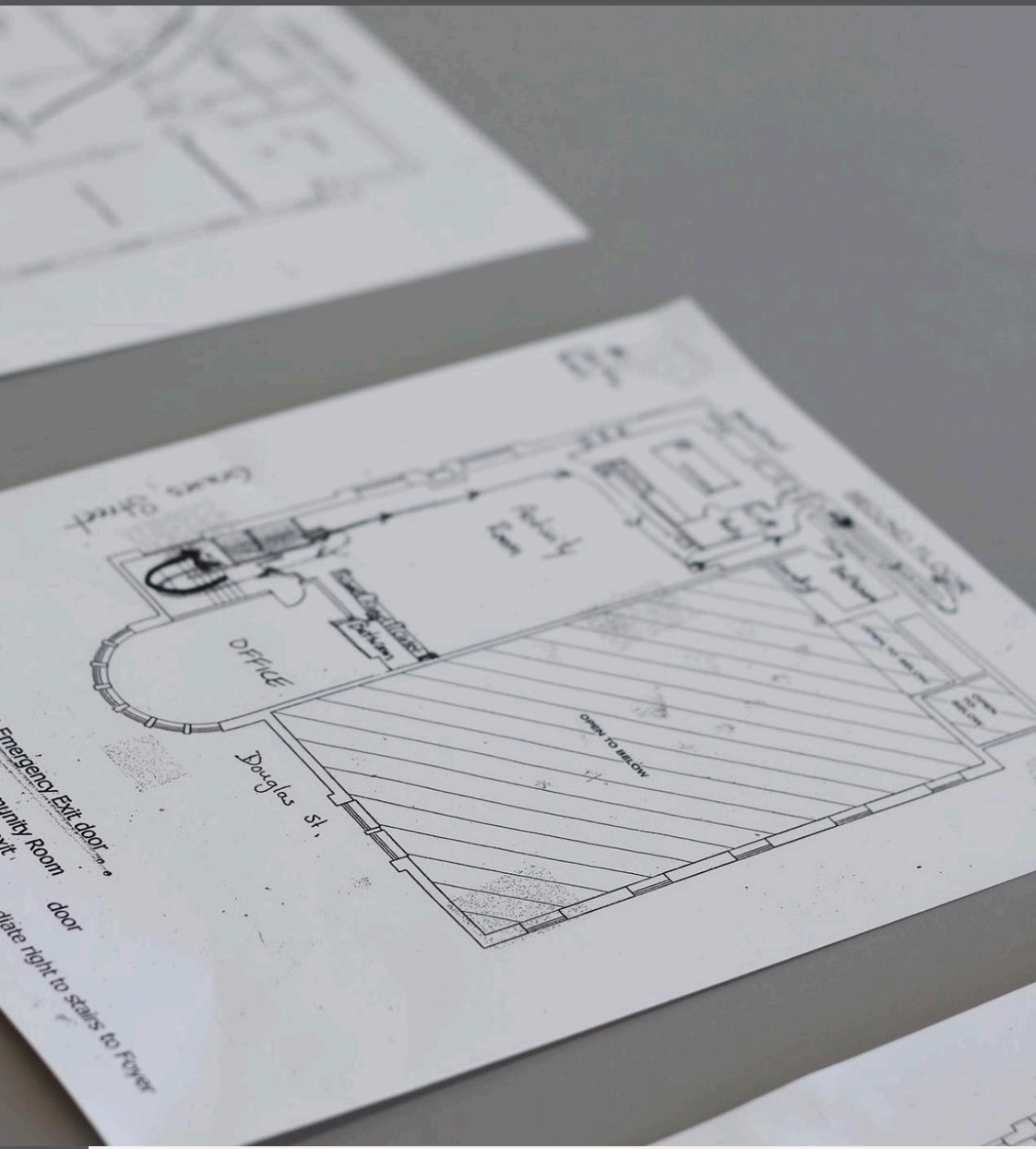
Students worked in teams to research about the YWCA. In order to understand a non-profit organizations, students explored other nonprofit establishments to brainstorm innovative office design concepts. Throughout the research students kept in mind how COVID-19 impacted the way we will design.

# understanding YWCA:



Exit from  
Exit  
Exit  
Exit into Comm  
Cross over to lobby  
Take stairway to another Imme  
Take right and another Imme  
Stairs to Indias St.



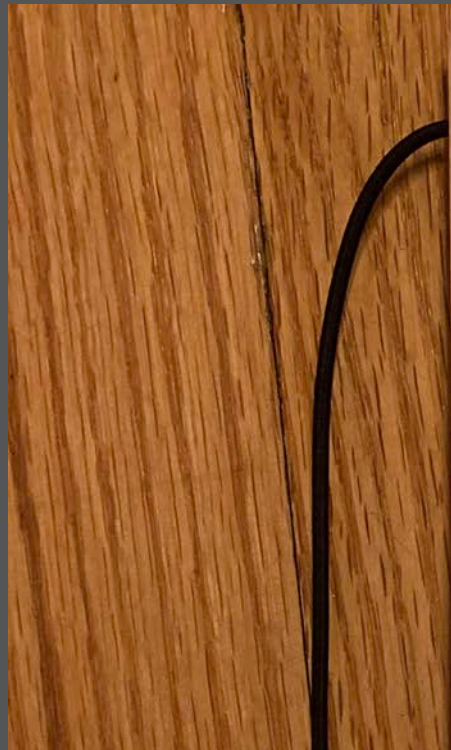


eliminating racism  
empowering women  
**ywca**





After students conducted preliminary research on the project, it was time to meet the client. Meeting the client helps to obtain a better insight and understanding of how people interact within the space, the pro's and con's of the space and the future 'wants and needs' for the space.



- What kind of supplies will you be needing in each room/will you be budgeting for it?
- Do you fund raise/can we help if you do? *do the girls feel safe*
- Are there any overnight activities

CLIENT MEETING: 9/8/20

NOTES ABOUT FLOOR PLAN:

- DOORS IN LOBBY DON'T EXIST
  - RECEPTION IS IN LOBBY
  - PPS IS STORAGE
  - KITCHENETTE IN FIRST AID
- 1ST FLOOR
- CLASSROOMS ON RIGHT
  - KITCHEN → FOOD AND WATCH TV
  - 1 BATHROOM
  - LACK STORAGE BIG TIME
- 2ND FLOOR
- A MAZE
  - CAN'T GET RID OF COLUMNS
  - STORAGE ROOM ALWAYS LOCKED
  - LOW CEILINGS
  - HAVE CAMERAS AND SOUND IN THE LIBRARY, NOW THE SPECTRUM ROOM
  - RAMP: TRASH BINS
- LOWER LEVEL





# Meeting with Clients

## CLIENT MEETING:

CASE MANAGEMENT SERVICES

DAVID: PROGRAM DIRECTOR — 7 YRS

AFTER SCHOOL SOCCER PROGRAM \*FREE

WOMEN'S RESIDENTS PROGRAM

STEM PROGRAM

MERGED W/ GIRLS INC.

### CHILD'S WAY THRU BUILDING:

- BUZZ, GREETING
- CUBBIES
- BASEMENT FOR PROGRAMS
- CUBBIES CAN BE DISTRACTING

- AGE RANGE: 5-18
- MAX CAPACITY: ?

### STAFF'S WAY THRU BUILDING:

- BUZZ IN
- SCANS FOR FEVER

### WANTS:

- PROJECTOR/SMART BOARD used by teens
- MEETINGS AS WELL

### CHANGES AFTER COVID:

- LESS CHILDREN
- KEEPING THEM MORE SEPARATE
- EATING IN DIFF. PLACES
  - ↳ TEENS DOWN, CHILD UP
- ADULTS EAT AT DESK

### SPACES USED MOST:

ALL → GYM

SUMMER: 3 DIFF. AGE GROUPS

- ↳ LL
- ↳ UP IN CAFETERIA
- ↳ ROUND ROOM

LAST UPDATED IN 70'S/80'S

- INVITING, APPEALING, CHILD FRIENDLY

- GOOD W/ STORAGE

Above: Notebook from Olivia Velazquez

After the meeting, students begin their work on how to resolve these issues presented by the client and propose new, innovative ideas that work for the space and for the people who interact with it every day.

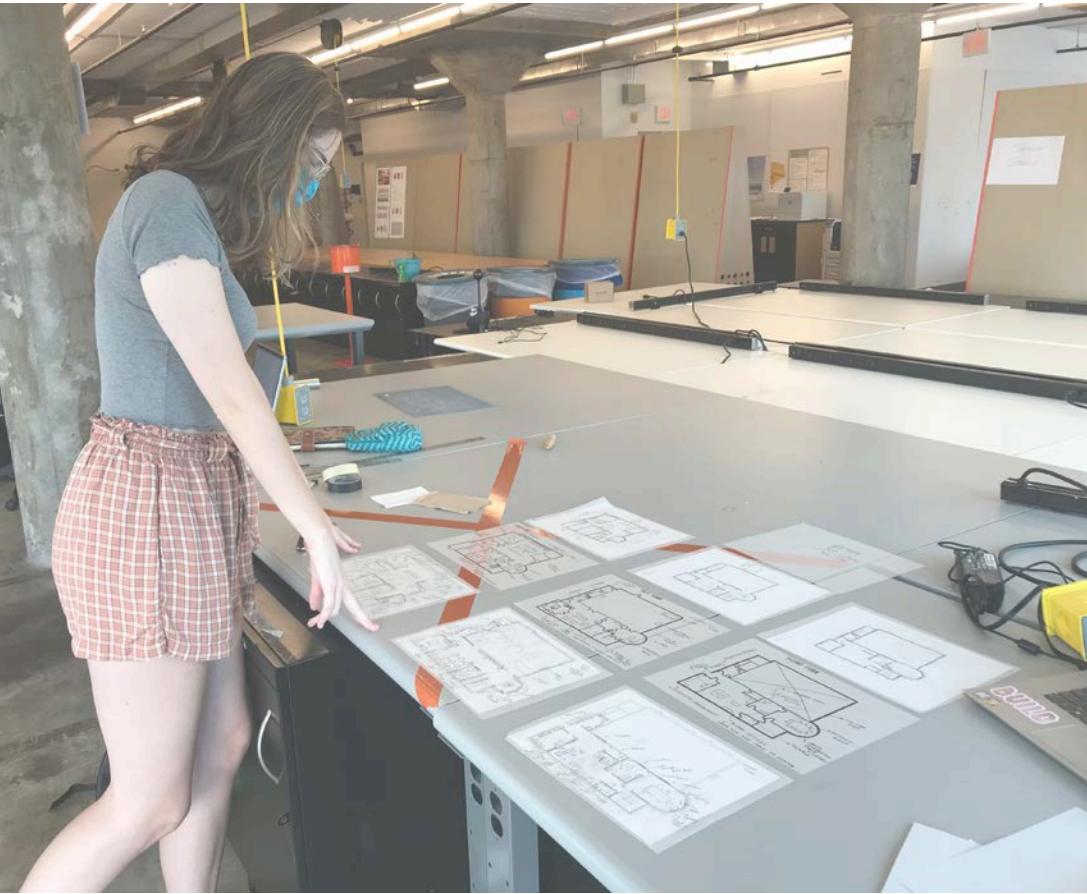
## schematic design

After meeting with the client and discussing their wants and needs for the space, each team began the Schematic Design process. During this phase of design, teams began their ideation through the creation of various diagrams and visual representations.

At the end of this stage, each team created a presentation including mood boards, material boards, spatial diagrams, floor plans, building elevations and sections, and renderings.





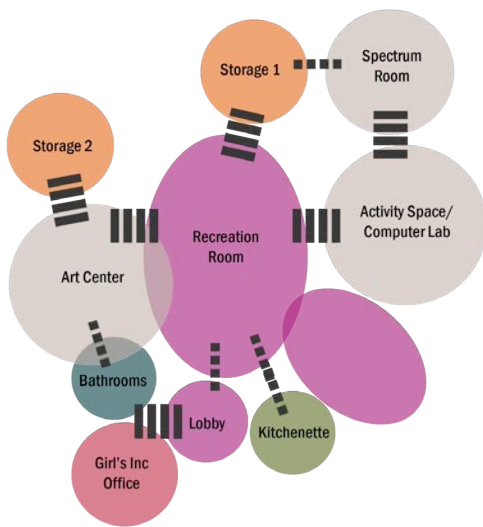




# schematic design

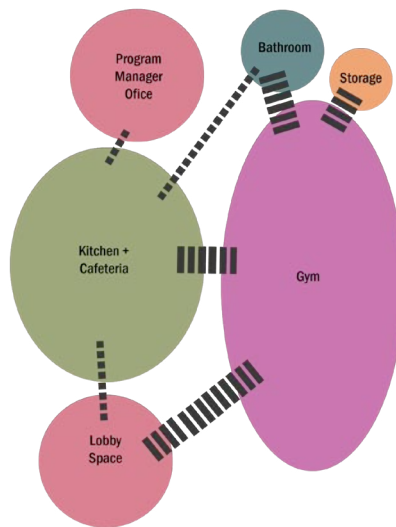
In order to understand the placement of and relationship between different spaces within the building, students created Bubble Diagrams during the Schematic Design process.

Students diagrams demonstrating changes they are proposing using color coordination as well as showing how they will execute their concept throughout the space.



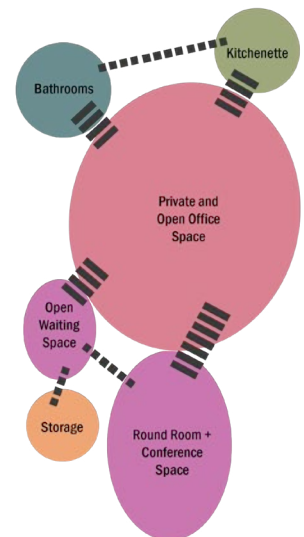
Basement

- Office
- Recreation
- Storage + Mechanical



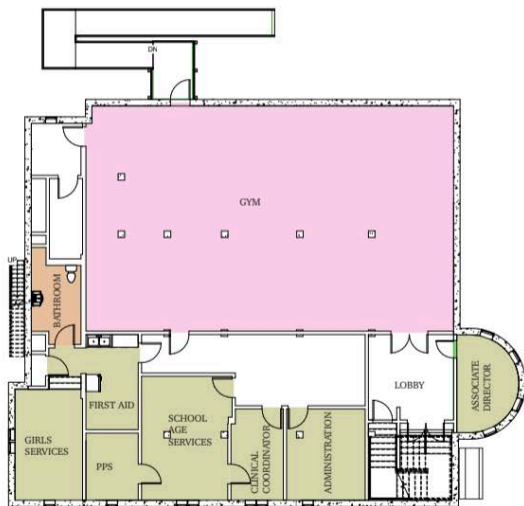
Ground Floor

- Bathroom
- Education
- Food + Dining

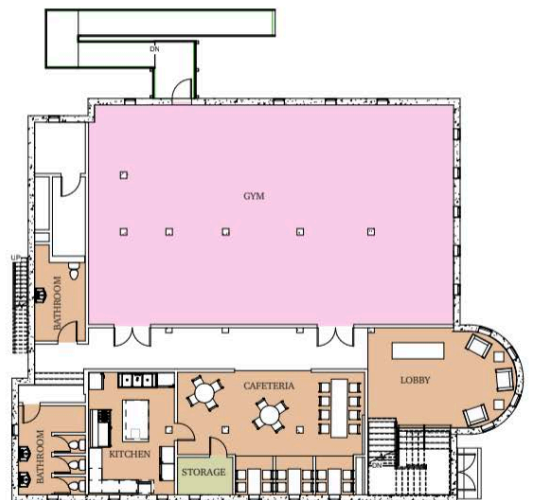


Second Floor

- Major Connection
- Minor Connection



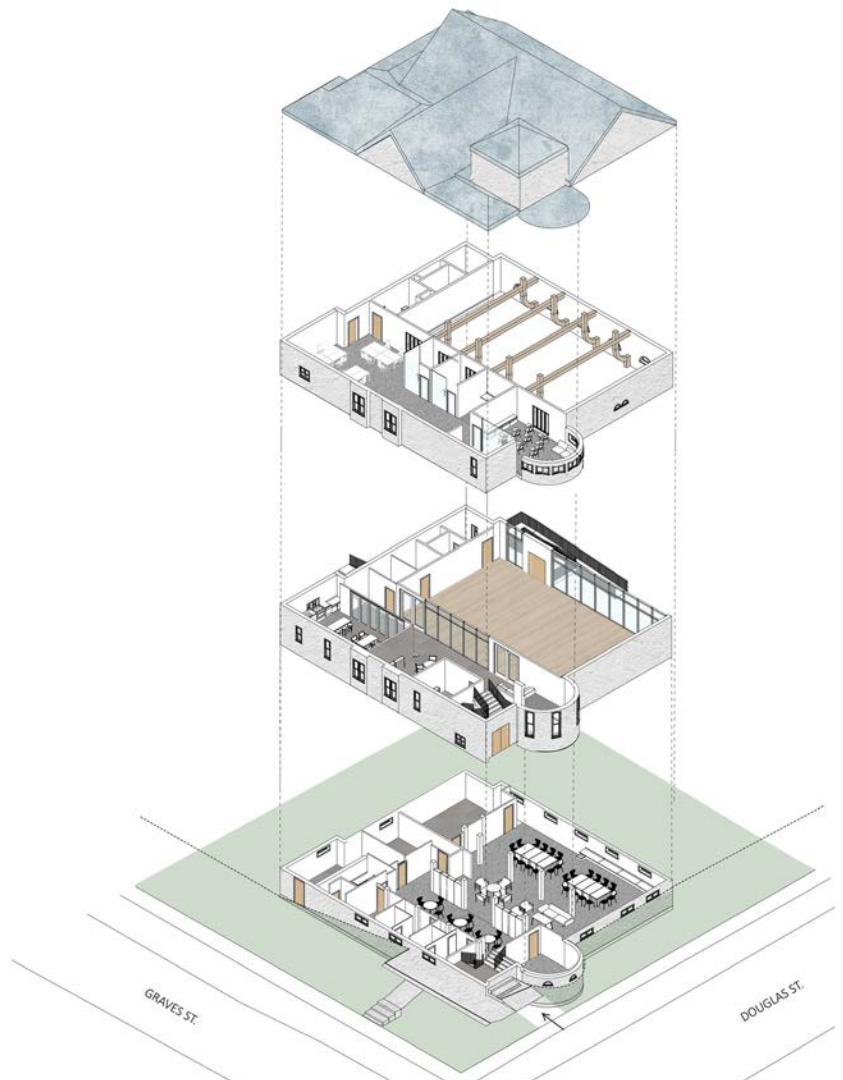
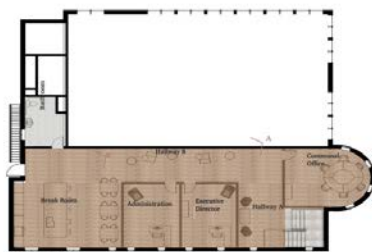
Current



Proposed

# design development:

At the end of the Schematic Design phase, students presented their proposed design concepts. With the clients' blessing, students continued to study their design further in the Design Development phase. The design documents produced in this phase includes: site plan, detailed floor plans including specific materials and finishes, building elevations, building sections, wall sections, and renderings

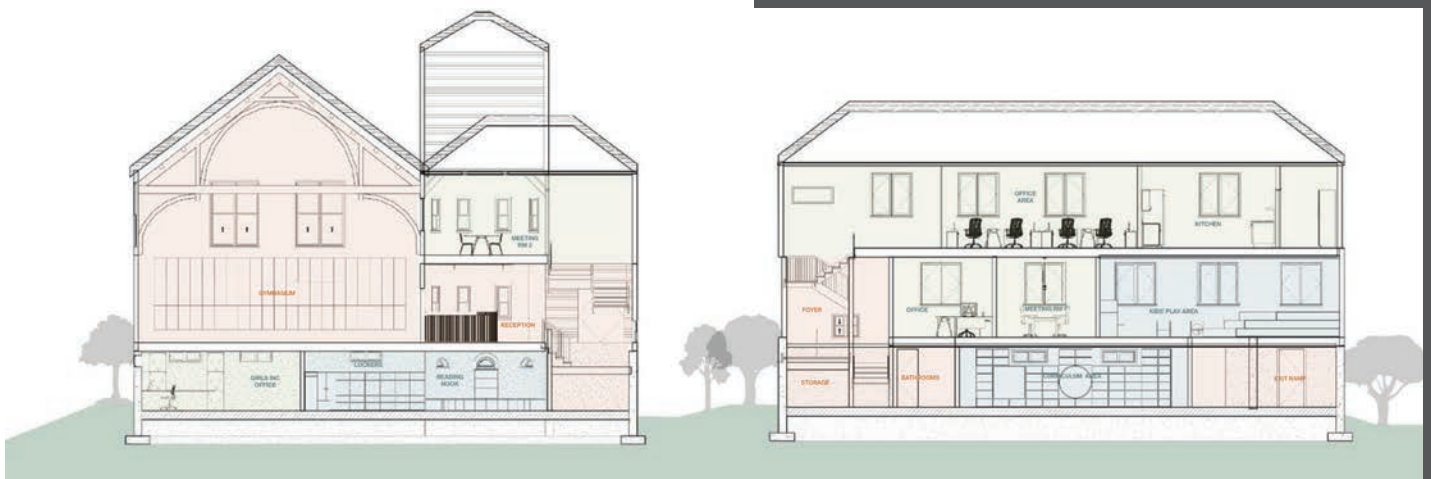
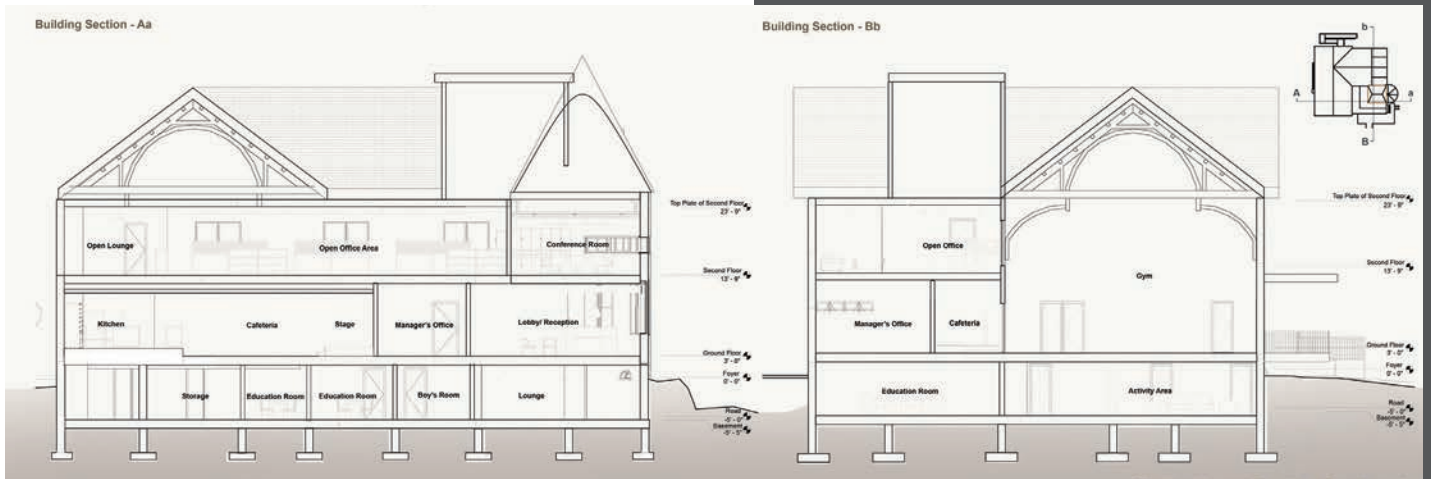


Environmental and Interior Designers:

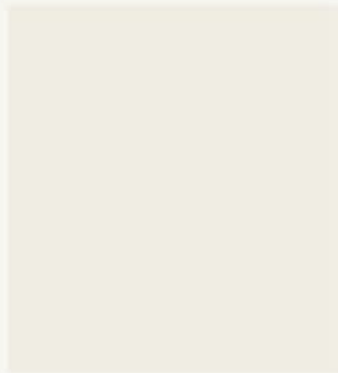
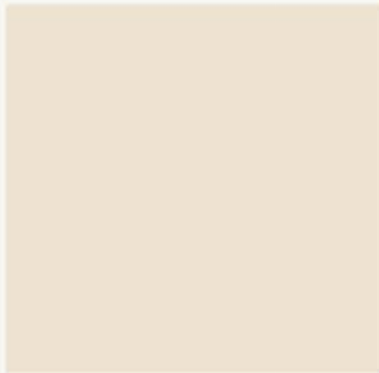
Finished Floor Plans  
(Sydney Rosenberg, Emily Geisinger, Marcy Wolfsberg, Yelitza Lopez Morel)

Exploded Axonometric Diagram showing detailed interior layout  
(Shiyu Lyu, Li Chi Su, Yudi Chen)

Building Sections  
(Mengyan Zhou, Wenyi Sun, Yichun Liu, Emily Pearson, Amelia Hoch, Halle Rosenberg)







Environmental and Interior Designers:

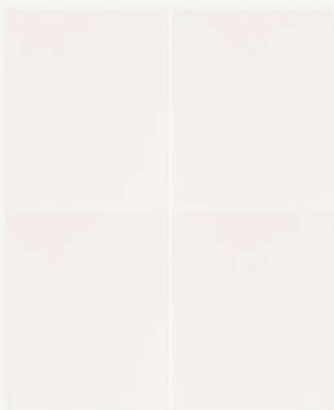
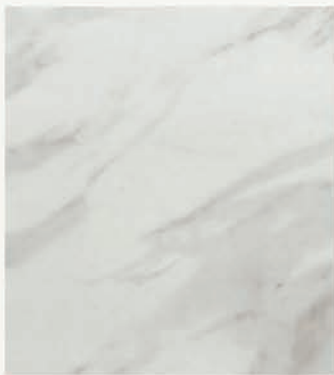
Finishes and Materials Selection  
(Mengyan Zhou, Wenyi Sun, Yichun Liu)

Interior Renderings  
(Erin Kennedy, Olivia McMaster, Olivia Velazquez)





# design development:







YWCA Syracuse Re-Design and Renovation  
 100 Douglass Street, Syracuse NY, 13203

**SCHOOL SP**  
**DESIGN**  
 ARCHITECTURE & INTERIOR DESIGN

**YWCA**  
 eliminating racism  
 empowering women

**OWNER**  
 SEAGATE ASSET MANAGEMENT  
 5601 WEST SIDE AVE.  
 NORTH BERGEN, NJ 07047  
 CONTACT: JASON HOFFMAN  
 E-MAIL: JHOFFMAN@SEAGATEASSET.COM

**ARCHITECT**  
 IN-ARCHITECTS, PLLC  
 339 EAST WATER STREET  
 SYRACUSE, NY 13202  
 CONTACT: JAMES KNITTEL  
 E-MAIL: JKNITTEL@IN-ARCHITECTS.COM

**LEAD ARCHITECT**  
 GRATED DESIGN  
 659-9755 (phone)  
 CONTACT: PHIL HOPKINS  
 E-MAIL: PHILH@3338BUTTERFLYDRIVE.COM





As the final phase of the design process, students prepared construction documents, which contractors and clients could use to turn these designs into reality.

Our construction documents included: Siteplan, demolition plans, floor plans, ceiling plans, furniture plans, finished floorplans, building selections, interior elevations, wall sections, finishes and material schedule, door schedule at the minimum.

## construction documents & design presentation:

While the design documentation phase was completed in December, the final design presentation was delayed to February due to COVID-19 pandemic. Our clients from YWCA and construction management students from ESF joined us in the Warehouse for the final design delivery.



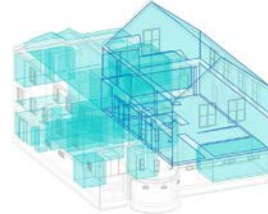


## Part 1: Current Scheme

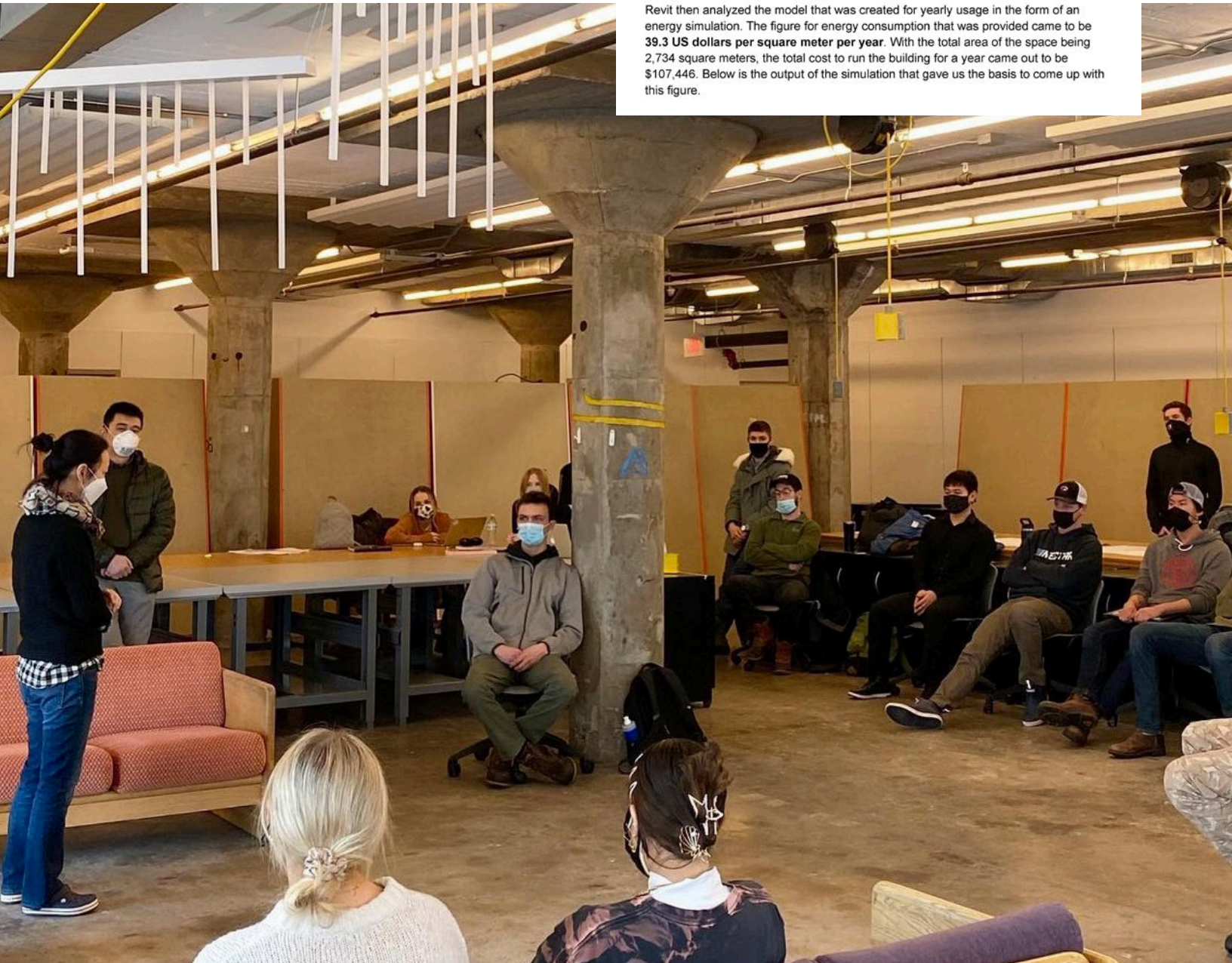
Our team started with the Revit model given to us by the SU design team. The model was very detailed and included most everything that we needed to do our energy model. Every interior and exterior wall included all essential construction layers and did not need to be altered making it even easier to focus on energy models on the part of the construction managers. However there were assumptions that had to be made for unclear components in order to successfully output an accurate energy model. Below we have listed all assumptions made for our model:

- Building typology was considered to be an office
- Operation schedule was considered to be a year round school operation
- HVAC layout was left on the default of a central VAV, HW heat, a chiller with 5.96 COP and boilers of 84.5 EFF
- The ground plane for the model was the ground floor of the building
- Project phase was an existing project
- Some volumes of rooms had to be manually adjusted to account for all spaces

Using these assumptions along with all of the embedded information we then were able to output an energy model through Revit whose spaces are pictured below.



Revit then analyzed the model that was created for yearly usage in the form of an energy simulation. The figure for energy consumption that was provided came to be **39.3 US dollars per square meter per year**. With the total area of the space being 2,734 square meters, the total cost to run the building for a year came out to be \$107,446. Below is the output of the simulation that gave us the basis to come up with this figure.





# Design + Construction Management

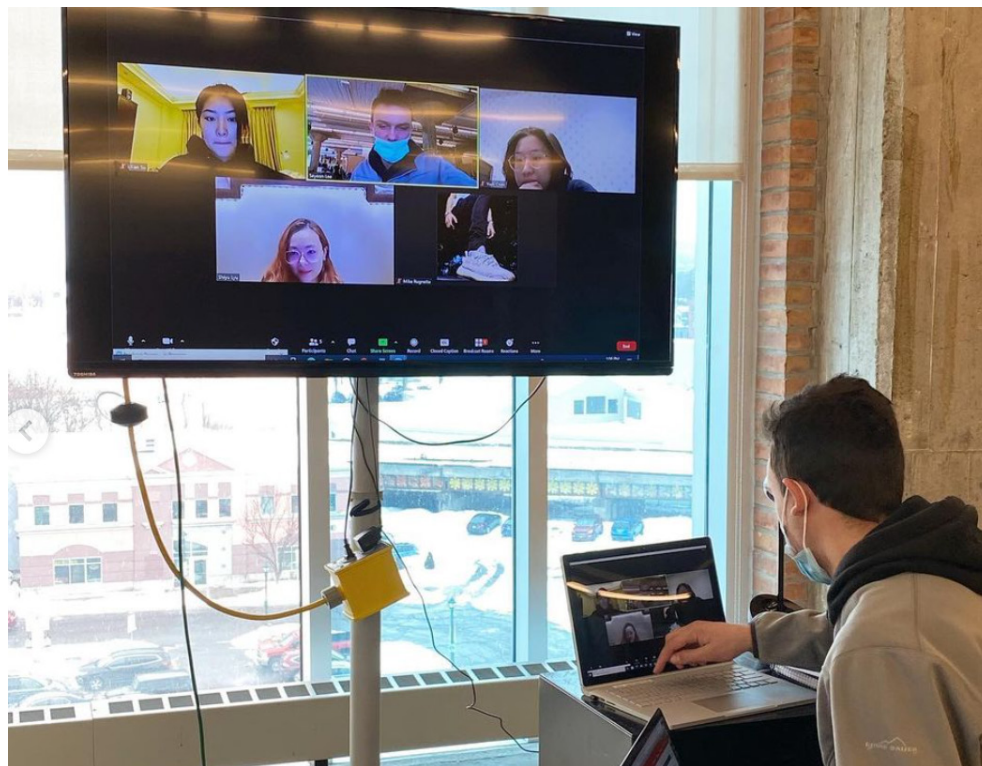
Following the design presentation, students initiated project kick off meeting where the design students re-presenting design concepts and shared construction document files with the construction management students at SUNY ESF.

Once the communication channels were established, the ESF students studied the construction documents and Finish, Furniture, and Equipment Booklets (FF&E). Over the course of (4) weeks, students from both schools communicated via emails. Files were shared through Google Drive.

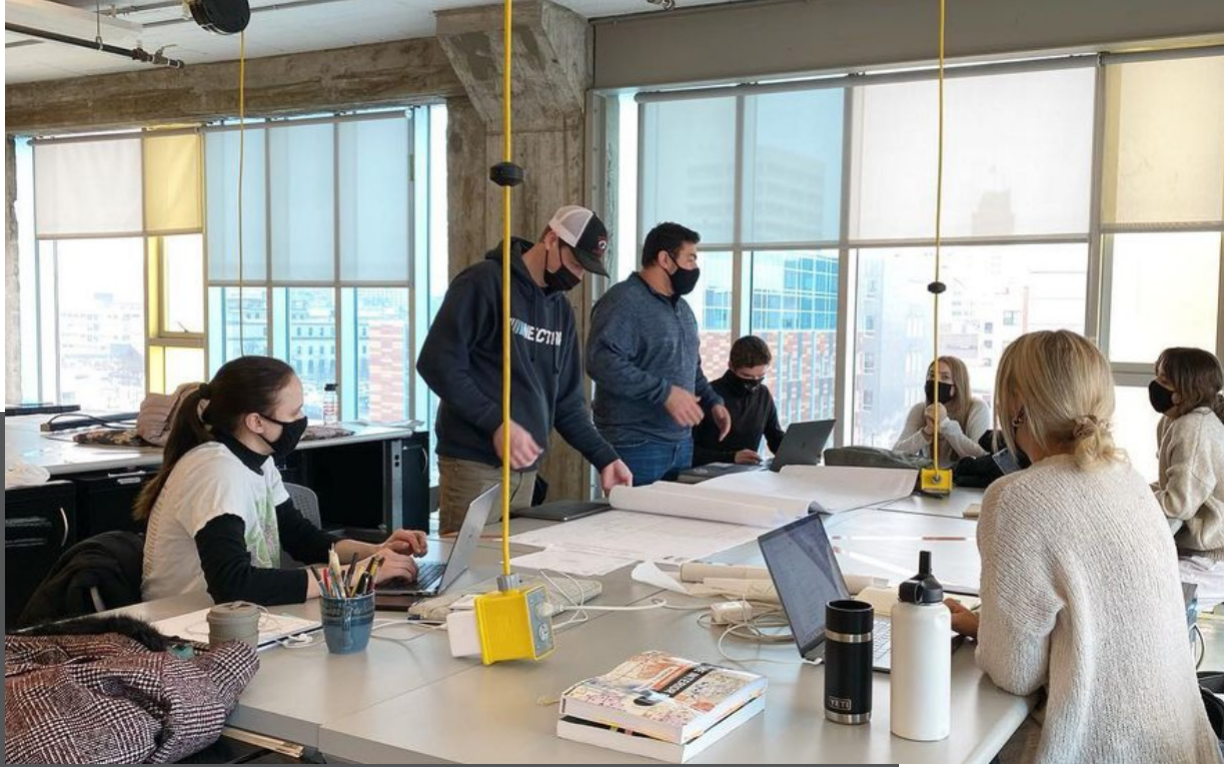
In order for supplying construction management packages of high standards, during preparation stage, we grouped CME students into A-E five competition teams with one Project Manager (PM) and three members in each team. These five PMs took the dual role of intra-team leader and inter-team coordinator during the entire project process. Each team set up one working folder via Google Drive to develop and store all the documents related to YWCA project.

Our official kick-off conference was held on February 16, 2021 in a hybrid mode (online and physical). This conference initiated the mutual recognition between CME and EDI students and the preliminary understanding of CME students on the project through the informative presentations from EDI students. EDI students presented innovative designing concepts, goals and products along with detailed construction documents. During kick-off conference, the communication methods between design-construction partner teams were determined.

On the information from EDI partner teams, CME students organized team meetings to research, discuss and plan the construction process of YWCA. Every team was required to prepare a construction management package including 1) Organization structure; 2) Quantity take-off, cost engineering and estimates; 3) Construction scheduling; 4) Value engineering; 5) Energy saving measures.







# Design + Construction Management

Interdisciplinary collaboration environment

Real-world problem-solving experience

University-community engagement



All the students appreciate this valuable interdisciplinary collaboration opportunity. Within two months of hard working, under the collaborative assistance from EDI students, CME students have been able to successfully deliver the packages consisting of required items of reasonable quality given time constraints. Eventually, this interdisciplinary capstone collaboration process has been super successful in terms of student learning outcomes, instructor teaching effects and community engagement. Compared to previous capstone project experiences, multiple benefits can be observed through this fruitful interdisciplinary collaboration process among SU, YWCA and SUNY-ESF.

While it is not uncommon for CME students to work in teams during their four-year college education, those team works often happen within single homogeneous discipline (i.e. CME). Yet, this **collaboration project with SU** provides a unique opportunity for the students to work with students from a distinct discipline (i.e. EDI students) which can help the students of both disciplines learn more beyond their own curriculums. Apparently, this experience of broadening their horizons can significantly benefit their future career development. As such, students from both disciplines were highly motivated to work seamlessly during the process.

This is really a **problem-driven project from a real world**. YWCA expressed their needs for building renovation through novel design on layout and functions. With customized design schemes from EDI students, constrained to existing conditions, CME students developed project-specific problem-oriented construction management programs. The real-world problem-driven nature enabled the students to be highly engaged in the project. It expected to help students more easily transit from college education to industry practice with critical thinking capability which is an important learning objective in this capstone class.

**Community engagement** has been claimed as a new paradigm of university development. In this renovation project, Syracuse University and SUNY College of Environmental Science and Forestry worked with the local community partner YWCA. Scientific knowledge from institutions and practical experiences from community partner were integrated during project implementation. Consequently, this community-engaged project created an appropriate circumstance of generating, transforming and leveraging professional knowledge for both disciplines. It can not only benefit the development of more attractive curriculums in both colleges but also promote the economic growth of local community.

Endong Wang, CPC, LEED AP BD+C  
Associate Professor of Sustainable Construction at SUNY-ESF









# Design + Construction Management Teams



**A STRUCTURE FOR SUCCESS**  
 795CA 40 DOWNS STREET, DORCHESTER, MA 01922



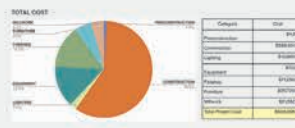
- YVCA:** Founded in 1928, the YVCA aims to provide a safe, healthy space for young girls, where they can explore their creativity and feel their parents' love and support. Located in North Dorchester, the 220,000-sq-ft building here is the YVCA community center. Besides the addition of a gym and more changes, the space has not been renovated since the 1990s. The building is in need of updated facilities, materials and space planning to create a space that better fits the needs for the YVCA, girls and adults.
- Context:** Create an environment conducive for students and staff to utilize flexible spaces for a variety of purposes, including professional areas, learning environments, and activity spaces, while enhancing their education and experience.
- Design Goals:** It is important to have a space that is functional for not only the young girls, but for the employees as well. Through an initial design and construction design, the YVCA will also be able to make any future adjustments as needed. Make functional space planning allow for future areas to be added for job openings, while giving both the students and employees a positive environment to thrive.



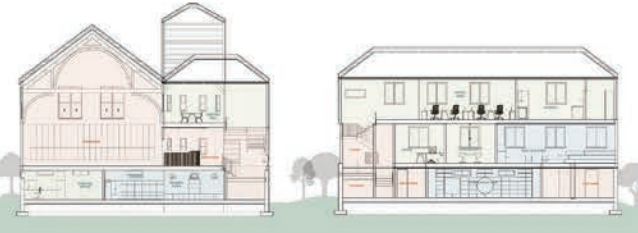
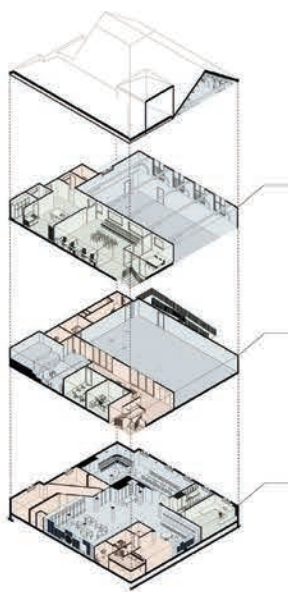
Using custom-revamped account building materials, construction materials and management Sustainable Construction Management of ESF makes its projects to ensure owners that their projects are complete on time, on budget and to the highest satisfaction. Construction managers focus on collaboration with architects, engineers and contractors to have the projects on time and on budget and what needs to be able to deliver the best quality work.

The project's outcome only to have the most efficient processes in the working world. With 200 years of the design team, ESF wanted the completed design and are based with making it work. Through practices for value engineering, scheduling and energy needs, we ensure that the team captures the most efficient and effective project.

**Summary**  
 One objective about the website:  
 Reconstructing, renovating and preparing the phase happens before any construction begins! Constructable includes demolition, removal and installation of windows, post-tension, roof framing, structural steel, concrete, foundations, and ground structure for clear and bring for a team size on which to work before construction.  
 Lighting: LED to purchase and install light fixtures  
 Equipment: Items such as appliances, hooding, and bathroom fixtures  
 Furniture: Items beyond ground work such as chairs, tables, and other furniture  
 Materials: This includes items for the site such as concrete, steel, and other materials  
 Millwork: custom built additions to rooms (plaster) four area play fitness, reception area, and meeting

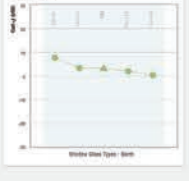
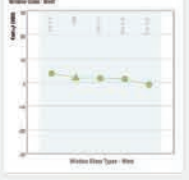
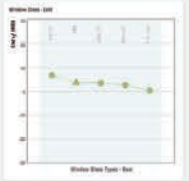
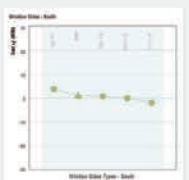


**Dark Breakdown**  
 The work breakdown structure (WBS) was one of the first things that we created when working on this project. It is a graphical way used by the construction management team to help track the project down into manageable elements. This helps us create the schedule and the estimate without creating anything. It is the blueprint for managing what subcontractors are going to be hired for the project.



**Energy Model**  
 Used the Archistar Revit model to create spaces of the building and an energy model (Blue Model).  
 Model was analyzed by Revit and returned the cost of energy (based model):  
 \$0.00 per sq. ft. per year  
 \$0.22 per sq. ft. per year

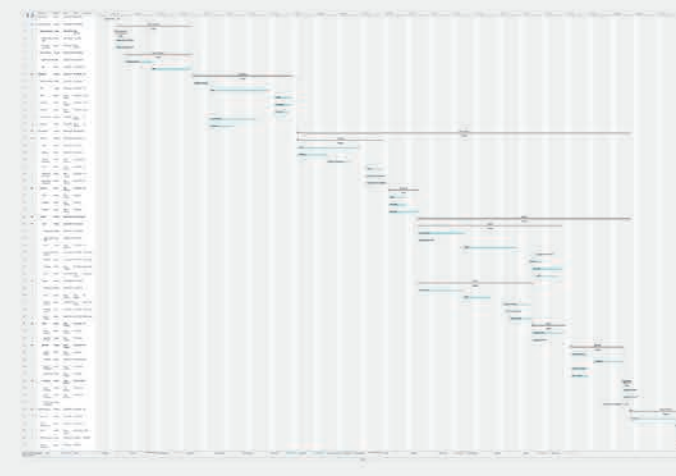
Did a second simulation with triple-pane windows and reduced energy usage by 10%. Shows other energy savings for glass situation with reduced windows selected for \$7.20 before per year.



**Value Engineering**  
 Value engineering is a systematic and organized approach to providing the necessary functions in a project at the lowest cost.  
 Glass curtain wall by removing the glass curtain wall from the design and substituting a series of windows in the wall and a glass door we were able to come up with a potential savings for close to \$20,000.  
 Double-pane windows and triple-pane windows being the double-pane windows could be used for the rest. The cost and energy team would have to determine what if any elements could be replaced or reworked. The estimate for doing this would save anywhere from \$10,000-\$20,000.  
 Replacing by using alternative appliances have also a potential to amount \$10,000 savings. The design team will have to determine if these alternatives would suffice.



**The Schedule**  
 Schedule breaks down all construction activities and assigns resources to them. It also assigns relationships between activities to determine the order activities occur in and what activities are critical. With all of this information you get a comprehensive picture that can be used throughout the project. Total duration for the project was approximately 6 months.





# Design + Construction Management

Environmental + Interior Design:  
Erin Kennedy, Olivia McMaster, Olivia Velazquez

Construction Management:  
William Byrne, Stephen Gibbons, Tyler Brown, Alexander Bruel

Founded in 1885, the YWCA of Syracuse & Onondaga County is a nonprofit organization that is dedicated to eliminating racism, empowering women, and promoting peace, justice, freedom and dignity for all. The YWCA of Syracuse & Onondaga County office houses nine employees and hosts academic and extracurricular activities for girls ages five to eighteen. Women and children of Onondaga County rely on the YWCA services as a foundation of their community. We believe it is our responsibility as designers to provide support for this essential foundation to allow the users of the space to achieve their full potential.

Designed to cater to a wide variety of user needs, the circulation throughout the building was streamlined and spaces were reallocated and redefined, creating a more cohesive environment. Within the new space, users are able to move about more efficiently and effectively allowing for the best relationship between the occupants and the building. This design establishes a welcoming and invigorating cornerstone of the community.

Construction management was incorporated during the final stages of the project, with the focus of creating the most efficient schedule that works with both the design and occupants, while also establishing alternatives to produce cost effective and sustainable solutions.

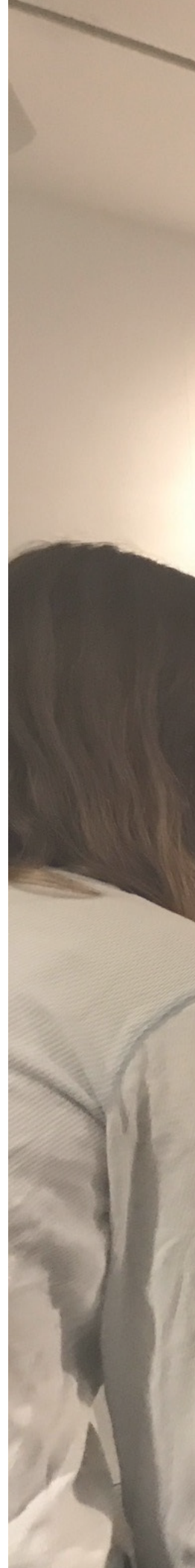
Environmental and Interior Designers:

Architectural Model  
(Mengyan Zhou)





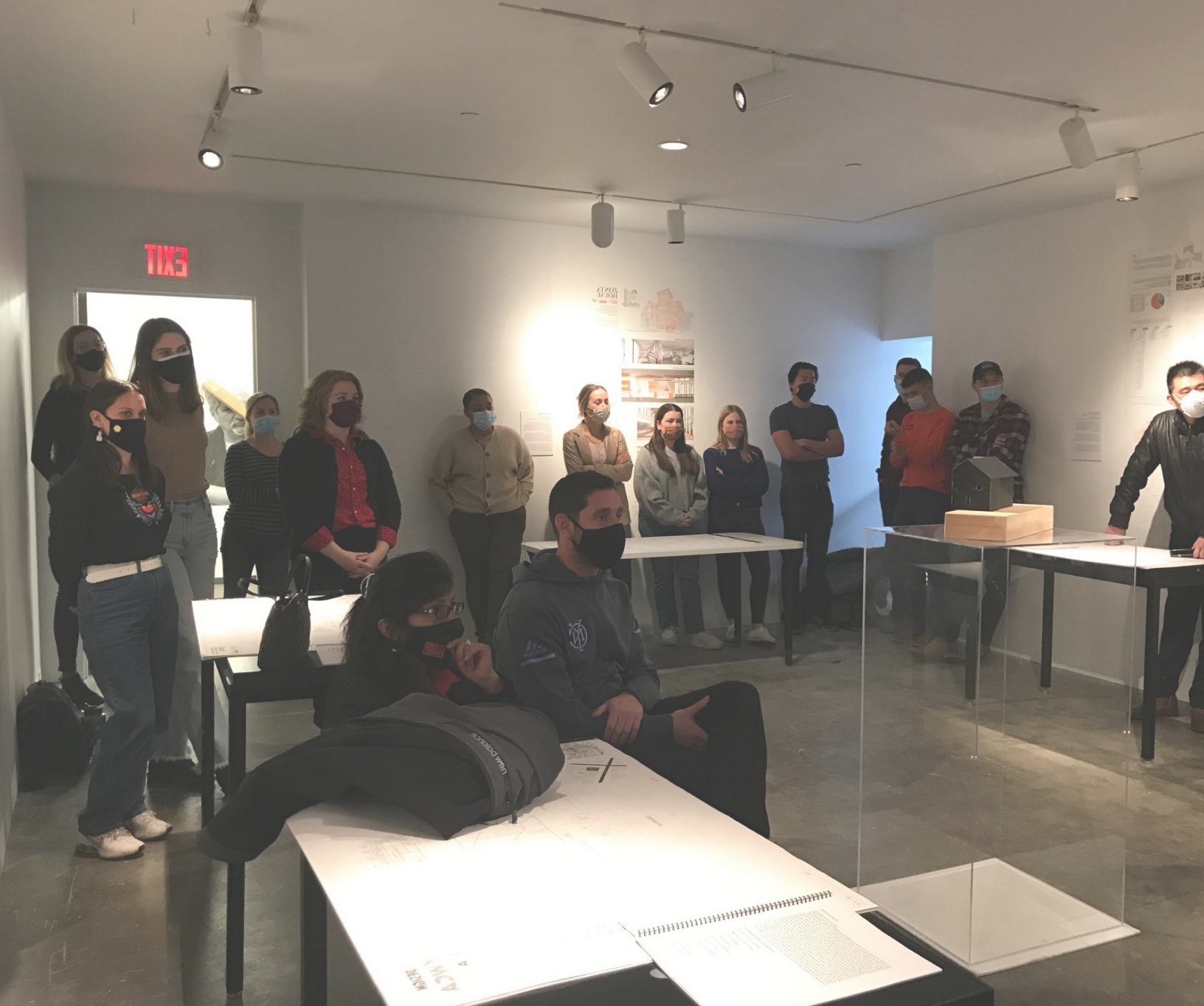
To celebrate our collaboration together, a comprehensive design and construction exhibition was held from April 13 to April 30, 2021 at the Sue and Leon Genet Gallery at the Nancy Cantor Warehouse.



# Meaningful Partnership Exhibition 2021









# Construction Management Presentation



Without quality collaboration, construction project may never successfully occur! Our Construction Management Engineering (CME) students (CME '21) at State University of New York College of Environmental Science and Forestry (SUNY-ESF) have been so excited to receive this collaboration opportunity with the talented Environmental and Interior Design (EDI) students (EDI '21) at Syracuse University (SU). We are very grateful to this project opportunity offered by YWCA of Syracuse & Onondaga County.

Endong Wang, CPC, LEED AP BD+C  
Associate Professor of Sustainable Construction  
at SUNY-ESF

# special thanks:

Environmental and Interior Design  
Syracuse University

Yichun Liu  
Wenyi Sun  
Mengyan Zhou  
Amelia Hoch  
Emily Pearson  
Halle Rosenberg  
Erin Kennedy  
Olivia McMaster  
Olivia Velazquez  
Emily Geisinger  
Yelitza Lopez-Morel  
Sydney Rosenberg  
Marcelle Wolfsberg  
Yudi Chen  
Shiyu Lyu  
Lichi Su

Zoriana Dunham  
Program Coordinator  
Environmental and Interior Design

Andrew Saluti, Assistant Professor  
Museum Studies

Emily Winiiecki  
Community Engagement Coordinator  
Comm Engmnt Econ Development

Construction Management  
SUNY ESF

David Ayoub  
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The Zonta's House is a century-old building in the Northside of the City of Syracuse that serves as the Headquarters for YWCA of Syracuse and Onondaga County Inc. The Zonta's was originally a Presbyterian Church. In 2013 YWCA moved its headquarters from Washington St. to the Zonta House after having absorbed Girls Inc. of CNY.

As a Church the building has been a safe, comfortable, and welcoming home for families, individuals, and children. YWCA has worked to maintain and improve the building incrementally to serve the mission, staff, clients, and community members who visit every day. Although some areas of the building were remodeled in the 90s, the building needs major redesign and remodel for the benefit of all, staff, families, and children we serve and the community in general.

During the Fall Semester, students re-imagined the flow of the building to maximize its use and improve the usability of the space. During the Spring Semester, the teams addressed the rest of the building, developing new configurations that meet the agency's current and projected needs.

It was fascinating to work with the students as they created new ways to consider this functional relic. The work surpassed all expectations. The designs are efficient, cost-conscious, modern, and respectful of the Zonta's House history. Highlights within the various projects include but are not limited to:

- Improved building entrances and reception
- Program space for youth
- Functional spaces for clients, staff, and community events
- Natural Sunlight for all the building's occupants
- Flexible uses that could change quickly as needs arise.
- Color-coded floors
- The end of enormous, space wasting hallways.

The teams produced impressive renderings, identified furnishings and materials, and presented their designs to YWCA's team. They also developed usable floor plans of the space as currently configured. These floorplans have already been useful to staff.

As the YWCA continues to grow and establish itself in its new neighborhood in the north side of Syracuse, the organization seeks to revitalize this historic building for the benefit of YWCA mission, clients, staff, and the community where it resides.

Community Organizations like YWCA continually balance the competing demands presented by fulfilling a mission in a comfortable environment for clients and staff. Effectively managing buildings is expensive, consuming resources that would otherwise go to direct services. Investing in a comprehensive redesign to guide a renovation or capital planning, particularly for a large facility, is not often financially plausible. This is exactly why Syracuse Universities Community Design Studio collaborations are so valuable.

Thank you to Professor Lee and her students for creating workable and creative paths forward.



Fanny Villarreal  
Executive Director  
YWCA of Syracuse and Onondaga County Inc.

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