URBAN HABITATS COMPETITION

TIMBER IN THE CITY

THE FUTURE OF EQUITABLE URBAN LIVING

PROGRAM
Introduction
The Association of Collegiate Schools of Architecture (ACSA) is pleased to announce TIMBER IN THE CITY 4: Urban Habitats Competition for the 2021-2022 academic year. The competition is a partnership between the Softwood Lumber Board (SLB), ACSA and the Kendeda Building for Innovative Sustainable Design at the Georgia Institute of Technology. The program is intended to engage students, working individually or in teams, to imagine the transformation of our existing cities through sustainable buildings from renewable resources, offering expedient affordable construction, innovating with new and traditional wooden materials, and designing healthy living and working environments. This is the fourth competition in this TIMBER IN THE CITY series, and focuses this year on the interrelationship between housing, urban transit infrastructure, equitable living, and climate change.

The Challenge
Embracing new structural and ecological possibilities of wood construction, entrants will design a mid-rise, mixed-use complex that includes short stay housing, a large community wellness facility, and an urban marketplace, all interlaced with a new urban transit center. Entrants are challenged to propose construction systems in scenarios that draw optimally on the performance characteristics of not one but a variety of wood technologies and are encouraged to think about the site as a testing ground for socially, materially, and environmentally progressive and innovative models of sustainable urban living.

The competition challenges participants to interpret, invent, and deploy numerous methods of building systems, with a focus on innovations in wood design on a real site. The programs for this mixed-use development are composed to challenge students and educators to think creatively and critically about the way in which choices about building materials, and the interrelationship of interior space and the exterior environments frame long-term consequences for the health of urban environments. An urban marketplace, short stay housing and community use offers collective spaces that will require larger structural spans. It will also serve local residents and workers from nearby neighborhoods as well as metro riders from all around Atlanta.

This fourth edition of the Timber in the City considers a site, the midtown Atlanta Arts Center, located in Atlanta’s Heart of the Arts, known for its dense number of art galleries, museums, theaters, historic buildings, and the proximity to Georgia Tech, the Kendeda Building for Innovative Sustainable Design (the first Living Building Challenge-certified structure in the South), the Innovation and Technology district as well as Savannah College of Art and Design Atlanta campus. When the metro system was built in the 1970’s, to make the stations highly visible and accessible, they were constructed as single use structures, on what is now very valuable real estate. Single-use structures in Midtown Atlanta are now longer economically or socially relevant.
Timber
The competition challenges participants to interpret, invent, and deploy numerous methods of building systems, with a focus on innovations in wood design on a real site. For thousands of years, solid wood has been used as a building material. Modern timber products and systems have greatly expanded the potential uses of this historic material. Timber is an ideal green building material: it is well suited for a broad range of structural and aesthetic applications, it offers economical construction and high performance characteristics in strength and energy efficiency, and wood is an economic driver to maintain forests and protect jobs in rural communities.

Wood is a natural, renewable, and sustainable material for building, with a lighter carbon footprint than other structural materials. Wood stores carbon and, with the least embodied energy of all major building materials, it requires less energy from harvest to transport, manufacturing, installation, maintenance and disposal or recycling. Harvesting and replanting increases forests’ carbon sink potential as the rate of sequestration is greater during young, vigorous growth. Active forest management, or forest thinning, mitigates wildfires, cuts carbon emissions, replenishes area waterways, expands wildlife habitat, and creates jobs in rural areas.

Awards
Winning students and their faculty sponsors will receive cash prizes totaling $40,000. The design jury will meet in the summer of 2022 to select winning projects and honorable mentions. Winners and their faculty sponsors will be notified of the competition results directly. A list of winning projects will be posted on the ACSA website (www.acsa-arch.org).

<table>
<thead>
<tr>
<th></th>
<th>Student</th>
<th>Faculty Sponsor</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Prize</td>
<td>$10000</td>
<td>$7000</td>
</tr>
<tr>
<td>Second Prize</td>
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<td>$5000</td>
</tr>
<tr>
<td>Third Prize</td>
<td>$6000</td>
<td>$4000</td>
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</tbody>
</table>

Criteria for Judging
Criteria for the judging of submissions will include: timber as the primary structural material, creative and innovative use of timber/ wood in the design solution, successful response of the design to its surrounding context, the creative and clear approaches to designing a healthy urban mixed-use environment with timber as a central material, successful response to basic architectural concepts such as human activity needs, commitment to meeting the needs of underserved communities, structural integrity, and coherence of architectural vocabulary.
The Jury will judge each student design proposal based on the following criteria:

- The quality of the architectural concept and the rigor with which it is developed; Its technical sophistication and resolution;
- The effectiveness of its visualization and representation through a variety of material, graphic, and digital media, those prescribed within each studio section as well other techniques that students may employ to supplement and substantiate their presentations;
- The breadth of design consideration with respect to the environmental and social implications and impacts of the building proposed and the way in which those concerns are quantified and visualized.
- A successful sustainability and low carbon building performance.

Supporting Learning Objectives of the Competition:

- Explore structured collaborative work amongst students and faculty in addition to individual proposals.
- Incorporation of outside community of specialists into discovery and learning process.
- Identify and experiment with specific tools for integrated thinking and making.
- Create and follow a structured workflow for innovation and iteration.
- Specific emphasis on evidence of physical modeling, making, and mock-ups.
- Distill key findings into a compelling discovery and proposal that has a conceptual and physical imperative and is fully described.

Eligibility

Because the support of SLB is largely derived from companies whose markets are mainly in the U.S., the Timber in the City Student Competition is open to students and/or student teams from ACSA Full and Candidate Member Schools, as well as ACSA Affiliate Members Schools from the U.S., Canada, and Mexico.

An ACSA member school, faculty sponsor is required to enroll students by completing an online registration form prior to registration by April 13, 2022. All student entrants are required to work under the direction of a faculty sponsor. Entries will be accepted for individuals as well as teams. Teams must be limited to a maximum of five students. Submissions should be principally the product of work in a design studio or related class.
PROGRAM

A multi- and mixed-use building in a mid-rise dense urban community. 12-20 Stories consisting of the following. This program is the minimum requirements and students may expand and consider any additional options. Including replacing the station, pedestrian bridge & expanding the program components.

Urban Marketplace
Food, Wares, with Loading Areas and Access

The Urban Marketplace can serve as a fresh produce pick-up location, make commercial kitchen equipment available to small-scale producers, host nutrition classes and serve as an anchor for the local community. The following program elements and corresponding areas are recommended:

| Commercial Kitchen  | 2 @ 1500 sq. ft. | 3000 sq. ft. |
| Restaurant / Food Retail | 4 Units @ 1400 sq. ft. | 5600 sq. ft. |
| Storage       | 4 @ 200 sq. ft.  | 800 sq. ft.  |
| Retail        | 6 @ 1000 sq. ft. | 6000 sq. ft. |
| Restroom      | 2 @ 200 sq. ft.  | 400 sq. ft.  |
| Service       | 1 @ 100 sq. ft.  | 100 sq. ft.  |
| Office        | 2 @ 100 sq. ft.  | 200 sq. ft.  |
| **Market Subtotal** | **+/- 16,000 sq. ft.** |

Short Stay Housing
SRO, MicroHotel, Airbnb

The need for short stay housing and affordable urban housing is on the rise. Architects are in a unique place to envision innovative solutions to this short term housing market.

**Short Stay Housing Space Allocation**

| 2 bedroom units | 15 @ 1,000 sq. ft. | 15,000 square feet |
| 1 bedroom units | 15 @ 600 sq. ft.  | 9,000 square feet |
| Studio units    | 10 @ 500 sq. ft.  | 5,000 square feet |

**Housing Support Spaces**

| Lobby           | 1,500 square feet |
| Office          | 500 square feet   |
| Exercise Room   | 1,000 square feet |
| Storage         | 1,000 square feet |
| Loading Dock/Waste | 700 square feet |
| **Short Stay Subtotal** | **+/- 33,000 square feet** |
Community Use
Public, Accessible, Rentable, etc.

The community spaces should be multifunctional large-span spaces for events, sports markets, and other events that are envisioned to be able to serve community-wide events. The community spaces will serve local residents and workers from nearby neighborhoods as well as metro riders from all around Atlanta.

<table>
<thead>
<tr>
<th>Space</th>
<th>Quantity</th>
<th>Area (sq. ft.</th>
<th>sf</th>
</tr>
</thead>
<tbody>
<tr>
<td>Entry/lobby</td>
<td>1</td>
<td>500</td>
<td>500</td>
</tr>
<tr>
<td>Large open indoor space</td>
<td>1</td>
<td>5,000</td>
<td>5,000</td>
</tr>
<tr>
<td>Classrooms</td>
<td>2</td>
<td>500</td>
<td>1,000</td>
</tr>
<tr>
<td>Gym</td>
<td>1</td>
<td>2,000</td>
<td>2,000</td>
</tr>
<tr>
<td>Pool</td>
<td>1</td>
<td>3,000</td>
<td>3,000</td>
</tr>
<tr>
<td>Locker Rooms</td>
<td>2</td>
<td>500</td>
<td>1,000</td>
</tr>
<tr>
<td>Staff and administration</td>
<td>1</td>
<td>500</td>
<td>500</td>
</tr>
</tbody>
</table>

**Community Space Subtotal**

+/- 13,000 sf

Subtotal Net Areas 62,000 NSF

Grossing Areas (Walls, Circulation, & Services) 20% 12,400 sq. ft.

**TOTAL** 74,400 GSF

SITE
This year’s Timber in the City Competition will be sited in Atlanta, Georgia. The site sits directly on top and replaces the single use of Art Center Marta Station, adjacent to high density midtown, High Museum, Atlanta Symphony, Boys and Girls Club, Colony Square, Atlantic Station, Emory and Northside Hospital.

The Site is the space directly above the metro station and has a unique mixed-use zoning designation. The given site is noted in downloads below. Additionally, the air rights above the station can be included. Students may consider replacing the Art Center Marta Station & pedestrian bridge, if they would like. The site has ample allowable Floor to Area Ratio FAR, which the competition program does not maximize. Instead, it is to be considered the first of a phased development of this significant site. Competitors are required to anticipate the future phased build-out of this site to utilize the full FAR as a condition of the competition design.

Art Center Marta Station Address:
1255 West Peachtree St.
Atlanta, GA 30309
The competition site is the most coveted parcel on the Arts Center Marta Station block in Midtown, Atlanta, bounded by Arts Center Way and West Peachtree Street. To the Northwest are stairs up to Atlanta’s premier art collection, The High Museum of Art, which is built around the Renzo Piano Building Workshop piazza. Also in the immediate vicinity of the competition site, The Savannah College of Art and Design foundry.

Across the street on West Peachtree resides Interface Carpet Global Headquarters, designed by Perkins + Will. Within walking distance you’ll find a host of Atlanta’s premier educational and commerce facilities such as the 100% timber T3 building by Hines, Georgia Tech’s Kendeda Building for Innovative Sustainable Design, Microsoft headquarters, and Atlanta’s technology and innovation district anchored by Georgia Tech’s Scheller School of Business and GT’s technology incubator. Also within walking distance is Atlanta’s premier greenspace, Piedmont Park, and one of the most ambitious infrastructure retrofits in the world, The Atlanta Beltline.

Atlanta has a rich history of very thoughtful and economically viable districts dating all the way back to the 1880s, and is home to some of the most creative musicians in the world.

### CODE

Students should refer to the International Building Code and the local zoning ordinance for information on parking requirements, setbacks, easements, flood, egress, and fire containment. Challenges to conventional rules—parking requirements, for example—are encouraged but should be explained, made explicit and integral to the overall solution.
RULES

Registration
A faculty sponsor is required to enroll students online (available at www.acsa-arch.org) by April 13, 2022. Registration can be done for your entire studio or for each individual student or team of students participating. Students or teams wishing to enter the competition on their own must have a faculty sponsor, who should complete the registration. There is no entry or submission fee to participate in the competition. Each registered student and faculty sponsor will receive a confirmation email that will include information on how the student(s) will upload final submissions online. Please add the email address competitions@acsa-arch.org to your address book to ensure that you receive all emails regarding your submission.

During registration the faculty will have the ability to add students, add teams, assign students to teams, and add additional faculty sponsors. Registration is required by April 13, 2022, but can be changed, edited, and added to until a student starts a final submission; then the registration is no longer editable.

Registration Steps:
1. Faculty log into the ACSA website,
2. Click the “Register your Students NOW” button,
3. Select the 2022 Timber Competition from the submission type dropdown menu & Click “Enter”,
4. Add an individual student click “Add Student”. You will need to know each student’s first & last names, email, & institution, which are all required fields for each student,
5. If this is a team registration, you may add additional students by clicking “Add Student” to the same submission to this team, teams must be limited to a maximum of five students,
6. Once the individual student or team is complete, Click “Submit”,
7. Repeat steps 3 – 6 for each individual or team.

Faculty Responsibility
The administration of the competition at each institution is left to the discretion of the faculty within the guidelines set forth in this document. Work on the competition should be structured over the course of one semester during the 2021-2022 academic year.

Each faculty sponsor is expected to develop a system to evaluate the students’ work using the criteria set forth in this program. The evaluation process should be an integral part of the design process, encouraging students to scrutinize their work in a manner similar to that of the jury.

Digital Submission Format
Submissions must be presented on four 20” x 20” digital boards, no more than 20MB. All boards are required to be uploaded through the ACSA website as JPEG files. The names of student
participants, their schools, or faculty sponsors, must NOT appear on the boards, or in the project title or project title file name(s).

**Design Essay or Abstract**
A brief essay, 300 words maximum, is required as part of the submission describing the most important concepts of the design project. Keep in mind that the presentation should graphically convey the design solution and context, and not rely on the design essay to convey a basic understanding of the project. The names of student participants, their schools, or faculty sponsors, must NOT appear in the design essay. This abstract is included in the final online submission, completed by the student(s) in a simple copy/paste text box.

**Program Summary**
A program summary, 150 words maximum, diagram/text of spaces and areas is required as part of the submission. All interior and exterior spaces are to be included; total net and gross areas are required. The program summary is included in the final online submission, uploaded by the student(s) in a simple copy/paste text box.

**Required Submission Documents**
Submissions must include (but are not limited to) the following required drawings:

- Three-dimensional representations – in the form of axonometrics, perspectives showing the proposal in its context, montages and/or physical model photographs – to illustrate the character of the project;
- Site plan showing proposal in its context of surrounding buildings and topography, together with details of access/circulation;
- Building/site sections sufficient to show site context and major spatial and program elements;
- Floor plans to show program elements, spatial adjacencies and navigation strategies;
- Large scale drawing(s), either orthographic or three dimensional, illustrating:
  - the use and detailing of timber for building structure and/or envelope
  - integrated design

Incomplete or undocumented entries will be disqualified. All drawings should be presented at a scale appropriate to the design solution and include a graphic scale. The site plan should include a north arrow.

**Online Project Submission**
After the faculty sponsor completes the online registration, each student will receive a confirmation email, which will include a link to complete the online submission. The student is required to submit the final entries that must be uploaded through the ACSA Competition website at www.acsa-arch.org by 11:59 pm, Pacific Time, on June 1, 2022. If the submission is from a team of students, all student team members will have the ability to upload the digital files. Once the final submit button is pressed no additional edits, uploads, or changes can be made. You may “save” your submission and return to complete. Please note: The submission is not
complete until the “complete this submission” button has been pressed. For team projects, each member of team projects may submit the final project, but each project should be submitted only once. Once the final submission is uploaded and submitted, each student will receive a confirmation email notification.

The final submission upload must contain the following:

- Completed online registration including all team members and faculty sponsors,
- Each of the four 20”x20” boards uploaded individually as high resolution JPEG files, no more than 20MB each,
- A design essay or abstract (300 words maximum)
- A program summary diagram/text of spaces and areas (150 words maximum).

The names of student participants, their schools and faculty sponsors must NOT appear on the boards, abstract, program summary, or in the file name.

Winning projects will be required to submit high-resolution original files/images for use in competition publications and exhibit materials. By uploading your files, you agree that the Association of Collegiate Schools of Architecture (ACSA) has the rights to use your winning submission, images and materials in a summary publication, online and in promotional and exhibition resources. ACSA will attribute authorship of the winning design to you, your team, faculty and affiliation. Additionally, you hereby warrant that the submission is original and that you are the author(s) of the submission.

**SCHEDULE**

- **April 13, 2022**    Registration Deadline (free registration)
- **June 1, 2022**     Submission Deadline
- **Summer 2022**     Winners Announced
ENTRANTS are encouraged to research references that are related to both the topic of the competition and precedent projects that demonstrate innovative use of timber such as those listed below. An intention of all ACSA competitions is to make students aware that research is a fundamental element of any design solution.

**Wood Technology**

1. Think Wood Research Library [research.thinkwood.com](http://research.thinkwood.com)
2. WoodProducts Council [www.woodworks.org](http://www.woodworks.org)
3. US Forest Products Laboratory – Product & Building Systems Research [www.fpl.fs.fed.us](http://www.fpl.fs.fed.us)
4. FPInnovations – Product & Building Systems Research [fpinnovations.ca/Pages/index.aspx](http://fpinnovations.ca/Pages/index.aspx)
5. American Wood Council – Codes & Standards Support [awc.org](http://awc.org)
6. naturally.wood [www.naturallywood.com](http://www.naturallywood.com)

**Atlanta / Georgia**

2. Living Building [https://livingbuilding.gatech.edu/](https://livingbuilding.gatech.edu/)
3. T3 West Midtown [https://t3westmidtown.com/](https://t3westmidtown.com/)

**Thermal Comfort and Bioclimatic Design**


5. Help for CBE Thermal Comfort Tool http://comfort.cbe.berkeley.edu/EN use “? Help” buttons


14. NIST.SP.1204 (re. weather data files accessible through Climate Consultant software)


17. 2030 Palette: http://www.2030palette.org
Daylighting

1. Boubekri, Mohamed. Daylighting Design: Planning Strategies and Best Practice Solutions. 2014. Web. (Georgia Tech library online access)


**Sponsor**

**Softwood Lumber Board**
The Softwood Lumber Board is an industry-funded initiative established to promote the benefits and uses of softwood lumber products in outdoor, residential, and non-residential construction and to increase demand for softwood lumber and appearance products. Through strategic investments in pro-wood communications, standards development, design and engineering assistance, research, demonstrations and partnerships, the organization seeks to make softwood lumber the preferred material choice from both an economic and an environmental standpoint.

**Administrative Organization**

**Association of Collegiate Schools of Architecture**

*Leading Architectural Education and Research*

ACSA is a nonprofit, membership association founded in 1912 to advance the quality of architectural education. The school membership in ACSA has grown from 10 charter members to over 250 schools in several membership categories. These include full membership for all accredited programs in the United States and government-sanctioned schools in Canada, candidate membership for schools seeking accreditation, and affiliate membership for schools for two-year and international programs. Through these schools, over 5,000 architecture faculty members are represented. In addition, over 500 supporting members composed of architecture firms, product associations and individuals add to the breadth of interest and support of ACSA goals. ACSA provides a major forum for ideas on the leading edge of architectural thought. Issues that will affect the architectural profession in the future are being examined today in ACSA member schools.

**Host**

**Georgia Institute of Technology, School of Architecture**

Architecture was established as a discipline of study at Georgia Tech in 1908 at the request of a civil engineering student who recruited fellow students for an entering class of twenty. Over the intervening century, the Department of Architecture has been complemented by the addition of disciplines (in order of establishment) of Industrial Design (1940), City & Regional Planning (1952), Building Construction (1958), and Music (1991).

The multi-disciplinary College of Architecture (now called the College of Design) was established in 1975, and a significant milestone that soon followed was the establishment in 1982 of the Doctor of Philosophy in Architecture degree and the multi-disciplinary Doctoral Program, a reflection of the increasing complexity of the designed and built environment as well as the growing emphasis upon leading-edge research at Georgia Tech.

**Kendeda Building for Innovative Sustainable Design**

The Georgia Institute of Technology announced on Earth Day 2021 that The Kendeda Building for Innovative Sustainable Design earned Living Building Challenge certification, the world’s most ambitious and holistic green building achievement. The certification from the International Living Future Institute independently verifies that The Kendeda Building is among the greenest in the world. Rather than being less bad than conventional buildings, The Kendeda Building proved over a 12-month performance period that it is regenerative. It gives back more than it takes from the environment and focuses on the health and happiness of occupants.
FOR MORE INFORMATION
Program updates, including information on jury members as they are confirmed, may be found on the ACSA web site at www.acsa-arch.org/competitions. Additional questions on the competition program and submissions should be addressed to:

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202.785.2324

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Senior Director of Operations and Programs
eellis@acsa-arch.org
202.785.2324

Competition Program written and developed by: Michael Gamble, Georgia Institute of Technology; along with ACSA & the Softwood Lumber Board.

Image Credit: 2018-2019 Timber in the City Competition
Winning Project: RE-GEN GROWTH
Students: Danny Medina, Cesar Soto, & Daniel Olayiwola Akinsulire
Faculty: Suzan Wines
School: City College of New York