

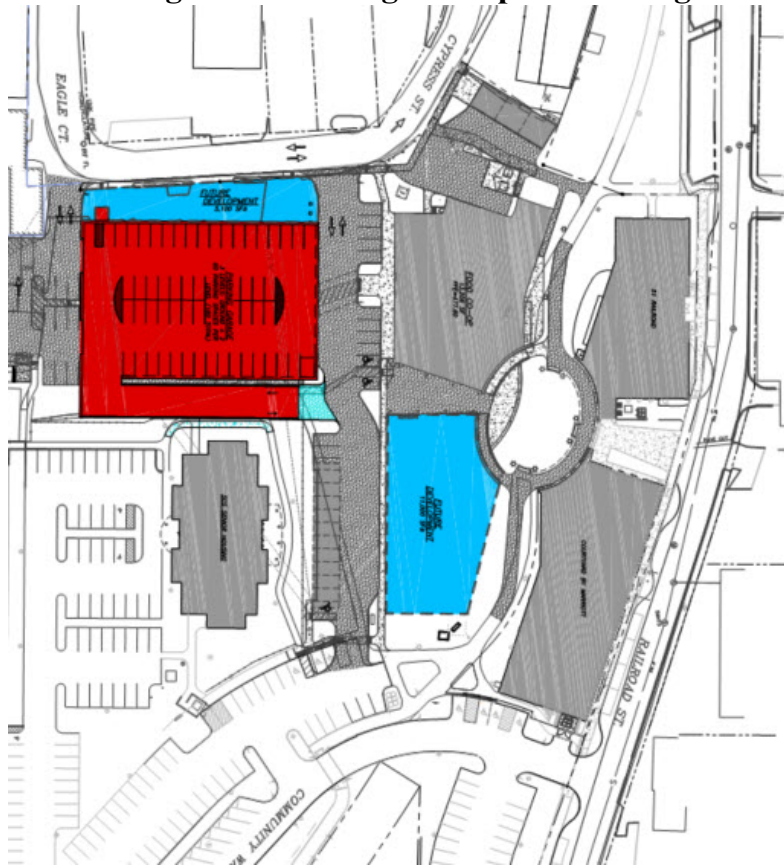


**AIA**  
New Hampshire



## Intermodal Transportation and Welcome Center American Institute of Architects New Hampshire Chapter

### 2020 High School Design Competition Program



#### Educational Objectives

- To increase awareness of the relationships between space, human scale, and function.
- To gain experience in recognizing the various challenges in planning and designing indoor and outdoor spaces for specific uses.
- To exercise your analytical abilities and creativity in solving the problems you have defined.
- To practice communicating your planning and design ideas utilizing scale drawings and models.

#### Participation Requirements

Every participant must be a current high school student in the state of New Hampshire or any high school student who is a resident of New Hampshire. Students may work individually or in teams. Teams may not consist of more than three students.

#### Registration

Teachers must register participating students by Friday January 31, 2020 with the attached form.

PO Box 784 | Portsmouth, NH 03802  
Tel: 603.501.1881 | Email: [bkastel@aianh.org](mailto:bkastel@aianh.org)

## Introduction

Transportation modes have changed in recent years providing many options for commuting and travel, especially to areas underserved by traditional modes such as trains and buses. One of those communities, Keene, New Hampshire, located in the southwestern corner of the state, has, until recently, been served by Greyhound Bus Lines making one stop northbound and one stop southbound per day.

The City has an extensive trail system which occupies former railroad paths and which converge on Railroad Square at the City's center. Trails connect to points outside the downtown to rural points of interest and surrounding communities and are used by walkers, runners and cyclists. In winter the trails outside the city are not cleared of snow and are used for snowshoeing, cross country skiing, and cyclists using fatbikes.

## Intermodal Transportation and Welcome Center

This year's AIANH Design Competition is to design an Intermodal Transportation and Welcome Center in downtown Keene. The facility will be located on a small site just off the City's Main Street and will provide an intermodal transportation hub for those traveling to and from Keene through varying means of transportation – bus, share ride services, taxi, and bicycle.

The Center will include an information area providing those new to the City with information to help them navigate the city and find services.

The facility will have a small retail space selling locally made products and a café offering food and beverage sales to travelers arriving or departing through the center.

The center will provide interior rest rooms serving those traveling through the space. Additionally, public restrooms accessible from outside the building will also be provided to serve the general public when visiting downtown Keene.

## Site Plan available for download from:

<http://www.aianh.org/education/outreach/high-school-design> PDF

## Sustainable and High Performance Design

A fundamental goal of this building is to embrace sustainability. In order to reduce the overall impact of the building in the environment, the building will integrate innovative green building strategies such as:

- increase energy efficiency through the use of natural day lighting and smart shading systems
- water efficiency through the use of low flow fixtures
- use of renewable energy to help achieve Net Zero energy consumption
- materials which reduce consumption, pollution, and waste – consider CLT construction as an option.
- materials that will be durable and do not require special maintenance

## Sustainability Resources:

- NH State Energy Code info <http://www.puc.state.nh.us/EnergyCodes/energypg.htm>



# AIA New Hampshire



- LEED – <http://www.usgbc.org>
- Green Globes – <http://www.greenglobes.com/>
- Whole Building Design Guide – <http://www.wbdg.org/design/sustainable.php>
- The Living Principles – <http://www.livingprinciples.org/>
- Sustainable Design forum – <http://www.sustainabledesignforum.com/>
- Energy Star – <http://www.energystar.gov>
- Northeast Sustainable Energy Association – [www.nesea.org](http://www.nesea.org)

**Building Area Needs:** The Transportation and Welcome Center will be a one-story structure. There is no pre-determined height, however the height must respect the surrounding environment as well as complement the building's function and design.

**Interior Spaces: (Actual space provided may vary by up to 10% of the target square footage listed)**

- Main entrance (250 sq. ft.): This space serves as a main entrance into the hub of the building and must be recognizable from the exterior with a clear purpose. An interior open “hub” will provide the primary waiting to the other main program spaces listed below. The main entrance must be easily visible from the information desk and must provide space for a display wall that will feature information about current and upcoming events.
- Waiting Area/Hub (1,000 sq. ft.): This space serves as the primary public space in the building and must be an exciting space to occupy. Several of the service spaces below will be accessed through the Waiting Area/Hub space.
- Information/Welcome Center (500 sq. ft.): Space for one or two staff members to welcome visitors and provide information about the Keene area. The information desk must have direct visual access to the Entrance.
- Café and Indoor Seating (750 sq. ft.): Provide seating for 10-15 people at tables or bar with stools. Assume wifi will be provided throughout and provide a variety of seating styles to suit.
- Retail Space for Bicycle Shop (750 sq. ft.): Provide retail space either connected to the hub or as an independent space on the site for a bicycle shop to rent bicycles and sales of related products.
- Indoor Restrooms (200 sq. ft.): Accessible Men's and Women's restrooms. One restroom for each gender near the Cafe. Include two Water Closets and two lavatories in each restroom.
- Outdoor Accessed Restrooms (200 sq. ft.): Accessible Men's and Women's restrooms. One restroom for each gender near the Cafe. Include two Water Closets and two lavatories in each restroom.
- Utility Closet (100 sq. ft.): Office supplies, janitorial equipment.
- Public Circulation: Interior circulation, corridors.
- Mechanical spaces: Electrical (10'x12') and Mechanical/Sprinkler (10'x12') equipment rooms

**Exterior Spaces:**

- Outdoor Seating: This exterior space is intended to provide outdoor seating for using the Center and for rental bicycles.
- Outdoor lawn: This exterior space is intended to be used as an informal space adjacent to the Center.
- Public/shared transportation arrivals: Include the design of a covered bus stop outside the main entrance to the Center.
- Parking will be in the existing lot adjacent to the site.
- Provide bicycle storage racks for rental bicycles and those using the Center to access other modes of transportation.



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### Accessibility

All public buildings must be fully accessible. This includes accessible parking spaces with an accessible route from the parking to the building entrances, an accessible route to all public spaces and staff work spaces, and public restrooms. Exterior spaces should also be accessible.

### Accessibility Resources

- Americans with Disabilities Act [http://www.ada.gov/2010ADAstandards\\_index.htm](http://www.ada.gov/2010ADAstandards_index.htm)
- NH Governor's Commission on Disability <http://www.nh.gov/disability/>
- [http://publicecodes.cyberregs.com/icod/ibc/2009/icod\\_ibc\\_2009\\_11\\_sec001.htm](http://publicecodes.cyberregs.com/icod/ibc/2009/icod_ibc_2009_11_sec001.htm)

### Submission Requirements

- Design Boards should be 20" x 30" on ¼ inch foam core (required) and include the following: (see sample presentation layouts, attached)
  - Design sketches, design process and inspiration information
  - Site plan
  - Floor plan
  - Exterior and interior elevations
  - Building section(s)
  - Exterior and/or interior perspective(s)
- 1/16" **OR** 1/8" Scale model - Model size limit is 20"x30" max. (Please no wooden bases; foam core preferred)
- Brief project narrative – Compose a thoughtful and concise text summary (approximately 150 words) describing your building design. This can include but not limited to:
  - The main ideas and goals behind your design
  - How the building is organized
  - How you envision people occupying the building

### Timeline (specific dates to follow)

April 2020      Entries are due (at a location to be determined) by Friday, April 24, 2020, 12 noon.

Winners of the AIANH High School Design Competition will be invited to an AIANH event at which projects will be on display and awards will be presented. We are working on an event with the Keene State College Architecture Department at the TDS Building. The date will be confirmed and we will let you know as soon as possible.

**Cash awards will be presented to the top two winners in each category below at the discretion of the jury:**

- **Best Design, Overall Superiority, in all aspects of Design Solution, Model and Graphic Presentation**
- **Best Model describing Design Solution**
- **Best Graphic presentation describing Design Solution**
- **At the discretion of the judges, certificates will be presented to other submissions that are noteworthy.**



**The AIANH High School Design Competition is a program of the  
New Hampshire Chapter of the American Institute of Architects.**

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## Registration Form

Use this form to register students for the competition.

Students may work individually or in teams. Teams may not consist of more than three students.

Please registration each individual working alone and each team. If registering a team, please include each team member's name, email, home address, and phone number. (We need emails to inform students of the results and the postal addresses to mail awards if not retrieved at the Awards Ceremony.)

Please send this form by email *or an email with all the required information* to:

Bonnie Kastel, Executive Director, [bkastel@aianh.org](mailto:bkastel@aianh.org)

Receipt will be confirmed, so if you don't hear from us please check that your email was received.

Teacher/Instructor Name:

Teacher/Instructor Email:

Teacher/Instructor Telephone:

School:

School Address:

Please list name, address, email, and phone number of each student. Designate teams if appropriate.

**Registrations should be received by the AIANH office by Friday January 31, 2020.**

**CRITIQUES:** After the AIA New Hampshire office has received the participating High School/Academy's registrations, an AIANH architect and Keene State Architecture students will be available to critique the students' work. The earlier you contact us about arranging this, the more likely we will be able to come to your classroom for critiques. Please make arrangements through the AIANH office.