# Indiana High School Architectural Design Competition

THE ARCHITECTURE STATE CHAMPIONSHIP

IHSADC.com IHSADC@AlAindiana.org

#### **Design Invitation:**

# **Igniting Change**

#### A FIRE STATION SPARKS INTEREST IN A SMALL TOWN

You're sitting quietly in the waiting room outside the Mayor's office, reviewing your notes, when the Mayor's assistant opens the door and pokes his head out, "The mayor will see you now."

She greets you with a warm smile and a handshake, "Hello! Come in and have a seat." She gestures to a chair opposite her desk.

You sit down and begin, "I'd like to start by thanking you for taking the time to meet with me. I wasn't sure if you'd be open to it." She looks surprised. "Oh, of course I'll meet with you. One of the best parts of being the mayor of a small town is that you have the time to meet with the residents. I was told you're an architect, right?"

"Yes. That's actually related to what I wanted to speak with you about."

"Yes, I heard you were concerned about the proposed fire station. That's surprising. Our station is proposed to replicate another fire station. I visited that original station, and it was very nice. It had great views of the lake, windows that let in a lot of light, and it fit right in with the city. The firefighters all loved it. I don't think there's any reason to be concerned."

"Well", you respond. "I completely agree with your assessment of the other station. It is very nice. The problem is that station is on a steep hill and the front faces west. Ours will face streets to the north and the south. So, the sun won't come in the same way, and the building won't take advantage of its site."

"Oh." She scrunches up her face. You can tell she hasn't considered that difference.

You continue, "Also, the nice views from our station are in both directions." She nods. You can tell she's starting to understand. "Finally, that station is in a new downtown filled with uninspiring buildings. We have an incredible mix of historic and newer buildings which represent the history of our city. I've worked hard to encourage the preservation and reuse of our great historic buildings, and to encourage contemporary architecture of the current time." She continues nodding, but more vigorously now. "You see, buildings, especially governmental buildings, it's important they represent their city. They should tell a city's story. If you design a building well, it's

**CONTEXT:** A Lesson on an Architectural Concept

#### Context is Everything. Literally.

In architecture, context refers to all the conditions that exist around a building. This includes, but is not limited to: climate of the site, social and historical setting of the project, surrounding urban character, neighboring architectural styles,

These factors do not automatically translate into a design solution. You, as the designer, must decide which aspects of the context are going to inform your project. To what local conditions and factors will your building respond, and how? For example, you might choose to seamlessly blend into a setting – or compliment it with major similarities but subtle differences – or contrast from it, with stark differences from the surrounding context.

#### **Urban Context:**

When you place a building in an urban (city) setting you will create, intentionally or not, spaces and relationships between those buildings.

Done thoughtlessly, this results in mere "Spaces" arbitrary gaps, useless voids, and awkward no-man's land patches of wasted ground. These unfortunate things happen when you design without considering your **surroundings**. It is common for a beginning designer to become so engrossed in their creation that they fail to step back and see how it engages the world around it.

The quotation at the bottom of this page urges you to actively look at the wider picture. You're not just making an object, but simultaneously contributing to the space around it. Great design takes these mere "spaces" and turns them into thoughtful "Places" - areas that have been meaningfully designed to support and enhance human activity.

Do not just show your design. Present your ideas as to how your design reacts to its context.

a better advertisement than any billboard. A building can say this is a place that's growing, this is a place with ambition, this place is looking toward the future. This is a place where you want to live. This is a city you should invest in."

"Encouraging growth and investment in the city? You know how to get a mayor's attention, don't you?" She smiles.

"I wouldn't be saying it if it wasn't true. This is a real opportunity for our city." You respond.

"Okay." She slaps the desk to punctuate her sentence and looks at you.

"Okay?" you ask.

"Yes! Do it! You should design the station! Make it great! We don't need to re-use some other city's design."



# 2025 AIA Indiana Indiana High School Architectural Design Competition

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"Oh! Wow!" You respond, genuinely surprised. "I just wanted to encourage you to think about the potential. I didn't think you were going to ask me to design it."

"Well you clearly understand the potential, and you care enough about our city to come talk to me about it. I'd prefer to hire a local resident anyway. You're exactly who I want! You're hired. Don't let me down."

Sensing she'd made up her mind, and that it wasn't going to get any better than this, you thank her, gratefully shake her hand, and take your leave. You have a lot of work to do!

#### Site

Your site is located in your hometown. A small city, with an excellent mix of newer and historic buildings. It's a place you know well, but it's still critical that you take some time to tour your site and assess the surroundings. You observe that Main Street has several well-preserved historic buildings, and know everyone is immensely proud of them. Many of the buildings are from the early 1900's, and few beyond the 1920's. Buildings from this era contain upright, classical proportions, ordering systems, and intricate detailing. These buildings were carefully designed as proud edifices. Main Street is a classic, picturesque, turn-of-the-century city street. This does not mean new buildings on Main must mimic the historic character, but the town does expect new buildings to be thoughtful and contextual, even if they're modern.

Shelley Avenue has less of a consistent architectural style or character. Its oldest buildings date from the 1950's through the 1980's. Buildings from this era usually lack intricate details and have more horizontal proportions. Although too often during this era, scant attention was paid to either details or proportions. Buildings frequently focused on cost and efficiency. Though a few of the Shelley Ave buildings are exemplars of their time, like the streamlined bus depot, many of the buildings are commonplace and uninspiring.

You're aware the residents' opinions are mixed on how the city should develop. Some wish there were more 'historic charm' along Shelley, like there is along Main Street. Others simply wish there were "better buildings" along Shelley. You've also heard some residents like that buildings along Shelley can be more unique and don't need to fit the historic feel of Main Street.

Both streets currently have angled parking. The city has agreed that as much angled parking can be removed as necessary for fire truck access to the fire station. There's also an alley passing through the site. The city said you can do with the alley as you wish. You can use it for access, let it continue through the site, or block it off.

# **Program Requirements**

This program has a large number of spaces, which are organized into four zones. Consider designing your floor plan by first arranging your zones, then arranging your spaces within each zone. Consider public versus private spaces, and which spaces must be on the ground level. Don't get too detailed too early. Make sure your spaces are all in the right location before you start drawing doors, windows, and furniture.

#### Required Areas

Below is the list of rooms and spaces you should include in your design. Required dimensions are shown in brackets. Where not listed, the size of each room can be as small or large as necessary to fit the listed furniture and equipment. **Don't give into the temptation to oversize rooms.** Carefully consider the placement of furniture and equipment to design functional and efficient spaces. Though room dimensions are given, all rooms are not required to be closed off from one another. Consider light, views, and circulation when placing interior walls. The total square footage (all indoor space) of each design will be used as a criterion for judging, and therefore must be written on each board in ½" tall letters (minimum). Total square footage, however, is not the sole criterion. Thoughtful, creative design solutions will ultimately be more successful than submissions which are unimaginative yet efficient.

**UNCONDITIONED SPACES** – These spaces should be under a roof, but will not be heated or cooled like regular living or working spaces.

#### **Vehicle Garage** [Minimum 64'-0" wide, Minimum 42'-0" deep ]

Also known as the "apparatus bay", the vehicle garage is where fire engines and emergency response vehicles are stored, serviced, and positioned for a fast response. The largest fire engine is 8'-0" wide x 38'-0" long. Each of the four garage spaces must be able to accommodate the largest size vehicle. The garage must be adjacent to the bottom of the fireman's pole. The firefighters would prefer a pass-through garage. They'd like to be able to drive their



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| firetrucks from one street, into the garage, and out the other side of the garage onto the opposite street. This cuts down on the time and hassle of to turning the trucks around and backing them into the garage.  [ Four (4) or Eight (8) Garage Doors 12' Wide x 14' Tall   |    |
|---|----|
| Fire Hose Drying Tower and Training Stair [8'-0" Wide x 8'-0" Deep x Minimum 30'-0" High]  This is where firefighters practice entering buildings through windows from the fire truck ladder, and where they practice carrying people and heavy equipment up and down stairways. This also where fire hoses will be hung up to dry. This tower should have a stairway to the tower roof, and an open area from the roof to the bottom level for hoses. It should also be located where the fire trucks can put their ladders against it from the outside.  1 (minimum) exterior window at each level of the tower  A continuous stairway to the tower roof  A contiguous 16 square foot opening from the ground level to the underside of the roof, for hanging fire hoses up to dry. | p  |
| Fireman's Pole (Bottom) [3' Diameter Opening, with 2 ½" Diameter Slidepole at Center]  The fastest way to get from an upper floor to a lower floor, is the fireman's pole. A shutter mechanism seals the hole in the floor off until a fireman slides down the pole and the mechanism opens, allowing the fireman to pass. The pole should be positioned where you see fit to allow firefighters to easily access the fire suit room from a higher floor. On story fire stations, do not need to include this element.  3' Diameter landing mat   | e  |
| <b>Helicopter Pad</b> [50'-0" Diameter]  This is where the emergency response helicopter will take off and land. The pad can be on the ground, or on a roof. I must (obviously) be open to the sky.   | It |
| <b>WORKING AREAS</b> – These are the spaces where the "business" of being a fireman happens. These are indoor, semi-public spaces used by the fire fighter, and some visitors.  |    |
| Gym [Size as Necessary]  To do their job well, firefighters must be in top physical condition. This is where they'll get their exercise.  ☐ Three (3) Treadmills each 2'-6" Wide x 5'-0" Long  ☐ Weight bench 1'-0" Wide x 5'-0" Long  ☐ Multi-Purpose Exercise Machine 5'-0" Wide x 5'-0" Deep  ☐ Drinking Fountain  |    |
| Dispatch Office [Size as Necessary]  This is where the dispatchers will take calls and coordinate the emergency response  □ Four (4) computer monitors 2'-0" wide should be positioned on the desk  □ 2'-6" x 6'-0" Desk and Chair  □ 6'-0" Wide x 4'-0" Tall display screen hung on the wall and easily viewable by the dispatchers  |    |
| Station Officer [120sf]  This is where the station officer works.  ☐ 2'-6" x 5'-0" Desk and Chair ☐ 1'-2" Deep x 4'-0" Wide Bookshelf ☐ 2 Chairs for firefighters to use when they're called into the office.   |    |
| Training Room and Community Room [1,600sf]  This large, multi-purpose space will be used for firefighter training, and hosting community events. It should be easily accessible from the public entry, and it should be able to directly access the outdoor community space.  |    |

<sup>&</sup>quot;I see my buildings as pieces of cities, and in my designs I try to make them into responsible and contributing citizens." - César Pelli



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|  | as Necessary] om where firefighters will quickly suit up in the troom must open immediately into the vehicle                                       |   |
|--|--|---|
| fireman's pole.  | rs each 2'-0" Wide x 2'-0" Deep x 6'-0" Tall   | garage and should be very hear of contain the   |
|  | lecessary] ry for guests and visitors. It should be easily rec the station's "working areas".  | ognizable from the exterior and should contain  |
| The top of the pole s  | [3' Diameter Opening, with 2 ½" Diameter hould naturally be positioned above the bottom as to easily access the fire suit room from a high opening | . The pole should be positioned where you see   |
| <b>LIVING AREAS</b> – While the used only by the firefighters.   | firefighters are at the station, these spaces make   | up their "home". These are private living spaces,   |
| These are the restro add additional restro Three (3) Shown Two (2) Standar Three (3) Sinks                   |  | ers. Depending on your design, you may wish to  |
| These are the restro<br>add additional restro<br>Three (3) Show<br>Five (5) Standar                          |  | ers. Depending on your design, you may wish to  |
| quiet place. Firefigh<br>not have windows in<br>\( \square\) One (1) Bed 38"<br>\( \square\) One (1) Desk 48 | hese ten rooms are where the firefighters sleep.   | y need rest at any time of the day. Most prefer to  |
| immediately adjacen  | the firefighters will eat their meals. It should sea   | at twenty firefighters. The dining room should be e one large table, or several smaller tables. |



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| Firefi  | Size as Necessary] ghters love chili. This is where they'll make it, as well as the rest of their meals. Counter space with double bowl sink 2'-6' Deep x 8'-0" Wide x 3'-0" High. Counter may be curved or straight.   |
|---|---|
| Γ □<br>Γ □  | Two (2) Ranges each 30" Wide x 24" Deep. This is a combination stovetop and oven Two (2) Refrigerators each 2'-6"D x 2'-6"W x 6'-0"H Two (2) Freezers each 2'-6"D x 2'-6"W x 6'-0"H   |
| When  | om [Size as Necessary] In they're not sleeping, eating, or in the gym, the firefighters hang out here. Consider designing this space to annotate a multitude of activities simultaneously (talking, reading, watching television, playing board games,  |
| $\Box$ T  | eating and eating areas for fifteen firefighters. This may be accomplished with couches, chairs, benches, etc. elevision – 58" Wide x 34" High. This can be wall Mounted or Sitting on a table -2" Deep x 6'-0" Wide Bookshelf  |
| Outdoor Spa   | ces   |
| Wher<br>Cons<br>comm  | er's <b>Terrace/Patio</b> [Size as Necessary] in they're not eating chili, the firefighters are grilling hamburgers. They love to eat outside as much as possible, ider designing this area to allow for daylight during the evening. This space can be combined with the munity plaza, but you suspect the firefighters would like their own space and are being too nice to tell you. Grill 4'-0" Wide x 2'-0" Deep.  |
|   | eating and eating areas for ten (10) firefighters. This may be accomplished with couches, chairs, benches, etc.   |
| This Outd   | <b>ity Plaza</b> [Size as Necessary] hardscaped plaza is where the city will host events like speeches, outdoor concerts, and farmers' markets. oor activities that are best played in the grass, like frisbee and soccer, will happen in the park on the south side ain Street. This area should be welcoming and easily accessible from Main Street or Shelley Ave (or both). It d also be directly adjacent to the indoor training and community room so people can easily move from inside tside. |
| Research  |   |
| projects. Before you<br>consider researching<br>encouraged to do pr | begin designing, we strongly encourage you to do some research. You should look at fire stations, but also the components of this project - small office buildings, large houses, and community buildings. You're also esentation research. For all your hard work to be understood by the judges, it's <b>critical</b> that your work is legibly. Try searching for "architectural design competition entry board".  |
| The drawings be increasing the size of perspectives, and axe        | <b>led Drawings</b> elow are the minimum required drawings. The scales below are the minimum recommended scales. Consider f your most dramatic or impressive drawing. Effective use of color, shade, and shadows on elevations, conometric drawings can greatly enhance your presentation. Use of computers for graphics is acceptable but not drawings with the method you feel most comfortable for the best results. Remember to pick views that best to the judges!                               |
|   | y encouraged to design your presentation board before actually producing final drawings. This will help focus g the most important drawings and allow you to choose the correct size and scale of your final images.  |
| to get an overall  One Perspec                                      | ctive or Axonometric drawing of the building's Exterior. This is likely to be the first drawing judges will look at limpression of your design. Choose this view wisely. (Don't forget shadows!) ctive or Axonometric drawing of an interior space. This is likely to be the second drawing judges will look at to appression of your design. Choose this view wisely. (Don't forget shadows!)  |



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| One Site Plan (Scale to fit) This plan should clearly illustrate where your building sits on the site. This drawing can be |
|--|
| combined with your first floor plan  |
| One Floor Plan per floor $(1/16" = 1'-0")$ Identical floors can be represented with one plan.                              |
| Three Exterior Elevations (1/16" = 1'-0") <b>OR</b> Three Exterior Perspectives of Different Views of the Building         |
| $\square$ One Building Section (1/16" = 1'-0")   |

## **Concept Statement**

Communication is a fundamental component of design. The ability to communicate both graphically and verbally are equally important in conveying your design ideas, therefore, a written concept statement is required. Your concept statements should describe your ideas, thought process, and intentions. Your concept statement is a verbal attempt of persuading the judges why your design ideas stand out from the other entrants. An entry with a well-written concept statement will win a tie between two boards with equally strong designs and graphics. The statement may include small sketches, symbols, etc. as necessary. Be careful not to confuse a long concept statement with a good concept statement. A short, concise, and informative statement is more powerful than a lengthy one. Don't forget to check your spelling.

### **Presentation Board**

- 1. Each entrant must display their entry on only one 24" x 36" (total board size) foam core board. Entries mounted on boards which are not 24" x 36" will likely be disqualified. All boards will be displayed with the long dimension on the vertical axis (as shown to the right).
- 2. Include the total square footage (all indoor space) of the design in ½" tall letters on the front of the board.
- 3. To the back of the entry board, tape an <u>UNSEALED</u> envelope. This is the container for your entry form. Inside the envelope, place a completed copy of the entry form (found at the end of this document. An interactive PDF is also available at ihsadc.com). The email address written on the entry form will be used for notification of your status in the competition. <u>Please print clearly.</u>
- 4. Write your initials at the top-center of the back of the board in permanent ink.
- 5. Do not write your full name or school identification anywhere on the presentation board. This may disqualify your entry.
- 6. Presentations may be drawn directly on the board or on separate sheet(s) securely mounted to the board.
- 7. We discourage the use of temporary spray-on adhesives. Drawings attached with temporary adhesive will detach from the board and are likely to be damaged. Neither the Competition Committee nor the Judges will be responsible for drawings that do not adhere to the presentation boards.
- 8. The use of tacks is prohibited.
- 9. Any presentation that does not conform to the presentation requirements is subject to disqualification.

# **Competition Schedule**

February 15th, 2025 at 10:30 am Design Workshop, at CSO Architects' Office

8831 Keystone Crossing, Indianapolis, IN 46240

March 28th, 2025 by 5 pm Entry Boards Due at CSO Architects' Office. Entries are accepted prior to this date.

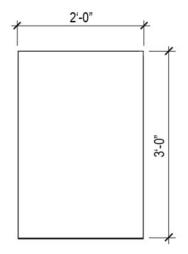
8831 Keystone Crossing, Indianapolis, IN 46240

Notification emailed to all Teachers and Entrants of standing in the competition

Awards Ceremony at the Indianapolis Artsgarden.

Last Day for Board Pickup at CSO Architects' Office. Entries will be available during

business hours prior to this date.



May 2<sup>nd</sup>, 2025 at 8pm June 27<sup>th</sup>, 2025

April 11th, 2025

IHSADC@AlAindiana.org

# **Qualifications for Entry**

Entrant must be a high school student in the state of Indiana.

## **Design Workshop**

The competition committee will host a design workshop for all competition entrants, their parents, and teachers on Saturday, February 15<sup>th</sup> from 10:30am to 2:30pm at CSO Architect's Indianapolis headquarters (8831 Keystone Crossing, Indianapolis, IN 46240). The competition committee will teach a short course on architectural design, discuss architecture as a career, and give a tour of CSO's office. Lunch will be provided. Students are invited to bring their ideas, sketches, and presentation board mock-ups to discuss their designs with Indiana architects and designers. However, students are not required to bring work. The competition committee will not be available for competition entry design feedback, in order to remain impartial during the first round of judging. Attendance is not mandatory. If you are interested in joining us, please RSVP the number of people attending to IHSADC@AIAindiana.org by February 14<sup>th</sup>. RSVPs are not mandatory, but preferred. We hope to see you there!

# **Entry Deadline**

Boards may be mailed or delivered in person. Entries will be accepted on any day during business hours until:

March 28th, 2025 by 5 pm CSO Architects' Office 8831 Keystone Crossing Indianapolis, IN 46240

# **Judging**

The first round of judging is performed by the Indiana High School Architectural Design Competition Committee. The second round of judging is performed by a combination of the presidents of each of the four Indiana Chapters of the American Institute of Architects (AIA), professional Indiana architects, and Architecture Professors from Ball State University, Indiana University, and the University of Notre Dame.

The following criteria will be used to evaluate the entries:

CREATIVITY, Design Quality, Presentation, Concept Statement, Overall Square Footage of the Design, Adherence to Program Requirements (i.e., presentation board size, square footages, required areas)

Variance from the listed criteria is at the entrant's own risk. Judges reserve the right to award a prize to an entrant that does not follow the recommended drawing list but is able to communicate a creative design idea through a high-quality presentation. Judges also reserve the right to disqualify noncompliant entries. All decisions of the judges are final.

The first round of judging will determine the 72 students whose boards are awarded the distinction of being displayed in the Indianapolis Artsgarden. These boards are automatically eligible for the second round of judging. Winners will be posted on the website after the ceremony.



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# **Awards Ceremony**

The awards ceremony will be held on May 3<sup>rd</sup>, 2024 at 8pm in the Indianapolis Artsgarden. All entrants, parents, and teachers are invited to attend. In addition to announcing winners, the ceremony will feature an Indiana architect designing a competition entry live on stage. The architect will explain their process as their design comes to life. After the formal ceremony, students, parents, and teachers are encouraged to speak with the architects in attendance and receive personalized feedback from judges and the competition committee. The ceremony will last approximately 90 minutes. Press may be in attendance.

3 Awards of Excellence

\$500 Prize, \$500 Scholarship to a Summer Architecture Program, Award Certificate

5 Awards of Honor

\$250 Prize, Award Certificate

Judge's Distinction (Quantity determined by Judges)

Award Certificate

#### **Return of Boards**

Participants who attend the awards ceremony may take their boards home following the ceremony. For those unable to attend, the boards will be available until July 26th at CSO Architects office (8831 Keystone Crossing Indianapolis, IN 46240). All remaining boards will be recycled after this time.

### **Question and Answer Process**

Please feel free to contact us via email with any questions. Your question will be answered with a direct email response as well as posted on the website. The website will be updated with questions and answers. Should you not receive a prompt reply to your emailed question, please feel free to ask the question again to ensure our receipt of the email.

Email Address

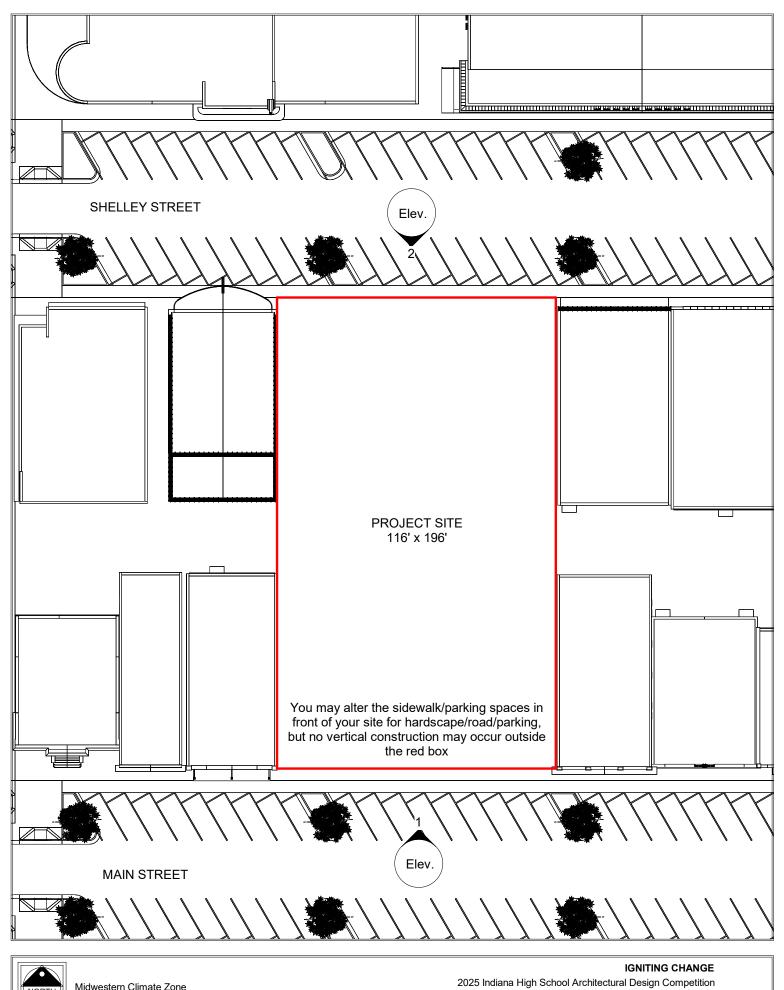
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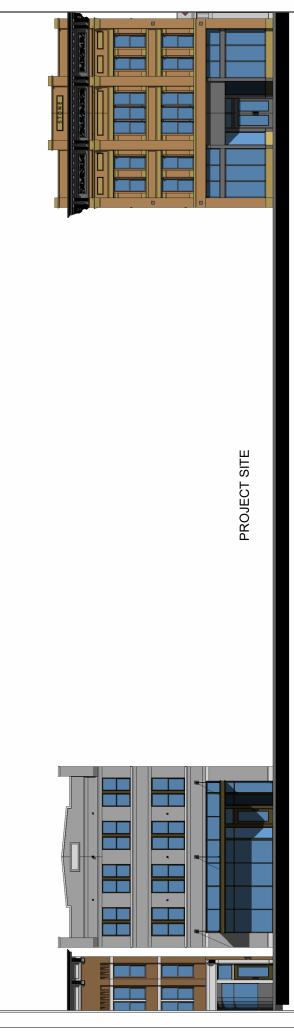
Follow us on Instagram and Facebook for updates, hints, tips, and pictures from previous competitions and awards ceremonies

@aia\_ihsadc\_

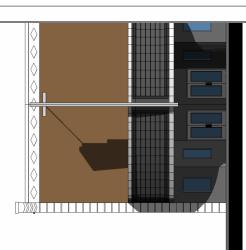
www.facebook.com/ihsadc

We look forward to seeing your design entry! Have Fun and Good Luck! Remember, Creativity Sells!





1 Elevation 1 - Looking North 1" = 20'-0"



PROJECT SITE

Elevation 2 - Looking South 1" = 20'-0"



## **ENTRY FORM**

Please print legibly. Names as written will be used for award checks, certificates, press releases, and recognition at the award ceremony. An interactive digital version of this form is available on the website.

| STUDENT (Please print in all capital letters)  |
|--|
| Student's Name   |
| Phonetic Pronunciation of Name (optional)  |
| Student's School   |
| Student's Street Address   |
| Student's City, State, Zip Code  |
| Student's Email (required for notification)  |
| How did you find out about this competition?   |
| Student Signature  |
| INSTRUCTOR   |
| This entrant is currently a high school student in the state of Indiana $\square$ Yes $\square$ No   |
| Instructor's Name  |
| Instructor's School Name   |
| Instructor's Email address   |
| Would you like to be added to our email list (for competition notification only)? $\square$ Yes $\square$ No   |
| PARENT  Dear Parent:  To properly recognize your student for their effort, the AIA would like permission to publicize their name,                        |
| picture, and award status. By signing below, you release the AIA to publish this information on the competition website and to local news organizations. |
| If you do <b>NOT</b> want this information publicized please check this box $\ \square$  |
| I grant AIA Indianapolis permission to publish my student's name, picture, and award status as a participant in this competition.                        |
| Signed (parent)  |
|  |

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