



1



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The Yearly “Problem” is:

- Designed by a licensed Architect or Engineer
- Is generic enough to meet the needs of all areas of the US and our international affiliates
- Includes a site description and plan
- List of required drawings and information


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Students are “Recognized for:”

- Creative Design
- Successful Problem Solving
- Craftsmanship in preparing architectural drawings and renderings.


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Students are “Evaluated On”

- Detail
- Accuracy
- Originality of Work


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The Design Drafting “Objective” is”

- To introduce the student to the construction industry in a positive and challenging manner, while fostering a sense of self-worth and building confidence.

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2023-2024 Design Problem

“USA Gymnastics Headquarters, Living & Training Center”

A mixed-use building that will not only have their headquarters office it will include apartments for their athletes, a development gym and supporting program for them to train, and retail space to enhance the experience.

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2023-2024 Design Problem

- Location: 107W W Michigan St, Indianapolis, IN 46204
- The site has access to downtown amenities and the athletic tradition that Indianapolis has to offer.
- Opportunity to increase the useability of the space and enrich the area *(is currently a surface-only parking lot with a historic building in the NW corner)*

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2023-2024 Design Problem

- Should be 5-7 stories to accommodate:
 - The ground-level retail spaces
 - The training facilities
 - The two hundred (200) apartments that include a combination of studio, one & two-bedroom apartments
 - The desire to have an active roof deck that includes a pool and other amenities
 - Include incorporating the parking need of 400 parking spaces.
- The facility should be both environmentally responsible and cost efficient where possible.

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2023-2024 Design Problem

- The materials used in the building (exterior and interior) should be reflective of the character of the community and the climate region.
- All interior spaces and the site should be accessible to people with physical, visual, and/or auditory impairment.

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2023-2024 Design Problem

“Sustainability”

- Make a reasonable efforts to demonstrate environmental responsibility.
 - Energy-efficient design strategies,
 - On-site renewable energy production
 - Use of recycled and/or local materials
 - Design features that keep indoor air clean, allows daylight, and encourages activity.

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2023-2024 Design Problem

“Included in Design Problem & Project Description”

- Historic building information
- Message from USA Gymnastics
- Basic Egress Information
- Site Considerations
- Minimum requirements

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2023-2024 Design Problem

“Design Drawing General Requirements”


- Must include in each drawing:
 - Title block matching the format provided in the contest guidelines – Must be complete! (see next slide for details)
 - Standard scale will be 1/4" = 1'0" unless otherwise noted. Both a written and graphic scale are required.
 - Orientation (North/South/East/West) of the building should be noted on all necessary drawings. North arrow to be included in all plan drawings.
 - Include the Entry Code number as assigned by your administrator. Do not list your name on the drawings. All units shall be in English system – no Metric system.

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2023-2024 Design Problem

“Title Block”

 327 South Adams St., Fort Worth, TX 76104	PROJECT: USA GYMNASTICS HEADQUARTERS LIVING TRAINING CENTER
	DATE: 2023-2024
	CONTESTANT CODE: 23 - MW - MN - 123456 - 001 - HD
	PLAN NAME: SITE PLAN WITH ROOF PLAN
	PLAN #: A - 1 SCALE: 1/4" = 1'

- Must match the format provided in the contest guidelines. All information in the block must be complete. The standard scale will be 1/4" = 1'0" unless otherwise noted.

Revised

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2023-2024 Design Problem

“Required for submission”

- **Design Drawing General Requirements** *(must be included in each drawing as shown in previous slide)*
- Design Narrative / Concept *(20 pts.)*
- Required Drawings: A Series (Total of 115 pts)
 - A-1 Cover Sheet *(20 pts)*
 - A-2 Site Plan *(20 pts)*
 - A-3 Block Floor Plan Diagrams *(30 pts) – 2 sheets*
 - A-4 Two Bedroom Unit Floor plan *(25 pts)*
 - A-5 Two Bedroom Unit Reflected Ceiling Plan/Electrical Plan *(20 pts)*

Revised

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DESIGN DRAFTING

2023-2024 Design Problem

“Required for submission (continued)”

- Required Drawings: B Series (Total of 50 pts)
 - B-1 Exterior Elevation of Illinois St. *(25 pts)*
 - B-2 Building Section *(25 pts)*

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DESIGN DRAFTING

2023-2024 Design Problem

“Required for submission (continued)”

- Required Drawings: C-1 Series (Total of 20 pts) *(Choose one only)*
 - C-1A: Provide a 3D axonometric rendered section
 - C-1B: Roof Design Drawing (Design the roof top to include amenity options such as a pool, pickle ball courts, garden spaces, gathering space....)
 - C-1C: Additional section / elevation drawings
 - C-1D: Image of streetscape design, including courtyards, public transportation, etc.
 - C-1E: Draw a typical wall section at 1" = 1'0" scale.

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DESIGN DRAFTING

2023-2024 Design Problem

“Required for submission (continued)”

- **Required Drawings: C-2 Series (Total of 20 pts) (Choose one only)**
 - C-2A: Construct & photograph physical scale model
 - C-2B: Aerial render of project in site context
 - C-2C: Callout of fully detailed gymnasium
 - C-2D: Write a short narrative on how you would make this project sustainable (solar power, solar shading, passive systems, carbon neutral materials...). Create an appropriate drawing to show strategy. (For example: Solar panels arranged upon the roof plan)
 - C-2E: Foundation plan at ¼" = 1'0" scale.

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DESIGN DRAFTING

2023-2024 Design Problem

“Required for submission - RECAP”

- Signed Application Form
- Design Narrative / Concept (20 pts.)
- **Required Drawings: A Series (Total of 115 pts)**
 - A-1 Cover Sheet (20 pts)
 - A-2 Site Plan (20 pts)
 - A-3 Block Floor Plan Diagrams (30 pts) – 2 sheets
 - A-3.01 Block Plan 1
 - A-3.02 Block Plan 2
 - A-4 Two Bedroom Unit Floor plan (25 pts)
 - A-5 Two Bedroom Unit Reflected Ceiling Plan/Electrical Plan (20 pts)
- **Required Drawings: B Series (Total of 50 pts)**
 - B-1 Exterior Elevation of Illinois St. (25 pts)
 - B-2 Building Section(25 pts)
- **Required Drawings: C-1 Series (Total of 20 pts) (Choose one only of the 5 options)**
- **Required Drawings: C-2 Series (Total of 20 pts) (Choose one only of the 5 options)**

**Design Narrative
PLUS
10 Drawings**

**Total Points
Possible:
225**

Revised

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DESIGN DRAFTING

2023-2024 PROCORE

- NEF has partnered with Procore construction management software solutions to provide real time industry experience to students and instructors.
- Procore offers a FREE certification program for students that allows students and instructors an opportunity to learn how to use the Procore software and obtain the industry sought after certification.
- The instructors may explore the other certifications for their students. All certifications are free and available on Procore’s website.

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DESIGN DRAFTING

2023-2024 **PROCORE**

- NEF has set up our own Procore site for the 2023-2024 Design Drafting Competition
 - Students can submit questions directly using the RFI (*Request for Information*) tool in the Procore platform (*a formal Q & A process*). Allow 2 – 3 days for NEF to respond and post an answer to the Procore website.
 - Check the Procore platform regularly for updates of special announcements. Review the RFI section often to see if your question has been covered before submitting duplicate questions.
 - All PDF and CAD files for this project may be found under the Documents tab in the Procore platform.

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2023-2024 **PROCORE**

“To participate:”

- Go to www.nef-edu.org
- Click on the link – <https://form.jotform.com/211778269303056>.
- Allow 24-48 hours for a Procore link to be sent to you via email.
- Upon receipt of email, you will be granted access to the 23-24 Design Drafting Project.

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2023-2024 **PROCORE**

PORTFOLIO Projects Health Dashboard My Open Items Export

Search projects: Add Filters Clear All

Displaying 1 of 1

Name*	Project Number	Address	City	State	ZIP	Phone	Status	Stage	Type	Notes
2023-2024 Design Drafting Competition		227 South Adams Street	Fort Worth	Texas	76104	817-784-3330	Active	Pre-Construction	Sample Project	

- Once you have access to the site – this is the page you will see. You will need to click on “2023-2024 Design Drafting Competition” to take you to the next screen.

Revised

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The screenshot shows the NEF 2023-2024 Design Drafting website. The top navigation bar includes the NEF logo, the year '2023-2024', and the PROCORE logo. Below the navigation bar, there is a search bar and a 'Project Tools' dropdown menu. The dropdown menu is open, showing three main categories: 'Core Tools', 'Project Management', and 'Preconstruction'. Under 'Core Tools', there are links for 'Home', 'Documents', and 'Tasks'. Under 'Project Management', there are links for 'Emails', 'RFIs', and 'Drawings'. Under 'Preconstruction', there is a link for 'Bidding'.

- Click on Project Tools to get this dropdown screen.
- Click on Documents (to find all the forms required) or RFIs (to check out the Requests for Information)

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The screenshot shows the 'Documents' page on the NEF website. The left sidebar contains a tree view with the following items: '2023-2024 Design Drafting Competition', '01 Design Drafting Guidelines & Inf', '02 Regional & Individual Submittal', '03 Winners 2022-2023', and 'Submissions'. The main content area shows a table of documents for the '2023-2024 Design Drafting Competition'. The table has columns for 'Name', 'Created On', and 'Last Modified'. The documents listed are: '01 Design Drafting Guidelines & Information' (07/31/2023 at 08:52 PM), '02 Regional & Individual Submittal' (07/31/2023 at 08:52 PM), '03 Winners 2022-2023' (07/31/2023 at 08:52 PM), and 'Submissions' (08/21/2023 at 05:47 PM).

Click on:

- 01-Design Drafting Guidelines & Information to access the problem, reference materials and forms
- 03 – Winners - If you'd like to view the submissions of last years winners – Design Concept and Drawings

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The screenshot shows the 'Documents' page on the NEF website, displaying a detailed list of folders for the '2023-2024 Design Drafting Competition'. The folders are listed in a table with columns for 'Name', 'Created On', and 'Last Modified'. The folders include: '01 Project' (07/31/2023 at 08:52 PM), '02 Design Files (Empty)' (07/31/2023 at 08:52 PM), '03 NAWIC Chapter Forms' (07/31/2023 at 08:52 PM), '04 NAWIC Regional Forms' (07/31/2023 at 08:52 PM), '05 Individual Sponsor Forms' (07/31/2023 at 08:52 PM), '06 Judging Forms' (07/31/2023 at 08:52 PM), '07 High School and College Applications' (07/31/2023 at 08:52 PM), '08 Design Guidelines' (07/31/2023 at 08:52 PM), and '09 IRS Tax Forms W-9' (07/31/2023 at 08:52 PM).

Each folder has the information ou will need to participate in the competition.

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2023-2024 Design Problem

“Additional Information Provided”

- Pages 7 – 11 of Design Problem & Project Description Lists:
 - **Resources** - List of resources for the students to ask questions (RFI) to NEF, Indiana codes, USA Gymnastics and the city of Indianapolis
 - **Examples:**
 - Concept/Block Diagram
 - Conceptual North Elevation of Existing Building
 - Conceptual West Elevation of Existing Building
 - Conceptual Site Plan

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Schedule / Check List

• Send Problem to High Schools & Colleges	- ASAP after receiving from NEF
• Receive Applications	- Date set by Chapter Chair
• Assign contestant numbers (Judged anonymously)	- After receipt of Applications
• Send Student Acknowledgements	- Within a week of receiving Apps
• Receive Submissions	- No later than February 15th
• Judged by construction industry professionals	- Date set by Chapter Chair
• Winner of local due to the Regional Chair	- Third Monday in March
• Regional winner due to the National Chair	- First Monday in April

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