

## OVERVIEW

Participants develop a set of architectural plans and related materials in response to an annual architectural design challenge and construct a physical, as well as a computer-generated model, to accurately depict their design. Participants must demonstrate an understanding of and aptitude for architectural design, the development of plans, Leadership in Energy and Environmental Design (LEED) applications through construction and renovation, and modeling techniques and practices. The design problem for the current school year will be posted on the national TSA website under Competitions/Themes and Problems.

## ELIGIBILITY

One (1) team, or one (1) individual, per chapter may participate; one (1) entry per team or individual.

## TIME LIMITS

### PRELIMINARY ROUND

1. The documentation portfolio of the entry must be finished and accessible via the Internet by 11:59 pm Pacific Daylight Time (PDT) on May 15th.
2. After 11:59 pm on May 15th changes must not be made to the portfolio. Should changes or updates to the portfolio be made after the deadline, those changes are not considered.

### SEMIFINAL ROUND

1. The semifinalist presentation/interview time will be limited to ten (10) minutes.
2. The LEAP interview will be conducted as part of the semifinalist presentation/interview and will last a maximum of five (5) additional minutes.

## LEAP

An individual or team LEAP Report is required for this event and must be submitted at event check-in (see LEAP Program).

## ATTIRE

TSA competition attire is required for this event.

## PROCEDURE

### PRE-CONFERENCE/PRELIMINARY ROUND

1. Participants access the design problem for the specific year's challenge found on the national TSA website and work to complete their entry according to the event regulations.
2. Participants submit their documentation portfolio entry electronically via [www.submittable.com](http://www.submittable.com) as a single, multipage PDF document, including the LEAP Report.
3. Participants must follow the SPECIFIC INSTRUCTIONS for online entry submission on the TSA website under Themes/Problems/ Architectural Design. Failure to follow these instructions may result in the entry not being judged.
4. Email verification of each participant's entry is made immediately upon completion of the entry submission process.
5. Entries are evaluated by judges.
6. Onsite at the conference, participants submit their physical model at event check-in.
7. A list of twenty-four (24) participants will be posted on the first full day of the conference, whose models will be judged onsite at the conference to determine the twelve (12) semifinalists. No more than two (2) team members submit and place the model for judging.
8. Models are evaluated by judges. Neither students nor advisors are present at this time.
9. A list of twelve (12) semifinalists (in random order) will be posted.

NOTE: This procedure applies to the national TSA competition only — entry procedures for state conferences are handled by each state.

### SEMIFINAL ROUND

1. Semifinalists will sign up for a presentation/ interview time and arrive at the time and place stated in the conference program.
2. The individual semifinalist or two (2) representatives from each semifinalist team report to the event area at the time and designated location.
3. Semifinalists will use their models and documentation for reference during the presentation/interview process.
4. The LEAP interview will be conducted as part of the semifinalist presentation/interview.
5. No more than two (2) team members pick up the team's entry from the display area at the time and place stated in the conference program.
6. The top ten (10) finalists will be announced at the awards ceremony.

### REGULATIONS

#### PRELIMINARY ROUND

- A. Documentation materials (comprising "an electronic/digital portfolio") are required and must be submitted in a single, multipage PDF document.
1. Participants must turn in their documentation portfolio online for preliminary judging (see Procedures 2 and 3).
  2. Participants must have a USB flash drive copy of their portfolio with them at the conference as a back-up and for use in the semifinalist presentation, should they advance to that level.
  3. The documentation must include the following single 8½" x 11" pages, in this order:
    - a. LEAP Report
    - b. Title page with the event title, the conference city and state, and the year; one (1) page
    - c. Table of contents; pages as needed
    - d. A description of the individual/team's interpretation of the design challenge and an explanation of the style and merits of the design concepts; one (1) page
    - e. List and description of each of the construction systems (any and all that apply) and their incorporation and application to the solution: building codes, building permits, construction methods and materials, electrical wiring, plumbing, HVAC, and site requirements; maximum of six (6) pages.
    - f. A LEED assessment for the project, according to the USGBC standards for green building; one (1) or more pages
    - g. A schedule of finish materials for all exterior and interior surfaces of the architectural design (this is not a list of the model construction materials); one (1) page
    - h. A complete set of reproduction copies of the original hand drawings and printer/plotter-generated copies of CAD drawings (i-iii below) must be submitted with the model.
      - i. Each drawing should be shown on maximum sheet cut size B (11" x 17"), with the appropriate scale noted on the drawing.
      - ii. A copy of each drawing also must be included on the flash drive.
      - iii. Drawings must be appropriately scaled to fit the PDF format required for submission.
        1. original floor plan/s
        2. sectional detail drawing
        3. foundation plan
        4. roof plan
        5. assembly plan with necessary onsite instructions
    - i. Plan of Work log that indicates preparation for the event, as noted by date, task, time involved, team member responsible, and comments (see Forms Appendix or TSA website); pages as needed
    - j. Mentorship Verification form; participants are required to seek the mentorship of an architect or other professional involved with construction and renovation (see Mentorship Verification form); one (1) page

- k. A 3-D modeling/rendering drawing of the individual/team's final design with appropriate details included; drawing sheet size B, 11" x 17"; one (1) page. Drawing must be appropriately scaled to fit the PDF format required for submission.
- l. List of resources/references; pages as needed

#### B. Model:

1. The architectural model must be placed on a site board, the size of which will be posted along with the annual problem each year on the TSA website.
2. Model construction concepts, materials, techniques, and applications:
  - a. Balsa wood, illustration board, or similar materials are suggested (but not limited to) for use as interior walls, exterior walls, and roof construction.
  - b. Foam core board that is ½" thick or greater is recommended for use as the site board for the model.
  - c. Dowels may be used to represent columns or circular components.
3. Participants should pay close attention to the scale of all materials as they relate to the scale of the model.
4. The model may not include any electrical or battery-powered enhancements.
5. No glass or liquid may be used as part of any model.

#### SEMIFINAL ROUND

- A. Semifinalists will answer event-specific questions about their design and solution to the yearly design challenge using both their documentation portfolio and model as illustrations.

#### B. LEAP Requirements

1. Participants document the leadership skills developed and demonstrated while working on this event, and on a non-competitive event leadership experience.
2. Semifinalists will respond to questions about the content of their LEAP Report as part of their event-specific presentation/interview.
3. Specific LEAP Report regulations can be found in the LEAP Program section of this guide and on the TSA website.

### EVALUATION

#### PRELIMINARY ROUND

1. The digital portfolio
2. The design process
3. The architectural model

#### SEMIFINAL ROUND

1. The quality of the event-specific interview
2. The content and quality of the LEAP Report and semifinalist interview

Refer to the official rating form for more information.

### STEM INTEGRATION

This event aligns with the STEM educational standards of Science, Technology, Engineering, and Mathematics.

### CAREERS RELATED TO THIS EVENT

- Appraiser
- Architect
- Construction manager
- Interior designer
- Urban and regional planner

# HIGH SCHOOL ARCHITECTURAL DESIGN MENTORSHIP VERIFICATION

I certify that I have served as a mentor to the student(s) named below.

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Student(s) involved (please print)

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Signature of student(s)

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Date

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TSA chapter advisor (printed name and signature)

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Date

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Name of mentor (please print)

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Occupation (please print)

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Employer (please print)

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Signature of mentor

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Date

Participant/Team ID# \_\_\_\_\_

# ARCHITECTURAL DESIGN

## 2019 & 2020 OFFICIAL RATING FORM

### HIGH SCHOOL

Judges: Using minimal (1-4 points), adequate (5-8 points), or exemplary (9-10 points) performance levels as a guideline in the rating form, record the scores earned for the event criteria in the column spaces to the right. The X1 or X2 notation in the criteria column is a multiplier factor for determining the points earned. (Example: an “adequate” score of 7 for an X1 criterion = 7 points; an “adequate” score of 7 for an X2 criterion = 14 points.) A score of zero (0) is acceptable if the minimal performance for any criterion is not met.

#### Go/No Go Specifications

- Before judging the entry, ensure that the items below are present; indicate presence with a check mark in the box.
- If an item is missing, leave the box next to the item blank and place a check mark in the box labeled ENTRY NOT EVALUATED.
- If a check mark is placed in the ENTRY NOT EVALUATED box, the entry is not to be judged.

- Online documentation is present.
- Model is present and submitted on a site board (specific only for the 24 pre-qualified entries).
- Drawings are present.
- Completed LEAP Report is present.
- ENTRY NOT EVALUATED

DOCUMENTATION (90 points)				Record scores in the column spaces below.
CRITERIA	Minimal performance	Adequate performance	Exemplary performance	
	1-4 points	5-8 points	9-10 points	
<b>Portfolio components</b> (X1)	Portfolio is unorganized and/or is missing three or more components.	Portfolio has most components and is generally organized; it has sufficient content.	All components are included in the portfolio; content and organization are excellent.	
<b>Description of design interpretation</b> (X1)	The description of the design and style is unclear or vague.	The description of the design and explanation of the style are included; they are adequately presented.	The description and merits of the design and explanation of the style are clear, effective, and convincing.	
<b>Construction systems</b> (X1)	There is little or no evidence of attention to the various construction systems.	Most, but not all, construction systems are addressed; they are generally well presented.	All applicable construction systems are addressed, clearly documented, and well presented.	
<b>Schedule of finish materials</b> (X1)	Many elements of the interior and exterior finish schedules are missing or incomplete.	Most, but not all, elements of the interior and exterior finish schedules are included.	All interior and exterior finish schedules/materials are detailed and explained clearly.	
<b>LEED Assessment</b> (X1)	Only a minor attempt has been made to incorporate a LEED assessment of the design.	Many, but not all, aspects of a LEED assessment of the design are provided and documented.	A complete and accurate LEED assessment of the design is included.	
<b>Drawings</b> (X2)	A few of the required drawings are present, but they are lacking in quality.	Most, but not all, of the required drawings are included and are in the proper format.	All required drawings are included and in the proper format.	
<b>Resources/ references</b> (X1)	There is little or no effort to provide resources and references.	Resources and references included are generally presented appropriately.	There is clear evidence of the appropriate use of applicable resources and references.	
<b>Plan of Work log</b> (X1)	The Plan of Work log lacks major elements of documentation.	The Plan of Work log is somewhat complete and generally reflects the time and work necessary for the project.	The Plan of Work log completely and accurately reflects the time and work necessary for the project.	
<b>DOCUMENTATION SUBTOTAL (90 points)</b>				

## ARCHITECTURAL DESIGN

DESIGN CHALLENGE (50 points)				Record scores in the column spaces below.
CRITERIA	Minimal performance	Adequate performance	Exemplary performance	
	1-4 points	5-8 points	9-10 points	
<b>Effectiveness of design</b> (X2)	The design is ineffective in meeting the needs of the challenge.	The design is somewhat effective in meeting the needs of the challenge.	The design is clearly effective in meeting the needs of the challenge.	
<b>Access and flow</b> (X1)	The design reflects an ineffective traffic flow pattern and/or use of space to gain access to the structure.	The design reflects a somewhat effective traffic flow pattern and use of space to access the structure.	The design presents a clear, effective traffic flow pattern and full consideration of the use of space.	
<b>Aesthetic appeal</b> (X1)	There is little evidence of consideration of aesthetics and curb appeal in the design.	There is some evidence that aesthetics and curb appeal have been considered in the design.	There is clear evidence that aesthetics and curb appeal are fully and effectively integrated into the design.	
<b>Creativity and innovation</b> (X1)	The design lacks originality and exhibits few, if any, creative and/or innovative applications.	Some unique, innovative, and creative concepts are incorporated in the overall design.	Unique, creative, and innovative approaches are fully incorporated into the design.	
<b>DESIGN CHALLENGE SUBTOTAL (50 points)</b>				

MODEL (70 points)				Record scores in the column spaces below.
CRITERIA	Minimal performance	Adequate performance	Exemplary performance	
	1-4 points	5-8 points	9-10 points	
<b>Quality of construction</b> (X2)	Construction is of poor quality and appearance, with little or no attention to neatness.	Construction is somewhat neat and has appropriate quality and appearance.	Construction is of excellent quality and exemplary appearance.	
<b>Use of materials</b> (X1)	The choice of materials is ineffective and inadequate for the type and scale needed.	There is effective choice of materials and some attention to scale.	There is effective and excellent use of materials and accurate choice of scale.	
<b>Design representation</b> (X2)	The model is ineffective in depicting the requirements of the design challenge.	The model is somewhat effective in depicting the requirements of the design challenge.	The model clearly and effectively incorporates and depicts all aspects of the design challenge.	
<b>Assembly plan/site board</b> (X2)	The assembly plan and site board are ineffective in portraying the assembly and set-up of the structure onsite.	The assembly plan and site board are somewhat effective in representing most aspects of the assembly and set-up of the structure onsite.	The assembly plan and site board effectively depict all elements of the onsite assembly and set-up.	
<b>MODEL SUBTOTAL (70 points)</b>				

Rules violations (a deduction of 20% of the total possible points for the above sections) must be initialed by the judge, coordinator, and manager of the event. Record the deduction in the space to the right.

Indicate the rule violated: \_\_\_\_\_

<b>PRELIMINARY SUBTOTAL (210 points)</b>	
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Record scores  
in the column  
spaces below.

<b>SEMIFINAL PRESENTATION/INTERVIEW (87 points)</b>			
<b>CRITERIA</b>	<b>Minimal performance</b>	<b>Adequate performance</b>	<b>Exemplary performance</b>
	<b>1-4 points</b>	<b>5-8 points</b>	<b>9-10 points</b>
<b>Organization</b> (X1)	Participant(s) seems unorganized and unprepared for the presentation/interview.	Participant(s) is/are generally prepared/organized in the overall presentation/interview.	The presentation/interview is logical, well organized, and easy to follow.
<b>Knowledge</b> (X2)	Participant(s) seems to have little understanding of the concepts of the design challenge; vague answers to interview questions are provided.	An understanding of the concepts of the design challenge, and answers to questions, are adequate.	There is clear evidence of a thorough understanding of the design challenge; questions are answered well.
<b>Articulation</b> (X1)	The presentation and interview provide an unclear, unorganized, and or illogical description of the project.	The presentation and interview offer a somewhat logical and easy-to-understand project description.	The presentation/interview provides a clear, concise, and easy-to-follow description of the project.
<b>Delivery</b> (X1)	The team/individual is verbose and/ or uncertain in the presentation/ interview; participant posture, gestures, and lack of eye contact diminish the delivery.	The team/individual is somewhat well-spoken and clear in the presentation/interview; participant posture, gestures, and eye contact result in an acceptable delivery.	The team/individual is well-spoken and distinct in the presentation/interview; participant posture, gestures, and eye contact result in a polished, natural, and effective delivery.
<b>Team participation</b> (X1)	The full team/individual communicates with judges.	Most members of the team participate and generally seem to understand the event.	All team members participate with mutual understanding of the event and respond effectively to questions.
<b>LEAP Report/ Interview</b> (27 points; 10% of total event points)	The individual's or team's efforts are not clearly communicated, lack detail, and/or are unconvincing; few, if any, attempts are made to identify and/or incorporate the SLC Practices and Behaviors.	The individual's or team's efforts are adequately communicated, include some detail, are clear, and/or are generally convincing; identification and/or incorporation of the SLC Practices and Behaviors is adequate.	The individual's or team's efforts are clearly communicated, fully-detailed, and convincing; identification and/ or incorporation of the SLC Practices and Behaviors is excellent.
<b>SEMIFINAL PRESENTATION/INTERVIEW SUBTOTAL (87 points)</b>			

Rules violations (a deduction of 20% of the total possible points for the above sections) must be initialed by the judge, coordinator, and manager of the event. Record the deduction in the space to the right.

Indicate the rule violated: \_\_\_\_\_

**SEMIFINAL SUBTOTAL (87 points)**

**To arrive at the TOTAL score, add any subtotals and subtract rules violation points, as necessary. TOTAL (297 points)**

Comments:

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I certify these results to be true and accurate to the best of my knowledge.

**JUDGE**

Printed name: \_\_\_\_\_ Signature: \_\_\_\_\_

# ARCHITECTURAL DESIGN EVENT COORDINATOR INSTRUCTIONS

## PERSONNEL

- A. Event coordinator
- B. Assistants for check-in, two (2)
- C. Judges:
  - 1. Pre-conference judges for portfolios remote judging, two (2) or more
  - 2. Onsite for second-half of the preliminary round for displays, two (2) or more
  - 3. Semifinalist interviews, two (2) or more

## MATERIALS

- A. Coordinator's packet, containing
  - 1. Event guidelines, one (1) copy for the coordinator and for each judge
  - 2. TSA Event Coordinator Report
  - 3. List of judges/assistants
  - 4. Pre-populated flash drives for judges
  - 5. Stick-on labels for entries, as needed
  - 6. Results envelope
  - 7. Envelope for LEAP Reports
  - 8. LEAP Interview Judging Protocol
- B. Tables for entries
- C. Tables and chairs for judges

## RESPONSIBILITIES

### PRE-CONFERENCE/PRELIMINARY ROUND, REMOTE

- 1. Review entries as they are submitted to the designated online storage utility (Submittable).
- 2. Entry submission is allowed only until 11:59 p.m. (PDT) on May 15th.
- 3. Manage communication and pre-conference evaluation.
- 4. Judges independently assess the entries to determine the twenty-four (24) participants for onsite model judging.

- 5. Decisions about rules violations must be discussed and verified with the judges, event coordinator, and CRC manager to determine either:
  - a. To deduct twenty percent (20%) of the total possible points in this round or
  - b. To disqualify the entry
  - c. The event coordinator, judges and CRC manager must all initial either of these actions on the rating form.
- 6. Collect completed rating forms electronically and bring them to the conference on a flash drive.

### AT THE CONFERENCE

- 1. Attend the mandatory coordinator's meeting at the designate time and location.
- 2. Report to the CRC room and obtain the coordinator's packet; check the contents.
- 3. Review the event guidelines and check to see that enough judges/assistants have been scheduled.
- 4. Inspect the area or room in which the event is being held for appropriate set-up, including room size, chairs, tables, outlets, etc. Notify the event manager of any potential problems.
- 5. At least one (1) hour before the event is scheduled to begin, meet with judges/assistants to review time limits, procedures, and regulations. If questions arise that cannot be answered, speak to the event manager before the event begins.

### EVENT CHECK-IN

- 1. Check in the entries at the time stated in the conference program.
- 2. Anyone reporting who is not on the coordinator's report may check in only after official notification is received from the CRC.
- 3. Late entries are considered on a case-by-case basis and only when the delay is caused by events beyond participant control.
- 4. Place an entry number label in the upper right-hand corner of each display and around the documentation flash drive.



**PRELIMINARY ROUND, ONSITE**

1. Judges independently evaluate the entries (top 24 models) to determine the twelve (12) semifinalists.
2. Decisions about rules violations must be discussed and verified with the judges, event coordinator, and CRC manager to determine either:
  - a. To deduct twenty percent (20%) of the total possible points in this round or
  - b. To disqualify the entry
  - c. The event coordinator, judges and CRC manager must all initial either of these actions on the rating form.
3. Judges determine the twelve (12) semifinalists.
4. Review and submit the semifinalist results and all related items/forms to the CRC for posting.

**SEMIFINAL ROUND**

1. Conduct semifinalist interviews.
2. The LEAP interview will be conducted as part of the semifinalist presentation/interview and will last a maximum of five (5) additional minutes.
3. Judges evaluate the entries.
4. Decisions about rules violations must be discussed and verified with the judges, event coordinator, and CRC manager to determine either:
  - a. To deduct twenty percent (20%) of the total possible points in this round or
  - b. To disqualify the entry
  - c. The event coordinator, judges and CRC manager must all initial either of these actions on the rating form.
5. Judges determine the ranking of the ten (10) finalists and discuss and break any ties. (Determine the procedure for breaking ties before the onsite competition begins.)
6. Review and submit the finalist results and all items/forms in the results envelope to the CRC room.