

# **2022 Design Proposal Requirements and Rubric**

All teams are required to submit a design proposal. This design proposal is used to determine which teams are invited to compete in the Seismic Design Competition. **Remember, the SLC retains the ability to restrict the number of invited teams due to time limitations and space availability at the conference venue. Therefore, please pay particular attention to your proposal.**

This document describes items that must be included in the design proposal and provides guidelines for teams to submit a high-quality proposal. Scoring of the proposals will be based on the requirements and rubric provided in this document. This document does not override the Official Rules; it is meant to supplement the official rules by providing formatting and content requirements of the design proposal.

## **1. Formatting Requirements**

- **The proposal shall not exceed 3 pages**, including the title page. Any proposal exceeding the page limit will not be scored.
- The proposal must be 11pt, single-spaced, US Letter (8.5 in x 11 in), Times New Roman font with 1 inch margins.
- Any deviation from the formatting requirements will result in substantial deductions from the proposal score at the discretion of the SDC chairs.

## **2. Plagiarism Requirements**

- Plagiarism is strictly prohibited and may result in disqualification or non-invitation to compete. Any citation style is accepted, as long as it is consistent. Works Cited or References pages are required but do not count toward the page limit. See Section 10 of the Official Rules for more information.

## **3. Page Content Requirements**

- Page 1: Title Page
  - Name of the school, overall computer-generated image of the exposed structural system (an optional computer-generated image of the final architectural state may also be included), names of all team members and the designated team captain. (Note: the designated team captain will be the only point of contact between the team and the SDC Chairs from the start of the design to the completion of the competition).
- Pages 2 - 3: Proposal Content
  - Proposals will be judged on the following:
    - A summary of the site conditions and seismic activity expected for the downtown area of Salt Lake City (e.g., soil types, historic earthquakes, major faults, magnitude and shaking expected for future earthquakes, etc). This summary should address how these items impact the foundation and seismic design considerations.
    - The seismic Site Class (i.e. A, B, C, D, E, or F) corresponding to the location of your structure must be determined and included as part of the proposal in accordance with Table 20.3-1 of ASCE 7-05, ASCE 7-10, or ASCE 7-16. Additionally, you should address whether liquefaction or lateral spreading are possible at your site. Please use the geotechnical information provided on the competition website to answer these questions.
    - Description of the structural system and elaboration on the plans for predicting the structural behavior (computer modeling, small-scale testing, etc.)
    - Explanation of how the client's architectural requirements (as detailed in Section 1.2 of the Official Rules) will be met and any other economic or environmental considerations. The predicted weight of the balsa wood model should be provided as an economic consideration.

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- Professionalism demonstrated through concise and clear writing with a good command of grammar and spelling.
- Proposed damping devices may be included in the proposal but are not necessary. Final approval of the damping devices must be made through the Damping Device Approval Process (Section 4.2 of the Official Rules).
- Diagrams and photos are recommended but must fit within the page limit.
- For additional information, please see the rubric at the end of this document.
- Page(s) 4(+): Works Cited
  - Teams must cite the references that they use in creating their proposal.
  - No additional content for the proposal may be included on the Works Cited page(s).

### 4. Submission Requirements

A PDF of the document must be emailed to the SDC Chairs at the following email address by the date listed on the competition website. The SDC Chairs will confirm the submission within 48 hours of receiving it. If the team does not hear back from the SDC Chairs, please reach out to confirm the submission was received.

sdc@eeri.org

Teams are not bound to the designs submitted in the design proposal process. Design proposals are not evaluated for rule violations. Selected designs are still subject to penalization or disqualification. Teams are responsible for ensuring that their buildings follow the competition rules. For any clarification, refer to the clarifications section on the competition website, or the team captain can submit a clarification request (See Section 8 of the Official Rules).

### 5. Rubric

This rubric is intended to serve as a guide to describe how teams can perform better in each category of the design proposal.

Category/Description	An excellent proposal...	A poor proposal...	Points
<b>Title Page:</b> Name of school, overall computer-generated image of the exposed structural system, names of all team members and the designated team captain	contains all required items, neatly arranged on the title page	is missing one or more items	<b>Req'd</b>
<b>Project Description:</b> Description and overview of project and objectives	has a completely developed project overview and clearly addresses the project objectives; succinctly highlights major points	has simplistic or unfocused ideas; is unclear on the purpose of the project; goes into excessive detail on some points	<b>5</b>
<b>Geotechnical/Site Description:</b> Soil condition and expected seismicity at the proposed site location	describes expected soil conditions, including types, expected strength, and potential challenges; describes the expected seismic activity (major faults, historic earthquakes, magnitude and shaking of future events); addresses how these items impact foundation and	demonstrates limited understanding of the site and the unique challenges it poses; has limited, inaccurate or overly broad descriptions of the site conditions and seismic history; link between the conditions and the design is not discussed or is unclear; seismic	<b>15</b>

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	seismic design considerations; provides correct seismic Site Class; discusses liquefaction and lateral spreading	Site Class is incorrect or not included; does not mention liquefaction or lateral spreading	
<b>Architectural Description:</b> Inspirations, innovative and environmentally friendly features, renderings, etc.	explains inspiration; details innovative and environmentally friendly or socially friendly features; demonstrates effective integration into the urban fabric and city culture; pictures or diagrams are meaningful	lacks inspiration; does not have or explain innovative features; does not fit into the urban fabric or context; contains excessive or unrelated illustrations; contains filler / is off-topic	<b>15</b>
<b>Structural Description:</b> Design considerations, key structural features or systems, structural drawings/sketches, innovative details	accurately identifies and explains effective structural systems and details and their purpose in the context of achieving the project objectives; effectively integrates engineering drawings to describe features	has poor or inaccurate descriptions of structural systems and details; little thought put into the design of the structural system; little sense of purpose in the context of the project boundaries and objectives; contains excessive or unrelated illustrations; contains filler / is off-topic	<b>15</b>
<b>Predicted Structural Behavior:</b> Explanation of your strategy to predict the structural behavior	provides a clear and meaningful explanation of the method for predicting the structural behavior (computer modeling, small-scale testing, etc.)	has unclear or illogical explanations of how the structural behavior will be predicted; contains filler / is off-topic	<b>10</b>
<b>Economic Considerations:</b> Economic achievements, material efficiency, etc.	has compelling financial incentives for the owner to choose your design; provides the predicted weight of the structure to demonstrate material efficiency	has poor or unconvincing financial incentives; contains filler / is off-topic	<b>7</b>
<b>Writing:</b> Grammar, spelling, clarity, punctuation, sentence structure, word choice	is essentially free of grammar and spelling errors; each sentence is structured effectively; has good range and accuracy of vocabulary	has many grammatical and spelling mistakes; contains poor sentence structure; vocabulary is extremely limited or terms are used incorrectly	<b>8</b>
<b>Organization and Presentation</b>	is logically organized with effective, smooth, and logical transitions; contains meaningful pictures or diagrams; formatted like a professional document	poorly organized; content lacks effective transitions and flow; contains irrelevant, ineffective, excessive, and/or unprofessional pictures or diagrams; is not formatted appropriately	<b>10</b>
<b>Works Cited or Reference Page:</b> does not count for the page limit	is consistent in format and all references or citations are correctly cited	is inconsistent in format or not included in proposal	<b>Req'd</b>