

Resilience in Architecture Design: Task, Resources, Pain points, Workflow

Jan 22, 2025



* Required

* This form will record your name, please fill your name.

Introduction

Hello ZGF! This project is part of the 2024 - 2025 Applied Research Consortium, a collaboration between University of Washington and ZGF.

This research aims to develop a platform that provides project teams with **a more accessible and user-friendly approach to streamline the resilience research workflow in early-phase** architecture design practice. This survey will help identify key tasks and pain points in the current resilience practice, and help prioritize potential tasks.

This survey will take around **5 minutes** to complete.

For more background about this project, please visit this directory(https://zgf.sharepoint.com/f/s/zgf-projectperformanceteam/EmyEaP3xb8VCjS42RCoEs80BamMnvPXkkYAzco0B_8bw8A?e=6PYD2H) for a graphic report and some other helpful materials, or contact Yongqin Zhao (yongqin.zhao@zgf.com, or yongqz2@uw.edu) or Dr. Flavia Grey (flavia.grey@zgf.com)

About you

Your role, expertise, and experience.

1. What is your discipline? Check all that apply. *

- Architecture
- Landscape Architecture
- Interior Design
- Urban Design & Planning
- Structural
- HVAC
- Civil
- Other

2. What is your role? Check all that apply. *

- Designer
- Project Manager
- Technology
- Project Performance
- Engineer
- Client/User
- Consultant
- Other

3. Which typologies do you have project experience with? Check all that apply. *

- Healthcare
- Higher Education
- Civic
- Office
- Tech/Laboratory
- Mixed-Use
- Other

4. Which project phases do you have experience with? Check all that apply. *

- Marketing/Pursuits/RFP
- Conceptual Design/Programming
- Schematic Design
- Design Development
- Construction Documentation
- Construction Administration
- Post Occupancy Evaluation
- Other

Hazards and resilience

Hazards can strike unexpectedly, causing unprecedented damage. Designers need to consider potential natural hazards (hurricanes, tsunamis, earthquakes, tornadoes, blizzards, droughts, wildfires, etc.), which are often no longer "once in a lifetime" events but have higher probabilities and larger impacts.

Resilience is defined as "the capacity of a building, including its infrastructure, structure, and operation, to prepare for, resist, and bounce back from a hazard." This requires designs that are both tough and flexible, providing the ability to not only bounce back but also move forward.

Being a relatively new topic, some design professionals have reported implementing design strategies against hazards without knowing the term "resilience." Therefore, this section will ask you to provide your current general knowledge and experience regarding resilience.

5. What is your knowledge with Resilience for your project? *

- I am not familiar at all with resilience and/or design strategies against hazards
- I am slightly familiar with resilience and/or design strategies against hazards but have never implemented on projects
- I am familiar with resilience and/or design strategies against hazards and have incorporated them in one or more projects
- I am very familiar with resilience and actively address resilience and/or implement design strategies against hazards in my projects
- I am an expert on resilience and holistically incorporate resilience analysis and design strategies against hazards into all of my projects.

6. How many projects have you worked on that addressed resilience and/or incorporated design strategies against hazards? *

Please enter a number, or a range.

7. Which of these natural hazard(s) have your project(s) addressed? Check all that apply. *

- Earthquake
- Extreme Heat
- Extreme Winter Weather
- Flooding
- Hurricanes
- Tornadoes
- Tsunami
- Wildfire
- Other

8. How urgent do you believe it is for projects to address resiliency? *

- 1: it is not necessary to incorporate resilient strategies into projects.
- 2: it is necessary, but not urgent.
- 3: it is very urgent.

1	2	3
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9. What are the barriers for you (and your team) to implement resilience strategies? Check all that apply. *

Yes, others might also have these concerns! (an interesting AIA survey: <https://zgf.sharepoint.com/b/s/zgf-projectperformanceteam/EcgIMSSiE5hHkUc0zCHhL8oBWpJGIZHWqgvUrFIWBr7rZA?e=DO5Tn7>)

- Communication: Lack of alignment with client/contractor on "the level of resiliency" and "how far beyond basic code", including cost, impact, benefit, etc.
- Communication: Hard to communicate with community members on building and design strategies' impacts.
- Knowledge/Resource: Lack of supporting resources: data, tools, contacts, consultants.
- Knowledge/Resource: Hard to assess hazards and risks that apply to my project.
- Design process: Hard to develop resilience strategies for my project context and related hazards.
- Design process: Hard to choose strategies and implement effectively into design.
- Other

10. At which project phases have you run into the barriers identified above? *

- Marketing/Pursuits/RFP
- Conceptual Design/Programming
- Schematic Design
- Design Development
- Construction Documentation
- Construction Administration
- Post Occupancy Evaluation
- Other

11. What specific support or resources would be most helpful (but are currently lacking) to overcome those barriers? *

Share your experience

13. Do you have 1 or 2 resilient project examples/design stories you would like to share with the research team?

You can share a project pdf link or briefly describe the resilience implementation, the workflow, and anything else.

14. Please upload any images or files that help illustrate the project(s) you mention above.

(File upload is only available for people within ZGF.)

 Upload file

File number limit: 10 Single file size limit: 10MB Allowed file types: Word, Excel, PPT, PDF, Image, Video, Audio



15. Is there anything else you would like to share about this topic?

Related research, articles, blogs, etc.

16. Are you interested in this research (streamlining the workflow in resilience design), and in being a volunteer for further surveys/focus groups? *

- Yes, I'd like to participate in further surveys/focus groups
- Yes, please share your findings
- No

Thanks!

Thank you so much for providing your insights! Please stay tuned for more on this research.

For more background about this project, please visit this directory(https://zgf.sharepoint.com/f/s/zgf-projectperformanceteam/EmyEaP3xb8VCjS42RCoEs80BamMnvPXkkYAzco0B_8bw8A?e=6PYD2H) for a graphic report and some other helpful materials.

If you have any questions, please feel free to reach out to Yongqin Zhao (yongqin.zhao@zgf.com or yongqz2@uw.edu)

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