

Architects like what they see

SkySong's shade structure meets designers' expectations

The architects responsible for designing the SkySong shade structure got their first look at the completed work this week.

Senior principal Nicholas Goldsmith and associate Ashish Soni of FTL Design Engineering Studio in New York met with *Arizona Republic* reporter Jane Larson to talk about their process and results.

Republic: What was FTL's role in the project?

Goldsmith: We were invited by Pei Cobb Freed to join the competition team. They wanted some sort of iconic shade structure, originally more like the street in Barcelona, La Rambla, a linear structure that would shade the street. We developed the design and came up with a series of structures similar to the one you see here.

When the team was selected, the community felt it should be more like a central plaza. That was probably a smart suggestion, so we went back to the drawing boards and modified the design to say, "This is really the heart of the project."

Republic: What are the key steps in a design?

Goldsmith: We do sketches, we discuss ideas back and forth, and we involve Pei Cobb Freed to get their input. They give us direction, and then we build physical models. We believe the physical model is really an intrinsic element. A lot of times with computers, you can take any design and you can render it, and you can put enough eyewash on it, and even mediocre architecture can look good. Physical models don't allow that. If it looks good in a physical model, it's good. You then measure it and turn it into a digital model. Then we do finite element analysis. Definitely physics has a lot to do with it.

Soni: A lot of people engineer these structures. What makes us different is a fine sense of how you break away from what the engineering model is going to do. Somewhere between art and science, you find the right balance.

Republic: How does SkySong compare to other projects you've done?

Goldsmith: We've done other projects on a similar scale. This is exciting because it's unusual in shape and form, and it has a rotational quality. As you walk into it, it's kind of a repetitive symmetry, and the space is always moving around you. I don't know of any structure that looks anywhere near this.

Republic: How do you know it will withstand winds and storms?

Goldsmith: Once we have that form in the computer in balance and harmony, we take the building-code winds at different heights and we apply those loads onto the structure. Based on that, we get reaction loads for the metalwork, for the thickness of the fabric and so forth, and that's what we translate into our engineering drawings and give to the fabricators. We look at what we call different load cases — wind shooting up the street, wind pushing down from above, wind sucking up from underneath. We have done enough of these that we feel very comfortable that the wind analysis we've done is sufficient. There really isn't any snow issue here. You're going to have rain, but it's a waterproof skin. Rain will come down at those low points at the bottom, and there are drain catch basins in the plaza.

Republic: What do you think of the finished product?

Goldsmith: I think it looks great. I'm very happy with it. There are always some interesting things you observe, even though you know the models. The space feels more intimate than I thought, and the central open area is actually smaller, and I think both those are good things because I see it as being a people space underneath there.

Soni: The scale is pretty intense. We drove down McDowell Road, and the minute we crossed the mountain, we saw this. I never had that picture in my head, and I realized it has a presence. Close, it has a halo-like effect, and you feel this energy around you. You can't stand in your model and do that.

Republic: How would you like SkySong to be used?



Goldsmith: First, you're going to see it from a distance and say, "What's that? Let's go over there." There's that quality of it being an icon. As you drive down the streets, you're going to feel like it's a portal. There's a sense of arrival, entry, opening and welcoming. Another level is the pedestrian level, which is even more important. When you want to eat your sandwich outside, you'll sit at tables in the

shade. I could imagine it being the kind of place where it's, "Let's meet under SkySong, then we'll decide what we want to do."

Republic: How do you want residents to think of it?

Goldsmith: I think they'll become attached to it. That's my goal, that they feel like it's something unique and special and really Scottsdale.



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Sharon Harper, CEO of Plaza Companies, and Steve Evans, a trustee of the ASU Foundation, get a close look at the SkySong shade structure.