# Comparing new urban and conventional development in Tucson

Civano is a test case for New Urbanism versus sprawl. The former generates more value according to economic, environmental, and social indicators.

#### LEE RAYBURN

ivano, designed in September 1996 in Tucson, Arizona, was the first large US community to combine new urban planning and design protocols with — for its time — aggressive energy efficiency and sustainability goals. Civano represents an early understanding that New Urbanism and green development are mutually beneficial.

Civano had a long gestation, dating back to the mid-1970s, starting with the idea of creating a "solar village" to capitalize on Tucson's abundant sun. I was the director of planning and design at Civano from 1997 through 2002, and managed the project for the last two of those years. Stefanos Polyzoides and his firm Moule & Poylzoides was the principle planner and urbanist for the project. Together we are researching and writing a book on Civano. One of our key findings is that the new urban overlay helped meet the community's sustainability goals — and did so while creating a compelling physical place that performed well economically and socially.

This mix of New Urbanism and sustainable design could convince a broad segment of the housing market to change its definition of a "good place to live." We examine three measures of value: home prices, impact on the environment, and the creation of a rich community life. Civano is illuminating because only the first of its three neighborhoods was developed using the combined new urban and green protocols. The last two neighborhoods (now called Sierra Morado) were purchased by Pulte Homes, which decided to use the standard sprawl concepts the company is most experienced in developing.

Pulte was required, however, to meet similar environmental goals. Civano and Sierra Morado are aimed at the same market segment, and Pulte is a capable national production builder. Their commitment to energy efficiency is real, and

## Civano streetscape



#### Recorded sales comparison

Civano	2007	2008	2009	2010	2011
Neighborhood 1 sales	43	24	31	30	32
Price \$/sq. foot	167.77	154.03	138.45	126.03	124.16
North Ridge sales	0	16	13	12	8
Price \$/sq. foot	NA	172.33	158.45	165.32	157.63
Orchards sales	0	1	3	1	0
Price \$/sq. foot	NA	157.12	157.89	121.41	NA
Presido sales	1	4	2	0	0
Price \$/sq. foot	\$148.51	\$193.49	161.07	NA	NA
Sierra Morado					
Sales	1	40	38	48	46
Price \$/sq. foot	125.23	119.16	113.54	104.48	84.18

Source: Multiple Listing Service, Lee Rayburn

the built quality of individual homes in each community is similar. The one clear difference between Civano and Sierra Morado is Civano's new urbanist planning and design. The overall project therefore tests New Urbanism's ability to create economic value in a severely stressed market.

Selling prices in each community, using data from Tucson Realtors Association's Multiple Listing Service, are the first measure of value. The table above shows sales and prices. The following are notes and conclusions from this data:

- 1. Civano Neighborhood One (as it is officially designated) is composed of several distinct parts, and those are listed separately. The most apt comparison is with the original Civano Neighborhood 1 houses, which were designed for the same demographic market segment as Sierra Morado's. Civano Northridge's homes were designed for a higher income group. Civano Presidio's homes are significantly smaller.
- 2. Pulte acquired the Sierra Morado land in 2003. They had the option of using an expanded version of Civano's zoning, which supported the New Urbanist master plan. They decided not to do that and spent the next two years creating and entitling an

## Sierra Morado streetscape



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entirely new master plan that met their sprawl development standards better. A consequence of this was that they were not able to start selling homes in significant numbers until late 2006; just as the housing market downturn began to fully collapse. In the sprawl development model, keeping the buying cost as low as possible is a primary strategy.

Pulte has been forced to cut the price point on Sierra Morado houses to about \$85/square foot at the end of 2011 — pretty close to building cost in the Tucson market, I estimate. This may be due in part to Pulte's desire to sell out and be done with the project.

- 3. From the start of home sales in Sierra Morado to the end of 2011, the recorded prices are down nearly 33 percent. The recorded selling prices in Civano Neighborhood 1 and Northridge (I have chosen to ignore Civano Presidio and Orchards because of the small number of sales) have decreased 26 percent and 8.5 percent, respectively. This represents a significant difference in a market as hard hit as Tucson's.
- 4. The difference in price per square foot between Civano and Sierra Morado is large and consistent. This is a common phenomenon in comparing new urban and conventional communities, but is especially significant in this case because Civano was aimed at the middle of the market. Once buyers experienced the "look and feel" of Civano, prices gained strength and held their value.

# ENVIRONMENT AND SOCIABILITY

We have preliminary data on two other measures of value: Overall success in meeting the environmental goals; and the social connections of each community.

The environmental story is an especially good one for Civano. Both Sierra Morado and Civano meet the mandated environmental goals as measured on a per-house-basis. Civano preforms slightly better on these measures. The difference between Civano and Sierra Morado becomes significant when looking at the communities as a whole. Arizona State University (ASU) research indicates that Civano is better at cutting the overall heat island effect; reducing CO2 emissions; and regenerating the natural landscape. Preliminary data indicates that Civano radiates heat back into the atmosphere at about 2 degrees



An aerial view of Civano, above, shows a wide variety of building types, and a finer-grained network of streets than Sierra Morado, below, at a similar scale.



Celsius lower than Sierra Morado, and does so consistently across the entire foot print of the community. The difference is startling in infrared satellite images of both communities: Sierra Morado is a patchwork of lower temperature readings and higher ones. Civano is a consistent and solid lower reading.

With regards to sociability, ASU research supports what many homeowners in both Civano and Sierra Morado anecdotally say: That the social life in Civano is stronger and that the *community as a whole* is viewed as a strong amenity by its residents. There are more clubs and social activities in Civano. People walk more, and use the commu-

nity amenities more. Casual meetings between community members that come about as people walk from place to place are a hallmark of life in Civano — much more so than in Sierra Morado.

As we recover from the housing and economic crisis and make necessary adjustments to the American way of life, Civano offers important lessons and data on how new urbanist design creates true and lasting value. •

Lee Rayburn received his MArch from the University of Pennsylvania, and has pursued a career as both architect and developer focused on community revitalization and sustainable development.