

With common sense, Houston can recover from Harvey

September 7, 2017

by [Randy Bright](#)

As I wrote my article last week, we were still waiting to see just how bad the damage would be from Hurricane Harvey and how many inches of rain would fall. Unfortunately, the forecasters were correct in saying that at least 50 inches of rain could fall in some areas. So far, 50 people have died as a result of the storm, and rescue and recovery efforts are ongoing and are expected to continue for some time.

Harvey was the first major hurricane to make landfall since Wilma and Katrina hit in 2005. As I write this article on September 3, Hurricane Irma is in the Atlantic spinning up in strength and it is still too soon to know where it will make landfall, or if it will at all. However, it is reasonably certain that the storm will become at least a Category 4 hurricane, and perhaps even a Category 5.

Many of the people in the Houston area who were interviewed in newscasts said the same thing – that they had never flooded before and had not expected to be flooded in this storm.

The damages are immense, with estimates ranging from \$70 billion to \$190 billion. While most of the cost will be shouldered by property owners and local government, the federal government will also pay out billions in relief and recovery costs.

When Katrina hit New Orleans, I wrote in this column that I did not believe that it should have been rebuilt at taxpayer expense due to the fact that much of the area is below sea level. Regardless of how much was spent, or how many levees were built, New Orleans will eventually flood again.

It is an engineering impossibility to gravity drain an area that is below sea level. Pumps may work, but the solution should be one that doesn't depend on a mechanical device that can fail, which as I recall, is exactly what happened during Katrina.

Houston is another matter because it is above sea level, but it has a significant problem. Its soil apparently has a high clay content. This means that the soil does not absorb much water and causes water to run off in much the same manner as other impervious surfaces such as rooftops and roads.

Urbanists and other progressives have been quick to judge that the flooding was caused by Houston's lack of zoning laws.

The Washington Post published that Houston was “the largest U.S. city to have no zoning laws, part of a hands-off approach to urban planning that may have contributed to catastrophic flooding from Hurricane Harvey and left thousands of residents in harm's way.”

As writer Henry Graber for Slate's Moneybox put it in an article entitled, "Don't Blame Houston's Lax Zoning for Harvey's Destruction," "Houston is lightly regulated, and it's true that it has no zoning code. But it has many laws that constitute zoning by another name: laws that say how much land is required to build a house; local covenants that determine building size and use; regulations that require new houses, offices, or restaurants to provide a certain amount of parking spaces; and rules that dictate how close new buildings may be to a street."

He also quoted Houston's Mayor Sylvester Turner's response to accusations that lack of zoning caused the flooding. Turner correctly said "Zoning wouldn't have changed anything. We would have been a city with zoning that flooded."

Others are quick to point out that the flooding was at least in part due to climate change. Ian Bogust, a contributing editor for The Atlantic wrote that Houston is "an epitome of the urban sprawl characterized by American exurbanism, where available land made development easy at the edges" and "The combination of climate change, which produces more intense and unpredictable storms, and aggressive development made an event like this week's almost inevitable."

There are several problems with his statements. First, the exurbanism and urban sprawl leaves more ground available to absorb stormwater than dense developments.

Second, there is no evidence that climate change is anything but natural. The earth has not warmed any at all since the early 90's.

Third, no matter what kind of development, Houston's clay soil was impervious.

And fourth, there is no evidence that Harvey was any more intense than earlier storms. In fact, it is arguable that Galveston was hit by a much worse hurricane in the early 1900's, and it has been twelve years since we have experienced a major hurricane.

None of Al Gore's predictions of bigger and more frequent storms have come true.

What Houston needs to do is ignore the critics and stick to good science and good engineering practices. Math and common sense are amazing producers of reliable outcomes.

Given enough time and infrastructure revisions, it can solve or at least significantly alleviate its flooding problems, just as the City of Tulsa did years ago after its devastating floods.



Randy W. Bright, AIA, NCARB, is an architect who specializes in church and church-related projects. You may contact him at 918-582-3972, rwbrightchurcharch@sbcglobal.net or www.churcharchitect.net.
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