

# April InBox Generates Numerous Letters

April 2005

## WTC Collapse – A Terrorist Act

I am a layperson who happened upon your most recent issue, and was driven to write upon reading the letter from reader Frank Balistreri. His comment regarding the collapse of the WTC has to be one of the most shocking things I've read in some time.

I thought it was common knowledge that the collapse of the WTC buildings had nothing to do with structural integrity. As Mr. Lavrich pointed out in his response, the collapse was the direct result of a terrorist act – or, to be more specific, the fault of the resulting fire, which destroyed the steel support beams. Simply put: those buildings were never designed to endure what they did. I doubt any buildings are. To blame the failure of those buildings on anything (or any ONE) but those who are so obviously culpable is nothing but a slap in the face to those who designed those buildings – and is offensive to sensible people everywhere.

Everything Mr. Balistreri quite plainly doesn't know about the WTC (but should) can be found at this informative website: <http://www.pbs.org/wgbh/nova/wtc/collapse.html>. I am certain he will find the interview with MIT Professor Dr. Thomas W. Eagar, Sc.D., P.E., to be most enlightening.

*DM Davulcu*

## Work within Your Competency

Reading the April issue and the letter from Frank Balistreri, MBA, R.A., RRC, A.I.A., and the response from Dan Lavrich, P.E., has reinforced a long standing opinion that I have had. The days of the "Master Builder" are OVER! Each of our professions is far too complicated for ANY individual to be proficient in more than one discipline.

Architects should realize that they need the partnership of engineers, and engineers had better realize the contributions of the architect, or we will have more inane comments and potential disasters with the facilities that each design. Mr. Balistreri demonstrated that he knows little about the "egregious building failures..." that he listed, and Mr. Lavrich clearly identified how one of the great architects of the century should have

stayed with what he knew and left the specialties to others!

On the other hand, I would not dare challenge Mr. Balistreri on matters of roofing as that seems to be his specialty. Even within structural engineering, it is my belief that sub-specialties are necessary. For instance, those designing bridges and highways should stay away from the design of buildings. Those of us that design buildings should turn away highway projects. I have kept to that credo with my firm and it has been to our benefit.

There is so much to know to do the proper job, and so many codes to follow, that there is no way one individual can be up to date on everything. If you want to do your client a favor, and protect the public as you have promised to do, you must only work within your competency, your actual competency, not your perceived competency!

*Paul C. Beck, P.E.  
(Building Structural Engineer)*

## Regarding Falling Waters

In the April 2005 issue, Dan Lavrich, P.E., states in his reply to Frank Balistreri that Frank Lloyd Wright designed the concrete cantilevers at Fallingwater himself and that he did not know his own limitations, leading to a grossly inadequate quantity of reinforcing being specified. This is not true. The concrete at Fallingwater was designed by Mendel Glickman, a seasoned structural engineer who had worked on many projects with the Taliesin Fellowship. Mr. Glickman was assisted by William Wesley Peters, an MIT-trained engineer working for Mr. Wright at Taliesin. Even with these two qualified engineers on board, the design of the reinforcement in the concrete cantilevers was grossly inadequate. After years of research, no one has been able to determine why this mistake occurred. But to blame it on a misguided attempt by Frank Lloyd Wright to serve as his own engineer is not the reason.

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(Our firm served as consultants to the Western Pennsylvania Conservancy, owner of Fallingwater, for the recent repair of the concrete cantilevers.)*

## "Egregious" Building Failures

I feel compelled to comment on Mr. Balistreri's letter in the April, 2005 issue of STRUCTURE magazine.

One doesn't have to search very far to introduce a touch of reality into Mr. Balistreri's world. Please reference the statement on page 13 of the same issue (April) alluding to Figure 4, "the architectural drawings suggested that a 35,000 pound panel be fastened to the light gage pour stop."

Mr. Balistreri's enumeration of "egregious" building failures attributable to structural engineers is particularly appalling. His assertions regarding the listed building failures are patently incorrect.

I commend Mr. Lavrich on his restrained and professional response.

*Kenneth A. Hiller, P.E., FASCE  
Bovis Lend Lease*

## A Masterful Response

I received my copy of the April issue of STRUCTURE magazine, and felt compelled to write a note. I have been a structural engineer for over forty years, have read an unbelievable number of professional publications, have contributed to a few, and have, on rare occasions, offered an opinion.

However, I have to say that Mr. Lavrich's response to Frank Balistreri, MBA, R.A. RRC, A.I.A. is undoubtedly one of the most intelligent and well prepared letters that I have seen in this forum. It is often difficult to avoid the emotional reactions that initially result from material such as Mr. Balistreri's, but Dan Lavrich did so... and did it masterfully.

I thank you for your contribution.

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