

Ronald H. Brookman, Structural Engineer  
[REDACTED]  
[REDACTED]  
[REDACTED]

July 21, 2014

Catherine S. Fletcher, FOIA & Privacy Act Officer  
National Institute of Standards and Technology  
100 Bureau Drive, STOP 1710  
Gaithersburg, MD 20899-1710

Re: Freedom of Information Act Request, 5 U.S.C. § 552

Dear Ms. Fletcher:

On March 19, 2012 I requested all available public information under the control of NIST regarding ten questions related to the 7 World Trade Center (WTC 7) collapse initiation outlined in Chapters 8 and 11 of NIST NCSTAR 1-9.<sup>1</sup> You forwarded my request to the Engineering Lab for a response, and the request was not assigned a FOIA log number. Most of my questions were never answered.

I recently learned that others with similar questions have received responses from NIST to two or more of the questions that were not answered in June 2012 when the WTC Investigation Team updated the errata file and FAQs for WTC 7. Does this mean new information was found or developed by NIST in the last two years?

The recent responses originated from Michael Newman in the Public and Business Affairs Office<sup>2</sup> and from Jim Schufreider in the Congressional and Legislative Affairs Office.<sup>3</sup> These two responses are neither correct nor germane to the question of flange stiffness and strength—questions 4 and 9 in my letter dated 3/19/12, and they are invalid from the standpoint of a scientific inquiry into the collapse mechanism.

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<sup>1</sup> Therese P. McAllister et al., NIST NCSTAR 1-9, Structural Fire Response and Probable Collapse Sequence of World Trade Center Building 7, Washington: U.S. Government Printing Office, November 2008.

<sup>2</sup> Michael Newman, Public Affairs Officer. "The web stiffeners shown at the end of the girder in Frankel drawing #9114 prevent web crippling. The structural analyses of WTC 7 did not show any web crippling failures. Therefore, the web crippling plates did not need to be included in the models/analyses." October 25, 2013.

<sup>3</sup> Jim Schufreider, Director, Congressional and Legislative Affairs Office. "NIST detailed structural analysis of the girder in question indicated that web buckling did not occur under the combined effects of gravity loads and fire. Because there was no web buckling of Girder A2001, NIST did not consider the web stiffeners as a factor in the final NIST analyses." July 11, 2014.

The bearing stiffeners shown on Frankel Steel drawing 9114 prevent flange local bending as well as web local yielding, web local crippling, and web sidesway buckling. The lateral walk-off and removal of critical framing members from the ANSYS model was *assumed* based on the pretense of a girder flange local bending failure;<sup>4</sup> the stiffeners were therefore required to be included in the analysis.

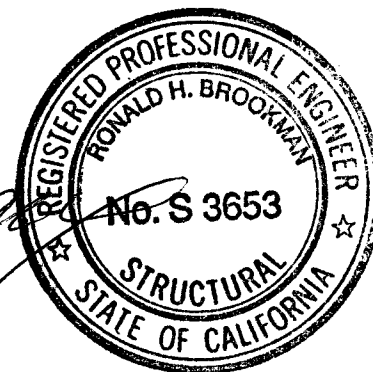
I repeat my question and my request.

The ANSYS model for the seated-beam connection at column 79 shown in Figure 11-15<sup>5</sup> did not account for the presence of bearing stiffeners shown in Frankel Steel drawing 9114. A lateral displacement of 5 ½ inches<sup>6</sup> or 6 ¼ inches<sup>7</sup> would not cause a loss of vertical support with the stiffeners in place. NIST assumed that the girder flange would yield in flexure when the girder web moved past the edge of the bearing seat. Why were these stiffeners omitted from the 16-story ANSYS model when they obviously affect the bending stiffness and strength of the girder bottom flange?

I understand that you are not required to create a record that does not exist; I am requesting all available information in NIST's possession related to this question and the decisions that NIST has made in relation to it including written correspondence, meeting minutes, calculations, etc. If you decide to forward this to the Engineering Lab again, then I respectfully request a technical response signed by a licensed engineer qualified to address the question in a professional and scientific manner.

This inquiry is made for a scholarly purpose; it is not for any commercial use.  
Thank you for your consideration.

Sincerely,  
Ronald H. Brookman, SE



Cc: Dr. Willie E. May, Acting NIST Director  
Dr. Howard H. Harary, Acting Director, Engineering Laboratory

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<sup>4</sup> McAllister et al., p. 488. "Gravity shear loads in a beam were transferred to the bearing seat primarily in the proximity of the web on the bottom flange. Therefore, when the web was no longer supported by the bearing seat, the beam was assumed to have lost support, as the flexural stiffness of the bottom flange was assumed to be insufficient for transferring the gravity loads. Under such conditions, the beam was removed."

<sup>5</sup> McAllister et al., p. 483.

<sup>6</sup> McAllister et al., p. 482.

<sup>7</sup> McAllister, Therese P. (2009) Errata for NIST NCSTAR 1A, NIST NCSTAR 1-9, and NIST NCSTAR 1-9A, Federal Building and Fire Safety Investigation of the World Trade Center Disaster: Structural Fire Response and Probable Collapse Sequence of World Trade Center Building 7, January 30. Updated June 27, 2012.



AUG 06 2014

Ronald H. Brookman  
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Dear Mr. Brookman:

This acknowledges receipt of your July 21, 2014, Freedom of Information Act (FOIA) request to the National Institute of Standards and Technology (NIST) in which you requested "all available information in NIST's possession related to this question and the decisions that NIST has made in relation to it including written correspondence, meeting minutes, calculations, etc."

Your request was received at the FOIA Control Desk on Monday, August 4, 2014, and was assigned FOIA Log #DOC-NIST-2014-001436.

FOIA allows agencies twenty working days to make a determination on the request. However, it may not always be possible to provide the documents within this time period. In some cases, we may take an extension and will advise you. Please be advised that your request may be subject to fees for search, review, and reproduction costs. Should this be the case, you will be given an estimate of the costs. Fee estimates are developed in good faith and are based on our reasonable judgment. However, due to the unique nature of each request and complexity of documents involved, actual costs to search and review the material may vary from the original estimate.

Darla Yonder, Management Analyst of my office, is the contact point for processing your request. If you have any questions regarding your pending FOIA request, she may be reached by email at [foia@nist.gov](mailto:foia@nist.gov) or by phone (301) 975-4064.

Sincerely,

A handwritten signature in black ink, appearing to read "Catherine S. Fletcher".

Catherine S. Fletcher  
Freedom of Information Act Officer



UNITED STATES DEPARTMENT OF COMMERCE  
National Institute of Standards and Technology  
Gaithersburg, Maryland 20899-

SEP 22 2014

Ronald H. Brookman  
[REDACTED]  
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Dear Mr. Brookman,

This letter serves as the final response to your July 21, 2014 Freedom of Information Act (FOIA) request #DOC-NIST-2014-001436, to the National Institute of Standards and Technology (NIST) for copies of "all available information in NIST's possession related to this question and the decisions that NIST has made in relation to it including written correspondence, meeting minutes, calculations, etc."

NIST has no documents that are responsive to your request. You have the right to appeal this (partial denial or denial) of the FOIA request. An appeal must be received within 30 calendar days of the date of this response letter by the Assistant General Counsel for Administration (Office), Room 5898-C, U.S. Department of Commerce, 14th and Constitution Avenue, N.W., Washington, D.C. 20230. Your appeal may also be sent by e-mail to [FOIAAppeals@doc.gov](mailto:FOIAAppeals@doc.gov), by facsimile (fax) to 202-482-2552, or by FOIAonline, if you have an account in FOIAonline, at <https://foiaonline.regulations.gov/foia/action/public/home#>. The appeal must include a copy of the original request, this response to the request and a statement of the reason why the withheld records should be made available and why denial of the records was in error. The submission (including e-mail, fax, and FOIAonline submissions) is not complete without the required attachments. The appeal letter, the envelope, the e-mail subject line, and the fax cover sheet should be clearly marked "Freedom of Information Act Appeal." The e-mail, fax machine, FOIAonline, and Office are monitored only on working days during normal business hours (8:30 a.m. to 5:00 p.m., Eastern Time, Monday through Friday). FOIA appeals posted to the e-mail box, fax machine, FOIAonline, or Office after normal business hours will be deemed received on the next normal business day.

Sincerely,

Catherine S. Fletcher  
Freedom of Information Act Officer

**NIST**