

# MORRIS & RITCHIE ASSOCIATES, INC.

ENGINEERS, ARCHITECTS, PLANNERS, SURVEYORS,  
AND LANDSCAPE ARCHITECTS



April 13, 2018

Mr. Gerard Tesi  
Verizon Wireless  
7600 Montpelier Road  
Floor 2 South-Network  
Laurel, Maryland 20723

Re: Saint Elizabeth's Temporary  
2700 MLK Boulevard SE  
Washington, District of Columbia 20032  
MRA Project No. 10427.2340  
Structural Analysis for Temporary Verizon Wireless Installation

Dear Gerard:

As requested by Verizon Wireless, Morris & Ritchie Associates, Inc. (MRA) has completed our structural analysis of the existing 248' self-supporting tower at the above referenced site. The objective of MRA's analysis was to determine if the existing tower can structurally support the proposed Verizon Wireless installation, in addition to the existing and other proposed appurtenances, and meet the requirements of the 2013 District of Columbia Building Code, 2012 International Building Code (IBC 2012), the ANSI/TIA-222-G-4-2014 Standard and the AISC Manual of Steel Construction, Load and Resistance Factored Design.

The structural analysis of the tower has been based upon the following information:

- Scope of work, RF configuration & plumbing diagram prepared by Verizon Wireless, dated May 16, 2017.
- Site visits performed by MRA on January 18, 2017 and April 5, 2017.
- Structure analysis report, prepared by Rohn for United States Tower Services, Job No. 221056, dated March 14, 2017.
- Construction drawings prepared by Entrex for the Sprint, Job No. 1015.711, dated March 13, 2015.

Our structural analysis indicates that, under the conditions noted above, some structural components of the tower are overloaded and the existing tower will be insufficient in its current state to support the proposed Verizon Wireless installation. MRA can provide detailed construction documents for the tower modifications that would be required to support the proposed Verizon Wireless installation, which may be used for bidding, permitting, and construction. These services shall be provided under a separate proposal.

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ZONING COMMISSION  
District of Columbia  
CASE NO.04-08D/02-45  
EXHIBIT NO.21

We appreciate the opportunity to be of service on this project. If you should have any questions or require any additional information, please do not hesitate to call our office.

Sincerely,  
MORRIS & RITCHIE ASSOCIATES, INC.



Alexander J Leadore, EIT  
Structural Designer



Richard J Dyer, PE, SE, SECB  
Principal