

Filed by: Kri Pelletier, Property Specialist - SBA Communications 134 Flanders Rd., Suite 125, Westborough, MA 01581 508.251.0720 x 3804 - kpelletier@sbasite.com

March 14, 2018

Melanie A. Bachman Acting Executive Director Connecticut Siting Council Ten Franklin Square New Britain, CT 06051

Notice of Exempt Modification 225 Grist Mill Road, Simsbury, CT 06070 41 52 0.15 N -72 48 56.78 W Sprint #: CT70XC140

RE: Incomplete - EM-Sprint-128-180201-Grist Mill Road

Dear Ms. Bachman:

Per Council's request under Incomplete Notice - EM-Sprint-128-180201-Grist Mill Road, attached, please find an updated Structural Analysis Report.

In accordance with R.C.S.A. § 16.50j-73, a copy of this letter and the Report is being sent to the Town of Simsbury's First Selectman, Eric Wellman, and Director of Planning and Community Development, James D. Rabbitt, as well as to the property owner, Ensign-Bickford Realty Corporation. (Separate notice is not being sent to tower owner, as it belongs to SBA.)

Please let us know if you need anything further.

Sincerely

Kri Pelletier

Property Specialist

SBA COMMUNICATIONS CORPORATION

134 Flanders Rd., Suite 125, Westborough, MA 01581

508.251.0720 x3804 + T - 508.366.2610 + F

kpelletier@sbasite.com

Attachments



cc: Eric Wellman, First Selectman / with attachments

Town of Simsbury, 933 Hopmeadow Street, Simsbury CT 06070

James D. Rabbitt, Director of Planning and Community Development / with attachments

Town of Simsbury, 933 Hopmeadow Street, Simsbury CT 06070

Ensign-Bickford Realty Corporation / with attachments

For FedEx Delivery: 125 Powder Forest Drive, Simsbury, CT 06070



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Ten Franklin Square, New Britain, CT 06051
Phone: (860) 827-2935 Fax: (860) 827-2950
E-Mail: siting.council@ct.gov
www.ct.gov/csc

Kri Pelletier Property Specialist SBA Communications 134 Flanders Road, Suite 125 Westborough, MA 01581

RE: EM-SPRINT-128-180201 – Sprint notice of intent to modify an existing telecommunications facility located at 225 Grist Mill Road, Simsbury, Connecticut.

Dear Ms. Pelletier:

The Connecticut Siting Council (Council) received a notice of intent to modify the above-referenced facility on February 1, 2018.

According to Section 16-50j-71 of the Regulations of Connecticut State Agencies, "...any modification, as defined in Section 16-50j-2a of the Regulations of Connecticut State Agencies, to an existing tower site, except as specified in Sections 16-50j-72 and 16-50j-88 of the Regulations of Connecticut State Agencies, may have a substantial adverse environmental effect."

Staff has reviewed this exempt modification request for completeness and has identified a discrepancy between the Structural Analysis Report dated November 1, 2017 and the site plan sheet numbers A-2 and S-1 dated January 26, 2018. Provide an Updated Structural Analysis Report that accounts for the data referenced in the above referenced site plans which requires installing additional mount hardware.

Therefore, the exempt modification request is incomplete at this time. The Council recommends that SBA provide an Updated Structural Analysis Report including the additional mount hardware on or before March 19, 2018. If additional time is needed to gather the requested information, please submit a written request for an extension of time prior to March 19, 2018.

This notice of incompletion shall have the effect of tolling the Federal Communications Commission (FCC) 60-day timeframe in accordance with Paragraph 217 of the FCC Wireless Infrastructure Report and Order issued on October 21, 2014 (FCC 14-153).

Thank you for your attention to this matter. Should you have any questions, please feel free to contact me at 860-827-2951.

Sincerely,

Melanie Bachman Executive Director

MAB/FC

c: The Honorable Eric Wellman, First Selectman, Town of Simsbury Michael Glidden, Assistant Town Planner, Town of Simsbury Ensign-Bickford Realty Corp., Property owner

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CORRECTICUT SITING COUNCIL
Affirmative Action I Fautal Opportunity Found



Tower Engineering Solutions

Phone (972) 483-0607, Fax (972) 975-9615 8445 Freeport Parkway, Suite 375, Irving, Texas 75063

Structural Analysis Report

Existing 150 ft. Rohn Monopole

Customer Name: SBA Communications Corp

Customer Site Number: CT10022-A

Customer Site Name: Simsbury 2, CT

Carrier Name: Sprint Nextel

Carrier Site ID / Name: CT70XC140 / Simsbury 2, CT

Site Location: 225 Grist Mill Road

Simsbury, Connecticut

Hartford County

Latitude: 41.866708

Longitude: -72.815772

Analysis Result:

Max Structural Usage: 86.2% [Pass]

Max Foundation Usage: 65.0% [Pass]

Additional Usage Caused by Mount Modification: +1.5%

Report Prepared By: Delu Zhou



Introduction

The purpose of this report is to summarize the analysis results on the 150 ft Rohn Monopole to support the proposed antennas and transmission lines in addition to those currently installed. Any modification listed under Sources of Information was assumed completed and was included in this analysis.

Sources of Information

Tower Drawings	Rohn Industries, Inc., File No. 50754AE, Drawing No. A020293, dated Feb. 13, 2002
Foundation Drawing	Rohn Industries, Inc., File No. 50754AE, Drawing No. A020294 1-3, dated Feb. 13, 2002
Geotechnical Report	FDH Engineering, Inc., Project No. 15BGSH1600, dated March 19, 2015
Modification Drawings	N/A

Analysis Criteria

The rigorous analysis was performed in accordance with the requirements and stipulations of the ANSI/TIA/EIA 222-G. In accordance with this standard, the structure was analyzed using **TESPoles**, a proprietary analysis software. The program considers the structure as an elastic 3-D model with second-order effects and temperature effects incorporated in the analysis. The analysis was performed using multiple wind directions.

Wind Speed Used in the Analysis: Ultimate Design Wind Speed Vult = 120.0 mph (3-Sec. Gust)/

Nominal Design Wind Speed V_{asd} = 93.0 mph (3-Sec. Gust)

Wind Speed with Ice: 50 mph (3-Sec. Gust) with 1" radial ice concurrent

Operational Wind Speed: 60 mph + 0" Radial ice

Standard/Codes: ANSI/TIA/EIA 222-G / 2012 IBC / 2016 Connecticut State

Building Code

Exposure Category: C

Structure Class:

Topographic Category: 1
Crest Height: 0 ft.

Seismic Parameters: $S_S = 0.179, S_1 = 0.064$

This structural analysis is based upon the tower being classified as a Structure Class II; however, if a different classification is required subsequent to the date hereof, the tower classification will be changed to meet such requirement and a new structural analysis will be run.

Existing Antennas, Mounts and Transmission Lines

The table below summarizes the antennas, mounts and transmission lines that were considered in the analysis as existing on the tower.

Items	Elevation (ft.)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner
1		2	Powerwave P65-17-XLH-RR - Panel			
2		1	KMW AM-X-CD-16-65-00T-RET - Panel			
3		3	Kathrein 800 10121 - Panel			12
4		2	CCI TPA-65R-LCUUUU-H8 - Panel			Į.
5		1	Quintel QS66512-3 - Panel	Low Profile Platform	(12) 15/8"	AT&T
6		6	CCI DTMABP7819VG12A-TMAs			
7	1500	3	Ericsson RRUS-11-RRUs		(2) 1/2" DC (4) 3/8" Fiber	
8	150.0	3	Ericsson RRUS-32-RRHs		(1) 3" Conduit	
9		3	Ericsson RRUS 32 B2-RRHs		(1) 5 Conduit	
10		6	CCI TPX-070821-Diplexers	27		
11		3	CSS DBC-750-Combiners			
12		1	Commscope ABT-DRDM-ADBH-Bias T			
13		1	LMU			
14		2	Raycap DC6-48-60-18-8F-DC			
15		3	Alcatel Lucent RRH2X60-700 - RRU			
16		3	Alcatel Lucent RRH2X60-AWS - RRU			2
17	7	3	Alcatel Lucent RRH2X60-PCS - RRU		(12) 1 5/8" (2) 1 5/8" Hybrid	Verizon
18	141.0	3	Antel BXA-70063-6CF-EDIN-0 - Panel	Low Profile Platform		
19		3	Antel BXA-70080-4CF-EDIN-0 - Panel			
20		6	Commscope SBNHH-1D65B - Panel			
21		2	RFS DB-T1-6Z-8AB-0Z – Distribution Box			
22		3	Commscope LNX-6515DS - Panel			
23		3	Ericsson KRY 144/1	(2) T A (Cita Dua D/N)		
24	131.0	3	Kathrein 782 11056	(3) T-Arms (Site Pro P/N UDS-NPL)	(18) 7/8"	T-Mobile
25		3	RFS APX16DWV-16DWVS-C - Panel	ODS-NPL)		
26		3	RFS ATM1412D-1A20			
-		2	RFS - APXVSPP18-C-A20 - Panel			
-		1	RFS - APXVSPP18-C-A20 (50 lb) - Panel			
-		3	RFS - APXVTM14-C-I20 - Panel			
-	123.0	4	RFS - ACU-A20-N - RET	Low Profile Platform	(4) 1-1/4" Fiber	Sprint
-	123.0	3	ALU - TD-RRH8x20-25 - RRU	Low Proffie Platform	(4) 1-1/4 FIDER	Nextel
-		3	ALU - 1900 MHz RRH			
-	12	3	ALU - 800 MHz RRH			
-		3	ALU - 800 MHz Filter			

Proposed Carrier's Final Configuration of Antennas, Mounts and Transmission Lines

Information pertaining to the proposed carrier's final configuration of antennas and transmission lines was provided by SBA Communications Corp. The proposed antennas and lines are listed below.

Items	Elevation (ft.)	Qty.	Antenna Descriptions	Mount Type & Qty.	Transmission Lines	Owner	
27		2	RFS - APXVSPP18-C-A20 - Panel				
28			1	RFS - APXVSPP18-C-A20 (50 lb) - Panel			
29		3	RFS - APXVTM14-C-I20 - Panel				
30	123.0	4	RFS - ACU-A20-N - RET	Platform w/ Handrail Kit	(4) 1-1/4" Fiber	Sprint	
31	125.0	3	ALU - TD-RRH8x20-25 - RRU	[SitePro1 HRK14]	(4) 1-1/4 FIDEI	Nextel	
32	3	3	ALU - 1900 MHz RRH - RRU				
33		3	ALU - 800 MHz RRH - RRU				
34		3	ALU - 800 MHz Filter				

All transmission lines are considered running inside of the pole shafts.

Analysis Results

The results of the structural analysis, performed for the wind and ice loading and antenna equipment as defined above, are summarized as the following:

	Pole shafts	Anchor Bolts	Base Plate
Max. Usage:	86.2%	75.0%	80.5%
Pass/Fail	Pass	Pass	Pass

Foundations

	Moment (Kip-Ft)	Shear (Kips)	Axial (Kips)
Analysis Reactions	3640.6	32.7	80.7

The foundation has been investigated using the supplied documents and soils report and was found adequate. Therefore, no modification to the foundation will be required.

Operational Condition (Rigidity):

Operational characteristics of the tower are found to be within the limits prescribed by ANSI/TIA/EIA 222-G for the installed antennas. The maximum twist/sway at the elevation of the proposed equipment is 1.1221 degrees under the operational wind speed as specified in the Analysis Criteria.

Conclusions

Based on the analysis results, the existing structure and its foundation were found to be adequate to safely support the existing and proposed equipment and meet the minimum requirements per the ANSI/TIA/EIA 222-G Standard under the design basic wind speed as specified in the Analysis Criteria.

Standard Conditions

- 1. This analysis was performed based on the information supplied to (TES) Tower Engineering Solutions, LLC. Verification of the information provided was not included in the Scope of Work for TES. The accuracy of the analysis is dependent on the accuracy of the information provided.
- 2. The analysis is based on the presumption that the tower members and components along with any existing reinforcement items have been correctly and properly designed, manufactured, installed and maintained.
- 3. All the existing structural members were assumed to be in good condition with no physical damage or deterioration associated with corrosion.
- 4. An initial tension of 10% of the break strength on all the existing guy wires was assumed in all the structural analyses of guyed towers unless different values were provided by the client. **TES** cannot take responsibility for the deviations in the analysis results because of differences in the initial tension forces of the existing guy wires.
- 5. Secondary component or connection secondary components, welds and bolts are assumed to be able to carry their intended original design loads. **TES** cannot take responsibility for verification of the adequacy on the connections, bolts and welds present in the structure.
- 6. The analyses will be performed based on the codes as specified by the client or based on the best knowledge of the engineering staff of TES. In the absence of information to the contrary, all work will be performed in accordance with the latest relevant revision of ANSI/TIA-222. If wind speed and/or ice loads are different from the minimum values recommended by the EIA/TIA-222 standard or other codes, TES should be notified in writing and the applicable minimum values provided by the client.
- 7. The configuration of the existing mounts, antennas, coax and other appurtenances were supplied by the customer for the current structural analysis. **TES** has not visited the tower site to verify the adequacy of the information provided. If there is any discrepancy found in the report regarding the existing conditions, **TES** should be notified immediately to evaluate the effect of the discrepancy on the analysis results.
- 8. The client will assume responsibility for rework associated with the differences in initially provided information, including tower and foundation information, existing and/or proposed equipment and transmission lines.
- 9. If a feasibility analysis was performed, final acceptance of changed conditions shall be based upon a rigorous structural analysis.