



UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
WASHINGTON, D.C. 20549

Mail Stop 3720

July 28, 2009

Via U.S. Mail and facsimile to (415) 659-0007

Mr. Thomas A. Scott
Chief Financial Officer
FiberTower Corporation
185 Berry Street
Suite 4800
San Francisco, CA 94107

**Re: FiberTower Corporation
 Form 10-K for the year ended December 31, 2008
 Filed March 13, 2009
 File No. 000-21091**

Dear Mr. Scott:

We have reviewed your Form 10-K and have the following comments. If you disagree with a comment, we will consider your explanation as to why it is inapplicable or a revision is unnecessary. Please be as detailed as necessary in your explanation. You should comply with the remaining comments in future filings, as applicable. Please confirm in writing that you intend to do so within the time frame set forth at the end of this letter.

Please understand that the purpose of our review process is to assist you in your compliance with the applicable disclosure requirements and to enhance the overall disclosure in your filing. We look forward to working with you in these respects. We welcome any questions you may have about our comments or on any other aspect of our review. Feel free to call us at the telephone numbers listed at the end of this letter.

Form 10-K for the year ended December 31, 2008

Item 7. Management's Discussion and Analysis of Financial Condition and Result of Operations

Non-GAAP Financial Measures, page 45

1. We refer to your disclosures regarding management's use of the non-GAAP measure labeled adjusted EBITDA. Disclose in more detail why you believe this

measure is a useful indicator of operating performance since it excludes the impact of capital items that are necessary to generate revenues. This measure also omits recurring items such as stock-based compensation and impairment of long-lived assets and goodwill. Refer to Item 10 of Regulation S-K and Question 8 of our Frequently Asked Questions document on non-GAAP measures which is available on our website at: www.sec.gov/divisions/corpfin/faqs/nongaapfaq.htm. If you present a non-GAAP measure that excludes these recurring items, you must provide detailed disclosures explaining why management believes this performance measure is useful.

Your discussion should, at a minimum, disclose the following:

- The manner in which management uses the non-GAAP measure to conduct or evaluate the business;
- The economic substance behind management's decision to use such a measure;
- The material limitations associated with the use of the non-GAAP measure as compared to the use of the most directly comparable GAAP measure, net income (loss); and
- The manner in which management compensates for these limitations when using the non-GAAP financial measure.

Also, explain why you believe EBITDA is a "useful tool for investors to assess the operating performance" of your business. Since capital items are a necessary expenditure to enable you to generate revenues, please address in your disclosure why a financial measure that omits these expenditures is a relevant and useful measure of operating performance.

FCC Licenses, page 56

2. We note that FCC licenses accounted for 41% of total assets as of December 31, 2008. We note that the net losses have increased in recent years due to the negative impact of the current economic environment. We note that you performed your annual impairment test in the fourth quarter of 2008 and concluded that \$288 million of the FCC licenses were not impaired. In light of the significance of your FCC licenses balance, we expect robust and comprehensive disclosure in your critical accounting policies regarding your impairment testing policy. This disclosure should provide investors with sufficient information about management's insights and assumptions with regard to the recoverability of FCC licenses.

Specifically, we believe you should provide the following information:

- Disclose the date of your annual impairment test and whether you have performed subsequent interim impairment tests.

- Disclose the carrying value of the intangible asset for each unit of accounting.
- Describe the nature of the valuation techniques you employed in performing the impairment tests. If you used a discounted cash flow methodology, addressing EITF D-108, describe the method you used to isolate the cash flows associated with the intangible asset. If you used a hypothetical build-up or start-up method, describe qualitatively and quantitatively the significant estimates and assumptions used in your valuation method to determine the fair value of each unit of accounting in your impairment analysis.
- Quantitatively and qualitatively describe in detail the changes in the estimates used in your assumptions to determine the fair value of your units of accounting since your last impairment test. In addition, tell us and disclose how the assumptions in your most recent test were impacted by the current economic environment.
- Provide a sensitivity analysis showing the impact on your impairment test resulting from a one percent change in each of your significant assumptions. For example, you should separately quantify the impact of a one percent decline in your revenue growth rates, one percent decline in your net cash flows and a one percent increase in your discount rate.
- Provide a sensitivity analysis that discloses the impairment amount that would have resulted from hypothetical reductions in the fair value of your licenses at the time of your impairment testing.

For further guidance, refer to Release No. 33-8350 "Interpretation: Commission Guidance Regarding Management's Discussion and Analysis of Financial Condition and Results of Operations."

Definitive Proxy Statement incorporated by reference into Part III of the Form 10-K

Compensation Discussion and Analysis, page 14

Annual Cash Incentive Awards, page 17

3. You state, in the first paragraph on page 17, that your named executive officers participate in a cash bonus program and that payouts under that program are based on meeting defined financial targets and specific non-financial objectives. In future filings, please disclose the performance measures – whether objective or non-objective – that you use to determine the amount of compensation that you pay to your NEOs. See Item 402(b)(1)(v) of Regulation S-K.
4. Further, if you use non-objective performance measures to evaluate the performances of your NEOs, please describe the criteria or factors upon which you evaluate these NEOs. Finally, please explain how your NEOs or company

performed with respect to each objective or non-objective performance measure; that is, describe the level of achievement of each measure. *See* Items 402(b)(2)(vi) and (vii).

Long-Term Incentive Compensation, page 17

5. In the first full paragraph on page 18, you state that you made 1,350,000 stock option grants to your NEOs. Also, in the fifth full paragraph on page 18, you state that you made restricted stock grants to certain of your NEOs. In future filings, please explain how you determined the amount of stock options, restricted stock, or other forms of equity compensation to award your NEOs. For instance, please analyze and discuss in greater detail why you awarded Mr. Van Wagenen 500,000 stock options. You may consider discussing his (as with other NEOs) past performance, future contribution potential, or other compensation elements to explain the underlying reasons for awarding him a certain amount of equity compensation.

Potential Payments Upon Termination or Change-in-Control, page 27

6. In future filings, please provide a concise definition of “Cause,” “Good Reason” or other material terms that part of your executive employment agreements that describe certain circumstances that would trigger payments or other benefits under those agreements. *See* Item 402(j)(1) of Reg. S-K.
7. Also, to help investors readily understand your disclosure in future filings, please consider using a chart to describe and quantify the estimated payments and benefits that would be provided to your NEOs if their employment were terminated under certain circumstances or upon a change-in-control.

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Please respond to these comments within 10 business days of the date of this letter or tell us when you will provide us with a response. Please furnish a letter that keys your responses to our comments and provides any requested information. Detailed letters greatly facilitate our review. Please file your letter over EDGAR. Please understand that we may have additional comments after reviewing your responses to our comments.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filings reviewed by the staff to be certain that they have provided all information investors require for an informed decision. Since the company and its management are in possession of all facts relating to a company’s disclosure, they are responsible for the accuracy and adequacy of the disclosures they have made.

Thomas A. Scott
FiberTower Corporation
July 28, 2009
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In connection with responding to our comments, please provide, in writing, a statement from the company acknowledging that:

- The company is responsible for the adequacy and accuracy of the disclosure in the filings;
- The staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filings; and
- The company may not assert staff comments as a defense in any proceeding initiated by the Commission or any person under the federal securities laws of the United States.

In addition, please be advised that the Division of Enforcement has access to all information you provide to the staff of the Division of Corporation Finance in our review of your filings or in response to our comments on your filings.

You may contact Terry French, Accountant Branch Chief, at (202) 551-3828 or Gopal Dharia, Staff Accountant, at (202) 551-3353 if you have questions regarding comments on the financial statements and related matters.

Please contact Ajay Koduri, Attorney-Adviser, at (202) 551-3310 or me at (202) 551-3354 with any other questions.

Sincerely,

/s/ Robert Bartelmes for
Larry Spigel
Assistant Director