



DIVISION OF
CORPORATION FINANCE

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

November 16, 2012

Via E-Mail

Mr. Kevin C. Burns
Executive Vice President of Finance and Chief Financial Officer
iCAD, Inc.
98 Spit Brook Road, Suite 100
Nashua, New Hampshire 03062

Re: iCAD, Inc.
Form 10-K for the Year Ended December 31, 2011
Filed March 9, 2012
File No. 001-09341

Dear Mr. Burns:

We have reviewed your filing and have the following comments. We have limited our review to only your financial statements and related disclosures and do not intend to expand our review to other portions of your documents. In some of our comments, we may ask you to provide us with information so we may better understand your disclosure.

Please respond to this letter within ten business days by providing the requested information, or by advising us when you will provide the requested response. If you do not believe our comments apply to your facts and circumstances, please tell us why in your response.

After reviewing the information you provide in response to these comments, we may have additional comments.

Form 10-K for the Year Ended December 31, 2011

Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations, page 33

Critical Accounting Policies, page 34

Goodwill, page 37

1. On page 37 you indicate that you use market capitalization calculated based on the quoted price of your stock multiplied by the number of shares outstanding in determining

the fair value of your reporting unit. However, on pages 39 and 40 you disclose that a control premium may also be considered. Please clarify for us the actual method used in measuring the fair value of your reporting unit and describe any changes in that method from period to period. If a control premium is considered, please also tell us how that control premium is determined, whether the determination is consistent from period to period and describe the impact on your evaluation. Finally, clarify the extent to which the fair value of your reporting unit exceeded its carrying amount as of the most recent evaluation. Please also expand disclosure in future filings to address the substance of this comment.

Item 8. Financial Statements, page 67

Note 8. Commitments and Contingencies, page 103

(c) Foreign Tax Claim, page 104

2. With respect to the tax claim in Canada, we see that the most recent action disclosed occurred in February 2010. Please update us on the status of this matter and clarify how you expect the matter will be resolved.

(e) Litigation, page 105

3. With respect to the Jane Doe matters, we see that you have not recorded a loss because the amount of any potential damages in the event of an adverse result is not reasonably estimable. While we understand that you may not have a recordable and measurable loss under the criteria from FASB ASC 450-20-25-2, please further explain to us how you considered the disclosure guidance from FASB ASC 450-20-50-4b. Under the cited guidance, if it is reasonably possible that you have incurred a loss, then you should disclose (rather than accrue) an estimate of the loss or range of loss or state that such an estimate cannot be made.

We urge all persons who are responsible for the accuracy and adequacy of the disclosure in the filing to be certain that the filing includes the information the Securities Exchange Act of 1934 and all applicable Exchange Act rules require. 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.

In responding to our comments, please provide a written statement from the company acknowledging that:

- the company is responsible for the adequacy and accuracy of the disclosure in the filing;
- staff comments or changes to disclosure in response to staff comments do not foreclose the Commission from taking any action with respect to the filing; and

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- 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.

You may contact Jeanne Bennett, Staff Accountant, at (202) 551-3606 or Gary Todd, Reviewing Accountant, at (202) 551-3605 if you have questions regarding these comments. In this regard, do not hesitate to contact me at (202) 551-3676 with any other questions.

Sincerely,

/s/ Gary Todd for

Brian Cascio
Accounting Branch Chief